MODERN ECONOMIC THEORY

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PREFACE

This book is meant to be a companion volume to Indian Economics published last year. It aims primarily at supplying the needs of students appearing in the B. A. and B. A. Honours examinations of Indian Universities. But the book can also be studied with benefit by those preparing for higher examinations, since it cover the whole field of economic theory and not merely a particular syllabus.

The distinctive features of the work are: It presents economic theory in a simple and straightforward manner with, as far as possible, illustrations from Indian conditions. While the older division of the subject into 'Departments' has been retained for the convenience of students, nothing of importance is left out which goes by the name of 'New Economics'. The latest contributions to the theory have been incorporated, not in the form of isolated concepts, but have been made organic parts of the general treatment. The logical continuity of the treatment is maintained as between chapters and sections to facilitate assimilation. As far as possible, original authorities have been approached and references to works of outstanding importance are given for guidance of those who want to pursue higher studies in this domain.

We have attempted to supply a long-felt need. How far have we succeeded? We leave the answer to the judgment of the students and teachers of the subject.

The Authors.

25th September, 1946.
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CHAPTER I
PRELIMINARY

The Nature and Scope of Economics

1. The Problem of Definition. Dr. J. N. Keynes is not far wrong when he remarks that "Political Economy is said to have strangled itself with definitions." Every economist signalised his debt to the economic world by coining a new definition making the confusion worse confounded. There are economists, therefore, like Ricardo, Jevons and Comte who would do away with definition altogether, being pedantic and useless. But the work of defining the subject matter must not be regarded as mere pedantry. It is very essential for the reader to have some definition in mind as a working basis. Besides, the discussion leading to a definition is very useful in giving clarity to the fundamental content of the subject. We shall not therefore dispense with the definition and the discussion connected therewith.

Economics is considered to be the youngest science and some would think it is still in its infancy. It is natural, therefore, that acute controversy should have raged round the problem of definition and that different definitions should have been offered at different times.

2. Traditional View. The early economists defined it as the science of wealth and deservedly brought upon themselves the wrath of the prominent men of letters of the time, like Carlyle and Ruskin. This exaggerated emphasis on wealth made the Science of Economics appear or did and the economists became the preachers of the Gospel of Mammon. Our Science has by now been luckily extricated from that unenviable position. The emphasis has now been shifted from wealth to man for whose welfare wealth is meant to be produced.

Adam Smith intended Economics to concentrate on the study of forces contributing to the growth of national wealth and the matters connected with public finance—certainly a very narrow view of the subject of Economics as it is understood today.

The other well-known definitions are: It is a "Science which treats of those social phenomena that are due to the wealth-getting and wealth using activities of man." (Ely). "Economics is the study of the general methods by which men co-operate to meet their material needs." (Beveridge). "The aim of Political Economy is the explanation of the general causes on which the material welfare of human beings depends" (Cannan). "The range of our inquiries becomes restricted to that part of social welfare that can be brought..."
rectly or indirectly into relation with the measuring rod of money.” (Joung).

There is one thread which runs through all these definitions, viz., at of welfare. These economists have been, therefore, styled as welfare economists. They also emphasise the material aspect of man welfare and are therefore physiocratic in conception. Dr. Alfred Marshall may be considered their true representative. According to him Economics is “the study of man’s actions in the ordinary business of life; it inquires how he gets his income and how he uses it. Thus it is on the one side a study of wealth, and on the other, the more important side, a part of the study of man”—Marshall emended to have settled the matter of the definition and large consensus expert opinion had been mobilised behind him.

3. Recent View. But this position has been challenged recently by Lionel Robbins who has set the ball of controversy rolling. He has attacked these definitions as being classificatory and unscientific. Welfare, according to him, is relative and lack of which is so essential for building up a scientific treatise and at the idea of material welfare is based on exploded physiocraticions. He aims at lifting Economics to a higher scientific plane.

According to Robbins, “Economics is the Science which studies man behaviour as a relationship between ends and scarce means which have alternative uses.” The most fundamental fact of economic life on which our attention is sought to be riveted is the multiplicity of our wants or ends and the scarcity of means available to satisfy them.

Scarcity is not to be taken in an absolute sense but in relation to sires. A Crore-pati may suffer from scarcity because he has very high ambitions for which his large wealth is insufficient. A poor man living Rs. 100 only also suffers from a similar scarcity. A new interpretation is thus given to economic activity.

4. The Rationale of Economic Activity. We find all around us people busy in various walks of life in the pursuit of wealth. The farmer, the factory labourer, the clerk, the teacher, the doctor and every man of profession is engaged in making money. Money in itself is of little use. What he is really after is not money itself but the amount of goods and services that he can buy with money. It is the desire for the enjoyment of consumers’ goods that is responsible for the starting and the running of the production machine. And again lies the rationale of all economic activity in the world. The productive apparatus is directed towards the production of commodities and finally of the consumers’ goods.

5. Opportunity Cost. It is not, however, possible to supply to the consumers all the goods and services they would like to enjoy. The resources of the world are limited. The factors of production which bring the consumers’ goods into existence are not to be

found in a state of super-abundance. If that had been the case, economic problems would have ceased to exist. The means being limited and the wants clamouring for satisfaction being unlimited, we have to pick and choose. Of the two alternatives before a person, the one which is foregone is the price or cost of the one which has been chosen. This cost is known as the Opportunity Cost. With a certain amount of money I may be able to see a cricket match or go to a cinema show, and if I may choose the latter then the cricket match which has been sacrificed is the opportunity cost of the cinema show I have enjoyed. This is also called Displacement Cost. The concept of opportunity cost does not only concern a consumer, but the producer too. He has also to choose an economical combination of factors of production. He must substitute labour for machinery and vice versa and thus accept one alternative and reject another. In the realm of exchange, again the concept of opportunity cost exerts influence. If with a given set of factors you can either produce this assortment of commodities or that, then the opportunity cost ratio will determine their relative prices, because the price of a commodity produced by a factor must in the long run be equal to the price of another commodity which the same factor is capable of producing.

6. Economic Decisions. Economic decisions are necessary to decide which wants to satisfy and which to relinquish. Choice is a fundamental necessity in the economic world arising out of the fact of multiplicity of wants. This choice is embodied in the form of less scattered individuals. Economic decisions are made by the private individual A47Mo and business decisions are made by money, property time and other resources at his disposal. It is manifestly inadequate to meet all his desires real or latent. His decisions will depend upon his own tastes and environments. They are more or less subjective and it is difficult to formulate any hard and fast rule about them. The business man, too, has to decide what use he should make of the productive resources of land, labour and capital at his disposal. We know his aim is to maximise his profits. His decisions, unlike the decisions of a private individual, are capable of being looked at more objectively. But in the case of both, the fundamental problem is the same, viz., the proper utilisation of scarce means which can be put to alternative uses. This is what economics is concerned with. As Roll puts it, “Economics studies activity of husbandry.”

7. Concluding Remarks on the Problem of Definition
According to Robbins and others of his way of thinking the traditional view of Economics, viz., a study of the causes of material welfare was too narrow. Commodities and services may promote material welfare under one set of circumstances and not under others. The word ‘material’ imposes another unnecessary limitation
his idea lacks universality and scientific precision. With the modern definition Economics transcends these narrow boundaries and lays down a maxim which is true of all times and all places. The ends may be noble or ignoble but Economics is not concerned with that. "Wicksteed puts it, "its laws are like the laws of life and are applicable to fields that have no connection whatsoever with business or the reproduction of wealth." Wherever the ends are many and the means are limited, Economics is directly concerned. Consequently no large charge of sordidness or preaching of Mammonism can be levelled against this "new" Economics. It can no longer be called a dismal science. All ideas of relativity are replaced by universality and Economics has been placed on a high scientific basis.

8. Criticism of the New View. But Robbins is not without critics. The Marshallian spirit is not dead. Economists like Tinbergen, Fraser and Wootton and Beveridge have put up a strong defence of Marshallian Economics. Wootton urges that "it is very difficult for Economists to divest their discussions completely of all normative significance." Fraser says "Economics is more than a value theory or equilibrium analysis." Robbins' idea of economics, though admittedly more scientific is colourless, impersonal and neutral as regards ends. "Equilibrium is just equilibrium" It is entirely divorced from human welfare. Economics becomes synonymous with the theory of value. Attention is focussed on valuation which is now considered the central problem of Economics. Other aspects of Economic study have been elevated to the background. The human touch is entirely missing. It is well to emphasise with Ely that "Economics is something more than a science, a science shot through with the infinite variety of human life, calling not only for systematic thinking but for human sympathy, imagination and in an unusual degree for the saving grace of common sense."

After all there is not much amiss in the definition of Economics as cating with man's actions in relation to wealth. Wealth means scarce means and man's actions in relation to them imply economising of them. Therefore "disposal of scarce means which can be put to alternative uses" is implicit in it and what is more important, it keeps man steadily in the forefront. We would not therefore dethrone Marshall. We should remember, in the words of J. N. Keynes, that "definition is not a mere question of words but question of things." So long as he things are clear, the words used are immaterial and the wordy varnish is really unnecessary. There is a substantial measure of greement on what Economics stands for. The "centre" is admitted, dispute only relates to the "circumference." This need not be unwelcome because as Wootton says, without disagreements at the circumference, no science can hope to make advances.

9. Economics a Science? "Whenever six economists are

1. Wicksteed—Common Sense of Political Economy.
2. Ely and others—Outlines of Economics, 1930, p. 4.
"gathers," says Wootton, "there are seven opinions." Such being the degree of unanimity attained by the economists, the claim of Economics to be regarded as a Science has been challenged. Wootton says again "Economists are under the suspicion of being charlatans, and they cannot afford to arrogate honourable titles to themselves without proper justification." In the increasingly common application by theoretical economists of the term science to their studies there is an element of wishfulness. Further, "the zealously s

student of Economic Science would do well from time to time to remind himself that of all the demand and supply schedules, cost curves or indifference curves that give so formidable an appearance to his text-books, not one (unless by accident) is founded upon fact. The reader would search far and wide through the works of analytical economists before he came upon a single prediction endorsed by the weight of authoritative opinion of the course of events to be anticipated in any concrete historical situation."

It is further pointed out that men being endowed with a freedom of will, which is after all not illusory and that economic phenomena being highly complex, varied and variable, it is difficult, nay impossible, to build up a science on such a slender footing. The claim of Economics to be called a Science seems to have been, therefore, completely demolished. But it is not so.

Whether a particular branch of learning is entitled to be regarded a science or not depends on what we consider a science to be. If we expect a science to formulate laws applicable everywhere at all times without any reservation and qualification, and if we expect it to predict the future course of events, then frankly speaking Economics is not a science. But these requisites of a science do not accord with modern notions as to what a science is. By science we understand a systematized body of knowledge and not merely a collection of facts so that the facts speak for themselves. In the words of Poincare, "Science is built up of facts as a house is built up of stones: but an accumulation of facts is no more a science than a heap of stones is a house."

There is an almost complete agreement on the point that Economics fully deserves the title of a science although by the very nature of its raw material, it cannot be as perfect and as exact a science as some of the natural sciences. The Economic Science has by now attained a fair degree of maturity. The economist collected his facts which are fairly of a homogeneous type. These facts have been carefully analysed and put under suitable classification and general principles governing these facts have been discovered and enunciated. What more is needed to make it a science? Short, economic study has indeed become systematized. Besides the economists use all the paraphernalia of a science i.e., the scientific methods; and they conduct the economic inquiry in a scientific manner.
irrit, keeping their own prejudices and pre-dilections entirely in the background. They try to look at their facts in as objective a manner as possible even in matters in which the inquirer may himself be vitally interested. Economics is, therefore, a full-fledged science, and some economists claim for it perfect equality with other sciences. Economic Laws are on all fours with the propositions of all other sciences.” It is time that this pedantic and barren controversy is laid at rest.

10. Is Economics also an Art? It has been settled that Economics can be called a science, but can it be treated also as an art? The English economists are agreed that economics is only a science and not an art. “The type of science that the economist will endeavour to develop must be one adapted to the basis of an art. It will not, indeed, itself be an art.” “It is a science pure and applied, rather than a science and an art” (J. R. Marshall). The argument advanced for this attitude is that it is in this way that the theoretical economist can attain any degree of scientific thoroughness. The extraneous considerations of making into an art will only hamper the work. Also that it would make it a very imperfect art. The function of Economics is simply to explore and explain and not to lay down formulae and percepts the attainment of particular ends.

We do not agree with this view. Every “art” has a theoretical scientific side and so every science has an “art” or the practical side. Our view is that the “art” side in Economics is very important. If economics is made into an abstract science, as it is reasoning becoming, it will become all the more unintelligible to the public, and it will be shorn of its practical utility. In our opinion Economics is a science both light-giving and fruit-bearing. Even se who regard it as a pure science make room for another branch economics, i.e., Applied Economics.

11. Scope of Economics. Widely different, some times matrically opposed, views have been expressed on what is the proper scope of Economic Science. In discussing the scope of economics we are chiefly concerned with the questions relating to subject matter. Whether it studies man as an isolated individual, a member of society? Whether it is a science or an art? whether it is its function to pronounce moral judgments and to solve ethical problems?

We have already discussed the subject matter in the definition of. We may repeat that all human activities, which have reference to wealth, are the concern of Economics or all those phenomena which economics is concerned is capable of money measurement. Commons would have Economics to deal with human behaviour relating to the disposal of scarce means which have

alternative uses, for the satisfaction of unlimited human wanty. This, of necessity involves, choice and valuation. It war therefore, said that valuation, in all its forms is the central proble of Economics. We have constantly to evaluate goods and services of all kinds, e.g., land, labour, capital and organisation in the for prices, rent, wages, interest and profit respectively.

The scope of Economics is indeed very wide. It analyses hum wants and lays down the laws governing their satisfaction. It studi the efforts of the four agents of production when engaged in th production of wealth and the conditions of their efficiency. It the proceeds to discuss how the forces of demand and supply react upon one another, and further how wealth is distributed in the community. Mechanism of exchange based on the monetary and banking system as well as the problems of international trade, foreign exchanges an public finance form an important part of its study.

Economics is primarily a study of man and not of wealth. But it does not study man as an isolated individual who has renounce the world and has gone to live in the jungles or in the mountai caves. It studies, on the other hand, men who live in society affectin society by their actions and themselves exposed to social influences. Economics is not so much concerned with "the economic man"-th abstraction, but man of flesh and blood and the man whom we actually see in the world, swayed by ordinary motives, noble or ignoble nd having his ordinary share of human virtues and weaknesses.

We have also arrived at the conclusion that economics is both science and an art. The English economists generally hold that it is not the function of Economics to solve practical problems. Although economic aspect of these problems may be very important and the economist's opinion will be of very great value, yet no problem can be solved on economic grounds alone, for the political and moral considerations may also be involved. "The theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine an apparatus of the mind and technique of thinking which helps its possessor to draw correct conclusions" (Keynes). We do not agree with this view. No economist has lived up to this ideal. Adam Smith, Ricardo, Malthus and in our times Lord Keynes, have all actively interested themselves in the problems of their time. In the words of Fraser, "an economist who is only an economist is a poor prett fish." According to Tugwell it is only a pre-mature flowering or Economics, which is responsible for its separation from practical life. Wootton complains that "we spend too much time forgin theoretical tools and too little time in trying to make practical us of them." When we study economics, "our impulse is not the ph Philosopher's impulse, knowledge for the sake of knowledge, but rather e physiologist's, knowledge for the healing that knowledge ma help to bring" (Pigou). Our view, therefore, is that the Economists must lend a helping hand in the solution of practical problems and h n a much better position to do so than a statesman who is devo the knowledge of the theory of Economics.
As to the question whether Economics should pronounce moral judgements, the English Classical School was of the view that none of the functions of the economist to comment on the rightness or wrongness of the economic position. Senior thought that the economist could not add even one word of advice. Cairnes said Political Economy stood neutral as regards ends as mechanics stands neutral between rival schemes of railway construction. Recently Robbins has reaffirmed this neutrality. This, in our opinion, is not the right position.

We agree with Hawtrey that economics cannot be dissociated from ethics. There is an "economic ought." Having analysed, for example, the causes of the maldistribution of wealth, why should the economist be shy of saying that it ought to be better distributed? A non-psychological Economics must, therefore, be regarded neither a superficial fragment or as positively non-scientific. It is "Hamlet with Hamlet left out." Economics, therefore, is both a prescriptive and a normative science and we do not agree with Robbins when he says that the gulf between positive Economics and normative Economics is so wide that no human ingenuity can bridge it.

On the contrary the tendency during the last half a century is that Economics is becoming more and more "Political Economy." The scope of Economics is being widened so as to include politics, ethics, and religion. The function of Economics is, therefore, not merely to describe, analyse and generalise but also to furnish guidance in the practical affairs of the world.

12. Methods of Economic Science. One of the grounds on which Economics has been recognised to be a science is that like other sciences, it too uses the scientific methods. Let us now see what these methods are.

The early English Economists known as the Classical School tried to build up the science from a few simple generalisations and the method that they used is called the Deductive, Analytical, Abstract or a priori method. Among these may be mentioned Senior, Mill, Cairnes and Ricardo, the latter being the chief exponent. Advocates of this method start with a few indisputable facts about human nature and draw inferences about individual concrete cases. For example they believed that self-interest alone guides men in their daily lives and they tried to explain and predict all human behaviour in terms of self-interest, which was obviously wrong. The method has the merit of being simple, effective and certain, provided the assumptions are valid. This is a very big "if" indeed. More often than not, the assumptions turned out to be unsound, untrue or only partially true. They made Economic Science dogmatic. The Deductive Method proved particularly dangerous when universality was claimed for generalisations based on imperfect and incorrect assumptions and attempts were made to formulate practical policies of the nation in the light of these generalisations.

There was naturally a reaction against this and a new school called the Historical School arose. The reaction was specially marked in Germany and was represented by Economists like Roscher, Stiebelbrand and Frederick List. The new movement had also its supporters like Clif Leslie in England. They advocated a method which has come to be known as Historical, Inductive or Realistic. This method insists on the examination of facts and then laying down general principles. Here we go up to "generals" from "particulars" whereas in the Deductive Method we come down from "generals" to "particulars."

The main weapons in the hands of inductive economists are observation and experiment. This method has the merit of being based on facts and having, therefore, a surer foundation. But the danger is that hurried conclusions may be drawn from insufficient number of facts. Some important facts may have been ignored and the conclusions may be unwarranted. Besides, observation and experimentation have a very limited application in a science which deals with human activities.

But as against this it may be pointed out that although conscious experimentation is simply out of the question in Economic Science, fact history affords a number of experiments in the form of economic measures adopted from time to time. The granting of discriminatin protection in India is one big experiment. In modern times the application of the Inductive Method has been very much extended. There is a spate of statistical publications in every country. The "blue books" are full of facts and figures and the economist has a large and reliable supply of the material from which to draw his conclusions. The modern era has been called the Inductive-Era.

The modern economist, however, does not rely on one method to the exclusion of the other. He uses both. In the oft-quoted words of Prof. Marshall, "Induction and Deduction are both needed for scientific thought as the right and left foot are both needed for walking." The economist first starts tentatively with a certain hypothesis based on deductive reasoning and then tests it on the touch of facts and the hypothesis is elevated to the plane of a theory. Further checking in the light of the prevailing situation has to be done before the theory can be changed into a law. There is thus what ric Roll calls interpenetration of deduction and induction. "The true solution of the contest about method is not to be found in the election of deduction or induction, but in the acceptance of deduction and induction" (Wagner). Which of the two methods is to be used in a particular occasion depends on the nature of the inquiry, the material in hand and the stage at which the inquiry has reached.

13. Laws of Economics. Like every other science Economics, has drawn its own set of generalisations, which are called the law of Economics. These laws are supposed to govern and explain all economic activity. In the words of Marshall they may be defined as
“Economic laws, or statements of economic tendencies, are those social laws which relate to branches of conduct in which the strength of the motives chiefly concerned can be measured by money price.” In terms of Robbins’ definition of economic activity we might say that economic laws are statements of uniformities which govern human behaviour concerning the utilisation of limited resources for the attainment of unlimited ends. These, in short, are the principles according to which we act when engaged in our ordinary business of life.

But what is the nature of these laws? What are they like? Do they like Government laws, laws of morality or the laws of natural sciences? The laws of the government are coercive and there is a penalty attached to their breach. The laws of morality are not obligatory, but merely indicate how we should act in order to satisfy public opinion or our conscience. The Laws of Natural Sciences can be stated with precision and have a universal validity. Economic laws are unlike all these. The nature of economic laws is not indicated by the word “must” as in the case of a statute law or by “ought” as in the case of moral law; but their nature is indicated by the phrase “other things being equal” (Ceteris Paribus).

Some economic laws are axiomatic in character, e.g., greater gain is preferred to a smaller gain. There are other economic laws which are of the nature of physical laws e.g., the Law of Diminishing Returns. But most of the economic laws are hypothetical. They hold good under certain conditions. Given certain conditions certain results will follow. The economic material is complex and ever-shifting. There is a great deal of economic friction arising out of custom. Social disabilities and legal restrictions thwart the operation of an economic law. There is also a preponderance of the human element. All these factors import an element of uncertainty in economic laws. They lack the definiteness and exactitude which is to be found in laws of sciences like physics. It is for this reason that Marshall has compared economic laws to the laws of tides rather than to simple laws of gravitation. It should, however, be remembered that the laws of Economics are more exact than the laws of any other social science because the economic phenomena are capable of being measured in money price. This measuring rod of money is not available to any other social science.

Economic laws are inevitable and inescapable if the necessary assumptions are fulfilled. But they lack predictability. “There is no convenient yard stick by which to measure the currents in business affairs for these are subject to gusts of fear or perhaps of fantastic optimism as unpredictable as earthquakes.”

We cannot say what will happen, because it depends on the fulfilment of so many conditions. We can only say what is likely to happen. Economic laws are, therefore, merely statements of tendencies or of statistical probabilities. In the words of Robbins 11.

11. Moore and others—Modern Economics, 1940, p. 3.
"The Statesman who said 'ceteris paribus be damned' has a large and enthusiastic following among the critics of Economics".

One controversial point about economic laws is about their applicability. The Classical Economists were of the opinion that economic laws were immutable, eternal, inexorable and so universally applicable without any qualification whatsoever. The Historical School on the other hand emphasised their relativity and insisted that they had only a limited application to a given environment. Bagehot, for example, declared that the laws of Economics propounded in England were applicable to "a grown up society of competitive commerce." Modern economic opinion inclines to the view that inasmuch as economic laws are based on essentials of human nature they have a very wide application to almost all communities, although in formulation of actual economic policies allowance must be made for varying local conditions. Who can doubt that Gresham's Law, Quantity Theory of Money, the Law of Diminishing Utility, the Law of Choice and a host of other economic laws are independent of sociological and political conditions. Given the conditions under which they are true, the conclusions to which they point are inescapable.

14. Relation of Economics to Other Sciences. All sciences have been developed by man for the service of man. Economics being a science of man par excellence and concerned with human welfare more than any other science must freely draw on every other science especially History, Mathematics, Statistics, Physical Sciences and Psychology. It does not seek to establish or explain the laws of physical sciences but simply uses them as bases for its own reasoning, e.g., the Law of Diminishing Returns has been derived from the physical properties of the soil; of psychology it has made much greater use. The Law of Choice which is the most fundamental law of Economics has a psychological basis. Mill described Political Economy as "a moral or psychological science". Jevons made it even more psychological. To him the theory of Economics is "the mechanism of utility and self-interest" and "entirely based on a calculus of pleasure and pain".

The relation of Economics to the other social sciences is very intimate indeed. Philosophers like Comte would subordinate Economic to, and include it in, Sociology, the general science of society. But Sociology still awaits development, whereas Economics has attained an advanced degree of maturity. As such it is capable of being studied separately. This specialisation is highly conducive to scientific thoroughness, although it is wrong to think of it as an entirely independent science. Complete segregation between Economic and Sociology is out of the question.

Economics is very closely connected with Ethics for all economic activities must be coloured by ethical considerations. When we discuss production and distribution, we must keep high moral ideals steadily in view. Economic activities must be conducted on a moral plane.
In the same way Economics depends on Jurisprudence, or the science of law. Economic activities must be conducted within a legal frame-work. The economist cannot countenance predatory activities, however lucrative they may be. The system of law limits and determines our economic activity.

Economics and History, again, are closely allied. History furnishes the necessary background against which we can have a better appreciation of economic theories and problems. Knowledge of history enables us to get a clear insight into the problems of Economics. By means of history we are able to confirm or disprove old theories and discover new ones. The discovery of gold mines throw a new light on the quantity theory of money and occurrence of Black Death shrew in bold relief the demand and the supply side of labour. Similarly, history has largely contributed to formulation of theories of trade cycles. But whereas Economics owes a debt to history, knowledge of Economic theory too is of immense value to the historian. As a matter of fact, history which omits an analysis of economic conditions is incomplete history, if not a misleading one.

Of all the sciences relation of Economics with Political Science is the closest. It has already been mentioned that Economics is more and more becoming political economy, the implication being that it is more and more becoming inextricably mixed up with politics. To the statesman economic considerations are the most important. He must take into consideration the economic habits and institutions before embarking on a certain political policy. The economic considerations are paramount in determining political policies. In the same way political conditions and institutions have a far-reaching influence on the economic conditions of the country. Few can deny that economic development in India has been very largely influenced by the political factor. Politics and Economics thus act and react upon each other. Every current political problem is predominantly economic in character. The present war, like any other war in modern times, is the outcome of a scramble for markets and materials. The Hindu-Muslim problem in our country is essentially an economic problem. It is a desire to further economic interests of the community which goads for struggle for political power. The setting up of Economic Advisory Councils or the "Brain Trusts" to advise the politicians shows that Economics is becoming more and more a handmaid of politics.

15. Utility of the Study of Economics. The economist can legitimately be proud of the fact that, in a way, his science is decidedly more useful than any other branch of learning. No other science makes human welfare its direct and primary concern. The economist, in his own humble way, tries his best to contribute to human welfare.

Economics has great intellectual value. Those who devote their time to the analysis and understanding of economic problems are amply rewarded with the sharpening of intellect. The study of the various theories of value, of wages and of interest and unravelling
of the mysteries of foreign exchanges and the attempt to understand intricate currency and financial problems provide an excellent mental gymnastics.

There is also the cultural value of the study of Economics. The student of Economics is initiated into the mystery of the working of the economic machine. He comes to understand how automatically it goes on working without apparent jolts and jerks without a presiding genius to direct it: Every individual is a worker in this vast and complex productive system. He has also his own contribution to make to the cumulative result. This teaches him the lessons of economic interdependence. It gives him a sense of pride, a sense of responsibility and better appreciation of the scheme of things. He can take more intelligent interest in his work. This is no small gain. In any scheme of mental culture, Economics must form an indispensable element. A person without elementary knowledge of Economics must be considered a semi-educated person because so much of what is happening around him has economic implications which he may fail to grasp. A great deal of what appears in the daily papers is unintelligible to him. A mere mention, for example, of sterling balances and of inflation, meets with a stupefied look. Cultural value of Economics cannot, therefore, be exaggerated.

The practical importance or vocational value of economics is also very great. To the statesman, the knowledge of Economics gives a better grasp of the political problems that face us, to the solution of which he brings to bear more imagination and more sympathy. For the finance official a knowledge of Economics is indispensable. To the labour leader it is of help for the understanding of the industrial situation and it enables him to fight the battle of labour against capital more effectively. He will know when to press his demands strongly and when to yield gracefully.

Economics is the strongest ally of the businessman. He can learn the principles of business organisation. He will be able to plan his business well and tackle the problems of production and marketing more successfully. To the businessman it thus renders direct assistance. The breadth of vision which the study of Economics necessarily gives, stands him in good stead in times of difficulty. It is really difficult to think of any aspect of human life, with its multitudinous activities, where the knowledge of Economics is not useful. It is a living science dealing with concrete realities of life. "You cannot," says Wootton, "be in any real sense a citizen unless you are also in some degree an economist."

16. Present Economic Order. The world is dynamic and not static. Some economic charges are constantly going on in perceptibly. Today especially it is true, that the world is in a sort of flux. It is most unlikely that the postwar world will be exactly like the prewar one. The broad features of the economic system that we may describe here may undergo a change, at least some of them. At the same it is worthwhile to get into our mind a general picture of
resent economic structure. It will give us a better appreciation of
ic changes, if any, in the future.

Morrison's classification of the countries of the world into the old
order countries and the new order countries is well known. But it
necessary to remember that no country is entirely new or entirely
old. The tie between the past and the present is never rent asunder.
The shadows of the past usually lengthen into the present. When,
therefore, we discuss the salient features of the present economic sys-
tem, we shall find that each of those features has its root in the past and
shows marks of its heritage.

Further, there is not one economic system with which we are
familiar today but three:—(1) Capitalism; (2) Socialism or State-
capitalism; and (3) State-Controlled capitalism or Fascism. A
ritical examination of these systems will be found in the chapter
Economic Reconstruction. Of these three, capitalism prevails
over a large surface of the globe, whereas socialism, at any
rate some form of it, prevails only in Russia. State-Con-
rolled Capitalism or Fascism was introduced in Germany and
aly by their respective dictators and may now be deemed to have
fected the fate of their originators.

17. Capitalist Economy. The following are some of the
standing characteristics of a capitalist economy.

(1) Institution of Private Property. Means of produc-
tion, farms and factories are the property of private individuals and
they are managed by them for their exclusive benefit. The State
warrantes the safety of this property.

(2) Economic Freedom There are three aspects of 'economic
edom which is enjoyed by the people under a modern capitalist
system. In the first place a person is free to use his property in
y manner he likes and he has not to submit to any dictation from
y superior in this respect. Secondly, he is free to start any business
enter into any profession he chooses. This is known as freedom
terprise. The individual entrepreneur actuated solely by the
otive of self-interest and profit, like the 'economic man,' initiates
duction and takes risks. The state does not seek to drive
repreneurial activity into marked channels. Lastly, there is the
edom of contract. Individuals are free to contract business
iances and settle the terms as they suit them, resting assured that the
state will uphold them.

But there is no absolute freedom in these matters. They enjoy
it a relative freedom. Every enlightened state imposes certain res-
tions on this economic freedom in the interest of the larger freedom
the community. The enjoyment of economic freedom is subject to
general welfare. No one can use his property or enter into a
tract or start an enterprise which is in any way detrimental to the
community or any component part thereof.

(3) Economic Inequality. Inequality not only of wealth but
of opportunity is a marked feature of the existing economic.
order. Inequalities have always existed. A world of perfect equality can only exist in poetic imagination, but the gulf between the rich and the poor has never been so wide as today. Under a system when the means of production are owned by a few lucky individuals and are managed by them exclusively for their own benefit, the rich must become richer and the poor poorer.

(4) The Wage System. In the past, the worker owned his own tools and could, therefore, work under free and independent conditions. But it is a characteristic of the present era that there is a divorce between the ownership and the use of the instruments of production. The worker has to hire himself out and work under the direction and pleasure of the tool owner for a mere pittance. He can be thrown on the scrap heap when it suits the factory owner. Herein lies the root of the exploitation of the working masses.

(5) Factory System. Another marked feature of the present system is the existence of big factories using expensive and highly complex mechanical appliances and concentrating a huge labour force under one roof which, in its turn, destroys the home and affects people's morals. The present era has been called the machine age. The machine instead of being the servant has become the master of man. As the machine goes, man must go on; he is a mere cog in the machine.

(6) Division of labour and exchange leading to mutual dependence. Allied with the mechanical character of our system and following from it, is the fact that there is a minute division of labour creating a mutually interdependent system and necessitating the elaborate system of exchanges. Division of labour and exchange are as old as man, but it is a specially marked feature of today. The 'Crusoe Economy' where every individual was self-sufficient is gone and so has the self-sufficiency of the family. Today even the self-sufficiency of the country has broken down. Just look at an Indian village in some remote part of the country, you will be amazed to know to what extent the village has come to depend on distant parts of the world. Today no producer consumes what he produces and no consumer consumes what he produces. Exchanges have assumed undreamt of dimensions. Market rules and regulations of production everywhere. Division of labour does not merely take the form of divisions into occupations but production of each article is split up into hundreds or thousands of processes, each process being taken up by a separate set of people, not always living in the same country.

The present system of production is called capitalistic. Under this system there is a process of indirect want satisfaction. More and more wants are being satisfied indirectly today. It is a system of 'round-about' production.

(7) Competition and Co-operation. Exchange leads to competition. The buyers compete among themselves and the 'self compete against one another. There is also competition betw
buyers on the one hand and sellers on the other. This competition is often very ruthless and is called cut-throat competition. But it is wrong to describe the present era merely as a competitive era. As Marshall puts it, "the fundamental characteristic of modern life is not competition but self-reliance, independence, deliberate choice and forethought." Competition often leads to cooperation. It settles the basis for cooperation. This competition and cooperation are both important features of the economic system today.

(8) Price System. A very noteworthy feature of the present economic system is the ‘pricing process’. The price-mechanism functions in such a manner that the adjustments in the economic system take place almost automatically without any direction or dictation from a central authority. Price is the regulator of both production and consumption. The consumers are able to convey their preferences through the prices they are willing to offer. Similarly, the producers are able to indicate the scarcity or abundance of a commodity by means of the price they are willing to accept. If price rises, it will check demand and stimulate supply, and vice versa. If there is a greater demand for a commodity than the supply thereof, adjustment between the two will be brought about through the rising of the price. Conversely, if the supply is greater than the demand, the price will fall and equate the two.

The same type of dovetailing is effected in the sphere of distribution where we are concerned with the remuneration of services of factors of production. Rent, wages, interest and profit are the prices paid for factors of production. If there is a large supply of labour, wages will fall and induce the employers to employ more and absorb the supply. If on the other hand, supply of labour has been curtailed by war or epidemics wages will rise and give a warning signal to the employers of this shortage.

The price obtained either for a commodity or a service constitutes an income which through its purchasing power determines the demand and the direction of economic activity. There seems to be very justification, therefore, for the present system to be designated as the government by price.

The price-mechanism is supposed to have harmonised the interests of both the consumers and the producers. In the words of Benham, "it tends to harmonise the desire of entrepreneurs for profits and the desire of consumers to satisfy their wants as fully as possible from the factors of production available'. This harmony is, however, not always realised in actual practice. We may find that either the consumers are being exploited or the entrepreneurs are suffering. While the consumers enjoy the benefits of cheap production, they are sometimes deliberately defrauded, or they are at the mercy of the monopolist. On the other hand, the producing company may suffer from ause of inefficiency of the directors or because directors are en-
consumers and producers, for the price-mechanism does not often work smoothly and freely.

18. Socialism. In view of the important position that socialism occupies in people's minds, we have devoted a separate chapter to it. Here let it suffice to say that in a socialist state the means of production, *i.e.*, farms and factories are not owned and managed by private individuals as is the case under capitalism. They are the property of the Government and they are managed exclusively with a view to promote general welfare and not for the exclusive benefit of a particular class.

19. Fascism or State Controlled Capitalism. Under this system private property in the means of production is recognised and guaranteed by the state. But there is a minute control exercised by the state over its use. The state under a licensing system dictates the direction of productive activity, fixes prices, profits and wages. Both labour and capital are under strict state control. Neither are the workers permitted to go on a strike nor are the factory owners allowed to resort to the lockout.

20. Division of Economic Study. The traditional method of dividing the study of Economics is to split it into four parts—Consumption, Production, Exchange and Distribution. This is in keeping with the old definition of Economics, *viz.*, that it is concerned with man's actions in consuming, producing, exchanging and distributing wealth. This mode of treatment cannot fit in with the new definition of Economics given by Robbins, according to which economics is concerned with the problems of choice, arising out of disposal of scarce means in relation to multiplicity of ends. A different treatment of the subject is called for to bring out the implications of this new conception of Economic Science. The traditional method is therefore, regarded as unscientific. The modern approach is to treat the subject as a whole rather than split it up into different compartments.

But we feel that in an elementary study like the present one, the traditional method will be more suitable. It will make for simplicity and clarity and specially suit students who are not engaged in an advanced study of the subject. While we adhere to the old treatment, we shall of course take notice of the latest developments in Economic theory respecting each department of our study. We shall divide our study into four compartments or Departments, *viz.*, Consumption (or demand) Production (or supply), exchange (the balancing of the two) and Distribution (sharing of the national income).

In Consumption we shall study how limited means are utilised for the satisfaction of unlimited wants. We shall take note of the characteristics of human wants and the various laws governing their satisfaction, *e.g.*, the Law of Diminishing Utility, the Law of Substitution and analyse the concept of Elasticity of Demand and Consumer's Surplus. We shall also examine the idea of the Sovereignty of the Consumer. We take Consumption first, as it furnishes the initial impulse and driving force for economic activity.
The study of Production will consist of the study of the four Agents of Production, their relative efficiency and the way they combine and co-operate to produce wealth. In the terms of new Economics we shall find how the limited means for the satisfaction of unlimited wants are obtained. Production will acquaint us with the forces of supply.

In Exchange we shall see how the forces of demand and forces of supply balance. We shall know the working of the price-mechanism and determination of value under varying conditions.

Distribution is concerned with the sharing of the National Dividend among the four agents of production, *viz.*, Land, Labour, Capital and Organisation. We shall study the principles which determine rent, wages, interest and profit.

But it is well to remember that this division of Economics into different parts is all artificial and is intended merely for convenience. The subject cannot be segregated into watertight compartments, for these parts are all interdependent. There cannot be production unless there is demand and there cannot be any consumption without the thing having been produced. Consumption determines standard of living which affects efficiency and hence production. Thus consumption and production are very much inter-related.

Consumption also depends on Exchange for the latter facilitates, and makes possible the former. Without exchange production cannot be considered complete, for the former enables the goods to reach the hands of the consumer.

Consumption, again, is very much related to Distribution. On the share coming to each agent will depend the standard of its consumption which in turn, by affecting its efficiency, will affect its share in the national dividend.

Production and Distribution, too, are inter-connected. Larger the volume of production greater will be the share of the agents of production and larger the share, greater the efficiency and larger the production.

In the same way Exchange and Distribution are closely connected. It is through the mechanism of exchange that distribution is rendered possible. It is, therefore, impossible to tear apart the various parts of economic study.
CHAPTER II

GOODS, WEALTH AND VALUE.

1. Introduction. In the first Chapter, we have made a preliminary and rapid survey of the nature of Economics and the main features of our economic system. But before we begin a detailed study of the subject, it is necessary to fix in our mind the precise meaning in which we shall frequently use certain terms. This will avoid much unnecessary confusion. One source of difficulty in the study of Economics is that it uses terms of ordinary speech, giving them scientific meanings. Some of the more important of these terms are explained below:

2. Goods and their classifications. The term "good" or "goods" is used in Economics in a special sense. Anything which is capable of satisfying a human want is called a good. Air, bread, table, etc., are all wanted or desired for the satisfaction of human wants and are therefore goods. Everything desirable is a good.

Goods can be classified in different ways. They may be material like bread, chair, etc., or non-material like good-will of a business. Goods may be transferable, e.g., houses, land (not necessarily bodily transportable) or non-transferable e.g., a person’s faculties and capabilities, his skill, his intelligence, etc. They are personal e.g., the skill of a person or impersonal i.e., the things in his possession.

Goods may be classified as durable which will continue giving service for a long time, say for years, e.g., house, furniture (there are different degrees of durability) or perishable, when they are finished up in one satisfaction and are not capable, like the former, of giving a series of satisfactions, e.g., the meal that we take. Another classification is into private goods and public goods. The former are the property of private individuals. The latter are public property like public libraries, public parks and buildings. To those who use them they are free i.e., they do not cost them anything unless it be the contribution they may make in the form of taxes. There are certain goods that yield satisfaction directly, e.g., bread, clothes, shelter. They are called consumption goods or consumers’ goods or goods of the first order. The goods which yield satisfaction indirectly and which help in the making of other goods are called capital goods or producer’s or good of the higher order, e.g., the sewing machine which help the making of a shirt. The most important classification of goods from the point of view of Economics is that into free goods, and scarce or economic goods. There are certain goods which exist in a state of superabundance, e.g., air, sunshine, water. They are called free goods. They are Natures free gifts to man. On the other hand, there are other goods which are scarce in relation to requirements. They have been acquired and appropriated by man and you can obtain them by paying for them. They are called Economic Goods. It is with these goods that Economics
is concerned, for economic activity consists in the utilisation of scarce goods for the satisfaction of wants. It may be emphasised again that this scarcity is relative and not absolute; it is in relation to requirements. A good may exist in a very small quantity but man may not have discovered any use for it, it will not be called scarce. On the other hand, there may be another good of which immense quantities exist but if it falls short of human needs, it will be considered scarce. No hard and fast line can be drawn between economic goods and free goods. The distinction is not of a permanent nature and cannot be regarded fixed. A good may be a free good to-day and become an economic good to-morrow or it may be a free good at one place and an economic good at another. Water in the neighbourhood of a natural spring is a free good; sunshine and fresh air in an open countryside are free goods and so also is sand on the seashore and wood in a dense forest. But in a congested city even they command a price and are economic goods. There was a time in human history when land and water were free goods but the increase of population has changed them into economic goods. We, therefore, find that as time passes the circle of free goods is being narrowed and that of economic goods is being widened. Moreover, a change in the economic habits of the people or a law passed by the Government may change the economic goods into free goods and vice-versa.

If all the people become vegetarians, meat will become a free good. It is also well to remember that this classification is not based on cost but scarcity in relation to wants. A good may cost nothing, you may have got a diamond just for picking it, but it does not become a free good, because diamonds are scarce in relation to wants.

Now a question arises: Will you measure a country’s prosperity by the quantity of free goods or of economic goods? Obviously a country is much better off if the circle of free goods is wider and that of economic goods is narrower, for the latter imply scarcity, necessity for payment and painful efforts to acquire them. It may be said, with an appearance of a paradox, that more things in the nature of wealth a community has, the less prosperous it is (Taussig). This is so because the welfare of the community does not solely depend on wealth, i.e., scarce or economic goods. Free goods make their own contribution to human welfare. If more goods belonged to this category, human welfare will be more easily promoted and it will be more widely spread.

3. Utility. We have seen above that every “good” or commodity possesses a quality by virtue of which it satisfies a human want. This want-satisfying power is known in economics as utility. Anything which satisfies a human want directly or indirectly, is said to possess utility, the want may be sensuous or otherwise. It is the value-in-use of a commodity. Let us be clear about it. When we say a mango has 10 utility and a piece of pastry 7, we simply wish to declare our scale of preferences and indicate relative degrees of our satisfaction from the consumption of these two commodities. Utility is, therefore, simply a conventional representation or an objective expression of something subjective re our degrees of preferences.
Every article possesses some inherent qualities on account of which it satisfies a human want. But when we speak of utility we do not refer to such intrinsic qualities of a commodity. On the other hand, we are thinking of the commodity in relation to the wants of an individual. A cigarette, for example, has some quality in itself on account of which it is capable of satisfying a human want. But to a non-smoker it is of no use. He does not want it. His want it does not satisfy. For him the cigarette possesses no utility. Utility is, therefore, subjective and relative; it is not objective. It lies not merely in the commodity itself, but in the mind of the consumer. It simply indicates the reaction of an individual and not of the society at large. It relates the consumer to the commodity. Being subjective it varies from individual to individual. The same thing may possess some utility for some person, more utility for another, and no utility at all for a third person. A horse has no utility for one who cannot ride and a picture to one who cannot see. A person who has no ear for music or an eye for a work of art will be insensible to any artistic beauty. He cannot appreciate it. Obviously so far as he is concerned such things possess but little utility. In the words of Chapman, "external goods are goods only in relation to internal goods." It is not merely from individual to individual that utility varies. It may vary in the case of the same individual at different times. A change in the taste, season, or fashion, even advertisement and propaganda may affect the utility of a commodity or a service.

Utility may be distinguished from satisfaction. Utility is the power of the thing to yield satisfaction. Satisfaction is what we get, it is the result of utility. When we eat a fresh ripe and sweet mango we are pleased. The freshness, sweetness and the ripeness and other qualities of the mango constitute the basis for the utility it possesses, but it is on account of these that we get satisfaction. The thing possesses utility, it gives us satisfaction.

A distinction of greater importance exists between utility and usefulness. The two words are often confused in ordinary speech and are used as synonyms. But if a thing possesses utility, it does not necessarily follow that it is useful. Smoking is not useful. Drinking of wine and the use of other intoxicants are harmful. But in the eyes of the Economist cigarettes, wine and all such things possess utility, for the simple reason that there live people who are prepared to pay for them, and whose wants they satisfy. Here the moralist and the economist do not see eye to eye with each other. The economist does not look at things from the moralist's angle of vision. He is not swayed by ethical considerations when he wants to know whether a thing possesses utility or not. His simple test is, "Does it satisfy a human want?" Is anybody prepared to pay for it in order to obtain it for his consumption? If the answer is in the affirmative, it commodity possesses utility beyond doubt, however harmful the consumption may be. The term utility has thus no ethical significance. It may also be mentioned that the term utility refers only to consumers' goods and not to producers' goods. A bicycle has utility for one who uses it. It gives him satisfaction. But the machiner
sed in the making of the bicycles gives no such satisfaction to its
manufacturer. He is solely guided by the motive of profit and does
not get any personal satisfaction from the machine. Utility refers to
personal satisfaction and not satisfaction in any other sense.

It is sometimes suggested that we should use "desirability" in
place of utility. But this would be open to the objection pointed out
above. "Desirability" implies moral consideration, whereas utility
is morally neutral. The thing may be undesirable but if there are
bols enough to buy it and use it we shall say it has utility.

A better suggestion is the use of the term significance. It has
already been used by some economists, e.g., Wicksteed. It is free
from the objections mentioned above. A thing possesses economic
significance whether its use is undesirable or injurious, provided it
scarce in relation to human wants. But the term utility is much more
turrent in the language of Economics and we too shall stick to it.

4. Value. Value is another term which has often caused
confusion in economic thinking. In the words of Adam Smith, "the
word value has two different meanings and some times expresses the
utility of some particular object and sometimes the power of pur-
hasing other goods which the possession of the object conveys." But
the modern use of the word value differs from Adam Smith's. The
economist now does not use it in two meanings but only in one. For
the first use of the word mentioned by Adam Smith, viz., value-in-use,
they use the term utility. The word value is used in the second sense
i.e., value-in-exchange, actual or potential. Value of a commodity
imply means what other commodity or commodities can be got in
exchange for it. Value is the power of a commodity to command
other things in exchange for itself. If a fountain pen can be exchanged
or two copies of your text-book, the value of the pen is equal to two
pant-books. When value is expressed in terms of money it is called
rice. Value is therefore relative. You cannot speak of the value
of a commodity in absolute terms. You cannot for example say that
he value of a particular commodity is great, without at the same
time having a number of commodities that it can buy at the back of
our kind. Value is relative because it expresses relationship between
commodity and commodity. It builds a bridge of equation between
the two. Value of one thing is thus connected with the value of
other thing. It therefore follows that there cannot be a general
rise in values, although there can be a general rise in prices.

Let us understand why there cannot be a general rise in values.
first take our previous example: 1 Fountain Pen = 2 Books. If the
value of the fountain pen increases, it will buy more books than be-
fore. In other words the value of the books will go down. If, on
the other hand, the books goes up in value, the purchasing power of
the fountain pen goes down. The value of both things cannot go
simultaneously. As the value of one thing is expressed in terms
another if the value of the former increases, the value of the latter
must go down, for it can only increase in terms of the other. Thus
value being relative, the values of all things cannot rise at the same
he, i.e., there cannot be a general rise in values.
But there can be a general rise in prices as it has happened during the war. The price of everything has gone up. Prices of things are expressed in terms of money. There are two sides of the equation here, goods side and money side. In this case goods side has gone up, while the money side (i.e., the value of money) has gone down. We have seen that in the equation the value of only one side can go up but not that of both sides at the same time. When therefore prices have gone up, it means the value of things has gone up and the value of money has gone down. Thus there can be a general rise in prices but not in values.

5. **Wealth.** There has been a good deal of difference of opinion as to what constitutes wealth and what does not. When Economics was defined as a Science of Wealth, it was considered imperative to settle the matter of the definition of wealth itself. Fortunately there is now a general agreement about the nature of this fundamental concept. Whenever the word “wealth” comes to our mind, we at once think of cash, lands, buildings, machinery, furniture, mortgage rights, Government securities, Stocks and shares and so on.

Now if we attempt to generalise the nature of these “commodities”, we shall find that they are all the objects of human desire. They are wanted because they can satisfy human wants, directly or indirectly. In short, they possess utility. We can therefore fix on one attribute which the things must possess before we shall agree to put them under the label “wealth”.

But thinking further over the matter, we shall notice that the possession of utility is not a conclusive test to entitle a thing to be included in the category of wealth. Air possesses immense utility; it is even indispensable for human life. But is it wealth? Does anybody pay anything for it? No. It is not wealth. We can think of a host of similar “commodities”, sunshine, sand on shores of the Arabian Sea, water coming out of natural springs. They are not wealth, because they are unlimited in quantity. Therefore limitation or scarcity is another essential attribute of wealth. One more attribute is also necessary, viz., transferability. We want to possess such things, otherwise they will not command any price. Possession is impossible without transferability. Unless a thing can be passed on, in exchange, it cannot be wealth to the owner. It is not bodily transfer that is necessary, mere transfer of ownership is enough.

To sum up, there are three essential attributes of wealth (1) utility (2) scarcity or limitation in supply; and (3) transferability. Some other qualities are also suggested, e.g., that wealth should be susceptible of accumulation. But this is not always possible, for as we shall see presently, “services” are included under wealth and they are not susceptible of collection. Another requisite suggested is that it should be the result of labour or it should involve some sacrifice in its acquisition. This also does not accord with the facts. Diamonds did not entail any great sacrifice on the part of one who first came by them; at any rate their value is out of all proportion to the labour expended in obtaining them. Take the case of land. It is not man-made; it is a free gift of nature; it did not cost much
labour for the original occupant. But all such things are regarded as wealth in spite of the fact that no appreciable amount of labour was expended on them. Therefore the three attributes mentioned above are enough to settle whether a thing is wealth or not.

Wealth as defined above is synonymous with economic goods, because they possess utility, are limited and transferable. In the words of J. N. Keynes "wealth consists of all potentially exchangeable means of satisfying human needs." Anything which possesses value in exchange (in short value) is wealth.

Let us emphasise again one point. It is the attitude of man which makes things wealth. Human factor is responsible in converting things which were not wealth into those which are wealth. There are several things for which human beings had discovered no use. They were free goods and not wealth. Several by-products of industry were thrown away as rubbish. Only recently in India molasses accumulated in the sugar factories to such an extent that they were even willing to pay something to those who would rid them of this nuisance. But setting up of distilleries changed them into wealth. Kalidás's dramas are no wealth to the barbarian. What is and what is not wealth depends on the human attitude towards the good or service concerned.

Wealth as understood in this sense includes all material and non-material objects and rights and benefits arising from their use, as well as all kinds of services provided they have exchange-value. This definition of wealth excludes highly commendable things like love, friendship and character, simply because they cannot be bought and sold.

Let us now apply these tests to certain classes of goods and see if we can regard them as wealth. Once again we must begin with caution. We cannot dogmatically lay down that this is wealth and this is not. It is our own point of view and mental attitude that includes certain commodities in the category of wealth and excludes others. A thing may be wealth under certain conditions, in a certain place or at a certain time, and not wealth under entirely different set of conditions, e.g., air is not wealth ordinarily, but becomes wealth in underground apartments, where money has to be spent in making provision for it. Now think of the following:—

**Personal Qualities.**—A surgeon's skill, a lawyer's debating talent, a person’s intelligence and ability—are they wealth? These personal attainments are a source of wealth. We pay the surgeon for his skill. He has probably spent a lot of money and labour in acquiring it. But these personal qualities are not regarded as wealth. They are not transferable and hence not exchangeable. When we pay the surgeon we do not buy his skill but simply his service. His skill is inseparable from his person. Wealth does not consist of what a man is, but what he has, something external to himself but such qualities of skill have been called personal wealth by courtesy.

**Personal Services.**—The services of the doctor, lawyer, teacher, domestic servant, etc., are they wealth? Yes, they are. These services may not result in the production of anything material and tangible,
yet they satisfy the three tests laid down above. They can satisfy human wants and thus possess utility, they are scarce and exchangeable. They are rendered in exchange for money. A claim on a personal service can be acquired by means of money.

Money.—But what about money itself? It is said, in a modern community, it simply acts as a medium of exchange. Its value consists merely in this, that it helps you to buy a commodity or a service. It has no value of its own. Now, this idea is wrong. Metallic money can be easily regarded as wealth, it has got intrinsic value, is scarce and exchangeable. But even paper money is wealth. It embodies purchasing power and just represents a collection of commodities and services which the possessor of money can buy. Money has undoubtedly value in exchange. As a matter of fact that is its primary function. It is really surprising that any doubt whatsoever should have been cast on its being wealth. Money lubricates the productive machine and adds to the community’s wealth.

Good-will.—Obviously intangible, but it is certainly wealth. It commands a price in the market. A firm which has laboured hard, made sacrifices and built up its reputation, can certainly count upon changing this reputation into money in the event of the transfer of the business to somebody else.

Documents of Title. There is a large variety of documents which are regarded as wealth by their owners, e.g., cheques, bills of exchange promissory notes, bills of lading, Government bonds or guilt-edged securities. Stock and share certificates, insurance policies, mortgage deeds relating to land and buildings or other property rights. All these possess money value, although in the case of insurance policies the money value is equal to its surrender value at the time. But they are mere scraps of paper and are not wealth in themselves. They are evidences or merely certificates as to the ownership of wealth. They represent wealth lying somewhere to which the holders of these documents have a claim. They have been, therefore, called representative wealth.

6. Wealth Classified. Attempts have been made to classify wealth. A common classification is given below:

Individual or Private Wealth.—The wealth of an individual, which has been called private wealth, consists of his material possessions like cash, land, buildings, furniture, etc., and other personal effects, titles to property, stocks, shares, government securities, patents and copy-rights as well as intangible types like the good-will of his business, based on his reputation in the profession. His personal qualities, however, are excluded. His debts are deducted from his total wealth.

Social or Communal Wealth.—Under this category we shall put those forms of wealth which are not exclusively owned by individuals, but are the common property of all and can be shared by all. Examples of this type of wealth are: Public parks, public libraries, public buildings, government land or forests, roads, railways, government factories, and other property owned by the government, central, provincial or local. These things are owned by the community collectively.
This type of wealth is increasing in volume and importance in modern times. The trend towards socialism which is noticeable in all countries is bound to result in the increase in this form of wealth.

**National Wealth.**—It is the sum total of all the wealth owned by citizens of the country. It is the aggregate of the economic goods possessed by them. While computing the total national wealth of the country, however, we should include not only the wealth owned privately by individual citizens but also social or communal wealth owned collectively by the community. Debts due from one citizen to another will be, of course, ignored and so will be the patents and copy rights of the individual, for their lapse or destruction makes no difference to the community at large, though it will diminish the wealth of the individual concerned.

But National Wealth can also be defined broadly. In a wider sense many other things which may be considered national assets are included in the category of national wealth, such as mountains, rivers, healthy climate, good government, resourceful and energetic character of its citizens. In this sense the Himalayas, the Ganges and other such gifts of God can be included in our national wealth. Cosmopolitan wealth is the wealth of the whole world.

**Negative Wealth.**—Obviously negative wealth implies an obligation which must be offset against positive wealth. A debt is negative wealth to the debtor but positive wealth to the creditor. The patent or copy-right is a positive wealth to the holder but negative to the people who care to respect these rights and refrain from using them. Similarly government loans are negative wealth to the community as a whole, but positive to those who have to receive the payments. Some animals besides being dangerous sometimes do a lot of damage and may be considered as negative wealth. Rabbits in Australia at one time were in that position. Sind Government offered recently special facilities for the killing of pigs.

7. **Capital Wealth and Income Wealth.** A distinction is sometimes drawn between capital wealth and income wealth. The former is a fund or stock, while the latter is a flow. Capital wealth is supposed to be something fixed or static. It is used in production. This use yields a flow of income which may be considered as dynamic. A person having property worth Rs. 5 Lakhs gets therefrom an annual income of Rs. 25,000. The property is capital wealth and what it yields is income wealth, or just capital and income respectively.

8. **Wealth and Welfare.** One finds a continual but useless controversy going on among economists concerning wealth on one side and welfare on the other. We have seen that Economics makes wealth the centre of its study and not welfare. But it will be wrong to charge Economics with concentrating on selfishness and call it a dismal science. It is declared by economists that wealth is studied not for its own sake, but because it promotes human welfare. It is now recognised that man’s activities are not motivated by self-interest alone. “Economic man,” an abstraction embodying self-interest is not the subject of economic study but real man, a creature
of natural impulses good and bad and actuated by a variety of motives, fair and foul, and swayed by ideals, both noble and ignoble. Every body seems to be after the money. But that does not necessarily make him a bad specimen of humanity moved solely by mercenary motives. Money is not wanted for its own sake, but for the sake of commodities and services it will buy. What will make a man good or bad is not the acquisition of money, but whether money is well or ill-spent. When, therefore, the economist studies wealth, welfare is not forgotten; it is kept in the forefront.

Welfare is the real and the ultimate aim though immediately the attention is focussed on wealth. Economics, therefore, need not incur any obloquy for studying wealth.

Wealth is studied simply and solely because in this world of ours, wealth is the only convenient measure of the strength, or intensity of human motives. Other motives like love, friendship, family affection, charity, etc., too exert their influence. But the fact is that the steadiest and the most important motive behind economic activity is the desire to get a money income.

It is possible to conceive of a world where this motive is eliminated, where new values have been substituted for the old and where social service is given a greater recognition than wealth. Some badge or symbol, say a title like Rai Sahib, Khan Sahib, or Sardar Sahib in different gradations takes the place of money. In that case Economics will take no notice of money. The Science of Economics will still be there although wealth in its conventional form has ceased to exist. It is, therefore, merely an accident of this age where wealth undeniably happens to play an important part that Economics and wealth are connected, otherwise the aim of economic study is human welfare.

There is another reason why Economics studies wealth rather than welfare. Notions of welfare vary from individual to individual. Everybody seems to have his own conception of what welfare consists in. Some would have us promote physical well-being, others moral uplift or still others spiritual well-being. Some see the emancipation of mankind in intellectual perfection. Moreover, ideas of welfare have varied from age to age and from country to country. No scientific treatise can obviously be built up on such an ephemeral, shifting and varied notion. Rather than catch this will o’ the wisp, Economics builds itself upon a solid foundation of wealth, about the nature of which there is almost a complete unanimity.

There is in some cases a divergence between wealth and welfare. Air and sunshine which are indispensable for life, and so for human welfare, are not regarded as wealth at all. Again joy, love, friendship, health culture, etc., which are of immense value in life and make it worth living stand outside the pale of wealth. Those things, therefore, which are highly conducive to human well being-find no place in wealth, from which it may be concluded that wealth ignores welfare.

Look at the other side. Several things included in wealth not only do not contribute to our material well being but are, on the contrary, detrimental to it. Narcotic drugs, pernicious books and
everal other evil things and services which are regarded as wealth by
the economist must seriously and adversely affect our welfare.
They pull man down rather than lift him up in any respect.

Further, a wealthy society is not necessarily a high society in the
real sense of the word. Rather in these days of stark materialism
the rich class seems to monopolise all the depravity one finds in
the whole society. Wealth corrupts, misleads and poisons the
human soul. All morality and scruples are thrown to the winds.
The rich seem to have lost their moral bearings. There are people
who seriously believe that it is easier for a camel to pass through the
eye of a needle than for a rich man to enter Heaven. Wealth is a
good servant but a bad master. Wisdom and humanity are needed to
control it. In their absence the man of wealth runs amok literally
and metaphorically, and one exclaims that there can be no earthly
connection between wealth and welfare. They are poles apart.

But this is not so. We have perhaps painted wealth in rather
indulgy dark colours. Where we have mentioned its corrupting
influences, we must also recognise its potentiality for doing good.
All depends on the way it is used. A man of wealth can undoubtedly
help himself and his family in maintaining a good standard of living
and thus promote his material welfare. He can have a healthy,
frank and self-respecting life. He can give good education to his
children and set them on the path both of virtue and material pros-
erity. But what is even more important he can help his less fortu-
ate fellowmen, relieve their misery and make them forget the sting
of squalor and poverty. Men like Sir Ganga Ram in the Punjab
may make money with all possible zest and then put it to the service
of humanity. Only a rich man can help himself and help others. Who
an deny that wealth has great potentiality for promoting welfare.

The statesman actively believes in the potency of wealth for good.
He sees to it, that no stigma attaches to it while wealth is being pro-
duced. The greed of the factory owner is curbed by the stringent
actory legislation, which insures healthy surroundings to those who
are engaged in production. But in modern times emphasis has been
shifted from production to distribution, for it is believed that it is
not merely on total wealth that the welfare of the community depends
but on its equitable distribution. All the post-war economic plans
in India and elsewhere have laid a due emphasis on the proper
distribution of wealth in the community. Minimum wage systems
have been instituted, laws have been passed against usury, attempts
have been made to limit profits all with a view to ensuring that wealth
is made to yield the highest possible dividends in the form of human
welfare. Just see the modern tendencies in public finance—steeply
progressive taxation of the rich and provision of greater and greater
amenities for the poor in the form of better medical-aid, better
ducation, better roads and other means of social good, e.g., public
parks, museums, libraries, etc. All such attempts are an open rec-
ognition of the fact that wealth is a powerful, and according to some,
the only effective instrument in promoting human welfare. The
relation between wealth and welfare is one of the closest.
CHAPTER III

CONSUMPTION

1. What is Consumption? In the department of consumption we discuss how the limited resources of the community are utilised for the unlimited number of human wants or how the community adjusts its resources to its requirements. This seems to be the most important economic problem. In the words of Ely “consumption in its broadest sense, means the use of economic goods and personal services in the satisfaction of human wants.” A person who uses a commodity or makes use of a service is said to consume wealth.

Just as man cannot create matter and can only give it utility by changing its form, in the same manner man cannot consume matter. He can simply derange it by using up its utility. Consumption has, therefore, been also defined as destruction of utilities. The destruction may be immediate and instantaneous, as in the case of the meal that you take or the water you drink; or destruction may be gradual and is spread over months or even years, as in the case of durable commodities like furniture, houses, bicycles, motor cars, etc.

But it needs emphasising that consumption does not consist in mere destruction as such. The house may catch fire, the tea set thrown down from the table, the master, angry with the servant, may throw the meal at his face. The things are destroyed all right but no satisfaction has been rendered. Such acts will not come under consumption, for consumption means getting satisfaction by use.

Also, it is not necessary that the value or utility of the article must be destroyed or diminished by use. It is supposed that Persian carpets and diamonds improve by use. But even in these cases they are surely, though slowly, very slowly indeed, moving towards their end.

Consumption is sometimes classified as productive consumption and unproductive consumption. When I use paper to write a letter it is a case of unproductive consumption, but when the publisher of a book uses it, it is productive consumption. The use of producer’s goods is productive consumption and that of the consumer’s goods is considered to be unproductive. But in a real and broader sense the use of consumer’s goods is highly productive, for without their use work of production cannot go on.

2. Importance of Consumption. For a long time the economist’s attention was focussed mainly on production of wealth. But now consumption has received its due recognition, and is attached a great importance. It is now clearly realised and duly emphasised, that it is consumption which gives production an initial push. Desire to consume things is the main spring of all economic activity. “Sluggish consumers sluggish business,” is the maxim. It is the consumers who issue a directive, as it were, for the production of
some articles and the cessation of production of others. We shall
discuss the theory of the sovereignty of the consumer a little later.
Let it suffice to mention here that the volume and direction of
productive activity is determined by the consumers’ desires for goods
and services.

Standard of living in a community is indicated by the nature
of consumption obtaining there. The wholesomeness or otherwise
of consumption will determine productive efficiency. Unplanned
or unwise consumption is the greatest cause of inefficiency of in-
dustrial workers in certain countries. Wasting money on drink,
unbalanced diet, extravagant expenditure on social ceremonies and
too little on education and health are responsible, in no small
measure, for the comparative inefficiency of Indian workers.
Prudent consumption is as much our need as efficient production and
equitable distribution. A fair distribution of wealth without consump-
tion being set on the right lines will defeat its very purpose.

3. Wants, Needs, Desires and Demand. Before we take
up the analysis of human wants and study the laws governing their
satisfaction, it is necessary to distinguish clearly between the words
“want,” “need,” “desire,” and “demand”.

“Wants” are physiological. A man feels hungry or thirsty and he
wants a meal or a glass of water. He experiences what is opposite
of satisfaction. Wants relate to our primitive nature and we have
them in common with animals.

“Need” implies not what the person concerned feels the absence
of but what is determined by an outsider, from an objective point of
view. We say the boy needs exercise to tone up his health, even if
he does not feel about it. Want is what he feels, need is what we
decide to be useful and necessary for him; it is externally deter-
mined.

“Desire” is more psychological than physiological, just as the
want is, but it does not refer to our primitive nature. Instinct plays
less part in determining what we desire, whereas wants are more or
less instinctive. We desire fame, power, influence, and not merely
food and drink. Desire is related to an object, which you wish to
realise. When “want” indicates a particular commodity or service
as its object, it may be called desire. Want is somewhat vague,
desire acquires definiteness.

“Demand”. But “want” or “desire” is a mere craving or longing.
It indicates an expectation of satisfaction and not satisfaction actually
realised, as in the case of utility. For the satisfaction of desire an
effort is needed. When the person desiring has decided to make the
necessary sacrifice to obtain the object of desire, it becomes demand.
A beggar may desire to ride a Rolls Royce or to live in a palace.
Money is needed to translate these desires into reality. A miser
also may want these things, but has not the heart to spend the money.
The former lacks the ability and the latter the willingness to pay money
and in both cases, the desire remains an idle dream. When
Desire is backed by willingness and ability to pay, it becomes demand
for effective demand.
One may want a motor car, but if he is actually trying to get a bicycle, that is what will matter. When we said that consumers' direct economic activity, we meant to say that it is not the consumers' desires that do it, but their demand. No body is going to take notice of a beggar's or a miser's desire. Economic goods are meant not for those who desire things, but for those who command the means for obtaining them and are willing to part with those means.

4. Characteristics of Wants. "The life-history of a normal human being is the record of a continuous sense of incompleteness." We are always wanting one thing or another. It is a race towards ELDORADO. We are never completely contented. It is the pursuit of a mirage. Some people see in this "divine discontent" the root-cause of all human progress and something which wise Providence has ordained, so that springs of human joy and enthusiasm may not get dried up. "Aspiration is a joy for ever", says Stevenson. Human wants constitute one of the basic facts of economic life. A careful analysis of wants reveals some very important characteristics.

(i) Wants are unlimited in Number. Human wants are innumerable. A savage has only a few wants. A civilized person can never hope to complete a list of all his wants. A few of our wants lie in our conscious mind, but the great majority are in our sub-conscious mind lying in layers, as it were, one below the other. When the top layer of wants is finished, the wants next in urgency take their place and this continues interminably, so that we never can possibly hope to reach the end of our wants. We are now in a much better position to satisfy our wants than our primitive ancestors. But wants, too, have multiplied. When we satisfy any of our wants, the satisfaction is transient and another want crops up and takes its place. Familiarity blunts the edge of our recurring wants and our mind turns to newer and newer wants. We have already noticed that multiplicity of wants in relation to scarcity of means is responsible for the existence of all our economic problems.

(ii) Satiableness of a Particular Want. Although all wants put together can never be satisfied in their entirety, yet the satisfaction of each particular want is within the range of possibility, assuming that the would-be consumer has the means to pay for the commodity or service that he wants. Even here we can think of certain wants which can never be completely satisfied. Desire for ideal health, fame and spiritual salvation must remain in the realm of dreamland. The satiable characteristic of human wants lies at the basis of the Law of Diminishing Marginal Utility. Because each want, is satiable, the satisfaction that we derive goes on diminishing progressively as consumption proceeds.

This has been named the First Law of Gossen, after a German writer of that name who stated it thus "The amount of one and the same satisfaction declines, as we proceed with that satisfaction, until satiety is reached". The importance of this Law does not lie in the satisfaction of a particular want as in the fact that when this want is satisfied, other wants claim our attention.
(iii) Wants are Complementary. This means that the satisfaction of a particular want does not stand isolated to satisfy one want fully when wants also have to be satisfied. Horse and carriage, eye glass and the frame, fountain pen and ink etc., are wanted together. As a matter of fact, it is very seldom that there is a demand for an isolated object. Everything is wanted as a part of system of demands. We want things in groups. Wants are mutually related. This characteristic of wants has an important bearing on the theory of interrelated values. If demand for one thing increases, it leads to a corresponding increase in the demand for other things, which belong to the same group.

(iv) Wants are Competitive.—This fact arises from the scarcity of means in relation to wants. Our wants are unlimited but the means at our disposal for their satisfaction are limited. We are compelled therefore to choose. There is a large variety of wants that we experience. We cannot satisfy them all. They compete against one another to secure our choice. There is thus going on, every minute, an ever-recurring conflict and competition between several things that we can do. We can go to a coffee house, a cinema show, a sports meet, or witness a wrestling match between wrestlers of repute, or buy a necessary book. There is quite a large number of alternatives before us to choose from at any given time. There are conflicting claims on our purse, time and energy. The fund of each of which is strictly limited. There is, therefore, a regular competition between our wants. This gives rise to a law known as the Law of Substitution which we shall discuss later.

(v) Some Wants are Alternative. This is the case when for the satisfaction of a particular want different alternatives are open to us. We want a drink, we can have tea, coffee or coca, or if it is summer, we can have sharbat, lassi; soda, lemon squash, orange squash, etc.

There are so many substitutes. Not many alternatives are acceptable when we want to satisfy our elementary needs of hunger and thirst, because we are used to satisfying them in a particular manner, but in the higher ranges of wants, there is much greater diversity of choice.

This characteristic may be distinguished from that mentioned above, viz., that wants are competitive. In that case there is a choice between the wants themselves. We have to choose which want to satisfy. But once we have selected a want different alternatives are open to us for the satisfaction of that particular want, therefore wants are both competitive and alternative.

(vi) Wants Recur. In several cases the satisfaction of a want does not finish it for good. It recurs sometimes regularly, so that we have to satisfy it again in the future. Repeated satisfaction changes it into habit and it is in this way that our standard of living is evolved and built up. As man goes up from savagery to civilisation, the number of recurring wants goes on multiplying and he has continuously to work for the maintenance of the standard of living to which he has become used. This has an important bearing on the determination of wages, as we shall see.
We have analysed the wants as they are, we have not tried to explain their origin, whether they arise from snobbishness or desire for display or ostentation or from a desire to satisfy really reasonable wants. Nor is it in our domain to comment on the character of the consumer. He may be extravagant or prudent, it is none of our concern. The wants that an individual has decided to satisfy may be good or bad, we have not taken the role of a moralist or a preacher. But we cannot refrain from adding that healthy habits of life and wholesome standard of living can lay the foundation of economic prosperity of a nation.

5. Necessaries, Comforts and Luxuries. We have seen above that consumption determines our standard of living. But let us see what the standard of living means. By standard of living we mean the amount as well as the quality of the articles, necessaries, comforts and luxuries to the consumption of which a person has become habituated. Let us explain these terms.

(i) Necessaries. By necessaries we mean those commodities and services the wants for which must be satisfied. Necessaries have been classified as (1) necessaries of life which refer to commodities which are absolutely essential for our very existence and maintenance of our race and without which life will be cut shorter or (2) necessaries of efficiency which are not indispensable, but if available are likely to add to our efficiency and make us better workers, e.g., a table, a chair and a table lamp for a student. The benefit derived from their use is greater than the cost incurred, or (3) conventional necessaries which refer to such things which a consumer must buy before he will consider himself satisfied and for the purchase of which he is willing to sacrifice even the necessaries of life. He may have become addicted to a drug, tobacco or wine, or has to incur an expenditure which society expects from him, e.g., expenditure on marriages and other social ceremonies, or he has to conform to a conventional kind of dress, e.g., a clerk, a college student, a college professor must dress himself in the manner expected of him to avoid social disapprobation. All these are conventional necessaries and rank even above the necessaries of life in the consumer's scale of preferences.

(b) "Comforts" refer to such commodities and services which a person would like to consume over and above his necessaries in order to make himself comfortable, e.g., using an electric fan in summer and a heater in winter or thickly cushioned chairs or beds or keeping a number of servants. No doubt these things too add to personal efficiency, but not in proportion to the expenditure incurred. A continuously comfortable life makes people "soft", lowers vitality, makes them less fit to face the rigours of life and renders them more susceptible to illness even on a slight departure from their accustomed mode of living.

(c) "Luxuries" may either refer to harmful consumption or simply to one's living beyond one's means although the commodities that he is using may not only be not harmful but positively beneficial. Ely defines luxury as excessive personal consumption! "Luxury
in its ordinary sense means” he says, “anything that satisfies a superfluous want”. Luxury in our minds is associated with bad consumption. But there are people who support the use of luxuries. It is said that luxuries are a provision against the rainy day, *e.g.* ornaments and jewellery will stand in good stead at the time of adversity. Further, desire for the enjoyment of luxuries applies a strong spur to human activities and people work harder and better; it is an incentive to economic progress. It is pointed out that use of luxury articles improves one’s tastes, makes one refined and cultured and lends colour to life making it richer and fuller. It is, therefore, suggested that every one, even the worker, should have at least some luxury in his scale of consumption. Luxuries are also advocated for their educational influence on one’s character. They are justified sometimes on the ground that everybody has got the right to use his income in any manner he likes. It is contended that expenditure on luxuries by the rich provides employment for the workers. But this is not a sound argument. A man may have a right to use his income as he likes, but he cannot escape social disapproval for anti-social and morally bad behaviour. As for creating work, it may be pointed out that the same expenditure may be made to provide more work, better work and also benefit the society. Instead of building a luxurious palace, if one builds a factory, permanent employment will be created and goods procured will benefit the society at large. On the whole, expenditure on luxuries is commendable.

But “luxuries”, “necessaries” and “comforts” are relative terms. They are relative to place, time or person. No *pucca* label can be put on a commodity or brand it as luxury or necessary. The same thing may be luxury to one person and necessary to another. A motor car is a luxury to a *Raïs* living in a place of short distances, especially if he is not pursuing any ostensible vocation and is simply living on his wealth. But to a doctor, to a busy professional, to a mistress or a high official, car is a necessity. Examples can be easily multiplied.

6. **Standard of Living** Necessaries, comforts and luxuries go to make up one’s standard of living.” This standard is the outcome of varied influences. We inherit our standard of living partly from our parents and then we shape it according to our own tastes, education, experience, social environments and our instinct of imitation and cancellation. It is gradually, almost imperceptibly, built up and can also be only gradually modified or lowered. That is why any diminution in one’s income is likely to cause a lot of privation and hardship. We have all experienced this hardship during the war, when our standard of living has received a frontal attack. It is not easy to be adaptable in these matters.

The standard of living in a country depends on the variety and volume of production. It cannot be maintained on foreign loans or foreign charity. Our own production will form the basis of our living as Berlan remarks: “Manna no longer falls from Heaven.”

We may mentions four conditions on which the standard of living depends:—
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(1) No economic resources, which are willing to work, must stand idle; (2) The available economic resources must be set to work to produce in the greatest quantities those products which consumers most desire; (3) The income of the community must be distributed among individuals in such a way that the greatest possible satisfaction is obtained from the limited national income; (4) The standard of living will not be the highest possible unless a proper balance between work and leisure is maintained and unless the total population and the total stock of capital are forthcoming in the most appropriate amounts.

Standard of living is sometimes distinguished from standard of life and scale of living. Standard of living refers to food, clothing, housing, accommodation etc. to which a person is accustomed and standard of life refers to his ideals in life. An Indian mystic may have a low standard of living, but a high standard of life. Standard of living tells us about the things that one would like to have but the scale of living what he actually possesses.

7. Engels' Law of Consumption. Before we conclude this discussion, it may not be out of place to refer to a law called the Engels' Law of Consumption which is based on a study of the standard of living or the family budgets of a number of families. Ernest Engel was the head of the Prussian Statistical Bureau and by a systematic study of family budgets, he came to the following broad conclusions as to the manner in which a family distributes its income over the various items included in its standard of living:—

(1) As income increases the percentage expenditure on food and other necessaries of life decreases and vice versa.

(2) The percentage expenditure on luxuries and on other cultural and recreational wants increases with an increase in income and decreases when income decreases. It almost vanishes in the case of low incomes.

(3) As for lodging or rent, fuel and light percentage expenditure is invariably the same for all incomes.

(4) Whatever the income percentage outlay on clothing is practically the same.

It is to be carefully noticed that it is the percentage expenditure, and not total expenditure, which increases or decreases. As a person's income increases from Rs. 100 p.m. to Rs. 500 p.m. his expenditure on food increases, say, from Rs. 50 to Rs. 125, but the percentage expenditure decreases from 50 to 25. This is what No. (1) means and so is the case with the other rules.

In our own country intensive inquiries have been made into family expenditure. Harold Mann made some inquiries in the Deccan, and the Punjab Board of Economic Inquiry also has made extensive inquiries of this nature. All such inquiries have borne out the truth of the rules discussed by Engel in about the middle of the last century.

8. Can We Measure Utility? We have discussed consumption and standard of living based thereon. Now we want to formulate
and discuss an important law of consumption; the Law of Diminishing Utility. But before we are able to do that, we wish to see if it is possible to measure utility.

Now, we have already seen utility is the want satisfying power of a commodity. But it does not depend on any intrinsic quality of the commodity itself; it rather depends on the attitude of the consumer. A mango possesses inherent qualities to give satisfaction to a consumer. But if somebody is prohibited from taking it under medical advice, for him it possesses no utility. Utility is, in other words, subjective and it varies from individual to individual. It refers to the state of mind of a consumer.

Can we measure a mental state? Obviously, no. We possess no measuring rod by which we can measure the intensity of a person's satisfaction. We have, however, luckily a rough and ready measure in money. Although money cannot exactly measure the satisfaction, yet it can at least help us in comparing intensities of two satisfactions. Suppose I have Rs. 100. I am thinking of buying a bicycle. If I am on the margin of doubt whether I should go in for it or not, and if I am indifferent whether I keep my money or purchase a bicycle, then it is evident that I attach the same importance to the bicycle as to a sum of Rs. 100. In that case it can be said that to me the utility of the bicycle is equal to Rs. 100. In the same way the utility of a camera may be equal to Rs. 100. This sum Rs. 100 will thus equate the utilities of the bicycle and the camera or of another thing or group of things for which I am prepared to pay the same sum. Money measures utilities. The utilities of two commodities are in the same ratio as the ratio of their respective market prices. Actually our experience and long habit of consuming certain commodities enable us to compare utilities of the two commodities independently of money.

9. The Law of Diminishing Marginal Utility. When we discussed the satiability of a particular want, we noticed a law called the First Law of Gossen. This law has now been refined and elaborated and appears as the Law of Diminishing Marginal Utility.

The law refers to a common experience of every consumer. Suppose a person starts eating apples one after the other. The first gives him great pleasure. By the time he starts taking the second one the edge of his appetite has been blunted, and the second apple meeting with a less urgent want yields less satisfaction; the satisfaction of the third will be less than the second, that of the fourth less than that of the third,
and so on. The satisfaction will go on decreasing with every successive apple till it drops down to zero and if he is forced to take more the satisfaction may become negative or utility may change into disutility.

The idea will be clear from the following table:

<table>
<thead>
<tr>
<th>Units (Apples)</th>
<th>Total Utility : Unit of Satisfaction</th>
<th>Marginal Utility : Unit of Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>53</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>64</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>70</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>70</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>62</td>
<td>-8</td>
</tr>
<tr>
<td>8</td>
<td>46</td>
<td>-16</td>
</tr>
</tbody>
</table>

N.B. These figures are merely illustrative representations of the amount of utility. Any other figures could be taken, provided variations in the amount of utility are similar as in the table given above.

When our hypothetical consumer goes on taking apples, the extra satisfaction that he gets by the consumption of each successive apple goes on decreasing till it goes down to zero at the 5th and then it becomes negative (see column 3). The total utility goes on increasing until the consumption of the 5th; but it is worth noting it increases at a diminishing rate. It is obvious, therefore, as the consumption of a commodity proceeds, the succeeding units are not so welcome as the preceding ones. We do not want to have more of the commodity or, what comes to the same thing, we want less of it. In the words of Chapman, “The more we have of a thing the less we want additional increments of it, or the more we want to have additional increments of it.” Marshall sums up the Law thus:

“The additional benefit which a person derives from a given increase of his stock of a thing diminishes with every increase in the stock that he already has.” We might add that with every diminution of his stock, the marginal utility will go on increasing. In other words, the utility varies inversely with the stock, although not necessarily in the same proportion.

10. Diagramatic Representation. The following diagram illustrates the Law of Diminishing Utility as applied to the consumption of apples (See the table given above).

From a point O, OX and OY are drawn, the former horizontal and the latter vertical. These are known as the axis of X and the axis of Y, respectively. Units of apples are measured along OX and units of utility along OY. Utility derived from the consumption of the first apple is represented by the rectangle, standing on the portion of the axis of X indicated by figure 1. Similarly, the utility of each
successive unit consumed is represented by the rectangles as shown in the diagram. These rectangles get smaller and smaller, as consumption of apples proceeds. The sixth apple yields no utility. The seventh and eighth yield negative utilities, as shown by rectangles below the axis of X.

The apples are big units. If a commodity is consumed in sufficiently small units, the rectangles would become thinner and thinner, until you can theoretically assume that they become so thin as to be represented by just a line. Now, if the tops of such lines, standing shoulder to shoulder, are joined together, we get a curve sloping from left to right, as shown in fig. 2. We substitute commodity for apples to make the law of general application.

If from any point P on the curve, PM is drawn perpendicular to OX, PM will be the marginal utility of OM quantity consumed. If consumption is carried to OM', the marginal utility becomes negative, i.e., P'M'. When consumption is OZ, marginal utility is zero.

We have assumed that the law begins to operate after the first unit of consumption, as in our illustration of apples. But it is quite possible that up to a point marginal utility may rise. This can be represented by the curve first rising to the right, and then falling. This is indicated by the dotted line.

**II. Assumptions and Limitations of the Law of Diminishing Utility.** The Law of Diminishing Utility as enunciated above is based on certain assumptions and will not hold good in their absence.

(i) It is assumed that the commodity is taken in suitable and
CONSUMPTION

reasonable units. If you begin taking water by the spoon-fulls when thirsty or if you want to judge the utility of morsels rather than the full chapatis, then your thirst or hunger will be first stimulated rather than assuaged and the utility may at first rise instead of falling. But sooner or later a point will be reached when utility will begin to diminish.

(ii) It is further assumed that the commodity is taken within a certain time, for otherwise if you take your meal at 10 a.m. and the next at 2.0 p.m., there is no reason why the utility of the second meal be less. But in case another meal is offered to you within an hour of your having taken the first, the law will apply and the utility of the second meal will be less.

(iii) Another assumption is that the character of the consumer does not change. More music one hears, more literature one reads, more wine a drinker takes, more money a miser has, in each case the increase means increased utility. This is so because the character of the consumer has undergone a change. He is different from what he was at the start so that the commodity has a stronger appeal. More reading lifts a person to a higher plane and he is able to appreciate and enjoy literature better than he could before. That's why it is said that the law does not apply to non-material satisfactions.

(iv) The income of the consumer should remain the same. Anything in income will falsify the law. A rise in a man's income may raise in his eyes the value of various plots in his big compound of which he could not make much use before on account of his limited means. The marginal utility of the income as a whole may increase with increase of income.

(v) In the case of rare collections, the law will not hold. If a man is collecting ancient coins, the more he is able to collect greatly will be his satisfaction from the additions to his stock.

(vi) There is another exception. The law says that the utility decreases when there is an increase in our stock. But in some cases utility changes not because of a change in what we have, but in change in other people's stock. For example, if I have a rival in the town collecting ancient coins and somehow he loses his collection, the utility of my collection automatically goes up. In the same manner utility to me of my telephone increases as the number of connections increases. The value of my land goes up without any change in its dimensions when a railway station has been built near by.

(vii) The utility also depends on our other possessions. The carriage may be lying useless with us but as soon as we are able to buy a horse, its utility at once goes up.

(viii) Utility also depends on the change of fashion. The utility of my dress goes up when that dress comes in fashion. If on the other hand it goes out of fashion, utility goes down, in spite of the fact that there has been no increase in my stock.

The Law of Diminishing Utility, like other economic laws, is a statement of a tendency. It simply tells us that the utility is likely to decrease but whether it actually decreases or not will depend up
so many circumstances. If the conditions are not fulfilled, the law does not apply as in so many exceptional cases mentioned above.

Before we conclude the discussion it is necessary to emphasise one or two points. It is well to remember that the Law of Diminishing Utility does not operate because the successive units of the commodity are inferior. It has nothing to do with the quality of the units, although it is understandable that if a unit is of inferior quality ipso facto its utility will go down. But the law enunciated above is far more fundamental and universal and is absolutely independent of quality. The apples may be all of uniform quality and exactly inter-changeable, the additional utility will decrease as consumption proceeds without any defect in the apple itself. The units being of the same quality, it is wrong to say that each successive unit has a different utility. Only the additional utility that we get by the consumption of an extra unit is different. A unit makes a smaller addition to our utility solely because it happens to be consumed later.

Also, the law is independent of choice. The additional utility of each successive apple falls not because our eye is set on the glass of fruit on the table and that we would like to change over. The law will apply all the same even if there is nothing else before us except apples. It is a psychological phenomenon. We must, sooner or later, get fed up with a commodity irrespective of the fact whether any other choice is open to us.

Transferred from the world of theory to that of fact, the law imply means that more urgent wants are satisfied first. As the stock increases, it will be put to less and less urgent uses and the curtailment would mean the reversing of the process. Water will be first used for drinking, next for bathing and washing and then for sprinkling on the road. The supply will determine the actual use or uses. In the event of a decrease in the supply the least urgent uses will be sacrificed first. Universality of such a proposition is self-evident. The law holds good in all types of satisfaction whether good or bad. We do not assume rationality on the part of the consumer. Nor do we assume that there is a rigidly fixed order in which wants are arranged by all, although the order will roughly correspond within the same class of people.

Also, utility of nothing in the world is absolute and unconnected. It is related to the utility of other things. When the utility of a particular commodity falls with an increase in its stock, it falls relatively to the utilities of other commodities. As more of our limited resources are expended on one thing, less will be spent on some other things. Therefore the utility of this particular thing will fall, whereas the utility of other things will go up. In the actual world where we are concerned with that adjustment of means to ends, we are continuously comparing relative utilities of different commodities and services and how much we decide to buy of one commodity will depend upon its price and the prices of possible substitutes.

It is objected that the whole discussion of the law is unreal. In the world of reality commodities are not consumed in successive units as the law assumes. When you are thirsty, you just take a glass of
water and there is no occasion to watch the waning of utility. There are certain things which are indivisible into units, e.g., a bicycle, a house, a book etc. The objection can be met by pointing out that most of the consumable articles are purchased in suitable quantities successively per week, per month or per year to conform with the periodical inflow of our own income. But the purchase of a house which is perhaps the first and the last may be conceived of as so much per month (say Rs. 25 if it saves you that much rent). The marginal utilities of such durable goods can be measured by our sense of loss if they disappear.

11. Marginal Utility. Where is the end or margin of a man’s purchase? When a man is purchasing a commodity, he is consciously or unconsciously weighing in his mind the price he has to pay and the utility of each unit. He will continue purchasing till the utility equals the price. Take the following table:—

<table>
<thead>
<tr>
<th>Apples</th>
<th>Marginal utility</th>
<th>Total utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>18</td>
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<tr>
<td>3</td>
<td>6</td>
<td>24</td>
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<td>4</td>
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<td>28</td>
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<tr>
<td>5</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>31</td>
</tr>
</tbody>
</table>

Where will our consumer stop? It depends upon the price. If the price is 4 as. per apple, then he will stop at the 4th, for there the utility will be equal to the price (marginal utility being represented in anna units). If the price is one anna per apple, he will go up to the 6th and if they are free, then he will go on consuming till the additional utility comes down to zero. He will not go beyond this point because disutility will be the result. He stops at a point where the price and the utility are just equal. This is called the marginal purchase and the extra utility obtained at this point is called the marginal utility. It is a point where we consider just worth our while to purchase, for here the discomfort of parting with the money and the benefit derived from the purchase of the commodity just balance. Marginal utility has also been defined as the addition made to the total utility by the consumption of the last unit just considered worth while. Thus if we buy 5 apples the 5th is the marginal apple. But marginal utility is not the utility of the 5th apple, because all the apples we alike but it means how much has been added to the previous total by the consumption of this particular apple.

In this case all the apples are taken to be of uniform quality. But if they are not, then the apple which we are just induced to buy considering the price, is the apple of marginal quality. When a thing can be put to a variety of uses, that use to which it is just worth while to put it considering the price, is called the marginal use or the marginal want. It is the least important use under the circumstance. If the price had gone up this use or want would have been sacrificed. Different consumers have different means and the one who is on th
margin of doubt whether to buy or go without and who is just in
duced to buy at the current price, is called the marginal consumer or
marginal purchaser. He would not have purchased if the price had
been a bit higher. The margin is not something rigid or fixed. It
shifts forward and back-ward according to price. If the price falls,
margin will descend and vice versa.

12. Marginal utility and Price. It is clear from the above
discussion that marginal utility and price coincide or price measures
marginal utility. The consumer stops where the price and the uti-
licity are equal and this point is the point of marginal utility. All
units of the commodity being inter-changeable what is paid for the
marginal unit is paid for every other unit. Therefore we can say
marginal utility determines price. But whose marginal utility?
Marginal utility is subjective and is different with different indivi-
duals, whereas there is one price prevailing in the market. The
marginal utility which determines price in the market is not the
utility of any particular individual but a sort of average of all indivi-
duals in the community and may be called the social marginal utility.
It is supposed that when large numbers in the aggregate are concerned,
the individual angularities are marked off. Market prices, therefore,
do not represent the marginal utilities of all buyers owing to their
different incomes and circumstances.

It follows, therefore, that the rich man buying the commodity
at the same price is making a much less sacrifice than the poor, be-
cause marginal utility of money to the rich is less than that to the
poor; the difference in the circumstances of each consumer is reflected
not in different prices but in different quantities purchased.

13. Marginal Utility and Supply. Marginal utility is a
function of supply, i.e., it varies with supply. In the case of a free
good where the supply is unlimited, one can have as much of it as
one likes. The marginal utility is zero. Only in the case of scarce
goods the marginal utility is positive. It increases as the supply
contracts and decreases as it expands and comes down to zero when
the supply is in superabundance. In the latter case we have to
say nothing and marginal utility is also zero. Thus scarcity in
relation to demand determines prices and price measures marginal
utility. Therefore marginal utility will depend on supply in relation
to demand. It is a function of supply.

Marginal utility of one thing is not independent of the marginal
utility of other things. When we are considering whether to buy a little
more of one thing or a little less of another, we also compare, con-
ciously or unconsciously, the marginal utility of say fruits on which
money could be spent or of anything else that we could buy. Simi-
larly a manufacturer always compares the marginal utility of say
an extra labourer with that of a machine and so on. Such comparii-
ions are constantly going on in our minds and thus the marginal
utility of a commodity has always reference to the marginal utilities
of other commodities. We have not to consider marginal utility
in an absolute sense.
14. Marginal Utility of Money. Does the conception of the margin apply to money? It is said that there can be a limit to the purchase of a commodity, but no such limit can be conceived in the acquisition of money, which means all commodities in general. In the case of all the commodities taken together there can be no margin, for you will always want this or that commodity. You can never reach a stage where money ceases to be desired. It is further pointed out that whereas it is possible to have some idea of the comparative satisfaction of an individual derived from different commodities you cannot compare the satisfactions of the two persons from the same commodity, because, as Chapman says, "there is no bridge to connect the utility enjoyed by one person with the utility enjoyed by another."

Hence the same quantity of money has different significance to people with widely different means.

We may concede the strength of this argument. But it is also true that the Law of Diminishing Utility certainly applies to money too. As money increases its significance to the owner decreases. The rich man attaches much less importance to each unit of money. He spends it more freely and is much less worried in case he happens to lose a given portion of it. Every increment in the amount of money that a man has brings him less and less extra pleasure. Marginal utility of money is measured by the utility that we shall lose by the loss of a small sum of money.

15. Practical Importance of Marginal Utility. We have seen that the law of diminishing marginal utility applies to money too. This forms the basis of the theory and practice of taxation. A progressive system of taxation imposing heavier burden on the rich people is a practical application of the principle in the field of public finance.

In actual life our attention is always focussed on the margin. We seldom think of the total utility and we are always weighing the profitability of buying a little more or a little less of a thing and whether instead we should buy a little more or less of something else. It is through the margin that the law of substitution works and we are able to arrange our expenditure in such a manner as to give us the maximum satisfaction. The Margin helps us in the utilization of scarce means for the satisfaction of our multiple wants. It determines which wants must be sacrificed and which satisfied. As such it practical importance both to the general consumer and the business man can hardly be exaggerated.

16. Utility of Substitutes and Complements. On the assumption that all things are independent in value, we should arrive at a total of utilities which will not at all accord with facts. Values are in fact interdependent and are mutually influenced, as is the case in substitutes and complements. If there were no coffee, the utility of tea would have been much greater than it actually is now, because there is coffee to fall back upon. Thus the total utility of both tea and coffee now is much less than it otherwise would have bee
Take an extreme case, of shoes. If you lost the right foot, the left would be of no value to you. Thus the value of each complement in the absence of other is nil. You will, therefore, be prepared to pay for the foot that you have lost a price out of all-proportion to its actual value. In case you lost the left foot, then in the same manner you will be prepared to pay more for it than half the total value of the pain. On this basis the total of the utilities of the right and left foot will be much more than they actually are. It is quite clear therefore that on account of interdependence of the values of commodities and services, it is well nigh impossible to have an exact idea of their relative utilities.
CHAPTER IV.
CONSUMPTION (contd.)

The Law of Equi-Marginal Returns, Law of Demand

1. Introduction. We have seen that wants are both competitive and complementary. Because they are competitive, we have constantly to make a choice between the more urgent and the less urgent wants. In terms of utility, we have to choose between things possessing greater and those possessing less utility. Again, wants being complementary, the utilities of the corresponding commodities must also be interdependent. When we are weighing in our mind whether to buy a little more or a little less of a commodity, we seem to balance the marginal utility of the commodity and that of money. But what we are really balancing is the marginal utility of that particular commodity and marginal utilities of a host of other commodities which could be purchased with that amount of money. Money thus builds a bridge for us to pass from one commodity to another. This is how substitution takes place. It is not merely a substitution of one thing for another satisfying the same want e.g., substitution of tea for coffee, but substitution of entirely different commodities one for the other made possible through a common money measure.

2. Statement of the Law. Every prudent person wants to make the best of his or her resources. This is necessary because resources are scarce in relation to needs—a fundamental proposition with which we started the study of Economics. Every consumer aims at getting the maximum satisfaction possible. For this purpose he will substitute the more useful for the less useful thing. When this process is completed it will be found that marginal utilities in each direction of his purchase are equal. Our consumer is acting consciously or unconsciously on the principle which has been called by various names, the Law of Substitution, or the Law of Indifference or the Law of Equi-marginal Returns, the Law of Economy of Expenditure or the Law of Maximum Satisfaction.

This Law is also known as the Second Law of Gossen and has been stated by Gossen thus “If it is impossible to gratify all wants to the point of satiety, it is necessary, in order to obtain maximum satisfaction, to discontinue the satisfaction of different wants at the point at which their intensity has become equal.” Every person distributes his resources (of money or commodity) over the various uses in such a manner that the marginal utility from every use or the marginal utility of each anna spent on different uses is the same. Only in that manner will the satisfaction be maximised. It is well to remember that it is not possible to equalise total utilities from two different commodities, that being indefinite and immeasurable. We can only equate the utilities at the margin.

The explanation is as follows: After the consumer has spent some of his money on a particular commodity, the marginal utility to him of that commodity begins to fall, until he feels that he would gain more satisfaction, by spending additional units of money on something else. He goes on substituting one thing for another (after a point) until the whole of the money he wanted to spend is exhausted. When this is done, he has obtained equi-marginal utility. He cannot now increase his total utility by spending more on one thing and less on the other. If he could do so, he would have done it to start with. Every rearrangement will mean a greater loss than gain in utility, the best arrangement being the one which equates his marginal utility under each head of expenditure.

The law can be illustrated by a diagram as above.

Let there be only two commodities, bread and milk, on which money OM+OM' has to be spent. Let A and B, respectively, be the utility curves of bread and milk. If OM is spent on bread and OM' on milk, the marginal utilities of the commodities (or of the money spent on them) are equal: PM=P'M'. The Law of Substitution or Equi-marginal Utility asserts that this distribution of money achieves maximum total utility, i.e., OMPA+OM'P'B are maximum. If that is so any other distribution should give smaller total utility. Let us see whether this is so.

Suppose (a) stands for a small unit of money. Further suppose that (a) more is spent on bread and (a) less on milk. The marginal utility of milk will rise to p'm' and that of bread will fall to pm. As shown by the shaded areas, the loss of utility will be more than the gain by this new arrangement. Total utility will be less than before. Thus total utility is maximum when marginal utility is equal. This principle can be extended to any number of commodities.

When we say that every person so spends money as to equi-marginalise utilities of each unit of money spent in various directions, we do not imply any sort of compulsion. It is simply an economic law, a statement of a tendency and not a government law with its coercive authority. But this does not mean that the conduct of consumers does not conform to this law. An ignorant, stupid or a perversive person may not act upon it. But we can safely assume prudence, guiding the economic conduct of men in general or in the aggregate. In small expenditure perhaps people do not act consciously. It is
all routine and the law is unconsciously followed. But when big expenditure is involved conscious and deliberate weighing is undoubtedly one.

The law is applicable not only to the use of money or resources in the present but also as regards the future. Everyone saves to some extent and we find there is always a balancing of the marginal utilities of saving and spending in the same manner as the expenditure of money on one thing or another in the present. The distribution between spending and saving is done in such a manner that the marginal utility of say Rs. 10 saved is equal to that of Rs. 10 spent. Marginal utilities must be brought in equilibrium, only then the distribution will be an ideal one.

It is very rare that in this process of substitution one commodity is entirely replaced by another e.g., bread replaced by biscuits or vegetable replaced by curd. We want a certain assortment of goods and in our search for the most useful assortment, we try some changes on the fringe of each commodity, a little more of one and a little less of the other. Substitution takes place at the margin.

3. Marginal Rate of Substitution. How much of one is substituted for how much of another or at what rate do we substitute one commodity for another? The answer is afforded by the "Marginal Rate of Substitution", an idea introduced by Dr. Hicks and R. G. Allan. Suppose A has sweets and B has fruit and the two wish to exchange. The ratio of exchange will be the amount of one commodity, sweets that will be given in exchange for the other, fruit. But exchange will only take place if the ratio of marginal utility of the two commodities are different for A and B. Unless the ratios of marginal utilities are different exchange cannot take place. This ratio has been called the Marginal Rate of Substitution. We shall come to this point later on in the chapter an Exchange.

The mathematical-minded economists have introduced another new concept, Elasticity of Substitution corresponding to elasticities of Demand and Supply (to be explained later) in order to estimate the rate at which substitution at the margin is taking place between two commodities. It is pointed out "that an individual can only be in equilibrium with respect to the system of prices in operation at any one moment if the ratio of prices of any two goods equals his marginal rate of substitution between them, for otherwise, at that particular market rate it would be to his advantage to substitute a portion of one good for an equal value of another."

4. Practical Importance of the Law of Substitution. This is one of the most fundamental laws explaining human conduct in economic matters. Every one of us consciously or unconsciously acts on this principle, for we are faced with the problem how best to utilise our limited resources for our multifarious requirements. The housewife finds this principle most handy. In all our exchanges, the principle works, for exchange is nothing else but substitution of one thing for another. The substitutional character of our exchange

is sufficient to bring home to us the very great importance of this basic economic principle.

We have already spoken of the marginal utility of money. It is because money is the medium of exchange and hence of substitution. In the absence of substitution marginal utility of money will have no meaning and it will be idle to speak of equi-marginalising the value of each unit of money.

This principle has an important bearing on the determination of value. When we feel the pinch of scarcity of a good reflected in its high price, the Law of Substitution comes to our aid and we start substituting the consumption of less scarce goods for the more scarce. The scarcity of the latter is thus relieved and its price comes down. The importance of this law is also shown by the fact that some economists suggest that the Law of Diminishing Utility should be termed the Law of Increasing Marginal-Substitution.

To the businessman and the manufacturer the law is of special importance. He works towards the most economical combination of the factors of production engaged by him. For this purpose he will substitute labour for machinery and vice versa, again labour for land and vice versa as it suits him. He wants to produce a given output in the cheapest possible manner. Working on the principle of substitution he will try various combinations of land, labour and capital in order to hit on the most profitable one, so that he may maximise his profits. He will realise his aim when the marginal productivities of these factors of production are the same. In case he finds that marginal productivity of a factor, say labour, is greater than that of capital it will pay him to substitute one for the other and he will do it. Thus the Law of Substitution has a universal application.

5. Consumer's Surplus. We owe to Prof. Marshall the introduction of the concept of consumer's surplus. His idea was to give a definite expression to something with which we, as consumers, are familiar.

When we start for the market to purchase a commodity, keeping a safe margin we are always prepared to pay more than what we actually have to pay and we return home with some cash saved from the transaction. This money can be spent in the purchase of some other commodities which will, therefore, give an extra satisfaction for which we had not bargained. This is the case even in ordinary purchases. But it is especially so in the case of things which are very cheap and also useful e.g., a post card, newspaper, match box etc. These things are very cheap and in some cases indispensable too. For them particularly we are always prepared to pay more than their actual price if the alternative is to go without them. From their purchase we get a surplus satisfaction. We have already seen that the prices paid do not reflect the utilities obtained. The total utility is higher than the price paid and we get surplus, this surplus has been called Consumer's Surplus.

In the words of Prof. Marshall, "The excess of the price which he would be willing to pay rather than go without the thing over
that which he actually does pay is the economic measure of this surplus; satisfaction. It may be called Consumer's Surplus." In short consumer's surplus = what you are prepared to pay minus what you actually pay.

The concept of consumer's surplus can also be explained with the help of the law of diminishing utility. The following table indicates the variations in utility in the purchase of mangoes.

<table>
<thead>
<tr>
<th>Mangoes purchased</th>
<th>Total Utility Measured in annas.</th>
<th>Marginal Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>54</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>68</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>98</td>
<td>8</td>
</tr>
</tbody>
</table>

The above is the statement of utility as it varies for a particular consumer going to a market for mangoes. Suppose the price in the market is 12 as. per seer. The consumer will purchase as many mangoes as brings his marginal utility equal to the price. Thus he will purchase 5 mangoes and pay for them 60 as. But his total utility from 5 mangoes is measured by 80 as. He gains a consumer's surplus measured by 20 as. This is so because he would have paid 80 as. rather than gone without five mangoes, but he actually pays only 60 as. If the price rises to 16 as. a seer he will purchase only 3 mangoes and pay 48 as. instead of 54 as. This will give him a consumer's surplus measured by 6 as. and so on.

Below is given the diagramatical illustration of consumer's surplus.

Along OX are measured units of commodity to be purchased, and along OY is measured the utility in terms of money, which means price that the consumer is willing to pay rather than go without a particular unit of the commodity.

If the market price is PM, the consumer will extend his purchase up to the Mth unit. He will purchase OM quantity. This is so because for this amount his marginal utility is equal to the price. But his marginal utility for the earlier units is more than PM. For M' th unit, for instance, his marginal utility is PM'. But he only pays the market price PM (=P'M') for this unit as for others. He thus obtains an excess of utility for the M' th unit equal to P'P''. This is consumer's surplus for the unit. The total consumer's surplus thus derived by him when OM units are purchased at PM price is...
shown by the shaded area UAP. If the market price rises to P'M' he will purchase only OM' quantity, and the consumer's surplus will fall to the smaller triangle UAP'.

6. Criticism of Consumer's Surplus. The concept of consumer's surplus has been subjected to scathing criticism by economists like Cannan, Nicholson, Robinson and Davenport. Its scientific character has been attacked on the ground that it is based on assumptions which are unwarranted. Its measurement assumes that utilities are capable of exact measurement and can be translated in terms of money. It further assumes that different units of the commodity have different utilities. Moreover, the utility of each commodity is regarded as something absolute which it is not. While we go on spending money the utility of each unit of the money left with us increases, while the marginal utility of commodity falls. This makes the calculation of consumer's surplus still more difficult.

In the case of necessaries and conventional necessaries, it seems to have no application, for in such cases the consumer will be willing to pay anything rather than go without. The utility will be infinity. A lakhpati (millionaire) may be willing to pay Rs. 1000 for a glass of water in a desert when he is on the point of death on account of thirst but he actually may pay simply one pice as bakhshish. The economist may say he has enjoyed a surplus of Rs. 999-15-9. But it will be rather difficult to convince our lakhpati of this fact. It is, therefore, said that the whole idea is hypothetical, imaginary and illusory. A man cannot always say what he will be willing to pay rather than go without a thing. This inquiry seldom presents itself to him in the market. The price in the market is a fact which he must accept and what he is called upon to decide is how much he will buy. Therefore, there is a good deal of unreality about this concept. It is further pointed out that if there is a surplus the consumer will be induced to buy more and more of that commodity till the surplus disappears. It simply cannot exist.

The criticism is indeed damaging. From the strictly scientific point of view the validity of none of these objections can be questioned. But the whole burden of criticism is that it is incapable of precise numerical measurement. This may at once be conceded. But it cannot be denied that something like this does exist in real life. Rather than go without a thing we are prepared to pay more than we actually pay, and we do enjoy a surplus of satisfaction. How much, we cannot say and there will be little good if we could. It certainly tells us that a system of uniform market prices does yield a surplus of satisfaction to some consumers who should have been able and willing to pay more if the alternative was to go without. The lakhpati's case taken above does not belong to the ordinary run of life—such situations seldom arise. In real life the transactions are of a type which yield a surplus satisfaction to the consumers.

7. Practical Importance of the Concept of Consumer's Surplus. Although scientifically indefensible, the concept of consumer's surplus has a great practical utility. It enables us to compare the advantage of environments and opportunities or conjunctural
benefits. A person getting Rs. 200 in Lahore can enjoy better amenities of life than a person say getting Rs. 300 in a town more remote from the centre of civilisation. The inhabitant of Lahore enjoys much surplus of satisfaction from his expenditure in Lahore.

The Chancellor of Exchequer or the Finance Minister considers, while proposing fresh taxation, how much are the people willing to pay for a thing and how will they be affected by a rise in prices resulting from the imposition of a tax. Where the consumers are enjoying a surplus, there is much scope for taxation, for the people are willing to pay more and the rise in the price will not affect the demand much. Such a tax, however, is not very desirable as it will adversely affect human welfare because consumer's surplus is greatest for necessaries.

Similarly a business man or a monopolist will find that he can easily raise prices if the commodity is yielding surplus of satisfaction to the consumers. They will be willing to pay more if need be. As a matter of expediency, however, the business man will not raise the price so much as to absorb the whole of the surplus. He will not drive a hard bargain to that extent. He would like to cultivate and retain the good-will of his customers and follow, therefore, a policy of compromise.

8. Demand. We have already seen that demand is different from desire or need. A sickly child needs a tonic and a peon desires to have a radio receiving set. But such needs and desires do not constitute demand. When, however, the person desiring is willing and able to pay or is prepared to make a sacrifice and has the means to do so, the desire is changed into demand. Sometimes demand is said to be 'the expression of a want on the part of a person who is in a position to offer something to get what he wants'. But this is not a correct view. I may be willing to offer something for Koh-i-Noor.¹ It is not demand in the economic sense. That 'something' must be sufficient or reasonable. In the words of Chapman, 'Demands are the quantitative expressions of preferences'. Demand is always at a price. 'The demand for anything, at a given price, is the amount of it which will be bought per unit of time at that price'. In other words it simply means how much a person will be willing to buy of a commodity at a certain price. At another price he will of course buy a different quantity, more at a lower price and less at a higher price. Demand cannot be understood in an absolute sense. It is wrong to say that A's demand for milk is 5 seers a day unless the rate is mentioned or implied. His demand is not rigidly fixed at 5 seers daily for all times. It will vary with the variations in the price. To speak of demand without reference to price is meaningless. Also, the demand is always per unit of time, per day, per week per month or per year.

9. Demand Schedule. A list of the quantities purchased demanded at varying prices is called a Demand Schedule. The follow-

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¹ This point is discussed in Chapman's Outlines of Political Economy, 1920, p. 23.
² Benham—Economics, 1943, p. 36.
ing is the Demand Schedule of an individual A for apples:—

<table>
<thead>
<tr>
<th>Price per Dozen.</th>
<th>Quantity demanded in dozens.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
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<td>4</td>
<td>4</td>
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<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

The Demand Schedule for the whole market is arrived at by adding the quantities demanded by all the prospective purchasers at varying prices. Suppose, a market consists of only five buyers (with sellers) called A, B, C, D, and E. Suppose their Demand Schedules for apples are as given below:—

<table>
<thead>
<tr>
<th>Rice per dozen.</th>
<th>Quantity demanded in dozens by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs.</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
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<td>8</td>
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<tr>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

It will be seen that different individuals have different demand schedules, depending upon their marginal utilities for money and their marginal utilities for apples. The last column gives the total demand for the market as a whole. The first and the last columns, but together, will constitute the demand schedule of the market under the conditions assumed by us.

It is the market demand schedule which is of greater practical utility. The government and the business men are only concerned with the market schedule. It is not so fluctuating and fickle as the individual schedule.

It is, however, very easy to draw an imaginary schedule like the above, but it is a problem to prepare the actual demand schedule of a person and to prepare one for the market is a sheer impossibility. It is not always easy for persons to be able to say how much they would buy at different prices. They have never probably thought of that and cannot be expected to have definite and crystallized ideas in this respect. At best it will be mere guess work and not something to go upon in a scientific analysis. So many influences like changes in tastes, fashion, climate, state of trade etc. may intervene to upset their calculations. It is not something absolute as the utility of different commodities are interdependent. Every person will have different schedule and even the same person will have a different one under different set of circumstances.
10. Utility of Demand Schedule. But this is not to say that the demand schedule, as it is, serves no purpose. Rough and ready as it is it has great practical utility. We may not be able to give a complete list of quantities we shall buy at different prices from no price to infinity (it will be nothing but a mental gymnastics if we could) but we have all got more or less definite ideas as to how we shall react if the price went up a bit or came down a bit. Within certain limits of the prevailing price we can always make a good guess as to how much we shall buy if the price changed and that is all what matters. It is useless, for example, to think how much I shall buy if the milk sold at one price per seer or Re. 1 per seer. These queries perhaps concern a world different from ours. Considered in this light, the demand schedule assumes a great importance. The Minister of Finance has to estimate to what extent will the people curtail their purchases in case the imposition of a tax raised the price of a commodity. The preparation of the budget would be impossible without such calculations. The monopolist, too, in search for the maximum monopoly net revenue, will have to consider consumers' reactions to the variations in price. Practical utility of the demand schedule cannot therefore be denied.

11. The Demand Curve. A demand schedule can be expressed in the form of a curve called the Demand Curve. The market demand curve of apples is given below:

Quantities (in dozens) demanded are measured along OX and prices (in rupees) along OY. If perpendiculars are drawn from points indicating quantities on OX and corresponding prices on OY, the meeting points of these perpendiculars will be on a curve. This is the Demand Curve for apples under the conditions represented by the Demand Schedule. It will be seen that the curve slopes from left to right (like the utility curve), showing that as price falls quantity demanded increases, and conversely, as price rises quantity demanded decreases.

12. Why Does Demand Curve Slope Downwards. Generally the demand curve slopes downwards. It is in accordance with the law of diminishing utility. The purchases of most of us are governed by this law. We are induced to buy more when the price falls. When the price falls, new purchasers, who could not buy before, enter the market; old purchasers will probably increase their purchases. The prices are measured along Y axis and quantities along
X axis. Only in a curve of this slope shall we find shorter price lines cutting longer pieces in the quantity axis. If the law of diminishing utility is true and it is generally true, the curve must slope downward for only then the phenomenon of increasing demand with falling prices can be represented.

But let us go a bit deeper and try to find out why the demand increases when the price falls, other things being equal, or why the demand schedule is what it is, or why the demand curve slopes downwards. Benham has answered this question in this manner. Having a limited amount of money at his disposal every consumer wants to get the maximum satisfaction therefrom. Knowing his own scales of preferences he will, according to the Law of Substitution and Equi-marginal Returns, so arrange his expenditure that he gets equal marginal utility from the last anna that he spends in different ways. He will keep to the arrangement if the prices remain the same. But if the price of a certain commodity included in his assortment of goods and services falls, then, he must make a corresponding alteration in his expenditure. By the fall in price divergence has been created between the marginal utility and price and this must be rectified. This can be done by buying more of the commodity thus bringing its marginal utility to the level of the price. That is why people buy more when the prices fall.

But there are exceptions too. Sometimes people will buy more when the prices rise. In that case the demand curve will slope upward, Such occasions are very rare but we can imagine some. Benham has mentioned four cases:

1. In case a serious shortage is expected, people may be in a panic and buy more even though the price is rising, because they expect the price to go still higher.
2. When the use of a commodity confers distinction, then the wealthy people will buy more when the price rises to be included among the few distinguished personages.
3. Just in sheer ignorance sometimes people buy more at higher price.
4. If the price of a necessary of life goes up, the consumer has to reallocate just his whole expenditure. He may cut down his expenses on the other food articles, and in order to make up, more may have to be spent on this particular food, more of which will, therefore, be purchased in spite of high price.

13. The Law of Demand. We are now in a position to formulate the Law of Demand which simply expresses the relation between quantity demanded and the price. It says that demand varies inversely with price not necessarily proportionately. "Amount sold is the function of the price of the good". If the price falls, demand will increase and vice versa. It can also be stated thus, "A rise in the price of a commodity or service is followed by a reduction in demand, and a fall in price is followed by an increase in demand, if conditions of demand remain constant". Or "at any given time, the demand for a commodity or service at the prevailing price is.

greater than it would be at a higher price and less than it would be at a lower price."

The qualifying phrases "at any given time", or "the conditions of demand remaining constant" are very important because demand is subject to several influences which will be discussed presently and the operation of any of those influences will counteract the law. It may also be added that no proportionality in the change is implied. If the price falls by $10^\circ/o$, it does not follow that the demand will increase exactly by $10^\circ/o$. We can only say that the demand will increase when the price falls but not how much. This will depend on the elasticity of demand which we shall discuss shortly.

14. **Have the consumers definite scales of preferences?**

From the Law of Substitution and the Law of Demand it appears that the consumers have definite scales of preferences. This has been objected to. Benham examines some of these objections. (1) That the changes in the conditions of demand, e.g., season, taste, fashion etc., upset the system of demand. But the demand schedule is based on the assumption that these things do not change. If these things change, then we can have a new schedule which will then represent the new scale of preferences. (2) That people do not buy exactly the same thing over and over again, e.g., order the same dinner. But our schedule can provide for sufficient variety whenever necessary over a period of time. (3) That some part of our income is earmarked already by our decisions in the past, e.g., hiring of a house. But even this can be changed after some time and all income is not earmarked. The rest of the income is enough to enable us to make the necessary adjustments. (4) That purchases are not made by the consumers themselves but by housewives or by parents on behalf of children. Our demand schedule has nothing to do with the motive or who buys and on behalf of whom. It is a fact that all expenditure is arranged in conformity with the Law of Equimarginal Returns, whatever the motive or whosoever may be the agency. (5) That the consumers do not know their preferences. But we have already shown that they are fairly conscious of what they will do if the price movements remain within fair limits of the prevailing price and that is enough. There is thus not much in these objections. The demand schedule is based on solid assumptions. We can safely assume that the majority of the consumers act prudently, whether consciously or unconsciously, and that nobody carelessly or deliberately throws away his money. Everybody must try to maximise his satisfaction from his limited resources. He must have therefore definite scales of preferences. When the price falls, it will pay him to buy more and he will do so. The demand curve will ordinarily slope downwards.

15. **Changes in Demand.** The Law of Demand expresses a relation between demand and price. If the price rises demand decreases and *vice versa*. But the words *increase* or *decrease* used

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with demand when the price falls and rises respectively are not considered quite correct. The proper words should be *extension* and *contraction* of demand. Let us understand the difference between extension and increase on the one hand and contraction and decrease on the other.

We use the words *extension and contraction of demand* when the demand changes simply because the price has changed. It is the change in the price which leads to a change in the demand. In the absence of any such change there would have been no change in demand. The consumer plays a passive part. He is solely led by price. His demand schedule is fixed and there is a corresponding curve and he goes up and down the curve simply without the least deviation, as shown in the following diagram:

Our consumer travels on the curve DD'. That is his set route fixed by his scale of preferences. At PQ price he will buy OQ, if the price rises to PQ' he will buy OQ' and if it rises still further, his demand will be reduced to OQ''. If the price starts a reverse movement he will slide back. He has fixed his own preferences and now he is entirely at the mercy of price. This is extension or contraction of demand. The same demand schedule and demand curve serve the purpose.

Take now the *increase or rise of demand*. Here the consumer fixes his own demand, increases it or decreases it irrespective of the price. He plays the active part. He is guided by his own domestic requirements and circumstances, rather than be a servant of price as in the former case. The increase in demand implies a change in the basic conditions of demand and hence a new schedule and a new demand curve. A man's income may have increased or his family requirements may have increased. A new scale of preferences becomes necessary. In this case there will not be movement along the old curve, but along a new curve. The consumer ignores the price in this case. For example, if the price of milk falls from 6 as. a seer to 5 as. a seer and our consumer begins buying 5 seers daily instead of 4 seers, it is a case of extension of demand. But if he is prepared to buy 5 seers instead of 4 seers even though the price remains the same or continues to buy the same old quantity even if the price rises, they are cases of increased demand or rise in demand. In both of these cases he is prepared to spend more than before, whereas in case of extension there may be no increase in the total outlay, for he buys more at reduced price. To sum up, extension of demand means more quantity at lower price and increase or rise in demand means either more quantity at the same price or same quantity at a higher price. Similarly while contraction of demand means smaller quantity at a higher price, decrease or fall in demand means either less quantity at the same price or the same quantity at the lower price. They can be represented by diagrams as follows.
16. Curves Showing Increase and Decrease in Demand.
The increase and decrease in the demand (for mangoes) are illustrated in the form of curves below:

Along OX measure quantities in maunds and along OY prices in rupees per maund. Before the change in demand, at 5 rupees per maund (PM) 20 maunds of mangoes (OM) were demanded. Now suppose that the same 20 maunds are demanded at a higher price of 6½ rupees per maund (P'M) or at the same price of 5 rupees (PM=P'M) 20 maunds (OM') are demanded. Then points P' and P are on a new demand curve (D'D') which will indicate an increase in demand. Note that DD is not necessarily parallel to DD.

The second figure illustrates decrease in demand. Before the change the demand at 5 rupees (PM) is 20 maunds (OM). If after the change in demand at the same price of 5 rupees (PM=P'M) 10 maunds (OM') is demanded or at a lower price of 4 rupees (P'M) the same amount 20 maunds (=OM) is demanded, points P' and P'' will be on a new demand curve D'D' illustrating a decrease in demand.

When therefore we discuss changes in demand we mean that conditions of demand have changed. Old demand schedule and the demand curve no longer serve the purpose and must be replaced by new ones. The consumer has overhauled his scales of preferences. It is not merely a case of extension or contraction of demand but increase or decrease of demand. This is what we want to discuss.
now. We want to study the changes in the very conditions of
demand.

17. Why Demand Changes. There are several factors which
bring about changes in demand. There are so many outside influences
affecting the consumer’s scales of preferences and compelling him to
recast his demand schedule. Erich Roll mentions three types of
changes (1) Autonomous changes, for which there seems to be no
apparent reason. Somehow spontaneously the changes come about. No-
body can really say why sometimes men decrease the width of their
trousers; some increase it; some decide to have double-breast coats,
than single-breasted and again double-breasted. The ladies sometimes
take to sleeveless blouses and at other times full sleeves. These are the
dictates of Dame Fashion issued as it suits her caprice. To us the
charge is unaccountable. (2) Repercussive changes, which are due to
the repercussions of certain other factors. Demand may change
because technical progress has brought to our door several new
brands of a commodity. Seasonal changes may also have their
repercussions. (3) Induced changes. These changes are brought
about by the hypnotising influence of advertisement or publicity or
are foisted on us by the sweet persuasive salesmanship. The Tea
Marketing Expansion Board has been able to induce people to take
to tea so that almost every one today takes tea. The entreprenuers do
not always produce to meet an existing demand, but it is now more
common for them first to produce and then through propaganda
create a demand for their goods. Not only the existing market is
stabilised, but new markets are conquered. New customers are
appealed to and convinced that the commodity in question will be
useful to them.

Let us now briefly note the various causes which bring about
changes in demand.

(i). Changes in tastes and in fashions. Increasing habit of tea
drinking has decreased the demand of a large number of families
for milk. Changes in the mode of dress mean a change in the de-
mand for dress material. The fashion among ladies to keep hair
long or short brings about changes in demand for hair pins, hair
nets etc.

(ii). Climate or weather changes. It is obvious that demand must
change with the season. In winter there is a greater demand for
warm clothing a certain types of tonics and a greater demand for coal
or fuel. In summer there is demand for electric fans and cooling
drinks and ice.

(iii). Changes in population. If the gates of the British Dominions
and America are opened for Indians, we can expect a large exodus.
The Dominion which is flooded with these immigrants will find a
new demand created. If Indians stick to their own mode of living
in food and dress, demand for such things will be created. It is not
merely the change in the size of the consuming population, but changes
in the composition of the population too, which will affect demand for
certain commodities and services. In a country of increasing popu-
lation like India, where hundreds of children are born daily in big
cities, there will naturally be demand for toys, feeding bottles and nipples and perambulators. The engagement and destruction of youth in war has brought about a reduction in the number of marriages and a decrease in the demand for wedding presents and other things used in marriages. A time will come when, in a country like Germany, where destruction of young people has perhaps been greatest, most of the men will be old and demand for artificial teeth, eye glasses etc. will increase.

(iv) Changes in the amount of circulating media. Where there is inflation, as it is in India now, the additional money will add to the purchasing power in the community and the prices will rise. But the rise of prices will not be uniform in the case of all goods. People will have to readjust their expenditure as has been the case all these years; demand for certain things will be reduced and for others stimulated. Shortage of sugar, increased demand for gur and shakkar and restrictions on the supply of electricity created a demand for kerosene lamps.

(v) Changes in real income. Here we have a phenomenon quite opposite to the one mentioned above, viz., of falling prices. A distinction is made between money income, i.e., the amount of money which a man may earn and real income which means the quantity of goods and services which he can buy with that amount of money. In times of technical progress when fruits of research are placed at the disposal of industry, there is a large output of cheap products. The purchasing power of money increases or, as it may be said, real incomes increase. Less money will be needed to purchase the same quantity of goods and the saving so made will find outlets in the purchase of some other commodities. The demand schedules will have to be recast. If the prices fall to 50% of their former level, it is unlikely that we shall buy double the quantity of each of the commodities that we have been buying before, e.g., we cannot consume double the quantity of salt or wheat. On the other hand, those who have been living on maize or bajra may now change over to wheat. Better stuff will replace the inferior one. Some goods may be eliminated and entirely new goods purchased; demand for some goods decreased and for others increased. In conformity with the Engel’s Law of consumption some redistribution of expenditure and alteration of scales of preferences may be expected.

(vi) Change in wealth distribution. If through the instrument of public finance i.e., by taxing the rich and spending money on the poor, the Government effects a redistribution of wealth and transfers spending power, demand is bound to be affected. The goods demanded by beneficiaries will be in greater demand and the goods which were formerly consumed by those whose purchasing power has been reduced, will suffer an eclipse.

(vii) Goods with inter-connected value. In case of substitutes, e.g., tea and coffee, an increase in the consumption for one will lead to a decrease in the demand for the other. In the case of complements, e.g., horse and carriage, increased demand of one will augment that for the other. In the case of joint supply, e.g., wheat and straw, the in-
creased demand for one will lead to the cheapening of the other and may therefore stimulate its demand, too, after some time. When there is a case of joint demand the increase in the demand for the ultimate object i.e., the house, will increase the demand for everything needed in building a house. In the case of Composite Supply, e.g., light obtained from electricity, gas or kerosene oil, cheapening of any one of them will reduce the demand for others. In the case of composite demand, e.g., water required for drinking, washing, bathing etc., any extension or contraction of its uses will correspondingly change the demand.

Hence the demand for a commodity does not depend only on its own price but prices of other goods too.

(viii) Conditions of Trade. Demand for everything is greater in a boom even though the prices are rising. On the other hand, in time of depression there is general slackening of the demand.

√√ 18. Elasticity of Demand. One of the very important concepts in Economics is that of Elasticity of Demand. We have studied the law of demand and we have seen that there is an inverse relation between demand and price. If the price rises, demand contact and vice versa. A change (rise or fall) in price leads generally to a change (contraction or extension) in demand. This attribute of demand by virtue of which it stretches or contracts under the pressure of a change in price is known as Elasticity of Demand. "The term elasticity expresses the degree of correlation between demand and price."

But the demand does not always respond to the changes in price in like proportion. A small change in price may lead to a great or marked change in demand. In that case we shall say that the demand is elastic or sensitive or responsive. If, on the other hand, even a big change in price is followed by only a little change in demand, it is said to be a case of inelastic demand. Even if the price of salt varies widely we continue to buy almost the same quantity; the demand is inelastic. But if the price of wireless sets falls, many people, who could not afford before, may now be induced to buy, the demand will stretch or expand; it is elastic. In the words of Prof. Marshall, "The elasticity (or responsiveness) of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price."

19. Relation of elasticity with the Law of Diminishing Utility: The concept of elasticity of demand can be connected with the Law of Diminishing Utility. Marginal utility varies with supply. It falls when the supply is increased and rises when the supply contracts. But the fall of marginal utility does not occur at a uniform rate in all commodities. In certain cases like salt, we get soon fed-up and the marginal utility falls very rapidly. In such cases the demand is inelastic and no fall in price can induce us to buy more. In some other cases the marginal utility comes down very gradually, e.g., some luxury articles like silken clothes. Any decrease in the price of such commodities is sure to stretch the demand. The demand is therefore elastic. In short, the demand is inelastic when the marginal utility falls rapidly and elastic when it falls slowly.
20. Elasticity varies with price. Not only does the elasticity of demand vary with different articles, it may also vary in the case of the same commodity for different ranges of prices. In other words, the elasticity of demand is not uniform over all the parts of the demand schedule; it may be fairly elastic over a part and then become inelastic. Take the case of wheat. If it is selling at a high price, say Rs. 10 per md., a reduction in price up to Rs. 3 per md. will increase the demand. Then the people will have bought as much as they need and further lowering of the price will be ineffective in stimulating demand of most people.

21. Elasticity of Demand and Consumer’s Surplus.

The nature of demand has also a bearing on the amount of consumer’s surplus. In the case of necessaries and conventional necessaries the demand is inelastic. Their prices in the market are fairly low but the consumers are prepared to pay much more for them than they have actually to pay. The difference between what they are prepared to pay and what they actually pay represents consumer’s surplus. We find therefore that the consumer’s surplus is large where the demand is inelastic and small where it is elastic.

22. What Determines Elasticity of Demand. It is not possible to classify goods according to the nature of their demand and lay down certain rules to determine whether demand is elastic or inelastic. But we can only formulate some broad generalisation. We cannot be dogmatic and say definitely that the demand is elastic or inelastic. No classification of goods can be an absolute one.

The question of elasticity, too, therefore is a relative one. It is relative to a person or place. For one person or at one place the demand may be elastic and for another person and at another place it may by inelastic. Subject to this very important proviso we may lay down the following rules:

(i) For necessaries and conventional necessaries the demand is inelastic or less elastic. We must buy these commodities whatever the price and buy in fixed quantities irrespective of the price. A change in price is not going to matter, so far as the demand for such commodities is concerned. Salt is one such thing and wheat is another. But in a poor country like India even the demand for such things is somewhat elastic. In 1923 the doubling of the salt duty reduced the consumption of salt in India. The change in the price of wheat may be immaterial for upper and middle classes but its consumption will certainly increase among the poor, when the price falls. In a country where salt is comparatively scarce, the demand will be elastic. It is wrong therefore to lay down as an absolute rule that demand for necessaries is inelastic. The term necessary itself has no fixed connotation.

(ii) Demand for luxuries is elastic. It stands to reason that lowering of the price of a thing like radio sets, refrigerators and artistic furniture will lead to more of them being bought. But by whom? Certainly not by the rich people. For them these things are conventional necessaries. They must buy them and having pur-
-chased one, they will not buy another whatever the price. Their demand therefore is not elastic. We cannot lay down a generally applicable rule, because terms luxuries and necessaries are relative terms. They are relative to a class of people. A high priced luxury of the poor man is a low priced necessity for the rich. A thing may be luxury in one country and a necessity in another and luxuries of yesterday have become necessaries of today. We cannot dogmatise.

✓ (iii) For substitutes the demand is elastic. When the price of tea rises, we may curtail its purchase and take to coffee and vice versa. Changes in price will lead to expansion or contraction in demand. But very few things can serve as suitable substitutes; even coffee is not exactly like tea. Attempts have been made in Italy, America and Argentina to replace our jute but without much success.

It might be supposed that in the matter of toilet you have several alternatives. You might use Pond cream or 'Beauty cream', Listerine or Mclean toothpaste, Hamam soap or Prefect soap, Kiwi polish or Cherry Blossom and so on. But can we really? The manufacturer does not want that his good should belong to the elastic demand category. He would like to make it indispensable for you. For that purpose he gives it a special label and by subtle and persistent propaganda through all the media of advertisement, he will induce you to buy them. You become habituated to their use and you are not satisfied until you get that particular brand. Cherry Blossom does not satisfy you if you have used Kiwi nor do the gillette blades if you have been using 7° Clock. By branding his product the manufacturer has insulated it from its rival goods which could serve as substitutes and has built up a monopoly of an ordinary article. He has changed its demand from elastic into inelastic by clever advertisement. Substitutes are, therefore, no substitutes. For purposes of knowing whether the demand is elastic or inelastic, we should classify goods not as luxuries and necessaries but substitutes and non-substitutes. Then we can definitely say whether it will be elastic or inelastic.

✓ (iv) Demand for goods having several uses. Demand for such goods is elastic. Coal is such a case. When cheap it will be used for cooking, heating and industrial purposes; its demand will increase. But when the price goes up, it will be put only to very urgent uses and less will be purchased. The demand will contract.

✓ (v) Demand for goods the use of which can be postponed is elastic. Most of us during the war suspended our purchases in matters capable of postponement e.g., building a house, buying furniture or having a number of warm suits. We go in for such things in a larger measure, when they are cheap. Their demand is elastic.

✓ (vi) Elasticity also depends on the level of prices. If a thing, (say diamonds) is either very expensive or very cheap, the demand will be inelastic. In the latter case all those people from whom the demand for diamonds comes will cease buying. They are purchased as a mark of distinction. When, therefore, they become cheap, they will lose their attractiveness. In the words of Prof. Marshall, "elasticity of demand is great for high prices, and great or at least considerable
for medium prices, but it declines as the price falls, and gradually fades away if the fall goes so far that satiety level is reached.\(^1\)

\(\checkmark (vii)\) The same commodity may have inelastic demand for certain uses, e.g., wheat for human food and elastic for certain other purposes, e.g., wheat used for feeding the cattle.

The above discussion confirms us in the view that it is not possible to lay down any hard and fast rules as to which commodity has an elastic demand and which inelastic. It all depends on the circumstances of the case and each must be examined on its own merits. When we want to know whether the demand is elastic or inelastic, we must decide the class of people with reference to whom we wish to ascertain the fact.

23. Measurement of Elasticity. For practical purposes it is not enough to know whether the demand is elastic or inelastic. It is more useful to find out to what extent it is so. For that purpose it is essential to measure elasticity.

Two methods have been suggested for the measurement of elasticity. 1st Method:—To compare the total outlay before and after the variations in price. Elasticity of demand is expressed in three ways (1) Unity, (2) Greater than unity, and (3) Less than unity. 1st Elasticity is said to be greater than unity, between two prices, when with the fall in price the total amount spent increases or the total amount spent decreases as the price rises.

2nd Elasticity between two prices is considered to be less than unity when the total amount spent increases with the rise in price and decreases with a fall in price. It is well to remember that elasticity is measured as between prices.

It will be clear from the following schedule:

<table>
<thead>
<tr>
<th>Price of pencils per dozen.</th>
<th>Quantity demanded</th>
<th>Total outlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Re. 1/8/-</td>
<td>3 dozen</td>
<td>Rs. 4/8/-</td>
</tr>
<tr>
<td>(2) 1/4/-</td>
<td>4</td>
<td>(5) 5/-</td>
</tr>
<tr>
<td>(3) 1/-</td>
<td>5</td>
<td>(5/8/-</td>
</tr>
<tr>
<td>(4) 1/12/-</td>
<td>6</td>
<td>(4/8/-</td>
</tr>
<tr>
<td>(5) 1/10/-</td>
<td>7</td>
<td>(4/6/-</td>
</tr>
<tr>
<td>(6) 1/8/-</td>
<td>8</td>
<td>4/-</td>
</tr>
</tbody>
</table>

As between (1) and (2) the elasticity is greater than unity, because the total amount spent decreases when the price rises and increases when the price falls. As between (2) and (3) it is unity as the total amount spent remains the same. Between (3) and (4) the elasticity is less than unity because the total amount spent increases when the price rises and decreases with a fall in price.

2nd Method:—In this method we compare the percentage change in price with the percentage change in demand. Suppose the price rises by 50%. If the demand decreases by 50%, elasticity is unity, if

\(^1\) Marshall—Principles of Economics, 1936, p. 103.
it decreases by more than 50% it is greater than unity; if it decreases by less than 50% it is less than unity. The formula is:

\[
\text{Elasticity} = \frac{\% \text{ change in demand}}{\% \text{ change in price}}
\]

The measurement of elasticity is very important for the businessman and the finance department of the government, because they are interested in finding out how much total amount will be spent by the people on a particular commodity. On the basis of the information, the businessman will fix the price and the government the scale of the tax.

24. Diagrammatical Illustrations of Elasticity of Demand.

The following diagrams illustrate the various degrees of elasticity. D'D' is the demand curve in every case. Elasticity equal to zero and infinity can be theoretically conceived only. In the former D'D is parallel to OY, in the latter to OX. The smaller the elasticity the nearer the position of the curve to that under zero, and the greater is elasticity the nearer the position of the curve to that under infinity.

In the above examples, for the sake of simplicity, we have taken demand curves as straight lines. When they are not straight lines but are curves showing different slopes at different points, the elasticity of demand at any particular point is indicated by the slope of the tangent to the curve at that point. This is shown in the figure.

Thus demand curve is more elastic at point T' than at point T.

Benham gives the following diagram showing at a glance the elasticity of demand.

OP is the demand curve. The total money spent is measured along OY and the quantity bought along OX. When the curve is rising from left to right, i.e., up to P', it is greater than unity. When it is horizontal, i.e., PP'', it is unity and when it is falling, i.e., PP'P it is less than unity.
25. **Practical importance of the concept of Elasticity of Demand.** This concept is of great practical importance in the sphere of government finance as well as trade and commerce. The minister of finance can be more sure of his revenue if he taxes those commodities for which demand is inelastic. The tax will no doubt raise the price, but the demand being inelastic, people must buy the commodity, and the demand will not decrease. But on humanitarian grounds such taxes are generally avoided because such commodities being necessaries of life, their taxation is bound to affect public welfare.

In the same manner the business man, especially if he is a monopolist and can fix his own price, will have to consider the nature of demand. In case it is inelastic it will pay him to charge a high price and sell a slightly smaller quantity. If, on the other hand, the demand is elastic, he will lower the price, stimulate demand and thus maximise his monopoly net revenue. The concept finds application in the case of joint products. The separate costs are not ascertainable. The producer will be guided by demand and its nature while fixing price. The transport authorities fix their rates according to this principle when we say that they charge what the traffic will bear. When an industry is subject to increasing returns, the manufacturer lowers the price to develop the market so that he may be able to produce and take full advantage of the conditions of large scale production. We, therefore, see that the discussion of elasticity is not merely of academic interest.

26. **Sovereignty of the Consumer.** Under capitalism or the system of free competition the consumer has been likened to a king. The entire productive machinery is supposed to work under his sovereign sway. His preferences determine the volume and direction of economic activity. His whims, prejudices and desires seem to rule the world of production. The entrepreneurs of modern industry are his bond slaves and so many agents to carry out his behests. A frown on his face is sure to spell their ruin and a smile sends a thrill through their heart. If the consumer is pleased, entrepreneurs are happy and prosperous, and if the consumer is dissatisfied, the entrepreneurs' fate is sealed.

In the past, the consumer's rule was manifest. He placed the order, say for shoes, clothes etc., and the maker carried out simply and faithfully the order. The things were made to order and the producers kept waiting for the orders from the consumer. The things were made in style, design, colour or shape exactly to suit the tastes of the consumer. The consumer got what he really wanted. He was undoubtedly the king and his authority was well recognised.

But the modern producer does not work after receiving the orders. He anticipates them. It is the business of the entrepreneur to make a shrewd guess as to what would satisfy the consumer most and then to proceed to produce such commodities or render such services. Production these days is carried on in anticipation of demand. But here again the consumers' preferences exert their full weight. If the
entrepreneur is not sufficiently intelligent to gauge rightly the requirements of the consumer or if the prices fixed by him do not suit the pockets of the consumers i.e., if he made a wrong estimate of their purchasing power, his goods will not sell. He may struggle for a few years heroically but unless he is able to modify his plans and to make them suit the consumer’s tastes and pockets, he will go under sooner or later. If, on the other hand, he has been able to understand the wishes of the sovereign, consumer, and to interpret them rightly, he will be amply rewarded in the form of handsome dividends reaped by him.

In a capitalist economy that venture will succeed which satisfies the consumers most. The entrepreneur gets the maximum profit when the consumers get the maximum satisfaction, not otherwise. The consumer guides and controls production by the way he decides to spend his income. “Universal consumption is something like universal suffrage; it is a democratic means of control. The only qualification required for consumption is the possession of income with which to acquire the desired goods. In economic elections a consumer casts as many votes as he has dollars to spend. If the economic electorate decides to spend its money for baubles instead of essentials, for shoddy goods instead of genuine articles, for things that are ugly instead for things that are beautiful, such things will be produced. Consumer’s choice, whether it is wise or foolish, guides the operations of our industrial system. It is like closing an electric circuit and thereby turning on a current that sets the wheels of the productive mechanism into motion.” The rationale of all economic activity is the satisfaction of the consumer’s wants.

27. Limitation on Consumer’s Sovereignty. But the consumer is not so despotic a monarch as he is supposed to be. At best his case may be of one of constitutional or limited monarchy. A constitutional monarch reigns but does not rule. On further reflection we shall find that there are some serious limitations on the authority of our sovereign, the consumer.

(a) The most important check on his authority arises from the size of his income, the length of his purse. The things do not move to his command unless he uses the money whip. Without that whip in his hand, he may cry hoarse, nobody would listen to him. The consumer wants pure ghee but he has to rest content with Dalda for lack of means to pay. The real wants of the consumer go unsatisfied under the present economic system and only those can be satisfied which are expressed in money and become effective. The individual consumer goes to the wall. It is only the combined demand which directs.

(b) The satisfaction of the consumer depends on the goods actually available in the market. He may want a slightly different thing but cannot help. He may cry for the moon, he will not get it. There are physical limitations too. Actual production depends upon

technical knowledge at the moment, and development of technique may lag behind consumer's desires. We want noiseless trains but we must wait till the technique develops. Consumer's preferences are generally ahead of what is available at the moment.

(c) High pressure salesmanship and persistent advertisement multiply the real desires of the consumers. The business propaganda machinery is directed to mould and to control consumers' tastes. No consumer can resist its subtle effects. He is thus induced to buy something different from what he would have purchased otherwise. Our sovereign, the consumer, is impotent and helpless and is led by the nose, as it were. That business man succeeds who does not merely satisfy the felt wants of the consumers but who is able to control and direct the consumer's tastes towards his particular brand. Huge amounts are spent on advertisement in every country. A mere glance at a newspaper, or a magazine, is enough to show what importance is attached to advertisement. Wherever the consumer goes and in whichever direction he looks, some advertisement faces him. At every strategic corner on the road sides, on the railway platforms, on the trunks of trees and telegraph poles, on the houses and the tram, he finds large and attractive advertisement, all intended to catch his eye. These advertisements are for this king so many fifth column elements all calculated to make his sovereignty a mere negation. Far from controlling the producer, he is controlled by the producer. According to Ely, "expenses in the United States for national advertising alone are estimated to average nearly 10 dollars for every man, woman and child. The cost of advertising in each issue of the Saturday Evening Post is nearly a million dollars." Here is another estimate. "In the United States alone about half a million persons are normally employed in advertising and that nation's annual advertising bill runs from 1½ to 2 billion dollars." These amounts are not being spent to please the consumer but to enrich the producer. Every rupee spent on advertisement and salesmanship is a nail in the coffin of the consumer's sovereignty. We do not agree with Benham when he says that a monarch may be advised and cajoled, as to some of his activities, even by his slaves, but he remains a monarch none the less. This is a nominal sovereignty, a very poor specimen of monarchy indeed.

Here is an evidence of his helplessness. "No doubt the public is spending a tremendous amount yearly—and it comes from those who can least afford it—for sun lamps that are both a fire and health hazard, for toasters that we dare not touch once they are heated up, for automatic irons that burn and destroy fine rayon goods when set for the lowest temperature, for curling irons, vibrators, massagers which are so poorly insulated that only a person totally ignorant to the potential shock of 110-120 volt supply would dare use such an appliance." This is true of every other line of production.\footnote{1. Ely—Outlines of Economics, 1930, p. 145.} \footnote{2. Kiekkhofer op cit. p. 654.} \footnote{3. Moore and others—Modern Economics.}
(d) The monopolists too exercise control over the consumer. In modern times in every country a tendency towards combinations cartellisation is visible and a few firms or companies come to control production. They can easily dictate their terms to the consumers who feel quite helpless. They have no say in the matter of price or range of production.

(e) Then there is the government control about which we have now become all very well acquainted. Even in normal times the government either prohibits or restricts the consumption of certain articles, e.g., intoxicants which the society disapproves. By taxing the rich and subsidizing the services for the poor, the governments can exert influence on the trends of production. Besides the government itself is the biggest consumer and is in a position to set the pace in the matter of price and the quality of goods produced.

(f) Consumer's own habits bind him and he is reluctant to make any departure from his set scales of consumption. The freedom to choose, therefore, is not exercised.

(g) Environments and conventions of society also exercise a restraining influence on the consumer's choice. Therefore the unrestricted freedom of the consumer and his authority to direct production is a mere myth.

(h) The consumers are generally ignorant and do not know what is best for them. Their blind choice does not always accord with their self-interest. Lack of knowledge, therefore, is another hindrance in the way of exercise of the consumer's sovereignty. If the consumer is a giant he is surely a blind and sluggish giant.

(k) Production of standardised goods, irrespective of the individual tastes, is a conclusive proof that modern economic system pays scant courtesy to what the individual consumers would like to have. The consumers are bulked together and treated en masse, not a king but a herd of sheep.

It is really very difficult to convince a poor villager or a factory hand that he is the sovereign of all he surveys and that factories are working, trains and ships are moving and the business men sitting at their shops or running to and fro in the market all to serve him and satisfy him rather than lining their own purses. It is so unreal.

The fact is that of consumers and producers, none controls the other. It is a case of interdependence. Economic prosperity of a country lies a proper balance between consumption and production. In the words of Elly, "Progress is dependent on alert and responsive consumers as well as on prudent and efficient producers. Sluggish consumers, sluggish producers."

28. To Sum up. Let us now summarise our conclusions as regards the forces behind Demand which we have studied in the department of Consumption. The central problem of Economics is the determination of values of goods (and services) that are mutually exchanged. Value is the result of the interaction of supply and demand, and is expressed as price in terms of money. We have so
far been considering demand. Demand arises because goods yield utility to consumers and scarce goods have to be purchased by money offers. As the marginal utility of goods falls with the increase in the quantities consumed, the consumers offer lower and lower prices for additional quantities offered for sale. For individual consumers, however, prices are already determined. They, therefore, purchase as much quantity of each good as equates their marginal utility for money to the price of the good. The marginal utility of money is higher for poor people than for rich people. But all people distribute their total money incomes on various heads of expenditure with a view to maximise their total utility. This is achieved when the marginal utility derived from each head of expenditure is the same. In this way demand for various commodities is created which can be expressed in the form of a demand schedule. The total of individual demand schedules determines the market demand schedule. We can, therefore, conceive at any particular time large number of consumers willing to purchase goods of varying quantities at varying prices. They are willing to purchase more at a lower price than at a higher price. A competition then ensues among the consumers bidding for commodities. These represent the forces on the side of demand. Demand can rise and fall with changes in tastes, habits and real incomes of the people. But, at any particular moment, such factors may be assumed as constant. This pull exercised by the consumers is only half the story. The other half comes from the side of the suppliers or ultimate producers. We, therefore, pass on to the discussion of the forces determining supply. This brings us to the Department of Production.
CHAPTER V

PRODUCTION

The Nature and Volume of Production.

1. Introduction. In the theory of consumption we discussed the problems and principles governing the utilisation of limited resources for the satisfaction of human wants. We were concerned with the disposal of scarce means for multiple ends. In production we are concerned with the means themselves or the forces behind the supply of goods. We want to see how these means are made available. In other words we are concerned with the efforts devoted to procuring and mobilizing the resources of the community and placing them at the disposal of those who want them.

2. What is Production? Production is sometimes defined as the creation of utility or the creation of want-satisfying goods and services. It is said that just as man cannot destroy matter, he cannot also not create matter. The best that he can do is to give it utility. But this is not a scientifically correct definition. In Economics we are not concerned with mere utility but with scarce goods possessing utility. Air has great utility, but being unlimited in quantity no economic problems arise in connection with it. To produce a thing which has utility but not value is not production in the economic sense. I may spread the cult of Yoga and promote physical and spiritual well-being of my friends, a thing of great utility, but unless I make it my profession, my activity will not come under production. Production, therefore, should be defined not as creation of utility but the creation or addition of value. More strictly speaking, we should define it as the creation of economic goods and rendering of services commanding a money value. We really do not produce utility or value but produce goods and services having value-in-exchange. We are not concerned with the technique of production, but merely with its economic aspect.

Considered in this sense production consists of a long chain of producers covering the following industries:—(1) Extractive industries including mining, fishing, farming etc. mostly concerned with the production of raw materials. (2) Manufacturing industries turning the raw materials into finished goods. (3) Commercial Services like buying and selling, transporting, banking and insurance etc. (4) Direct Services to the consumers like the services of domestic servants, doctors, lawyers, teachers etc.

The producer creates utility having an exchange value in three ways. (a) Form Utility, i.e., shaping the thing and making it serviceable, (b) Place utility, i.e., carrying the commodity to a place where it is wanted; and (c) Time Utility, i.e., keeping it for a time when it is needed. Robbins calls them Time and Space Indices. Production, therefore, is not merely producing things. It is not considered 'produced' unless it reaches the hands of the consumers. In the words
of Ely, 'Things are not fully produced until they are in the form in which they are wanted, at the place at which they are wanted, and at the time when they are wanted.

3. The Social Significance of the Volume of Production.

It is of the utmost importance for a country that its production should be conducted at the highest pitch of efficiency so that the volume of its production is the largest possible. If agriculture is carried on with the most primitive methods, if holdings are uneconomic, irrigation facilities scanty and the man behind the plough illiterate and conservative, the production of food articles and raw materials will touch a very low level. Similarly, in the industrial sphere, production will be much less than it can be if the entrepreneurs are ignorant timid and short-sighted, if the labour force is inefficient, if the machinery used is out-of-date and if credit and transport facilities are not available to the extent required. In such a country, as India is, the volume of production will be very small. In the last resort the standard of living of a people must depend on the volume of production in the country.

True, a country may borrow from abroad or receive moneys in charity to tide over a period of stress and difficulty. But loans have to be repaid and charity is not a perennial stream. No sure foundation of standard of living can be built on these extraneous or fortuitous resources. If the standard of living is to be raised permanently, the country's volume of production must be increased. The Bombay Plan of economic development for India, the avowed aim of which is to raise the standard of Indian masses, rightly emphasises the necessity of increasing production. They propose to increase the output of industries 500%, agricultural production 130% and the value of services 200% in the course of fifteen years. Only then they hope to provide a balanced diet, 30 yards of cloth per head per annum and a reasonable housing accommodation in addition to ample educational and medical facilities. Increase in production must precede the raising of the standard of living.

The volume of production in India is very small in relation to its teeming millions and the standard of living is the lowest in the world. Poverty is writ large on the face of every Indian, poverty of which the world has no parallel. Not much relief can be expected from emigration. The only remedy is to increase the volume of production, agricultural and industrial. The volume of production possesses for us the greatest social significance.

4. Factors determining the volume of production. In our efforts to increase the volume of production we shall have to analyse the factors on which it depends. A study of these factors and a proper appreciation of their relative importance will put us on the high road to increased production.

(1) In the first place production in a country depends on men, money and materials. If our men are hard working and resourceful, if capital is plenty and if our land turns out a rich variety of materials, a large volume of production is assured. Production in a country
is limited by the quality and quantity of the factors of production available in the country. We need Land, Labour, Capital and Organisation of the right order and in sufficient quantities. These are the prerequisites of good production.

(2) Production also depends on the development of technique and the application of science to agriculture and industry. In the absence of scientific and technical knowledge not much can be achieved. It can be easily seen that the Industrial Revolution which made use of the various inventions and discoveries brought about a tremendous increase in the volume of production in the West. What can a hand weaver achieve in the face of a gigantic mill?

(3) Production depends further on the development of credit and banking and transport facilities. The manufacturer is seriously handicapped if there are no agencies to give him financial accommodation. Finance greases the wheels of productive machinery. Also, there will not be much use in producing goods unless they can be cheaply and quickly transported to their markets.

(4) The political factor is also a very important one. If the state takes a sympathetic view and actively assists in production by providing intelligence, education and financial and other aids, production can be accelerated. The Russian experiment is a sufficient indication of what can be achieved in this way.

(5) Finally, there is the natural factor. Climate, soil, mountains and rivers are all nature's gifts. Their bearing on production can hardly be exaggerated. Floods, earthquakes and other natural calamities undo man's work. We must learn to harness nature's forces for the service of man if production has to be increased and protected.

5. How to measure the volume of production. We have seen that production is the source out of which the standard of living in the country can be maintained. Attempts have been made to measure the volume of production to see whether a community has adequate supply of goods and services at its disposal to satisfy its wants to a reasonable extent. The measure of production is the measure of the fulness of the satisfaction of the wants of a people.

There are two methods generally applied for the measurement of the volume of production: (1) Census-of-production method, and (2) Census-of-income method. In both cases a unit of time is taken which is generally a year. During the year most of the crops have matured and have been harvested and monthly irregularities would cancel themselves out. Production of all types means a full course throughout the year the incomes and profits, too, are estimated yearly.

According to the first method, production of all types of goods is estimated. The production of food products and materials is estimated from agricultural statistics. In India Government publishes a blue book entitled "Area and Yield of Principal Crops" which can help us in estimating the agricultural production of the country. But we want 'net' production; therefore we must make a deduction
for carrying on agricultural operations, e.g., amounts spent on seeds, maintenance of bullocks, repairs, renewals and replacement of agricultural implements. Professors Wadia and Joshi while estimating the national income of India for the year 1913-14, deducted 20% from the total agricultural production on this account.

As for mineral production, we can get the value of the various minerals produced in the country from the geological surveys published by the Geological Department. Here again a 20% deduction may be made to find the net value of the minerals. We then come to industry. Government of India began publishing a few years before the war a booklet, ‘Monthly Production of Certain Selected Industries in India’. But this is obviously inadequate to give us an estimate of the entire industrial production. In the western countries fuller statistics are available. Professors Wadia and Joshi estimated the total value of industrial production at 20% of the value of raw materials.

A precaution is necessary. We must avoid double counting, e.g., the value of cotton must not again be included while estimating the value of cloth manufactured.

In certain cases, e.g., hides and skins, we can form an estimate from the export figures on the assumption that a certain percentage is exported yearly. We must also estimate the value of the live-stock. The Government of India publishes a quinquennial census of live-stock with the help of which we can estimate the value of the live-stock in order to know the total material wealth of the country. Here again to avoid double counting the value of their services to agriculture must be deducted. The production of fisheries can be roughly estimated from the total number of fishermen engaged in the industry at the rate of a few annas per head per day.

Production does not consist merely of goods but also of services. Therefore, on the basis of census figures, we can estimate the earnings of the various professional men like doctors, lawyers, teachers, artisans, domestic servants etc., at an average income. We cannot add to get heterogeneous types of goods and services. We can only take their money value. But to eliminate the effects of price fluctuations, we can estimate them with respect to a base year.

The second method (census-of-income method) depends on intensive surveys conducted in representative villages and towns and using them as the basis.

It would seem from the procedure outlined above, that it is impossible to eliminate elements of conjecture in such estimates. Mathematical precision is simply out of the question. Comparison between two distant years is further rendered difficult by differences in qualities of goods, new designs and models or by the production entirely of new commodities and services. Peoples’ requirements may also change with changes in tastes, in the size and the composition of the population so that the same volume of production may not mean the same satisfaction. We cannot therefore really say with any exactitude whether peoples’ wants are more fully satisfied say in 1946 as compared with 1936.
But it cannot be denied that a rough estimate can be made which can be used as a working basis for practical purposes. It is always possible to say fairly accurately that the people are enjoying a better standard now than they did say 25 years back. Professors Bowley and Robertson who conducted an inquiry into the statistical position of India in 1933 submitted their report under the heading ‘A Scheme for an Economic Census in India’. They confirmed the view generally held that there is a statistical black out in India.

6. Productive Capacity in Relation to Wants. The aim of production is to place at the disposal of the community goods and services of requisite quality and in sufficient quantity to satisfy its multitudinous wants. Has it succeeded in this aim? Is the productive capacity of a country sufficient to meet the wants of its people? Can a country produce enough to satisfy the desires of the people for the various types of goods and services?

There are people who would answer this question in the affirmative. They hold that the productive machinery has only to be put in the proper gear and it will be able to turn out enough goods for everybody. Let production be keyed to the highest pitch of efficiency. This can be done by training every worker in the latest methods of production and by introducing the most modern machinery and processes. This war has demonstrated that targets unimaginable before can be hit. America alone has been producing more than 5000 ‘planes every month. It is simple arithmetic that if this process is continued America alone can supply everybody with an aeroplane. And ammunition and other materials have been coming out at a bewildering speed. Even the most sceptical must have been convinced of the marvels of machinery. It is believed that when the huge productive power created to meet the requirements of this global war switches on to civilian production, consumers’ goods will pour out in ever-increasing stream so that the markets are flooded and everybody will be able to satisfy his wants. What a fine dream? But it is said that it is not a mere dream. The world is fully familiar with the phenomenon of overproduction. During the last worldwide economic depression in the early thirties, when there was a glut of goods, ripe wheat crops had to be ploughed back in the fields in Canada, America and Argentina. Brazilian coffee was thrown into the sea to the extent of 2 million lbs. There was no demand. Production had over-shot the mark and exceeded consumption. It is, therefore, agreed that the aim of producing sufficient to satisfy human wants is capable of realisation. Productive capacity can overtake, if not surpass, human wants.

This view, however, is not true. It cannot stand scrutiny. A little thinking will convince us of its absurdity. It may at once be conceded that production can undoubtedly be increased in any country. The existing productive capacity everywhere is below the level which can possibly be touched. We know that out-of-date and obsolete machinery is in use in several firms whereas modern and up-to-date machinery has already been tried and found successful.
Labour efficiency is much lower than it can be if labour is properly educated, trained and given a more reasonable remuneration. Entrepreneurs everywhere have to learn a lot. Majority oft hem in every country are below par. There is much leeway to make up in the matter of agricultural development especially scientific agriculture. We cannot say that transport system has touched the limit of its expansion or that credit and banking have reached the highest level of development. Obviously there is room everywhere for improvement. Productive capacity cannot be enlarged and volume of production enhanced so that human wants can be much more fully satisfied than they are at present. About this there cannot be any doubt.

But, can we satisfy all the human wants? It will perhaps damp the spirits of the advocate of over-production theory to know that we cannot. The existing productive capacity is manifestly inadequate to satisfy even the most elementary wants in any country. It is especially so in India. Otherwise the Bengal famine would not have occurred. Millions of people in India are living on the borderline of starvation. The margin between production and consumption either does not exist or is almost invisible. But in every country you will find persons without proper clothing or children going without shoes or without milk. A hungry stomach is still a common phenomenon.

Will this phenomenon of hunger for more and more goods disappear if production were conducted on the most efficient lines possible? Even then no. Human wants are unlimited: they have the knack of multiplying. Apart from the fact that population is increasing and the standard of living is rising and that production cannot overtake them, there is the fundamental fact that we are mentally so constituted that we can never possibly be satisfied completely. Satisfaction of one want gives rise to another and we keep looking always for one thing or another. Any particular want can be satisfied. Productive system can supply everybody with a cow, a radio set, a refrigerator and you can name a few things more if you please. But it cannot give you all that you want. The trouble is that even you do not know all that you want at the moment and you will always want something else unless of course everybody is provided with an Alladin’s Lamp. Then all economic problems will disappear.

We have said that it is possible to satisfy any particular set of wants. But in this case; too, factors of production will have to be directed from other uses in which they are at present being employed. Production in those directions will be curtailed. Factors of production being limited, if you want to have more of one thing, you must be content with less of another thing. The depressing fact is that productive capacity of a country, even that of highly industrialised countries like U.K. or U.S.A. can never hope to produce enough for everybody under any conditions whatsoever.

But what about over-production? Yes, we witnessed the phenomenon of over-production during the last depression. This
over-production is only in a technical sense. It does not mean that these goods were not wanted. Only there was no 'effective' demand, i.e., people could not pay for them. These goods had been produced at a cost at which they could not be profitably disposed of. Rather than sell them at a loss, the manufacturers let the stocks accumulate. There was a surplus of production in this sense. *It is a surplus at a price.* In this sense there can always be a surplus; higher the price greater the surplus. If wheat sells in India at Rs. 60 a maund, the bulk of the production will become a surplus, for a few only will be able to buy it and you can see poverty in the midst of plenty. It is not over-production in the sense that nobody wants or needs them or that the wants have been met. Further, over-production in a few branches of the industry is possible. It is theoretically possible that so many bicycles may have been produced that no more of them are wanted. But general over-production is out of the question. It is impossible to have too much of everything and we can safely conclude that productive capacity is not, nor can it ever be, sufficient to overtake ceaselessly increasing and insatiable wants of humanity. The very thought of it is fantastic. It will ever remain a Utopia and never become a reality.
CHAPTER VI

AGENTS OF PRODUCTION

1. Introduction. The work of production needs the aid and co-operation of certain factors of production. Land, even in its most natural and wild state, is capable of producing something. Some foods and fruits do grow wild, but when man joined nature, land was made to yield much more. Even man and land alone, however, would not have produced much had they not been assisted even from the very start, by some tools or implements which we call capital. In modern times these factors needed better organising to yield better results. At present land and capital are sometimes owned by people who cannot use them in production and labour is divorced from capital. Somebody was needed to bring them together and organise them for work. Hence the emergence of the entrepreneur.

2. Classification of Factors of Production. The factors of production have been classified as Land, Labour, Capital and Organisation or Enterprise. Land in economics does not mean mere soil as in the ordinary speech but the whole of animate and inanimate nature exclusive of human brings. It is synonymous with all the natural resources available form air, water, from above the land surface and below it.

Similarly labour does not mean merely physical or manual exertion but all type of work done by man for a monetary reward. It is synonymous with man.

By capital is meant the whole of the stock of wealth consisting of machine tools, implements, raw materials etc., which is used in the production of further wealth.

Organization consists of bringing the above three factors together, assigning work to each. The entrepreneur designs, initiates, and production and bear the risk.

3. Can the Factors be Reduced to Two? Some economists reduce this classification from four to two. Land and Labour or man and Nature on the ground that they are the only original or primary factors, that capital has no independent origin and is merely the outcome of the efforts of Land and labour, while organisation is merely a form of labour. But whatever the origin capital as a distinct factor of production performs a very important function and occupies an important position. Similarly the entrepreneur’s work is of a distinct type and he is remunerated on a different basis. The role that the entrepreneur plays today overshadows that played by other factors. The fourfold classification would, therefore, better represent the conditions prevailing in the economic world today.

4. The Traditional Classification Criticised. This classification, however, has been challenged recently by economists like Benham, Wicksteed, Davenport as being technological, unscientific
and without any special significance. The classification is attacked on the ground that there are very wide divergences between different kinds of labour and marked differences within land itself; nor are capital and enterprise of a homogeneous nature. There is no reason, then, of putting them in separate categories on the implication that they differ fundamentally from one another, but in themselves they are homogeneous.

Far from being separate and distinct the factors of production can often be substituted for one another. Labour can take the place of machinery and vice versa. The entrepreneur by his ability may be able to save both capital and labour which means the substitution of his skill for them.

Moreover, the separation of land from capital seems to have no logic behind it. To an individual land is capital as it assists in the production of further wealth. Land has been separated from capital because it is limited in quantity, a free gift of nature and permanent, minutely varying in quality and lacks mobility. It may be pointed out that some land is also man-made. Half the area of Netherlands amounting to 13,200 square miles has been recovered from the sea. The Back-Bay scheme in Bombay also made some addition, however small, to the land surface of Bombay City. But it must be admitted that such efforts are almost negligible and the differences pointed out above are real, though in old countries most of the upper land surface may be considered 'man-made.' These differences, however, for the purposes of economic classification, have no real meaning. Similarly, peculiarities of labour have been exaggerated. This fourfold classification would have some meaning if it could be shown that these categories of the agents of production are subject to the operation of different laws of production or distribution. This, however, is not the case and the classification seems to have no scientific reason behind it except that it is a convenient way of studying the subject.

Instead of there being four factors of production, it is now suggested that there are millions of factors, each acre is a factor of production and so is each worker. In the words of Benham any ingredient which "goes into" the productive process at any stage is a factor of production. He suggests, however, that for purposes of simplification all uniform types of land may be put together and called one factor and so all homogeneous labour. This would reduce to some extent the number of factors. But it should still run into hundreds.

Although we must reject the traditional classification of factors into four on scientific grounds, yet in an elementary study it can be retained with advantage to the student who will find the arrangement simpler and conducive to easier understanding. It will do him no harm, as he has been told that it carries no economic significance. All these factors of production are scarce and are capable of alternative uses. The Law of Choice applies to them as it applies to consumers' goods which they produce.

5. Importance of Land as a Factor of Production. Land, as already defined, stands for natural resources. In the words of
Marshall it means "the materials and the forces which nature gives freely for man's aid, in land and water, in air and light and heat." Nature not only gives us land surface but mountains which provide us with forests and pastures, rivers providing fish, fertilising material and serving as a high-road of commerce as well as sources of electric energy, and seas and oceans—a perennial source of fish and connecting link between one continent and another. The bowels of the earth are full of minerals so indispensable for the running of industry. Air, sunshine and heat are necessary for our crops, nay, for our very existence. The term land epitomises all this.

In every stage of economic evolution, nature has been the man's most useful ally. In the hunting and the fishing stage, nature supplied food almost spontaneously and sustained human life. In the pastoral stage but for land surface and the pastures and meadows herds of cattle and sheep could not be reared and kept. The utility of land is obvious in the agricultural stage for how else could man grow his crops without soil, air and sunshine? When agricultural stage gives place to handicraft and the industrial stage, land is still essential. Every commodity that we use can directly or indirectly be traced ultimately to land. Look in whatever direction we may, our debt to nature is so obvious. Our very existence would be impossible without it. In Marshall's words, "Earth's surface is a primary condition of anything that a man can do, it gives him room for his actions."

6. Peculiarities of Land. In contrast to other factors of production land presents certain well-marked peculiarities, which have a direct bearing on some important problems of economics, e.g., of determination of economic rent and the theory of population.

(i) Land is to us a Nature's Gift. It is, however, pointed out that as man has reclaimed forest land and marshes through his own effort by expensive schemes of clearing and drainage, and that by admixture of clay and manures he has changed alkali land and deserts into fertile fields. Land is as much 'man-made' and 'produced' factor as any other. Whatever may have been the position in the beginning, it is said, modern generation is not so much disposed to regard land as a gift of nature. But man's achievements in the making of land are insignificant as compared with what nature has done for him. As for air, sunshine and location of a plot of land, man has done practically nothing and they are as much a part of nature as the land surface itself. We shall, therefore, reiterate our debt to nature for this gift.

(ii) Land is limited in quantity. It cannot be increased. Man's efforts in this direction, as has already been mentioned, are negligible and have not resulted in any appreciable increase in the land area. It is said that land has no supply price. It has no cost of production. Price of land prevailing in the market cannot affect its supply. Higher price cannot attract more of it and a low price cannot lead to it.

withdrawal; it is there. There is no difference between stock and
supply in the case of land. That is why as population increases it
comes to command a scarcity rent.

(iii) Land is permanent. In spite of the havoc wrought by bomb-
ing in the war, land will resume its productivity after a short and
simple treatment. There are inherent properties of the land which
Ricardo calls original and indestructible.

(iv) Land lacks mobility in the geographical sense, although
some vine-growing clay has been transported from France to Cali-
ifornia, yet land cannot be bodily transferred from one place to another,
a fact which is responsible for disparity of rents in different places.

(v) Finally, land provides infinite variations of degrees of
fertility and situation, so that no two pieces of land are perfectly
homogeneous. This peculiarity explains the concept of the margin
of cultivation.

7. Productivity of Land and the Factors on Which it
Depends. The value of land’s contribution to production depends
on its productivity which, in its turn, is determined by several factors.

(i) Natural Factors. The most important set of factors on which
the productivity of land depends are the natural factors. Some parts of
India, like the Indo-Gangetic plain are very fertile, others like western
Punjab and Sind are arid and barren, and then there are deserts like
Rajputana. They are what nature made them. Distribution of
rainfall is all nature’s part and man is helpless. Indian agriculture is
said to be a gamble in the rains. Some parts of the globe are hot
and others cold. What can man do? Thus the texture of the soil,
climate, minerals, mountains and the river systems are beyond human
control and productivity of land is largely determined by these
factors.

(ii) Human Factors. But productivity also depends on the human
factor: Man has tried to make a conquest of nature. Forests
have been cleared, marshes drained off and, through irrigation
facilities, the barren lands have been transformed into smiling gardens.
Electricity has been generated from rivers, pent-up energy of nature
has been pressed into the service of man to make summer cool,
winter warm and to turn night into day. This story of man’s con-
quest of nature is a fascinating story. Somewhere nature has been
completely conquered, at other places held at bay and at still other
places its inclemencies mitigated and bounties enhanced. Man tries to
control nature and mould her into yielding the best of results. By sci-
entific system of rotation, judicious selection and careful sowing of the
seed, deeper ploughing and heavy manuring, the yield per acre has
been immensely increased. You have simply to compare the yields per
acre in India and America and you will see what difference appli-
cation of science to agriculture makes. If left alone, nature would
have yielded a moiety of what it yields today. This is due to the
human factor aiding the natural factor and controlling it where
necessary.

(iii) The Situational Factor. Another important factor on which,
the productivity of land depends is the situational factor. A plot of land even of comparatively poor quality situated near the city is considered much more productive than one situated in a remote part. Situation makes all the difference. Accessibility to markets enhances considerably the value attached to a piece of land, for saving of transport cost makes sometime a lot of difference. Here again man can do much to minimise the disadvantages of a bad situation by providing efficient and cheap transport facilities.

8. Extensive and Intensive Cultivation. We have seen that men’s efforts have been directed to wresting the maximum reward from niggardly nature. There are two methods of cultivation adopted by man, (1) Extensive cultivation, (2) Intensive cultivation.

In extensive cultivation, man brings more and more land under the plough without making any appreciable increase either in his own effort or in the capital that he applies to land. He cultivates a plot of land and when its natural properties have been exhausted, he takes in another and so on. New land is cultivated, and the old one is left fallow. We see in India some fields of a farmer left uncultivated for a season so that they may naturally recuperate their productive powers. In new countries where land is enough and to spare, man follows the extensive method of cultivation. His aim is to maximise the return for his effort and capital even though it may involve a wasteful use of land. Under such conditions an individual farmer has at his disposal a large tract of land which produces enough for him. But he does not bother about the proper treatment of land, because land is abundant and cheap.

The other method is known as the intensive method of cultivation. In this case land is supposed to be very much limited so that a farmer has only a small holding. Naturally he must make the most of it. He is prepared to work hard on it himself and invest lot of capital. He must buy the best of implements and till the land thoroughly and deep. He must select his seed, with a meticulous care and sow them with proper spacing. His farm must have ample irrigation facilities. To make up for the loss of productive powers the farmer must put in sufficient natural or artificial manure. He must adopt a plan of systematic rotation. In short, his method must be scientific. Only then he can make his small farm yield the most. In this case there is increased application of labour and capital as distinguished from the first method where there is increased use of land.

9. Does the extensive method imply a large farm and the intensive method a small one? Not necessarily. We generally do find that where land area is vast and farms are large, the farmer follows the extensive methods of cultivation, and where land is relatively scarce he must cultivate the same plot of land more intensively. But this is not always so. In the U.S.A. and Canada there are very big farms but the farmers make them yield the most by adopting the latest scientific methods of cultivation which we have called the intensive method. In India, on the
other hand, where the peasant is poor and ignorant, cultivation is being carried on by the most primitive methods which may be called the extensive methods. Hence extensive methods and large farms and intensive methods and small farms do not always go together.

10. Organisation of Farming. Productivity of land also depends, among other things, on the way in which it is organised. There are several systems of farming prevalent in the world and they can be broadly classified as under:

(i) Peasant Proprietor System. In this system the owner of the land is also the cultivator. This system prevailed in Russia before the Red Revolution and even now prevails in Prussia and France. We in the Punjab are very familiar with it because the land in the Punjab is mostly cultivated by the owners.

Several advantages are claimed for this system. The farmer, being the owner, does his best to develop and improve his land. He is sure that he will reap where he has sown. The care and affection and assiduity that is devoted to land is almost proverbial. It is said, “Give a man a secure tenure of a rock and he will turn it into a garden, give him a nine years’ lease of a garden and he will turn it into a desert”—“the magic of property turns sand into gold”. Productivity per acre will be very high and nothing will be done to damage the land and everything will be done to conserve its energies and improve its value. The farmer works ungrudgingly and unsparingly. Social and political advantages, too, are claimed for this system. It produces hardworking, self-respecting and law-abiding citizens. They are considered the backbone of society, and at the time of war are the most fertile recruiting grounds. Having a stake in the country, they make for social and political stability. The son follows the father’s occupation and enjoys all the benefits of inherited skill and family prestige and traditions.

But the system is not free from defects. The holdings are generally small and there is a tendency for further subdivision and fragmentation of holdings. A small farm does not provide a full scope for the organising ability of an enterprising farmer, no scope for scientific rotation of crops and for the use of modern machinery. The capital at the disposal of the farmer is very meagre. As a matter of fact, the dead weight of debt presses him down. He is born in debt, lives under debt and dies in debt passing the debt on to those who follow him. Progressive agriculture, making an enlightened use of the land, is not possible under such conditions.

Socially and politically, too, the system is defective. Their frugality borders on parsimony and we have an under-nourished population, ignorant, superstitious and conservative, who does not keep an open mind but resists the flow of all modern ideas. Such people act as a drag on political progress for they dread all change. The greatest obstacle in the path of Indian agriculture is this system. The abler farmers cannot acquire more land. Restrictions on transfer of land make for divorce between the ownership of land and ownership of
capital. Capital cannot flow towards land under this system. In the absence of any co-operative action, the farmer is seriously handicapped in marketing his produce. We would seriously hesitate in recommending this system for adoption or extension elsewhere.

(ii) The Landlord and Tenant System or Zamindari System. As it prevails in England the landlord besides giving his land, provides farm house and fixed stock, builds roads and drains and makes other permanent improvements, and the tenant provides stock and running expenses. The tenant-farmer is a sort of entrepreneur. He buys seeds, hires labour, carries on all the agricultural operations, meeting all the expenses and appropriates all the profits after paying a fixed cash rent to the landlord. On the whole the system works well. The tenant-farmer appreciates the value of the landlord's equipment. But the Indian zamindar is simply a blood sucking pipe drawing rent collected through heartless agents. The landlord lives in the city leading a luxurious life taking little interest in land. "Next to war, pestilence and famine," says Carver, "the worst thing that can happen to a rural community is absentee landlordism." This has certainly fallen to the lot of our rural community.

(iii) The Metayer or the Batali System. It prevails in Southern Europe and also some Southern American States. It is also very common in the Punjab villages. The cultivator, finding his own land insufficient, takes it from another owner who himself cannot cultivate it. The produce is divided in agreed proportions generally 50-50. This system has the merit of adjusting the rent according to fortunes of cultivation. If the crops fail then the rent which the tenant has to pay is automatically adjusted, for he has to pay only a share of the actual produce. But the tenant cannot have the heart to put in more effort and capital when the owner gets a share of the increased productivity without raising his little finger.

(iv) Lease-hold System. Under this system land is taken on lease for a number of years on a fixed annual payment of cash as lease money. From the public point of view this is not a good system. The farmer tries to squeeze the utmost out of land without putting back anything in it in the form of manure. Successive and constant cropping impoverishes the land and especially towards the expiry of the lease it is very much impaired. The owner generally regrets to find his property so ruthlessly and callously treated. It will be better, therefore, if the deed provides for rebate on account of improvements and compensation for unexhausted developments.

11. Size of the Farm: an Economic Holding. What is the proper size for a farm? No definite and dogmatic answer can be given to this question.

Some people advocate large farms on the ground that in that case agricultural operations can be mechanised. There will be scope for division of labour and also for proper rotation of crops. The farm can be enclosed, a farm house can be built on it, roads made and pucca drains provided. Marketing can be effected with greater efficiency and economy, for the proprietor can relieve himself of the
routine operations and can devote attention to methods of general economic policy.

But the small farms offer advantages of their own. Close personal supervision is possible. The operations will be more carefully conducted, specialised crops like vegetable and fruit gardening which require unremitting care and attention, can be cultivated. There will not be any labour trouble and land will be made to yield the most per acre.

But whether we should have a small farm or a large one cannot be decided in such an absolute and offhand manner. There are so many factors to be considered, viz., irrigation facilities available, capital at the disposal of the farmer, nature of soil, nature of crop to be sown, cost of machinery relative to the hiring charges of labour etc. Only then we can hit upon what is called an economic holding. According to Keatinge an economic holding is one which allows a man a chance of producing sufficient to support himself and his family in a reasonable comfort after paying his necessary expenses.” In Dr. Mann’s opinion, it is one “which will provide an average family at the minimum standard of life considered satisfactory.” ‘Minimum standard of life’ and ‘reasonable comfort’ are vague phrases. We can define an economic holding in a general manner as one which will provide fullest possible employment to the capital and other factors at the disposal of the farmer. Most of the holdings in India are uneconomic. The average size of holding is 2.45 acres in Bengal, 2.96 acres in Assam, 2.5 acres in U.P. and less than three acres in the Punjab, whereas in England about half the number of farms are of 100 acres each and the commonest size is 60 acres. This explains why Indian agriculture is in a very depressed state.

12. Law of Diminishing Returns. In the absence of the law of diminishing returns the science of political economy,” says Cairnes, “would be as completely revolutionised as if human nature itself were altered.” Such, is the importance of the law of diminishing returns in economic theory.

It is the practical experience of every farmer that increased application of labour and capital to a piece of land does not yield proportionate return. If by doubling labour and capital he could double the yield of his land, it can be easily seen that only one acre of land could be made to produce as much wheat as could suffice for the entire population of the world. That this cannot be done is simply due to the fact that if he doubled his investment in land, the yield would no doubt increase but it would not be double i.e., the increase in the yield will be less than proportionate. As a farmer goes on applying successive ‘doses’ of labour and capital to his farm, the extra yield that he obtains by the application of each successive dose goes on decreasing. The total output will increase but at a diminishing rate. It is just the Law of Diminishing Utility applied to the cultivation of land. In the law of diminishing utility, too, we find that the extra utility goes on decreasing as more and more units are consumed.

13. Limitations to the Law of Diminishing Returns. This, however, assumes that the conditions of cultivation are static
and not dynamic as they actually are. Therefore we find that in actual practice man's ingenuity is ever striving to counteract the operation of this law by improving the technique of cultivation. But science does not keep pace with the increasing demand for food on account of increase in population, the niggardliness of nature must assert itself and the Law must operate sooner or later.

Again when a virgin soil is brought under cultivation the additional return for each successive dose of labour and capital may increase for a time and after a point the tendency to diminishing returns will be visible. Prof. Marshall has stated the Law in its final form thus:

"Although an improvement in the arts of agriculture may raise the return which land generally affords to any given amount of capital and labour, and although capital and labour already applied to any piece of land may have been so inadequate for the development of its full powers, that some further expenditure on it even with the existing arts of agriculture would give more than a proportionate return yet these conditions are rare in an old country and except when they are present, the application of increased capital and labour to land will add a less than proportionate amount to the produce raised unless there be meanwhile an increase in the skill of the individual cultivator. Secondly, whatever may be the future developments of the arts of agriculture, a continued increase in the application of capital and labour to land must ultimately result in a diminution of extra produce which can be obtained by a given extra amount of capital and labour."

14. Tabular Representation of the Law of Diminishing Returns—Consider the following table:

<table>
<thead>
<tr>
<th>No. of Workers</th>
<th>Total Produce</th>
<th>Marginal Produce</th>
<th>Average Produce</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>170</td>
<td>90</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>270</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>4</td>
<td>368</td>
<td>98</td>
<td>92</td>
</tr>
<tr>
<td>5</td>
<td>430</td>
<td>70</td>
<td>86</td>
</tr>
<tr>
<td>6</td>
<td>480</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>7</td>
<td>504</td>
<td>24</td>
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<tr>
<td>8</td>
<td>504</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>9</td>
<td>495</td>
<td>-9</td>
<td>95</td>
</tr>
<tr>
<td>10</td>
<td>470</td>
<td>-25</td>
<td>47</td>
</tr>
</tbody>
</table>

From this table it appears that there are three different concepts of the Law of Diminishing Returns: (1) Law of Total Diminishing Returns (column No. 2). In this sense, the returns begin to diminish from the 9th worker. Every successive worker employed does make

some addition to the output. But the 8th adds nothing and the 9th and 10th are a positive nuisance. As men cannot be had in *begar* (gratis) no prudent farmer will employ more than seven workers in the conditions represented by this table.

(2) **Law of Diminishing Marginal Returns** (column 3). The marginal returns go on increasing up to the 3rd worker. This is so because the proportion of workers to land was insufficient and the land was not being thoroughly tilled. This phase of cultivation is unstable and will not be found in practice. When the farmer knows he can get more than proportionate return by employing an extra hand, he will certainly do so. The marginal, *i.e.*, the additional return goes on falling from the 3rd man onwards till it drops down to zero at the 8th. The 9th & 10th men are merely a cause of obstruction to the others and are responsible in making the marginal return negative. It should be remembered that the marginal return is not what can be attributed to the last man whose employment is considered just worth while, as all men are supposed to be alike. The marginal return is simply the addition that the marginal worker makes.

(3) **The Law of Diminishing Average Returns** (column 4). The average return reaches the maximum at the 4th worker *i.e.*, one step later than the marginal return reached the maximum. Then the marginal return falls more sharply. The two will equalise somewhere between the 4th and 5th, *i.e.*, when the 5th works part time. But we do not employ men in fractions in real life. Therefore it is not always possible to equalise the marginal and the average returns. It is also clear that it is possible for the average output to increase while the marginal output falls or, in the words of Chapman, "a rise of the output per unit of expenditure is consistent with the fall in return per unit at the margin."

We have seen, therefore, that the stage 1-3 workers will not be found in practice, because the number of men is insufficient and the land is being wasted. The addition of more workers will yield more than proportionate return. Nor will the stage 8th-10th workers be found economical, because the extra hand does not add to the total output, then why should the farmer incur the expenditure of employing him? Here there is waste of labour. Therefore in actual practice the stage 3-7 workers for this farm will be found in operation. In this stage it is worth noticing that as the number of workers is increased, the average return per man diminishes, *i.e.*, from 92 mds. to 72 mds. Also as the proportion of land to labour is increased (looking from bottom upwards from 7 men per square mile to 3 men per square, each worker having more land to himself) the average return per acre also decreases from 504 to 270 mds. divided by 50. Thus land and labour are combined in actual practice in such a manner that as the proportion of any one of them increases to the other, its average product decreases (column No. 2 gives the output for 50 acres and as you go upwards from 7 men in this column the total output goes on decreasing and hence the average will also decrease). Thus Diminishing Returns show most efficient combination of factors of production.
How many men exactly will the farmer employ? He will not employ less than three because till then the marginal output (i.e., the addition made by each extra worker) goes on increasing and he will not employ more than seven because the 8th is useless (here the marginal output, i.e., the additional output when he is employed is zero) and 9th and 10th are worse than useless. He will, therefore, employ any number between 3 & 7. How many exactly? If labour could be hired free of charge, then the employer will go on taking more and more men even if he added a little to the total product, i.e., till the marginal product is zero. But man is not a free good. He has to be paid a wage. The farmer will, therefore, compare the wage and the value of the marginal product. He will employ such a number where the marginal product is equal to the wage paid. This last worker considered just worth while will be called the marginal worker. If the wage falls it may become worth while to employ more workers and vice versa.

15. Law in the Intensive and Extensive Forms of Cultivation. It may be seen that when either land alone may be increased or labour alone may be increased, the average return for the factor increased would diminish. This gives rise to two forms of diminishing return—Extensive and Intensive. The farmer first cultivates the best lands, (considering both situation and fertility). So long as the value of the additional product exceeds the expenses of cultivation he goes on taking inferior and inferior lands, and he will stop further extension of cultivation where the additional income is equal to the additional expense. This is known as the marginal land. Considering the price prevalent in the market and the expenses of cultivating it, it is found to be just worth while to cultivate it. This is the Law of Diminishing Returns in the extensive form.

But when the farmer goes on putting more and more doses of labour and capital in the same piece of land, each successive dose will yield less than proportionate return. He will stop further application of the doses where the extra expense is equal to the extra income obtained. The last dose, the application of which is considered just worth while, is called the marginal dose. This is the Law of Diminishing Returns in the intensive form.

It is well to emphasise that in this discussion it is assumed that the return or output is measured in quantity and not in value, otherwise it may be that the additional return has decreased but price having risen its value is higher. We shall not call it increasing return.

16. Can the Law of Diminishing Returns be Counteracted? Yes, the law can be, and has been, counteracted. Anything which improves the quality of the land and makes it yield more, or anything which adds to the value of the yield will check the operation of the law. Use of modern implements, judicious mixing of soils and manures, careful selection of the seed and proper sowing, deeper and deeper tillage and the provision of ample irrigation facilities can enable us to contract the working of the law. In all advanced countries application of Science to agriculture, improvement of transport and marketing facilities have held the law in abeyance. Agricultural
development in the West and Russia have had startling results. Such measures are badly needed in India, for the bulk of our population depends on agriculture and productivity is almost the lowest in the world.

17. Application of the Law of Diminishing Returns. We have discussed above the Law of Diminishing Returns in relation to land. But it does not apply merely to land. Its operation may be traced in other extractive industries like mining, fisheries and also in buildings.

As for mines, at first better situated and more accessible ones will be worked and when mining operations are extended to less convenient and remote mines or when the same mine is worked deeper and deeper, the return to labour and capital invested will be less than proportionate. There is, however, one difference, the mine is nature's reservoir, once exhausted, it is finished for ever, whereas land if properly treated is a perennial source of crops. But it need not frighten us. Coal is valued as a source of energy and the energy can be obtained from wind, water and waves.

The Law also applies to fisheries. When fishing operations are concentrated on one point in the river or in the sea-shore further efforts will yield less and less catch. Deep sea-fishing may respond better and yield increasing returns. Here again it is probable that if fishing is conducted on a huge scale with scientific apparatus for a long time, it will also begin to tell and returns will begin to diminish. But if left undisturbed for a season or two, the fisheries will recuperate and will become productive again. However, it must be recognised that it has to be left to nature. Man has no control and no means of culture just as he has in the case of land cultivation.

Similarly, in the case of buildings those that are better situated will command higher rents and as you move away from the centre, the rent will go on decreasing. The law cannot be counteracted by erecting storeys on the building, for as you go up, inconvenience is increased and the rent decreases.

18. The Law of Diminishing Returns is Universal. It has been pointed out that the law of diminishing returns applies to agriculture and other extractive industries and one thing that is common in all these industries is the supremacy of nature. It is therefore often remarked that the part that nature plays in production corresponds to diminishing returns and the part which man plays conforms to the law of increasing returns. The inference is that agriculture, where nature is supreme, is subject to diminishing returns, while industry, where man is supreme, is subject to increasing returns.

Now there is no doubt that there are very strong reasons why agriculture is subject to diminishing returns. The agricultural operations are spread out over a wide area and supervision cannot be very effective. There is not much specialisation in the processes and every worker is expected to do a number of jobs at the same time. Scope for the use of machinery is very much limited. Therefore economies of large-scale production cannot be reaped. There are further limitations arising from the seasonal nature of the industry. The ripening of the crop depends on sunshine and general weather conditions and must take its full time. So the farmer is up against
several bottle-necks. Moreover, the agricultural operations are likely to be interrupted by rain and other climatic changes. Man feels so helpless. There are numerous slips between the cup and the lips. A hailstorm, untimely rain or any other calamity like locusts or a pest may undo all man's effort. Man is not a complete master of nature and no wonder that the law of diminishing returns operates in agriculture.

Similarly, it is understandable that manufacturing industries should be subject to the law of increasing returns. Here man's ingenuity has the fullest scope to work itself. By the introduction of division of labour and the use of most modern appliances, production can be increased to unimaginable limits. Concentration of workers under one roof renders supervision easy and effective. Nature's malignant influences are held constantly away. Man is free to plan, undertake and execute. He can realise all the possible economies, internal and external.

The raw material, however, represents nature's part. If the raw material used is large in quantity, e.g., in sugar industry, paper industry and pig iron industry, the prospects of increasing returns will be somewhat limited. If, on the other hand, the raw material costs are almost negligible, as in the case of pin making industry, man has full and free field and possibilities of increasing returns will be great indeed.

But it is wrong to classify industries as those subject to diminishing returns and those that are subject to increasing returns or to say that agriculture is subject to diminishing returns and manufacturing industries to increasing returns. The law of diminishing returns applies everywhere. To borrow Wicksteed's words this law is as universal as the law of life itself. Its application is not confined to agriculture only; it applies to manufacturing industries too. If the industry is expanded too much and becomes unwieldy and unmanageable, supervision will become lax and the costs will go up. The diminishing returns will set in. The only difference is that in agriculture they set in earlier whereas in industry much later and a prudent industrialist may not allow that stage to come for long. Agriculture, too, in the beginning has increasing returns. Hence both laws apply in all types of industries extractive as well as manufacturing. As a matter of fact they are two aspects of the same law, which is also known as the Law of Proportionality.

19. Present Conception of the Law of Diminishing Returns. The discussion of the law of diminishing returns in relation to land, since the times of English Classical Economists, has obscured its real significance. There is nothing peculiar about agriculture, for the law to be exclusively associated with it. As a matter of fact the law has been held at naught by scientific agriculture in progressive countries. This is evident from the fact that whereas consumption of food has increased on account of the raising of the standard of living, the numbers engaged in the production of food has actually gone down. A far smaller percentage of people is now dependent on agriculture (India of course is exception). The law
did apply to English agriculture of one time. But “Malthus and his successors raised a phenomenon that was purely local and temporary, into a genuine historical fact of universal application”.

The Law of Diminishing returns simply refers to a principle of combination of factors. In a general way it can be stated that if a variable factor is combined with a constant factor, the average and the marginal return for that variable factor will diminish. This is simply due to the fact that the combination does not represent a correct proportion of the factors. There is too much of one factor in relation to others. Attempts will be made to restore the balance and when proper balance is restored, the law of diminishing returns will no longer apply. The operation is therefore a temporary one. It is all due to the scarcity of factors of production. If in a combination of factors there is dearth of one of them so that its additional supplies cannot be obtained or they are inferior, the law of diminishing returns is bound to operate. In the words of Chapman, “The expansion of an industry, provided that additional supplies of some agent in production which is essential cannot be obtained, is invariably accompanied at once or eventually by decreasing returns, other other things being equal.” The operation is more marked in agriculture, as the additional supplies of land cannot easily be obtained, otherwise it applies everywhere. Benham thus states the law: “As she proportion of one factor in a combination of factors is increased after a point, the marginal and average product of that factor will diminish. This assumes that state of technical knowledge is given and there are no economies of scale”.

The Law of Diminishing returns means the law of increasing cost: Conceived thus it states that increased application of some factors of production while others are constant will lead to output being obtained at increased cost per unit. You can say that either the return goes on decreasing or the costs go on increasing. It is the same thing.

20. The Importance of the Law of Diminishing Returns in Economic Theory. The Law of Diminishing Returns has formed the basis of a number of economic doctrines propounded by English Classical Economists especially Malthus and Ricardo. It was represented as an inexorable law of nature and accounted for a lot of pessimistic thinking in Economics and earned for it the title of a ‘Dismal Science.’ The Malthusian theory of population which says that population increases faster than the food supply is obviously based on the fact that the production of food is subject to the Law of Diminishing Returns.

The Ricardian theory of rent explains the determination of rent on the assumption that inferior lands have to be cultivated on account of the operation of the Law of Diminishing Returns. The margin of cultivation descends and rent rises. The optimum size of business is explained again by the working of this Law. The marginal utility theory of value and the marginal productivity theory which determines the share of a factor of production in the national dividend are based on the operation of this important Law. The Law of Diminishing Returns, therefore, occupies a very important position in the realm of economic thought.
CHAPTER VII

AGENT OF PRODUCTION—LABOUR

1. The Meaning of Labour. In our ordinary speech we understand by Labour all factory and farm workers or a mass of unskilled manual labour. But in Economics the term labour is not used in this restricted sense. Any work which is undertaken for a monetary consideration is Labour, whether it is manual or mental. Again, the term does not refer to the intensity of effort but its motive. Effort and skill are involved in the work of an athlete, an amateur musician or a painter; a mother takes lot of pains in bringing up her child or a professor teaching his own son. These activities do not come under labour, for they are undertaken for pleasure or for love and affection for others, they are undertaken for non-monetary considerations. Nothing is regarded as labour in Economics unless the motive is to earn money. In the words of Marshall labour may be defined as “any exertion of mind or body undergone partly or wholly with a view to some good other than the pleasure derived directly from the work.”

Marshall classifies workers as hard-handed or soft-handed. In the former may be included the work of engineers, artisans and unskilled workers and in the latter the work of the ‘white-collar’ class, viz. professions like lawyers, doctors, teachers, preachers etc.

Labour may be exerted in the direct production of a commodity, e.g., making a chair, or indirectly in assisting the work of actual producers so that the commodity reaches the hands of the consumers when they want it or where they want it; e.g., the work of transporting, stocking, distributing, banking and insurance, feeding the workers, supplying them materials and equipment and a host of people rendering direct personal services to the long chain of workers. The term labour in Economics is therefore used in a very wide sense and in the words of Nicholson ‘must be held to include the very highest professional skill of all kinds, as well as the labour of unskilled workers and artisans; we must include not only the labour of those engaged in business in the ordinary sense of the term but that of those employed in education, in the fine arts, in literature, in science, in the administration of justice, and in government in all its branches; and we must include also, not only the labour that results in a permanent form but also that renders services which perish in the act.’

2. Productive and Unproductive Labour. Physiocrats, the French economists of the 18th century, started this controversy of productive vs. unproductive labour by saying that only the agriculturists’ work was productive. Later, the title was extended to cover the manufacturers’ work. But even as late as Adam Smith the term

productive labour was used in a very narrow sense. Adam Smith regards all that work unproductive which does not fix or realise itself in any particular subject or vendible commodity". The services of the domestic servant are unproductive as they perish in the very instant of their performance. He goes on: "the labour of the most respectable orders in society is like that of menial servants unproductive of any value, e.g., the sovereign with all his officers both of justice and order, army and navy". This conception is wrong. According to this view unless labour produces 'material' value, it is branded as unproductive. This notion emerges from the definition of Economics as studying the causes of material welfare. But according to our present conception of Economics, it is concerned with the disposal of means which are limited in relation to wants. We would, therefore, regard all activity as productive if it satisfies a human want by the utilisation of scarce means, whether it is a tangible commodity or an intangible service. All the classes of people, therefore, whom Adam Smith regarded as unproductive, are really productive. In a sense, thus, all labour is productive.

What about the labour which is wasted, misdirected or fails in its purpose, e.g., labour spent in digging the Panama Canal which collapsed? Marshall would exclude this labour from the category of productive labour. But this too is not a correct view. Even the labour which failed to fructify did get the remuneration all right. No labour can be said to be completely wasted. The failure is accidental and temporary. The motive was productive and the result is immaterial. There are certain classes of people, however, who do not make, nor are they intended to make, any contribution to production in the community. They may, on the contrary, detract from it, e.g., pirates, dacoits, thieves, paupers, gamblers, illegitimate speculators, pick-pockets etc. For themselves their activity is sometimes quite productive. But all such anti-social activities should be regarded as unproductive. The work of the quack or the one who ferments harmful liquors or drugs or that of the writer of pernicious books is regarded as productive in Economics as their services are wanted by some people who are prepared to pay for them. In Economics we are not concerned with the ethical side of the matter. Insurance work and legitimate speculation are to be regarded as productive, because their services are so useful to the producers.

3. Peculiarities of Labour. Labour is manifestly different from the other factors of production. It is a living thing and that makes all the difference. Labour is not only a means of production, but an end of production. The seller of labour is different from the seller of an ordinary commodity. There are certain characteristics which distinguish labour from the rest of the factors of production. In the first place labour is inseparable from the labourer himself. The commodity he has to sell must be delivered in person. The environ-

ments in which labour has to work are of the utmost consequence. Secondly, labour does not last. It is perishable. A day without work is gone finally and irrevocably. The perishability of the 'commodity' he has to sell necessitates immediate sale irrespective of the price. As Erich Roll remarks, 'he has no reserve price.' Thirdly, changes in the price of labour react rather curiously on its supply. In the case of ordinary commodities, supply is directly proportionate to price, i.e., higher the price more the supply and vice versa. But in the case of labour a fall in price (i.e., wage) below a certain point may increase the supply. Some of the non-working members, too, may join to make sufficient income for the family to maintain their minimum standard of living. If price (i.e., wage) rises beyond a certain point supply may contract. It is well known that increased earnings by Indian labour sometimes add to the degree of absenteeism in the factories. Fourthly, labour has a very weak bargaining power. It is not easy to withdraw the supplies. The employers take advantage of this helplessness of the workers and often pay them less than their due. Finally, there can be no rapid adjustment of the supply to demand. If, as in depression, demand decreases supply cannot be contracted and the wages must fall. But when war takes place and there is increased demand for man-power, wages invariably rise. Supply of men like supply of wheat cannot be increased by next year.

The bearing of these peculiarities will be clear when we discuss the determination of wages. The theory of wages would have been different had labour been just a commodity. But these peculiarities are often exaggerated. Other factors, too, exhibit these characteristics to some extent. If any other factor is not used, it also deteriorates. To the entrepreneur man is just like a machine and he substitutes one for the other to the utter neglect of human qualities. The same demand and supply formula broadly speaking determines the price of labour. That labour should be treated differently from a commodity is a social question rather than an economic question. To the economist, as an economist, social considerations are extraneous and irrelevant. The entrepreneur takes advantage of the weakness of the sellers of other materials, if they are ignorant and have little staying power. The supply of several other and essential materials is often inelastic. These so-called peculiarities, therefore, should not lead us to think that laws applying to labour are vastly different. In all phenomena arising out of scarcity of means and multiplicity of ends, the same rule of economic analysis undoubtedly applies.

4. The Quantitative Aspect of Labour. To estimate the labour force of a country, two things have to be considered, the number and efficiency, i.e., the quantitative and the qualitative aspect. Let us take the quantitative aspect first, which relates to the problem of population.

The rapidly increasing population of England encouraged by a misguided Poor Law impressed him very deeply and he feared that the pressure of population would pull down the standard of living. He thought England was heading for a disaster and he considered it his solemn duty to warn his countrymen. He deplored "the strange contrast between overcare in breeding animals and carelessness in breeding men."

His theory is very simple. To use his own words: "By nature, human food increases in a slow arithmetical ratio; man himself increases in a quick geometrical ratio unless want and vice stop him."

"The increase in numbers is necessarily limited by the means of subsistence. "Population invariably increases when the means of subsistence increase, unless prevented by powerful and obvious checks."

He bases his reasoning on the biological argument that every living organism tends to multiply to an unimaginable extent. The elephants double every 100 years. A single pair of thrush would be equal to 19,500,000 after the life of the first thrush and 20 years later 1,200,000,000,000,000,000,000, and if they stood shoulder to shoulder about one in every 150,000 would be able to find a perching space on the whole surface of the globe. According to Huxley's estimate the descendants of a single greenfly, if all survived and multiplied, would, at the end of one summer, weigh down the population of China. Human beings are supposed to double every 25 years and a couple can increase to the size of the present population in 1750 years. So prolific is every specie. The power of procreation is inherent and insistent and must find expression.

But food supply, according to Malthus, is subject to the Law of Diminishing Returns. Every effort to produce additional food for additional population gets less than proportionate reward. The response is far less encouraging. Malthus, then, comes to the conclusion, on the basis of the above two premises, that population tends to increase faster than food supply unless, of course, it is checked by preventive checks or positive checks like war famine and disease.

6. Criticism of the Malthusian Theory. The Malthusian theory of population has had a mixed reception at the hands of the economists. The critics point out that Malthusian pessimism is not borne out by history in the Western countries. Population has increased but it has not outrun the means of subsistence. In fact people are now enjoying a much higher standard of living than Malthus perhaps could imagine. According to his gloomy forecast the deluge would have come long ago. Not only it has not come, but it is receding beyond the horizon.

People have made such a fetish of standard of living that the size of the families has been deliberately restricted by not marrying, or marrying late, or having at the most one or two children, so that the social status of the future generation is assured and guaranteed.

Malthus thought that the increase in the means of subsistence would increase population. Far from it. Increase in material prosperity has, perhaps by lowering fecundity, checked the growth of numbers.

Malthus unduly emphasised the production of food, whereas production of wealth in other forms has been found to be a better way of combating the tendency to lower standards of life on account of increased population. Production of food may be subject to diminishing returns but a country may produce wealth through manufacturing industries enjoying the benefits of increasing returns and import its food from abroad.

The gloomy forebodings of Malthus have been falsified also by the increasing use of contraceptives by the middle and upper classes. The population of the western European countries, especially that of France, has been notoriously stationary. It is, however, to be regretted that population is increasing at the wrong end. The poor people, who can ill-afford to bring up and educate children properly, are multiplying, whereas the rich, who can replenish the better quality stock are, for selfish reasons, applying brakes on their breeding propensities. The result is the impoverishment of the nation.

Malthus does not seem to have grasped fully the fact that the Law of Diminishing Returns can be held in abeyance almost indefinitely. Remarkable developments in agricultural technique, means of communication, exchange etc. have successfully fought this tendency. The Law of Diminishing Returns refers to the stationary equilibrium and it is wrong to apply it to the data of change. The world is dynamic rather than static. The law in its modern conception cannot form the basis of so depressing a theory as the Malthusian Theory of population. The increase in population may lead to more effective utilisation of other productive resources and thus produce more than proportionate returns. Moreover, mathematical proportions given by Malthus have been challenged. But these were apparently introduced for purposes of emphasis and did not form an essential part of his theory.

In spite of what has been said above, there is a kernel of truth in the Malthusian theory. If population is not checked either by positive checks or the preventive checks, it must outstrip subsistence. It is bound to overtake scientific progress. The widespread use of contraceptives may be interpreted as proof of his theory and it shows that preachings of Malthus have gone home. We in India find ourselves in that unenviable position which Malthus feared. We have the highest birth rate and highest death rate in the world. We have been increasing roughly at the rate of 10% per annum and what are the consequences Grinding poverty, ever-recurring epidemics, famines, communal quarrels, infanticide at one time, the lowest standard of living in the world. It is difficult to dispute the veracity of Malthus' teaching.

7. MODERN THEORY OF POPULATION: OPTIMUM THEORY

Modern economists have rejected Malthusian theory of maximum
population, which if exceeded, will bring misery. They have substituted the idea of optimum population. By optimum population is meant that ideal number that a country should have in relation to its resources. With such a number the per capita income would be the highest possible and the individual satisfaction the maximum.

If the population is below the optimum then it will be inadequate to exploit the material human resources and the country to the fullest extent possible and every increase in population will be desirable. If, on the other hand, the optimum is exceeded, then there are too many people and the resources will be thinly spread over a large number. Diminution in population in that case would increase per capita income.

The optimum is not rigidly fixed, it advances and recedes according to the increase or decrease of productive resources of the country. Size of the population is not to be considered large or small absolutely. It refers to the resources available. Even a small population may be too large if resources are inadequate and a large population may not be considered too much if there are resources sufficiently worked and exploited.

It is, however, very difficult to say what is the optimum number. Apart from the difficulty of calculating it, there is the changing data. Discussion of optimum is, therefore, of an academic interest.

Some economists say that economics is not concerned with population theories. They concern the social reformer and the politician.

8. The Qualitative Aspect of Labour—Efficiency. Labour supply of a country is not merely a question of quantity. The quality of labour or efficiency is as important. In his evidence before the Indian Labour Commission, Sir Alexander McRobert pointed out that an English worker was 3.5 or even four times as efficient as an Indian worker. What is the reason?

There are several factors which explain the relative efficiencies of workers in different parts of the world or in different parts of the same country. There are, in the first place, natural and climatic factors. A cool bracing climate is conducive to hard work, whereas hot tropical climate is enervating. Similarly, where sustenance has to be wrested from nature by persistent effort of man, the human stock is superior to those where nature is bountiful and breeds indolence, lassitude and listlessness. Thus the inhabitants of cold and temperate regions where nature is niggardly are more hardy and efficient than those of the tropics or sub-tropics.

Then there are individual and personal qualities of the worker himself. A worker who has a stronger physique, mental alertness, intelligence, resourcefulness, initiative and possesses a higher sense of responsibility will be more productive and will need less supervision or driving. If he is morally superior, is sober, honest, cheerful, self-reliant, his contribution to production will be immeasurably larger than one who lacks these qualities. Education of all types, general, technical and commercial, can do a lot in stimulating and strengthening right type of instincts and building up the necessary qualities.
Some of the personal qualities depend upon heredity and the social stock to which the worker belongs, and some of them can be acquired by a sound system of education and healthy environments.

Labour efficiency also depends on the level of organisation of the industry and the equipment. Second-rate entreprenuers using second-hand machinery and third-rate materials cannot expect a first class work. If the surroundings are depressing efficiency must be low. Cramped factories, ill-ventilated, imperfectly lighted and unclean, insanitary surroundings, situated in crowded cities and smoking atmosphere must needs lower efficiency. Long working hours with no suitable pauses, leaving time for relaxation or recreation, cannot but impair labour efficiency. In order to raise and maintain efficiency, it is very necessary that the worker should at least get a living wage which can ensure an adequate supply of food, clothing and healthy housing conditions. Labour must be also properly organised both inside the factory in suitable forms of division of labour and outside in trade unions.

Social and political factors also count in determining labour efficiency. Social security schemes guaranteeing freedom from want and fear removing the dread of unemployment which always hangs like Democles' sword on the workers' heads, cannot but raise up the moral tone and improve efficiency.

It is well to remember that production is a co-operative effort and labour efficiency does not merely depend on personal qualities of the workers. Other factors which are beyond worker's control are more important. The Indian labour is comparatively less efficient not on account of some inherent deficiencies but because of natural, and environmental factors. He lives in enervating climate which gives him a poor physique and the extreme heat and cold render the factory work a great ordeal. The mere pittance that he gets enables him just to live out miserable existence. The factory conditions are very depressing and alien to his natural tastes. The work is no pleasure; it is all drudgey. The entrepreneurial skill and factory equipment are of a low order. Little wonder that he is not very efficient. He is condemned to long hours of work which compel him to snatch leisure somehow. He is illiterate and conservative. Conditions being as they are, it is really surprising that he can even do the amount of work that he is doing.

An efficient labour force is a great blessing to a country and a powerful instrument of economic uplift and regeneration. They will not need much supervision, will not waste material or damage machinery. They work more intelligently and show initiative and responsibility. The whole atmosphere will be heartening when cordial co-operation pervades all round. They will be able to take patriotic interest in the industry. Increased output at decreased cost will give a pull to the country in international competition. The Japanese industrial supremacy is largely due to Japanese labour.

9. Use of Machinery. Modern age is the age of machinery. Although man always used some sort of tools and implements yet it is quite different today. The machine dominates the man. Machines of enormous strength, of wonderful delicacy and amazing in-
tricacy have taken possession of almost the entire productive system. Mechanisation has gone to lengths undreamt before. In the coal mines in Germany, from the bottom of the mine to the delivery of the coal at the other end it is untouched by human hand. Man seems to have become almost superfluous.

Introduction of machinery offers great advantages. The advantages can be traced in the improvement of the products, the relief to the worker and in the general welfare of the community. It is only through machinery that man has increased his mastery over nature, so that its stupendous forces have been harnessed into the service of humanity. Electricity which is so useful to man has been generated from waterfalls with the aid of machinery. Physical limitations of time, space and gravity are fast disappearing. The sensational discovery of the atomic bomb is likely to bring about a revolution in the world of transport and in every phase of mechanical production. The possibility of journey to the moon is not ruled out. Human hands could not work so fast or so accurately. A cigarette factory can produce 250,000 cigarettes in a minute. A very ordinary bulb factory in India is making 2,500 bulbs daily. You cannot count the number of pins that can be made by machine. A handworker stands aghast at such speed. The machine works with wonderful precision so that every article turned out is exactly like another. Without such a standardised production and without machines with interchangeable parts modern industrial system would not have achieved anything. Processes in different industries being very similar, labour has been given added mobility. Interconvertibility of industries has been rendered possible. This has been amply demonstrated during the war when the industrial system promptly responded to the call of war. By the production of cheap and serviceable articles and by the extension of transport facilities the community has benefited immensely. Printing of cheap newspapers and books, which has been made possible by machinery, has been an effective means of enlightenment, the worker has been relieved of arduous and disagreeable work. He has got more leisure by the shortening of the working day. Besides, the level of his intelligence, skill and dexterity has gone up.

But there is the other side too. Congested, dingy and insanitary cities, over-crowded factories with all their attendant dangers to human morals, exploitation of women and children, loss of independence by the craftsman are some of the by-products of the use of machinery. The craftsman has been reduced to the position of a machine tender. We know to our cost how machine competition from abroad destroyed our indigenous industries and the producers of Dacca muslin swelled the ranks of the unskilled labourers. Man is treated as a mere cog in the machine. Artistic production has disappeared. Shoddy and unreliable goods produced for profit have flooded the markets. All the evils of factory system and capitalism are laid at the door of machinery.

How far is machinery responsible for displacement of labour or unemployment? Luddites destroyed machines on the ground that man
would be thrown entirely on the scrap heap. No doubt the immediate effect of machinery is the displacement of labour. "Those who are displaced, especially the old hands, may never get a job and those who do may be able to secure less remunerative employment. To what extent man will be displaced, and for how long will depend on the adaptability of workers and the ability of the entrepreneurs to adjust to the new situation. Adjustments are sure to be made and ultimately, and in the long run, there will be a much larger volume of employment. Who can doubt that England today provides employment for infinitely larger mass of people than it could do before the industrial system. More employment is created in this way. Machine-made goods are cheaper; demand for them increases and the larger volume of production will reabsorb some people; or demand for some new goods will be created as men will be required to make them. If men do not buy more goods, they will save; capital will accumulate and more industries will be started. Men will be needed for making machines, for repairing them and for doing so many allied jobs. The number of new openings created by machines really passes one's imagination.

10. Division of Labour. Besides the extensive use of machinery, discussed above, another outstanding feature of modern production is the division of labour. As a matter of fact division of labour and the use of machinery go hand in hand. One leads to the other. We find today that the making of an article is split up into several processes and each process is carried out by a separate group of workers. The processes may be further split up into sub processes. Making of cloth, for example, is divided into spinning, sizing, weaving, finishing etc., to take only the chief processes. This splitting up of the process of manufacture is known in economics as division of labour. This is a traditional term, specialisation of labour seems to be more appropriate.

Several advantages are claimed for the system. Adam Smith's contribution to this part of the economic theory is still regarded as classic. What immense increase in productivity has been brought about by the system of division of labour, he illustrates from the example of pin-making industry. The making of a pin, he describes as split up into 18 distinct operations and 10 men can make 48,000 pins in a day and one worker may be considered to have made 4,800 pins in a day. In the absence of division of labour and machinery, one man could scarce have made one pin and certainly not twenty. No doubt the productive capacity of the community is immeasurably greater today than it ever was. It is wrong however to attribute the entire increase in production to division of labour to the neglect of other factors. The advancement of technical knowledge, various inventions and discoveries and the growth and accumulation of capital are the other important factors. Science has enhanced productive capacity of the land and education has improved the quality of the human factors. All have contributed to add to the productive capacity of community. As Benham remarks, "a fraction of the present population could exist and that fraction at
a very low standard of living" without such increased productive capacity.

To resume the advantages of division of labour, it is well known that practice makes a man perfect. After repetitive performance of the same task, the man becomes an expert and there is an instinctive co-ordination of muscle and mind. He acquires an aptitude for the work, if he not it had already. His job does not claim his full attention and he can easily think of doing it in a better way. The mechanical nature of the movement facilitates invention and releases the mind of the worker for other thoughts which may add to his intellect. As soon as a job becomes mechanical, it is sure, in the course of time to be taken over by machinery.

Less time is needed to learn a specialised trade but the worker commands higher price on account of specialised knowledge. Also the job is done more quickly, because no time is wasted in going from one job to another. The community gain's, therefore, by the production of cheap goods, and better quality goods. The introduction of machinery is facilitated and the production becomes more and more roundabout or capitalised which enables the community to satisfy its wants better. There is an all round increase in dexterity skill, inventiveness and organising ability. New processes create diversity of employment for the mass of the workers offering to the workers a wide choice of more suitable jobs so that each worker gradually gravitates to the work for which he has got an aptitude. The system of division of labour redounds to the benefit of the entire community. In the words of Adam Smith, "it is the great multiplication of the productions of all different arts in consequence of the division of labour, which occasions in a well-governed society that universal opulence which extends itself to the lowest ranks of the people".

But, as Chapman says, "productiveness of a method of production is not the sole test of its value—to get many commodities is not the only end in life." We have rather to see how man, for whom production is meant, has been affected by the division of labour. Considered in this light, it has not proved to be an unmixed blessing. The work has undoubtedly become more monotonous, tedious and devoid of all interest and pleasure. Its narrowing effect cannot be ignored. It has been said that if a man has been making the 1/18 part of a pin, he must have become 1/18 part of a man. Doing a job has an educative effect but if it consists in repeating a simple movement, it will certainly cramp a person's mind and narrow his outlook on life. Monotony is soul killing. Charlie Chaplin's picture "Modern Times" may be considered quite a fair representation of the adverse effect of division of labour on workers.

The worker loses all sense of responsibility and pride which results from the expression of creative instinct which can be satisfied if one produces a complete article. Industry is thus de-humanised.

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If the article is defective and machinery is mishandled, all will shirk responsibility. The master-craftsman loses his skill. If he happens to be out of job, he may not be able to secure the job in which he has perhaps been specialising all his life. Besides, the system facilitates the employment of women and children and thus disrupts domestic life. It creates, therefore, serious social problems.

Division of labour has, however, come to stay. Shortening of the working day and thus increasing leisure and diffusion of education and raising of remuneration are some of the measures that can be adopted to counteract the bad effects of division of labour on worker's life and personality.

Does it mean that under the system of division of labour, a worker is put on the work for which he is best fitted? Not necessarily. The employer, of course, makes every effort to fit in every person in the job for which he is best fitted. But it may not be always possible. It all depends on demand. No worker is so specialised as not be able to do anything else. Of the several alternative jobs that he may be able to do, he will get one for which demand exists and this may not happen to be his best.

II. Division of Labour is Limited by Market. This is so obvious. If the shoemaker is able to dispose of one shoe in six months, it will look foolish if he sets half-a-dozen persons on the making of soles, half a dozen on the making of uppers and another six persons in joining them. There must be demand for his product before he can adopt such methods. Division of labour implies large-scale production and it is meaningless to produce more in the absence of a market for goods. Market must either be there or it must be created for goods produced under the system of division of labour. The limiting factor for the introduction and extension of division of labour is, therefore, the existence of a wide market.

But no individual entrepreneur looks at the matter like this. He considers the market while fixing the size of his plant and when he has done that the extent of the division of labour will depend on the nature of the machinery installed and the number and variety of the people employed. It will depend also on entrepreneur's own organising ability. The human limitations of the division of labour seems to be more important.
CHAPTER VIII

AGENTS OF PRODUCTION—CAPITAL

1. The Nature and Meaning of Capital. Widely different views are held by economists about the concept of the term capital. As Chapman remarks the term 'is current in distractingly discordant, though related, senses'. It is possible to reconcile these views, though it has not been found feasible to construct a universally acceptable view of capital.

The essence and nature of capital is very clear. It is correlative to income. Some part of a man's wealth is so kept or utilised as to bring him an income or to assist him in the productive process. This part of his wealth is known as capital. To serve as a source of income or as an instrument of production are the two aspects of capital known as the acquired aspect and the natural aspect respectively. There is little difference between the two. One looks at capital from the point of view of the actual producer of goods and the other from that of the investor.

Capital in the words of Chapman "is wealth which yields an income or aids the production of an income, or is intended to do so". Thus it includes railways, ships, canals, factories and all types of tools, implements and machinery as well as investments in stocks, shares and securities and bank deposits.

Capital is also considered as a reservoir of goods which yields a flow of satisfaction or utility in connection with further production. To quote Erich Roll, "capital consists of the flow of subsistence means which is destined for capital goods".

The earliest idea about capital was to feed the worker when he was engaged in production. Such ideas can now no longer apply because production in modern times is not an individual act but it is the outcome of a complex combination of so many factors. Production and consumption cannot now be separated by successive stages. They go on continuously at the same time. Pigou likens capital "to a lake into which a great variety of things, which are the fruit of savings, are continuously being projected. All things that enter the lake eventually pass out of it again."

Further, capital does not merely help in the production of consumers' goods but also producers' goods which get used up and wasted.

A distinction is sometimes made between capital and capital goods. Machines and tools are capital goods, but capital is a general term covering aids to production of all types.

Let us examine the case of some goods and see whether they are capital or not. About producer's goods like machinery, transport equipment, and consumers' goods in the hands of producers for the avowed

1. Chapman—Outlines of Political Economy, 1920, p. 73
purpose of aiding production, there cannot be the least doubt. But what about the consumer's goods in the hands of consumers? There are two views on the point: Some economists hold that they are not capital, the reason being that so far as they are concerned production is complete and there will be no further financial transactions. Benham replies to these arguments by saying that although these goods have reached the consumers, yet the matter is not finished. They will still continue to yield a flow of service and for many years in case of durable goods like houses, furniture, radio sets or cars. It is for these services that these goods are valued. Also, that some further transactions are still possible. One may decide to let out his house or use his car as a taxi. To Benham it seems odd that a doctor's car should be regarded as capital when he goes to visit a patient and not capital when it is used for the family for an outing. He would, therefore, regard all these goods as capital. Anomalies like the above are bound to arise. But it is not difficult to know whether a good is primarily meant for getting an income or not. In the former case we can put it in the category of capital.

2. Some Doubtful Cases. Is land capital? We have discussed this question elsewhere and we may simply repeat that the significance or the peculiarities of land are exaggerated and it would look more logical to regard land as capital from an individual point of view. But considering that it is such an important form of capital, we shall treat it separately according to the traditional view on the point.

(a) Is money capital? In an exchange economy all capital must take a monetary form. But whereas all capital may be money, all money is not capital. Before money can become capital, it must be invested and used for production purposes.

(b) Are personal qualities like a surgeon's skill or a typist's dexterity capital? No. We have already excluded these qualities from the category of wealth on the ground of not being transferable. It is argued that if a man invests Rs. 2000/- in learning dentistry and similar amount on dentist's equipment, why should one be regarded as capital and the other not? A pertinent question. Adam Smith says, "The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade which facilitates and abridges labour and repays the expense with a profit." But there are good reasons for distinguishing between the dead equipment and the living conscious person. Some economists are prepared to give it a courtesy title of personal capital.

(c) What about the free agents like rivers and mountains? Again, it seems illogical to regard canal as capital and exclude the rivers from this category, although rivers may be more useful. Here again we depart from logic and tread the path of convenience. Such things are not capital in the accepted sense, because capital refers to produced agents of production. They are, however, sometimes called natural capital.

Is all wealth-capital? There is another view of capital, a very
wide one. It regards *all wealth capital* on the ground that everything that a man possesses, does directly or indirectly exercise some influence on the production of wealth. If, for example, a man's house got accidentally burnt up, he will have to build it. For this purpose he will have to divert productive resources from other directions and his income is bound to be adversely affected. Anything the presence of which helps in production and absence retards it must obviously be regarded as capital. There is another argument to support this view. Everything yields a flow of satisfaction i.e., income and hence everything must be regarded as capital.

It is sometimes suggested that distinction between what is capital and what is not capital is a matter of psychology. It all depends on the owner's intention. If I buy a watch so that I may be punctual at my job, it is capital; but if my motive is just to decorate my wrist, it is only a consumer's good.

It is clear from the above discussion that it is very difficult to lay down dogmatically what is and what is not capital. Every case has to be examined on its own merits. We would prefer to conclude by saying that capital is an instrument of production and a source of income.

3. **Capital and Capitalism.** Capital may be distinguished from capitalism. The term capital refers to means of production and capitalism to that form of economy under which capital is owned and managed by private individuals exclusively with an eye on their own profits. Those who condemn capitalism do not condemn capital. Capital is a useful aid in production. It is the abuse of capital under capitalism which is condemned.

4. **Origin and Growth of Capital.** A Robinson Crusoe must accumulate a store of food before he can think of devoting a few days to the making of a hunting piece. For some days he must not eat all he gets. He must exercise some restraint or undertake what in economics has come to be known as 'waiting'. Abstinence or waiting is said to be the origin of capital.

But it is conceivable that the earliest weapons may have been the outcome of the gratification of creative instinct rather than originating in any economic motive. In that case the source of capital is pleasure rather than pain involved in abstinence.

In the case of rich people who go on saving almost automatically, after indulging in all sorts of conceivable luxuries, there is no pain or sacrifice which the word abstinence implies. We arrive at the same conclusion in another way. We have discussed elsewhere that the resources being limited their disposal involves a choice. If we want to get one thing we must sacrifice another. Our scale of preferences determines what course we adopt. If a man has decided to save rather than spend, it is clear that the former course is higher up in his scale. He prefers to save, it gives him greater pleasure than to spend. Hence saving involves no pain. Starting with a few crude implements, capital has assumed the form of mammoth machines through the inventions and discoveries of centuries.
5. What are the factors responsible for the accumulation of capital? As Taussig says, 'Capital is made or created. But capital is also saved and accumulated.' Several factors have contributed to the huge savings which take the form of capital. Broadly speaking accumulation of capital depends on power to save and will to save.

Power to save in the case of an individual depends on the surplus of income over expenditure. In the case of a nation it depends on the efficient organisation of trade and industry, development of means of communication and transportation and the gearing up of the credit and banking machinery. Fullest exploitation of natural resources and the highest development of the human resources through a sound system of education and public health cannot fail to exert their influence in augmenting the capital resources of the country.

The will to save depends on the various motives which actuate human beings to save, e.g., family affection, the desire to rise in the estimation of one's fellow beings and to acquire social and political influence or merely the desire to win success, the relative importance attached to present and future gratification etc. Some persons by nature discount the future at a heavy rate and with others saving has become almost instinctive.

The security of life and property provided by a stable government strengthens both the will and the power to save, so also the various channels of investment, e.g., banks, insurance companies, existence of sound commercial enterprises, the issue of government securities etc.

High rate of interest also acts as a powerful lever for saving. Many more people are induced to save and the stream of saving secures numerous tributaries. But the influence of rate of interest is exaggerated. Not many who save really think of the rate of interest. On the contrary, some people who wish to provide for a fixed income for themselves in old age or for their dependants, would save more when the rate of interest is low and vice versa.

What is the effect of social legislation like social insurance and old-age-pensions on saving? Possibly the workers may feel so secure that the edge of desire for saving is blunted. But we believe that the urge for saving is quite deep-rooted and people always save if they can. Even if the workers do not save directly and they spend more on themselves, this will enrich the human capital, improve efficiency and will add to the productive capacity of the nation.

Saving is no doubt the source of capital. As Adam Smith remarks, 'Capital is increased by parsimony and diminished by prodigality.' But it will be appreciated that mere saving is not enough. An Indian peasant saves and buries the saving under the earth. These savings are inert and dead and no capital. In order to turn saving into capital a further step is necessary, i.e., investment.

6. Saving versus Spending. If a nation saved the entire surplus over the minimum consumption, will it aid or retard production? Most probably it would hamper production. Too much 'saving would
mean investment in producers' goods and less demand for consumers' goods. It will inevitably lead to over-production and depression. Too much spending, on the other hand, will lead to raising of standard now without making provision for the future. Most of the money will be spent on consumers' goods. The production or replacement of producers, goods will be neglected to the detriment of productive capacity of the country. Saving and spending both stimulate production. Spending serves as a better indicator of the direction of productive activity but saving turned to capital may lead to misdirected enterprise. Saving takes away purchasing power from the rich and passes on to the workers thus increasing demand for necessaries and curtailing demand for luxuries.

7. Classification of Capital. We have discussed elsewhere the form or classification of wealth. Classification of capital especially private or individual capital, national capital and social capital, correspond to the classification of wealth in this connection. We shall consider here some other forms of capital.

Business capital of an individual consists of the money that he has invested in his business and also plant and machines known as producers' goods as well as those of his consumers' goods from which he may be getting an income by hiring them out.

Fixed capital. It consists of durable producers' goods like factory building, plant and machinery which are fixed up permanently and give a service for a number of years continuously. In the case of a farmer, besides agricultural machinery and buildings, it includes improvement of land in drainage, cleaning and manuring.

Circulating capital. As distinguished from fixed capital, circulating capital is not of a lasting nature. It is finished up in a single process and serves the purpose but once. It consists of raw material used in production, e.g., leather in the making of shoes or seeds, which can be used only once. According to Adam Smith the implements of agriculture are fixed capital and money used on paying wages and maintenance of labour is circulating capital. The live-stock used in agriculture is fixed, its maintenance is circulating capital. But the stock reared for sale is circulating capital. Cattle kept for dairy purposes is fixed capital. The same thing may be fixed capital for one and circulating for another. The sewing machine from the sale of which the company gets profit is circulating capital but to a tailor it is fixed capital.

Industrial capital consists of producers' goods, raw materials and consumers' goods in unfinished state and things primarily used as consumers' goods. Consumers' goods in the hands of the consumers are not included nor those things which are primarily used as such and only incidentally as producers' goods. Opinion is divided whether consumers' goods in the hands of producers should be included under this head or not.

Auxiliary capital includes fixed capital as defined above and also the stock of raw materials.
Sunk capital is the capital which has become specific or specialised and is not capable of being put to alternative uses, e.g., capital invested in an ice factory cannot be used, say, for a hosiery mill.

Floating capital is in a form that is capable of being used for several purposes, e.g., money, fuel and raw materials. Remuneratory capital, also called the working capital, consists of money or bank balance used for making payments to workers.

Consumers’ capital consists of consumers’ goods on which the producers live while engaged in productive activity.

It will be apparent that several of these classifications overlap and a few of them are of fundamental economic significance.

8. Services or Functions of Capital. From the classification of capital given above some idea can be had as to what functions capital is expected to discharge in modern production. Capital is at the service of the entrepreneur. He utilizes it, in the first place, for the purchase of instruments of production like the tools and the machines and also for the erection of factory buildings. Secondly, the entrepreneur provides himself, by the aid of capital he owns, with the necessary raw materials to be used in the manufacture of finished goods. Finally, capital is also used in providing means of subsistence, i.e., consumers’ goods for all those who are actually engaged in the work of production.

Adam Smith mentions four ways in which capital is employed (a) in procuring the rude produce annually required (b) in manufacturing the rude produce, (c) in transporting the two; and (d) in dividing the two in suitable parcels for despatch to those who want things.

The point need not be laboured that all these functions are so indispensable that production without capital today must come to a standstill. A nation without capital must be a nation condemned to irreparable misery and poverty.

9. Capital: its consumption and maintenance. A prodigal who discounts the future at a heavy rate lives beyond his means. He sells his land or house and buys consumers’ goods to enjoy himself. He may then come down to household furniture and utensils and consume them up too. Such a man will be said to be ‘living on his capital’. He has been consuming capital. He neglects to save altogether to replace his old live stock and worn out implements if he is a farmer, shop equipment if he is a shopkeeper and depreciated plant and machinery if he is a manufacturer. He has been able to live well, but at what cost? He has not provided for the future and he is consuming what he has. Not only he spends what he earns but he even fritters away his past savings. Soon he will come to the end of the tether and sink into abject indigence. He could live in grand style only temporarily.

In the same way a nation can temporarily raise its standard of living by the consumption of its capital. It may devote all its labour and capital to the production of goods of the first order affording direct gratification and neglect all repairs, renewals and
replacement of the capital goods and permanent equipment like railways, shops, factories, and buildings. In course of time they will become all unserviceable. The capital of the community, the accumulated outcome of effort and sacrifices of centuries will have disappeared. The 'community will awake after a short spell of prosperity and high standard of living and find itself reverted to primitive conditions with a standard of living unspeakably low.' This is the consequence of consuming capital. Every country has been consuming capital during the war, for the creation of new capital assets and replacement and repairing of old ones have been almost neglected.

It is, therefore, extremely necessary that the capital must be maintained intact and what Pigou calls 'physical deterioration of capital' made good. After a lapse of time plant and machinery, buildings, farm equipment and transport equipment, must inevitably wear out and depreciate. If the productive activity of the community is not to come to a standstill, regular repairs must be done to this equipment and worn out parts replaced or renewed, otherwise the capital of the community will not remain intact.

But it should be clearly understood that maintaining capital intact does not mean replacing the obsolete and worn out machinery by new machinery of exactly the same design. The world is every day changing; the horizon of technical knowledge is being ever widened and the tastes of the people too do not remain the same. When the old car becomes useless it will be replaced by one of a new model. If road transport extends, much of the railway equipment will be allowed to lapse: it will not be renewed at all and instead the road transport equipment will be created. If the people do not like gramophones, then it will be idle to renew gramophone factory equipment. The wireless-set factories will take their place. Thus maintaining capital intact implies repairs and renewals of some equipment and replacement of some old equipment, by an entirely new one. The consideration is to provide to the consumers at least the same aggregate satisfaction. In the words of Bingham, 'In general, capital is maintained in fact if given the co-operating factors the output of consumers' goods which it helps to produce in any period is regarded by consumers as yielding them equivalent satisfaction by the output of any other period.'

10. Round-about Production.1 The longest way home really turns out to be the shortest way. The modern capitalistic production is said to be a round-about one. More factors of production are devoted to the production of instruments of production which will be later used in turning out articles for direct consumption. A very small proportion of the people seems to be engaged in the production of consumers' goods. The primitive hunter just picked up a stone or a stick and killed his game. But, as Chapman says, the

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1. For detailed discussion of the subject the reader is referred to Erich Roll—Elements of Economic Theory, 1937, pp. 179-190.
huntsman of today begins his hunt, so to speak, by mining ore which he afterwards smelts and shapes it into weapons of the chase.

To bridge the gap between the application of the factors of production to the creation of instruments of production and their final use in the making of consumers' goods, a constant and sufficient flow of subsistence goods is essential, so that the workers are fed and clothed while they are engaged either in the making of instruments or the consumers' goods.

There is no special charm in the adoption of the roundabout methods. The reasons are technical. Roundabout methods are productive and make a better contribution to the satisfaction of the community. The standard of living has been vastly improved by the use of indirect or roundabout methods of production.

Methods are not always roundabout. Inventions and discoveries do often take place which succeed in abridging and shortening the productive process. Modern production is called roundabout because more effort is being exerted on the production of producers' goods, which in their turn will produce consumers' goods. Mere roundaboutness is no special qualification. The roundabout process may not be the more economical but it is generally found that the roundabout methods are economical. As Chapman remarks, 'a process is not more economical because it is more roundabout. But it happens that the more economical ways of doing things are frequently the more roundabout.' Dr. Hayek compares the capitalistic method to 'a fan which opens and closes as the methods employed are more or less capitalistic and clearly the more the fan opens, the greater the interval of time between the placing of the raw materials and the marketing of the final product.'
CHAPTER IX

AGENTS OF PRODUCTION—ORGANISATION

Role of the entrepreneur

1. Introduction. No factor of production alone can produce anything. Land left to itself may grow something but that something may be considered negligible in view of the magnitude of modern requirements. Labour of today has got only limbs to offer, and capital is a lifeless matter. They are, besides, to be found today lying—isolated, scattered and divorced from one another. Somebody is needed to bring them together and harness them for use in production. This work in modern times is performed by one who is called an Entrepreneur, a French word fully expressive of the meaning intended to be conveyed.

In the earlier stage of economic evolution, the independent worker owned his own land or working place, supplied his own capital, worked with his own tools, planned the operations himself, and stood by the result of the venture. He was in short the landlord, the labourer, the capitalist and the entrepreneur all rolled in one. But considering the intricacy and the scale of production today and the nature and magnitude of problems involved in modern production, undertaking of all these responsibilities by one man would be sheer madness.

2. Emergence of the Entrepreneur. In these days of specialisation a new specialist has made his appearance. He specialises in the work of organisation. He may own no land of his own and probably no capital, and he will not be expected to labour in the ordinary sense of the term. He possesses one thing, i.e., organising ability and business acumen. He will be able to get land on rent, borrow or raise capital and hire labour and put them all in an effective combination. He makes them work in perfect harmony using each factor in the right proportion so as to yield the best results.

The part of the entrepreneur consists in co-ordinating and correlating the other factors of production. He organises the work, starts and supervises it and faces the issue. He undertakes to remunerate all the factors of production, to pay rent to the landlord, interest to capitalist, and wages to labour, and pays them as production goes on in advance of the sale of goods. The residue, if any, is his. Nothing may be left after he has made the necessary payments, then his venture has been miscarried, or it may leave a handsome surplus. Whatever may be the outcome he must shoulder the risk.

Everything depends on entrepreneurs’ foresight. The intelligent entrepreneur knows that he will make the maximum of profits if he has been able to give to the consumers the maximum of satisfaction. If he has anticipated the consumer’s wishes aright, he is amply rewarded. Thus organising and risk-taking or uncertainty
bearing, as it is sometimes called, are the two chief functions of the modern entrepreneur.

3. His problems. Diverse and difficult are the problems that the entrepreneur has to tackle in the discharge of his functions. He must decide first of all which industry he should enter. He must look ahead and select an industry which is likely to expand and which being new, offers better rewards. The size of the firm, the size which he can efficiently control, receives his attention next. Having selected the industry and brought the firm into existence, he must locate his factory in a suitable place based on the consideration of the availability of factors and transport relations with regard to markets and materials. The size having been decided upon, he must wrack his head about the size, design and make of his plant, get it installed, buy the materials, recruit the labour force and deploy it most economically, and thus set the productive machinery in motion.

Hundreds of problems present themselves every day for his decision and one wrong decision may spell his ruin. The quality and the quantity of output has also to be fixed and effective marketing organisation evolved. It is indeed a super-human task.

4. Essential Qualities of a Good Entrepreneur. A successful entrepreneur must have tact, patience, sagacity, powers of observation and discrimination, be a good judge of human nature and possess qualities of leadership. It indeed needs a rare combination of qualities of head and heart which will make a successful captain of industry. There are not many Birlas, Dalmias, Tatas and Thapars in India.

5. Is he an architect of his own fate? But we should not commit the mistake of thinking that the entire productive machinery is consciously directed. It is the output of multitudinous decisions of innumerable entrepreneurs like himself. He finds himself at the mercy of economic forces and is not much of an architect of his own fate. The economic structure at any moment is full of maladjustments. There are always jolts and jerks putting the factors in proper positions tending to make for an efficient organisation and thus restoring the balance. The entrepreneur assumes the lead but cannot always have his own way.

6. Problems of the Entrepreneur. It has already been hinted what problems the entrepreneur has generally to face. His decisions mainly centre round the selection of an industry, the size of the firm and the plant, the nature of the output etc. Now a word about each.

1. The student should carefully understand the difference between these terms. The plant is the unit of production/say a factory or a farm. The firm or company, may be an individual, refers to the unit of ownership. One firm may control several plants. Andrew Yule & Co., Calcutta manages 54 different concerns. All the firms in a line go to make up an industry. Sugar industry is composed of all the sugar companies. Karam Chand Thapar & Bros. is a firm. They own several factories called the plants and they are members of several industries, e.g. coal-mining industry or paper industry or sugar industry etc.
7. Industry. This is the first and foremost question. The entrepreneur must distinguish between an expanding industry and a contracting one. A comparative survey of the various existing industries will help him to come to a useful conclusion. A study of reference books like the Investor’s Year Book or the Bombay Stock Exchange Year Book will enable him to know and compare the dividend-carrying capacity of the various industries. But it must not be understood that the decision made once on the point is irrevocable. In case he finds that he has committed an error of judgment, the labour and capital can be diverted to some other industry, although some loss will be inevitable. The entrepreneur may decide to extend an existing industry or take up entirely a new one.

8. The Problem of the Firm. The entrepreneur has to evolove a most suitable size of the firm. The larger the firm the bigger, generally, will be the profits. The entrepreneur will, therefore, be tempted to expand his business as much as he can. The question really is what limits the expansion of a business unit.

For expanding a business the entrepreneur needs fresh supplies of capital and it may not always be an easy affair. But the difficulty, however, is not insurmountable. A successful business man who has got reputation for honesty and efficiency will find capital forthcoming. People will be willing to lend money to him. Finance, it is said, is a mere camp-follower and what is physically possible is said to be financially possible. Several of his requirements he can arrange to buy on credit. Capital is, therefore, not much of a hindrance in the way of expanding the business.

But there are other difficulties and more formidable ones. As business is expanded, prices of factors of production will rise; more may have to be paid in the form of rent, wages and interest to attract additional supplies of factors. The costs will, therefore, rise. On the other hand, additional output may depress the price in the market. The costs will sooner or later overtake the income. He will go on expanding till the marginal revenue (additional income from the additional output) exceeds the marginal costs (additional costs on account of producing the additional output). The limit of expansion will reach when the marginal cost is equal to marginal revenue. By stopping short he will not get the maximum profit and by going beyond he will lose. This is a hurdle that the entrepreneur cannot cross.

The highest hurdle comes from the human factor itself, i.e., the entrepreneur’s own capacity to manage the business. Entrepreneurs of greater calibre can certainly manage bigger businesses. The business cannot be expanded indefinitely. A point will be reached when the entrepreneur will find that his business has become unwieldy and grown to unmanageable limits.

Supervision will then become ineffective. Safeguards against fraud will add to the cost. Internal economics will gradually disappear and profits will change into losses. This is in keeping with the Law of Diminishing Returns which says that when a constant factor (in this case managerial ability) is combined with
variable factors, diminishing returns will ensue. The business unit is said to be a function of the entrepreneurial ability.

There are several other considerations which limit the size. When the demand for a commodity is small, fitful and fluctuating, expansion of business is inadvisable. The unit in extractive industries like agriculture is comparatively smaller than that in the manufacturing industries and so also in trades like repairing, dress-making, jewellery-making etc., where individual tastes count and standardisation is not possible. When the articles are bulky like the bricks and cannot stand transport, the unit of business must be smaller.

Besides, the small producer in modern times has been helped to hold his own against the big producer by development like electricity, co-operative movement and dissemination of scientific and technical knowledge through the trade journals and magazines. Such knowledge is no longer the monopoly of the big business. In these circumstances the producer has not much inducement to expand his business.

9. Problem of the Plant. What should be size of the plant or the factory? The term plant refers to the producing unit as distinguished from the firm which means the unit of ownership and control. Just as there is an optimum size of the firm so there is also an optimum size of the plant. Partly, the size of the firm will depend on the size of the plant. The bigger the plant, the bigger, generally, will be the firm so what has been said about the considerations governing the size of the firm will be applicable here too.

We have already seen that much depends on demand. When the demand is limited, a bigger plant cannot be installed with profit. The individualised nature of demand will also act as a limiting factor e.g., a tailoring firm, a restaurant must be a small unit. When the industry is such that proximity to consumers is essential to understand their tastes and personally attend to their satisfaction the plant will be of a comparatively smaller size. Lack of portability, too, imposes a limit on the size of the plant, e.g., a brick-making plant or a farm producing vegetables or fruits, on account of perishability of the commodity, must be small.

In some industries like iron and steel industry the units are very large, due to the fact that integration offers many economies of scale. By-products like gases can be utilised and overhead charges reduced. In the same manner the pulp-making and paper-making sections of the paper industry may be combined or sugar making plant combined with a distillery. In modern industry, therefore, integration movement is largely responsible for enlarging the size of the plants.

The Indian Tariff Board reports give some idea as to the optimum size of the plant in the various Indian industries, e.g., 1000 looms and 40,000 spindles for a cotton mill, and cement factory with 60,000-ton daily capacity, and iron and steel concern with a productive capacity of 600,000 tons of pig iron and 400,000 tons of finished steel, a 400-ton capacity for a sugar factory and a match factory of the
daily capacity of 10,000 gross boxes. Thus the nature of demand, consideration of transport, and the prospect of reaping the economies of scale, especially those arising out of the use of the indivisible factors, and the utilization of the by-products are some of the factors which will determine the size of the plant.

10. Problem of the Output—its Quality. Having determined the size of the plant, the entrepreneur must next decide what to produce and how much. A fairly wide range of goods can, perhaps, be produced in that plant. But the entrepreneur will not produce all of them or all of them in equal quantities. The volume of production of each type will be dictated to him by his king, the consumer. It is his wish that the entrepreneur will consult. He will produce an output to suit the scale of preferences of the consumers. The functioning of the Price-Mechanism, as we have seen, will settle this matter for him.

In some cases the plant may happen to be specific and may be able to turn out only one brand of the commodity. In that case there will not be much flexibility except that amount can be increased or decreased. But it generally happens that, with some minor modifications, it is possible to make a change in the assortment of goods turned out. A cloth mill may be able to make more towels or more dhoties or more of shirting according to changes in demand.

Further, the volume of production will be governed by the condition of trade; it will expand in a period of boom and contract during depression.

11. The Scale of Production. As for the question Large scale vs. Small scale production, there are several factors which the entrepreneur has to consider. There are certain advantages associated with the small scale while the large scale undoubtedly provides scope for several economies, both internal and external.

Advantages of Small-scale Production. In favour of small-scale production it may be pointed out that the small manufacturer possesses greater degree of manoeuvrability. By prompt decision and quick execution, he can change his front and adopt new strategy as the market warfare indicates. Changes can be made overnight.

His initiative and responsibility have not been sapped by routine. He does not need elaborate system of book-keeping and checks to prevent fraud or eliminate waste of labour or material. As Marshall says, 'the master's eye is everywhere,' and supervision is both effective and sympathetic.

Not even the minutest detail escapes his notice and everything runs tip-top. Personal contact with the employees and a kind word thrown now and then will rule out the possibility of a strike or any other trouble which may threaten a breakdown of the productive machinery.

Personal contact with the customers, again, sends them away most satisfied and is productive of good results. His advantage is the greatest if the demand is local, limited and ever-changing.

He is usually the sole proprietor and enlightened self-interest
acts as a strong spur to his feverish activity and unremitting labour. With the wide dissemination of technical knowledge the number of external economies is increasing while that of internal economies is decreasing. Where business cannot be reduced to a routine the small producer has an advantage over the big producer.

**Advantage of large-scale production.** Large-scale production has advantages of its own. There is much greater scope for specialisation both of labour and machinery. Everybody can be put on the job to which he can do the fullest justice and for every job the best men can be appointed. It is well known that a big, well-established concern can set up specialised machinery. A small cotton mill cannot have its own finishing or calendering plant. A big concern can install the most modern machinery and also have its own repairing department so that it has not to depend on unreliable mistris who sometimes do the repairing in such a manner that the machine stops as soon as they turn their back. There are then the commercial advantages of buying and selling. Several producers compete to secure the custom of a big concern offering favourable terms for its purchases. On the other hand, a big concern commands a wide market for the customer can be assured of prompt and regular supply.

Its vast resources enable it to stand adverse times better. It can afford to spend large amounts on research and experiments, which, in the long run, more than repay their costs. It can spend more money on advertisement and salesmanship.

To a big concern overhead charges, or supplementary costs, as they are called, come to much less per unit. These are administrative costs or the costs of management including the salaries of managerial and clerical establishment, rent and cost of publicity and travelling salesmen.

Besides it can turn waste products or by-products to good account. A big sugar factory may not throw away the molasses but use it in the manufacture of spirit.

**12. Concept of Indivisibility.** The most important source of economy in a big concern arises from the use of the indivisible factor of production. This concept of indivisibility is a contribution of new economies (by economists like Benham) and requires careful understanding. Just think of a college hostel kitchen. It must have a minimum equipment of utensils and servants, e.g., it must supply one cook and one boy-servant. This is the indivisible factor. If you want to start a kitchen, this is the irreducible minimum that you must provide. Now if this equipment can satisfactorily serve fifteen students, it will be obviously uneconomical to have only ten students in the kitchen. Charges per head will be higher and the cook and the servant will be kept idle for some time. A larger group of students will keep them fully employed and get the utmost out of them. A professor is indivisible. He can effectively impart instruction to a class of 25 students. In a small college where the number in the class may be smaller, the authorities will not be making full use of him. He will be wasted. Same is the case with a factory. Take the case of a sugar factory. It must have a minimum equip-
ment of building, plant, clerical staff and the other miscellaneous 
establishment. The factory chowkidar is indivisible, you must 
employ him and you cannot employ half of him; similarly the clerk is 
indivisible and so is the case with other equipment. There is a 
certain amount of work which can be taken out of them. But in case 
the factory is working below capacity, then this equipment is not 
being fully used; a part of it is being wasted.

Several of our industries during the early thirties, notably the 
cement and the jute industries, were working below capacity, which is 
undoubtedly wasteful. The indivisible equipment was not being 
fully employed. The point, therefore, is that when demand is 
sufficiently large and production is carried on a large scale, equip-
ment will not remain idle, the indivisible factors will be fully employed. 
It will mean very economical production. The cost per unit of these 
factors will come to much less.

How much exactly a manufacturer will produce considering all 
the economies? The answer, in Benham’s words, will be that “Every 
firm will tend to produce that output for which marginal cost equals 
price. Differences in efficiency between firms will show themselves 
not in differences in marginal costs but in differences in output. 
The more efficient will have the larger output.”

13. Internal and External Economies. We have already 
referred to these economies once or twice. The economies of large 
and external economies.

scale production can be grouped under two headings: Internal econo-

Internal economies are ‘Internal’ to a business. They are 
business secrets and are not known to other business men in the line.
They are the outcome of a particular manager’s brain and he keeps 
them well-guarded and close. Every manager, according to his ex-
perience, has his own methods of deploying the labour force, his 
own technique of the disposition of the plant and his own peculiar 
strategy in attacking the market both for the purchase of raw materials 
and the disposal of finished goods. Just as every teacher has his own 
method or plan of teaching (though he may not be unwilling to share 
his own mode with others). The manager has, further, devised his 
of finance, when to borrow, how much to borrow, how much to be 
invested and how much kept in ‘liquid’ form. All these are known 
as Internal economies.

External economies, on the other hand, are not a peculiar property 
of any particular business. They are known to all and shared by all. 
The specialised transport facilities, the banking facilities available in 
the place, the commercial facilities offered by the big dealers from 
whom any concern can buy raw materials, the existence of supple-
mentary and subsidiary industries of which every concern can take 
advantage, also technical knowledge contained in scientific and techni-
cal journals are some of the instances of external economies. 
All can benefit from them. If they have formed themselves into an 
association as, for example, Jute Mills Association, Cotton Mills 
Association, each one of them is effectively represented in their
negotiations with the Government or Labour. Their interests are safeguarded and many problems are tackled with success collectively.

It is worth noting that as commercial and technical education spreads and other developments take place, the field of internal economies is being narrowed and that of external economies is being widened. This is happening as time passes on.

14. The Problem of Location. One of the toughest problems that the entrepreneur has to solve is the suitable location of industry. The most important consideration is the transport relation with respect to materials and markets. The Tariff Board inquiries into several Indian industries revealed unsatisfactory location. The cotton industry was over-centralised in Bombay and has been moving away from Bombay in recent times to restore the correct balance. As the Tariff Board pointed out, till 1925 there was no cement factory within 350 miles of Calcutta and 250 miles off Bombay the two biggest consuming centres. The Western Indian cement factories were far away from coal centres. Same defective location is found in the case of Sugar industry. In Bombay the consumption of sugar per capita is the highest in India but production is the lowest; in Bihar consumption is the lowest but the production is very large. This necessitates unnecessary haulage. Most of the Indian industries are over-centralised and show unfavourable transport relation regarding markets and materials.

15. What are the causes of the centralisation or localisation? There are several factors which contribute to the concentration of industries or localisation as it is commonly known. Our jute industry is centred in Bengal, iron and steel industry in Bihar, Sugar industry in U. P. and Bihar and cotton mill industry in Bombay. Coming to the Punjab, we find instances of localisation in districts e.g., hosiery industry in Ludhiana, sports industry in Sialkot, woodwork in Hoshiarpur, furniture making in Kartarpur, blankets in Karnal, Durries in Ambala etc. Why is it so?

Among the chief factors that govern localisation may be mentioned the proximity to materials or markets, nearness to source of power, availability of labour and capital. Sugar industry is to be found in U. P. and Bihar because 75% sugarcane acreage of India is to be found in these provinces, jute industry in Bengal and cotton industry in Bombay on account of nearness of raw materials and port facilities. Similarly, the iron and steel works are situated in close proximity to source of raw materials.

Sometimes the political factor is responsible for the establishment of an industry. Some of the Indian states like Hyderabad, have been offering special concessions and facilities to industrialists to attract them. In some cases religious causes making for large concentration of people give rise to some industries.

In some cases there is no particular cause except the momentum of an early start.

The most important are the natural or climatic causes which affect the growth of raw materials. The main consideration is the
cost of transport. The industry will be found in the vicinity of a large market because then it will be possible to reap the economics arising out of the use of 'indivisible factor'. It will be located near the source of raw material where it loses weight in the process of manufacture, e.g., sugar-cane in the case of sugar, bamboos in the case of paper making etc. The weight of coal when used as fuel completely disappears. 'The main reason,' in the words of Benham, 'why different districts specialise in different products is that factors of production are distributed in unequal proportions over the surface of the earth.'

16. Causes of Further Concentration. After the industry has got going in a certain place, it then has a tendency to gravitate to that place. If any new entrepreneur wants to enter in the industry, he, too, will go to that place to start his business rather than start it elsewhere. Several reasons account for this tendency. Trained labour is readily available there. Plant and accessories and raw materials can be conveniently had. Financing agencies have also properly developed in that place. Several supplementary and subsidiary industries are established in course of time, and they are a valuable aid to the main industry. Technical journals are published and associations of entrepreneurs are formed to safeguard and promote common interests. Means of communications and transportation become specialised and adapted to the needs of the industry. All these factors considerably assist the entrepreneurs. In a new place, he would simply feel at sea and will find even easy and ordinary problems difficult of solution. Above all, there is what is called industrial inertia. These are some of the factors which explain the persistence of industries in certain localities.

17. Advantages and Disadvantages of Localisation. All the factors mentioned above as the causes of persistence of an industry are the several advantages afforded by the place in which it has become localised. Besides, there will be mutual exchange of ideas, quality can be improved, costs lowered and common problem thoroughly thrashed and successfully solved. Labour of that category will be sure to find employment in that place.

But there is the disadvantage in that dependence of a place on one industry is dangerous. If the industry happens to be in a depressed state all the people depending on the main as well as subsidiary industries will suffer. The entire population of the place, which depends directly or indirectly on that industry, will share adversity. It is like placing all the eggs in one basket. Further, there will be little scope for the employment of any other type of labour. The specialised labour loses mobility and may not find attractive openings.

The obvious remedy is the one that is generally adopted, viz., to start supplementary and subsidiary and other allied industries.

18. Factors Making for Dispersion or Decentralisation of Localised Industries. Several developments have taken place in modern times which have plucked out old industries from their native soil and planted them into other lands. The development in the
means of transportation is one such factor. This development is a
double-edged weapon. On the one hand, it has helped the localised
industries to keep to their original home even though the supply of
natural materials on the basis of which they originally developed
has been exhausted and the market originally wide enough is no
longer adequate. Distant places can now be tapped for materials
and markets. But, on the other hand, it has helped the transport of
heavy plant to distant countries which are better markets, e.g., Swedish
match factories have been started in India and the match industry has
been helped to spread itself. Labour and technicians can be imported.

Further, the rise of rents and congestion, high land prices and
higher municipal taxation in the industrial centres have driven out
the industry, e.g., cotton mills have been shifting from Bombay to
Ahmedabad, Sholapur and Hyderabad. Finally, the advent of
electricity, which can be carried to a distance of 250 miles very
conveniently has enabled the industries to start at more convenient
places for markets and materials. They need no longer cling to the
source of power, say, coal mines, and suffer from the handicaps. On
account of these reasons several of the causes which were responsi-
ble for localisation have ceased to operate and the industries have
decentralised.

19. Delegation of the Entrepreneurial functions. We
have discussed at some length the various problems of organisation
that an entrepreneur has to solve. We wish now to point out a
tendency towards the delegation of some of his functions by the entre-
preneur to other hands.

There was a time when the entrepreneur initiated, organised,
directed and financed the enterprise. If it succeeded, he was enriched,
if it failed only he was ruined because the entire capital of the business
was supplied by himself. The two functions of organising and risk-
taking were indissolubly bound up and placed in the hands of one
man.

But since the advent of the joint-stock principle, things have
changed, although entrepreneurs of the old type still abound. We
have witnessed a splitting up of the functions. The golden rule
‘control goes with risk’ has been broken. An entrepreneur who is
a master of business technique, a man of proved capacity and known
integrity will not find much difficulty in getting round some moneyed
men and attract the necessary capital through the sale of shares and
debentures. He may invest no capital of his own. He initiates plans
and designs everything. But the actual execution of the plan may be
left in the hands of paid managers, secretaries or the managing
directors.

The shareholders, who include the directors and the entrepre-
neur, bear the risk; organising is done by the entrepreneur and man-
agement and administration carried on by salaried employees.

1. For further discussion, see Robertson—Control of Industry.
In modern times even the direction of production has passed on to merchant specialists who study the market, the state of demand at home and abroad and issue directions to the manufacturers and get the things made. We find, therefore, the entrepreneur simply initiates and organises whereas the other functions of direction and risk-bearing have been shifted on to other shoulders chiefly to the shareholders.

The development of insurance business, too, has taken off the hands of the entrepreneurs several of his worries and risks. If the treasurer absconds with money, if the factory catches fire and if the materials ordered from abroad sink in the mid ocean, the insurance companies are there to make good the loss.

Again, through forward exchanges and the activities in the speculation market, the entrepreneur by means of 'hedging' can cover his losses from unexpected changes in the price of the raw materials.

Further, he is not the only sufferer; the huge labour force employed in a big concern also share in the fortunes of the business and bear the risk.

Thus it is pointed out that the entrepreneur has shifted the financial risk to the shareholders and several other risks to the insurance companies and speculators. Work of direction is being done by merchants and management-by the salaried employees. What then is left to the entrepreneur? Have not most of his functions been delegated by the formation or joint-stock companies?

No doubt the entrepreneur has been relieved of several duties and worries but the delegation of functions is not so complete as it is supposed to be. He has generally to put in some capital. The directors of joint-stock company, who act as entrepreneurs, are the biggest shareholders and as such run the heaviest risk. Therefore there is not much of a breach in our golden rule: 'Control goes with risk.' Again, the risks which the insurance companies cover are not really business risks and it was unfair to burden the entrepreneur with extraneous risks. Pure business risks still remain with him. Similarly, speculation does not relieve him of all risks. The merchants' part in direction is only negligible; it amounts to mere suggestion. The labourers no doubt do suffer when the business fails. But their position has been compared with the passengers of a ship who can shift for themselves when the ship is about to sink, but the entrepreneur is the captain, who is the last man to leave, if he can leave it at all.

Our conclusion is that there is some delegation but not a complete one. There is divorce between ownership and control of business, the shareholders being the owners and the control being vested in the directors. The old type of capitalist-employer has almost disappeared from businesses which count in these days. In the past the entrepreneur supplied capital, he also engaged his labour force. He was, therefore, the employer; but now the actual employment and control of labour is vested in the salaried managers. They are the virtual employers and the capitalist is the body of shareholders.

In India, however, this divorce between ownership and control
has not been effected to a considerable extent. We have in India a peculiar graft on the joint-stock organisation i.e., the managing agency system. The managing agents are the entrepreneurs. They do the initiating, planning, designing and directing. They also supply the bulk of the capital. In Ahmedabad as much as 31% of the capital resources of the mills are supplied by the managing agents. If they supply finance to such an extent, they also retain the control in their own hands. The directors are their nominees and are mere dummies. 95 out of 179 directors in Bombay cotton mills in 1925 were nominees of the managing agents. It was stated before the Tariff Board by Mr. J. A. Wadia in his evidence in 1927, that if the directors took active part they had to go and Mr. Wadia was a director of 13 cotton mills. The real position is that the decisions are made by the managing agents and the directors act as their mouth-pieces. The ownership and control in Indian companies, thus, largely go together.
CHAPTER X

FACTORs IN CO-OPERATION

1. Introduction. In this chapter we shall discuss how the factors of production are combined and what problems are raised by their combination. We shall see how they are distributed over various industries and study the circumstances under which their mixing up together will yield diminishing return, increasing return or constant return.

2. Law of Substitution in Relation to the Combination of Factors. We have already discussed the law of substitution or equi-marginal return in consumption and we hinted that it was also applicable in production. It is necessary to give this point a further consideration when we discuss the way the factors of production are combined.

Factors are scarce in relation to demand. If they were free like air, no economic problems would have arisen in connection with them. We would have used them like air, till the marginal productivity fell to zero, i.e., till we got fed up with them completely and they ceased to make any further contribution to production. Even the smallest contribution would have been welcome, because it comes gratis.

But we have in fact to pay for them and they are not superabundant like air. To make this fact of scarcity less painful or to make them seem less scarce, we must choose a little more of one or a little less of the other. Substitution of one factor for another thus becomes an imperative necessity. This substitution takes place through the agency of the entrepreneur.

The community utilises all the factors of production through the entrepreneurs. The entrepreneur is frankly out for profit. Just as the consumer wants maximum satisfaction, the entrepreneur is anxious to maximise his profits. Just as the consumer gets the maximum satisfaction by so arranging his purchases, that from each direction of purchase the marginal utilities equalise, in the same manner, the entrepreneur is able to get the highest possible return from his investment, if he is able to equalise the marginal productivities of all the factors he employs. He will utilise each factor up to a point where the marginal productivity (additional productivity by the employment of a little more of a factor) is equal to marginal cost.

Not only does he equi-marginalise the productivity of a given factor for various uses, but also the marginal productivity of one factor, say machinery against another, say labour. If the marginal productivity of machinery is greater than that of labour, he would substitute the former for the latter. The result would be that, on account of the operation of the Law of Diminishing Returns, the marginal productivity of machinery will come down and that of labour will go up until the two will be equalised. Hence it is clear that the
entrepreneur constantly compares the marginal productivity of one factor with that of another. Only thus can he hit at the most economical combination of the factors of production. Whatever output he has decided to produce he will try to produce at the lowest cost per unit. He will try several permutations and combinations of factors of production. In order to devise the most efficient as well as the cheapest combination he will substitute labour for machinery and vice-versa, or land for labour and vice-versa, or capital for land and vice-versa. All the factors compete for his choice. Not only is one factor substituted for another but one variety of one factor may be substituted for another variety of the same factor. An accountant may replace two junior clerks or bullock carts may be replaced by a motor lorry. The guiding considerations will be the relative prices of the factors and their efficiency. Benham suggests the following formula.—

If the marginal product of factor A is greater than the price of factor A then it will be more profitable to use more of A and less of B.

It is necessary to remember that most of the factors are so unlike one another that it is not generally feasible to replace one factor completely by another. What usually happens is that we use a little more of one factor and a little less of another, i.e., substitution takes place at the margin. We have discussed elsewhere the concept of the marginal rate of substitution. "The marginal rate of substitution of any factor A for any other factor B is clearly the quantity of A that will just balance the loss of a marginal unit of B".

The Law of Substitution does not lead us to the conclusion that the entrepreneur will produce that output which entails the minimum total cost. If a shoe factory provides 10 shoes in a year, its total cost may be the least but it does not pay the manufacturer. He is not directly concerned with the cost; his sole concern is to maximise his profit and he does not mind spending more and more provided it adds to his profit. Similarly we can not infer from the law that his output will be such that the average cost per unit is the least. The entrepreneur cares little for the average cost. It may be going up, he does not worry the least, provided the marginal revenue exceeds the marginal cost. Our conclusion is that the entrepreneur will go on expanding his output till marginal revenue and marginal costs are equalised and the Law of Substitution simply tells us that this output he will try to produce in the cheapest possible manner. For that purpose he will discover the most economical combination of factors. This is the principle on which the factors co-operate in production.

3. How are the Factors of Production Allocated Among the Various Industries? This question has been partly answered above. Factors of production being strictly limited, it is very necessary that they are so allocated among the various industries that the community derives the greatest benefit out of them. It would, of course, be ultimately determined by the consumers’ preferences. The consumers will have to decide which assortment of goods they are
prepared to forego in order to satisfy the rest of their wants more fully.

(i) Allocation when the factor concerned is a free good. We need not worry about the allocation of a factor, which is a free gift of nature. In that case it will be combined with other factors or, what is the same thing, allocated among the industries, in such a manner that its marginal productivity is zero. Its use does not entail any cost; it will be used so long as it can make even the smallest contribution or till its extra product falls to zero. In a new country where land is enough and to spare, it will be used like air i.e., till its marginal utility is zero. In that way the return on other factors will be maximised. For example, you can maximise productivity per man by giving him say 1000 acres. After all each acre will make some contribution at least. In the same manner in a country of teeming millions like India or China where man is held cheap and other factors like machines are considered dear, labour will be used to such an extent that its marginal product is very low. It will not matter, because the wage is also very low. The price of the factor is the governing consideration. If the price of a factor is zero (i.e. it is a free gift), then it will be allocated so as to bring its marginal productivity to zero.

(ii) When a factor is not a free good. In actual practice, however, none of the factors are free gifts of nature. Each factor will be allocated among the various industries in such a manner as to equalise its marginal productivity in every industry where it is employed. No factor will be used till its marginal productivity is zero, because in some other industry, its marginal productivity is bound to be positive (more than zero). In the absence of the factors being free gifts, productivity of a certain factor, say labour, can be maximised by withdrawing the other co-operating factors from other uses. While making this reshuffle, the marginal productivities in the alternative uses will have to be compared. If marginal productivity of labour is greater in iron and steel industry and less in sugar industry, then labour will be shifted from the latter to the former till the marginal productivities in the two industries are equalised. In the same manner if land devoted to sugar-cane cultivation yields more than in growing cotton, it will obviously pay to withdraw some land from cotton growing and divert it to sugar-cane. This diversion will continue till the marginal productivities in the two alternative uses of land have been equalised. What applies to these two factors applies to all. The factors of production will be ideally allocated among the various alternative uses when there is no inducement for diverting them from any one use to another. This will be the case only if the marginal return in each use is equal. So long as it is not equal reshuffling will go on. The best allocation of the factors of production is when 'the value of marginal product of factor, will be the same in every line in which it is employed' or the equilibrium situation with regard to allocation of factors is that in which the community places the same value upon marginal product of the factor in every industry.
4. Why are Some Factors Left Unused in a Country? It will also be clear from the above discussion that it will pay a community to let some of its factors remain idle. In every country there is ample wood in the mountains. The Himalayas abound in unexploited forests. There are probably lot of minerals lying in the bowels of the earth. Only 3% of our hydro-electric resources have been developed. Why? Why do we not use all these resources? The answer is that the development and exploitation of these idle or unused factors require the aid and co-operation of some other factors. These co-operating factors are not lying idle. They will have to be withdrawn from their present uses. According to the principle laid down above, the factors are supposed to have been allocated in the manner which the community has decided to be the best. If it were more profitable to develop these resources, some enterprising entrepreneurs would have undertaken the task already. The fact that it has not been done is a proof that the marginal productivity of the factors, if used in these new directions, would have been less. Hence it is that the community is getting a better satisfaction from the factors at its disposal by leaving some factors unused. This exposes the fallacy underlying an argument that we shall increase our satisfaction by using the unused factors. The growth of other factors will, in course of time, make the exploitation of these resources worthwhile.

There is another corollary from this discussion. It always pays to discard obsolete machinery and equipment to make use of new and more efficient one, for the factors are not producing in combination with old equipment as much as they can in conjunction with the new. It is clear therefore that the cry “railway capital in danger” is false when a better means of transport either road transport or aviation, is available. The community will be able to satisfy its wants more fully and more economically with the factors at its disposal if old machinery or technical equipment is scrapped off.

5. Law of Returns in Relation to Combination of Factors. There are three laws of Returns known to economists. The Laws of Diminishing, Increasing and Constant returns. “There is said to be increasing, decreasing or constant return according as the marginal returns rise, fall or remain unchanged” as the quantity of a factor of production is increased. In this case the returns increase or decrease for a particular factor. But the industry as a whole may also be subject to varying returns. Then it is best to refer to costs of production. An industry is subject to increasing, decreasing or constant return according as the marginal cost of production falls, rises or remains the same respectively with the expansion of the industry.

6. Law of Diminishing Returns. We have already discussed the Law of Diminishing Returns in all its aspects at some length and we do not propose to cover the same ground again. But there is one point that we wish to re-emphasise here, viz. that the Law of Diminishing Returns represents the most efficient combination of factors
of production. It is a combination that will bring the highest return. We refer to the table on page 85 and the discussion on the subsequent two pages. It is clear from there that we can get increasing return per man but all such combinations will involve a wasteful use of land i.e., more land is given than the number of men can properly cultivate. It stands to reason that by giving more and more acres of land to a man, it is possible to increase productivity per man and this can be done till the marginal product of land i.e., (productivity of the last acre added) is zero. But this is a highly wasteful use of land, land being scarce and commanding a price. Such a course will not be adopted by any sensible person. Thus a combination in which you get increasing return per man is not an efficient or economical combination.

Similarly, you can maximise return per acre, and get an increasing return, by throwing more and more labour and capital on it, which, again, will mean waste of capital and man-power and hence not an efficient combination.

Thus any attempt to obtain increasing return either per man or per acre will represent a departure from the most economical combination, which will be one when increase in factor will lead to diminishing return setting in. We expect that in practice every factor will be combined with other factors in such a proportion that if it alone were increased its average product would diminish. This point will represent the right combination or a correct balance between the various factors in the combination. Any other proportion will mean less than the maximum return.

There are economies obtainable from increasing the scale of production or by fuller utilisation of the indivisible factor but these are quite apart from those economies which arise from combining the factors in right proportion whatever the scale of production undertaken; there is a certain combination of factors which would be the ideal one to produce that output and it will not be the one which yield increasing returns to some factors at the expense of others. But the point where the increase of factor leads to diminishing return for that factor will be the most efficient combination, increasing return being a sign of wasteful use.

7. Law of Increasing Returns. Any industry is subject to increasing returns if an extra investment in the industry is followed by more than proportionate returns i.e., if the marginal product increases: In terms of cost, the Law of Increasing Returns means the lowering of the marginal costs as industry is expanded. As marginal costs govern price, you can say that the Law of Increasing Returns operates in an industry if with every expansion of its output, the price of the product falls.

We have already seen what economies can be reaped if the scale of production is increased. Advantages from specialisation of labour and machinery and other commercial and miscellaneous economies make it possible to lower the cost of production and we have increasing returns.
The Law of Diminishing Returns operates when there is dearth of an essential factor. But if all the factors are available in the requisite quantities when the industry is expanded, then the Law of Increasing Returns will operate. "The expansion of an industry, provided that there is no dearth of suitable agents in production, tends to be accompanied, other things being equal, by increasing returns."

There is another way in which we arrive at the Law of Increasing Returns. The Law of Diminishing Returns operates when a variable factor is applied to constant factors i.e., when only one factor or set of factors is increased and the result is a defective proportion of the factors combined. This is due to an incorrect combination. Now to restore the balance, increasing returns will follow till the balance is completely restored or a position of perfect adjustment is attained. Any disturbance of this equilibrium will again lead to diminishing returns.

The concept of indivisibility, too, has a close bearing on the Law of Increasing Returns. Suppose a college builds a hostel to accommodate 200 boarders but at a pinch it may be made to accommodate 250. If actually the number of boarders is less than 200, then every increase in the number up to 250 will yield an increasing return because the hostel, an indivisible factor, is being more fully used. Similarly a manufacturer sets a plant to cope with a peak demand and in actual practice it may be producing below capacity. In that circumstance when an addition is made to some other factor or factors, the indivisible factor will be more fully employed and increasing returns will follow. A factory has a minimum establishment of clerical staff and peons. If production is increased five times, it will not be necessary to increase the staff also five times, only a doubling may be sufficient. In other words, a doubling of the staff has been able to cope with five times the output which means more than proportionate return or increasing returns. In such cases an increase in a factor will increase its marginal productivity.

It has already been pointed out that it is wrong to think that the Law of Increasing Returns applies to certain industries and the Law of Diminishing Returns applies to some other industries, or that the manufacturing industries obey the Law of Increasing Returns and agriculture the law of Diminishing Returns. The fact is that there is nothing peculiar in these industries so as to make them subject to separate laws. Both laws apply to both categories of industries, though the Law of Diminishing Returns is more prominent in agriculture and begins operating much earlier. These two Laws of Increasing and Diminishing Returns can also be explained in terms of the optimum business unit. We shall have increasing returns when we are moving towards the optimum and diminishing returns when we move away from the optimum.

8. Law of Constant Returns. An industry is subject to constant returns when whatever the output, or scale of production,
the cost per unit remains unaltered, or increased investment of labour and capital result in a proportionate increase in the output.

Marshall has pointed out that the part played by nature corresponds to diminishing returns and that played by man to increasing returns. That is why in agriculture where nature is said to be supreme, there is diminishing return and in manufacturing industries where man's ingenuity has the fullest play in effecting all sorts of economies unhampered by external forces, there operates the Law of Diminishing Returns. It is conceivable that some industry may be midway between the two where neither there is diminishing return nor increasing return i.e., there is constant return.

Think of an industry where the raw materials representing nature's part account for the same proportion of the total cost as the manufacturing costs which is man's part. In every industry the two opposite tendencies are at work. When it is expanded some costs rise and the others fall. It is possible that there may be an industry where these two tendencies just neutralize each other and we have constant return. The example of an industry making blankets out of pure natural wool is sometimes given in this connection. It is said that the raw material (wool) is subject to diminishing returns, but this tendency is just counter balanced by the economies in manufacturing cost, and there is a constant return. But we have rejected the rigid classification of industries into the diminishing return and increasing return industries.

The concept of the optimum can help us to understand the operation of constant return. We have said that movement towards the optimum means increasing returns and the movement away from it the diminishing returns. But if we keep to the optimum, for however short period it may be, we shall have constant returns.

There is still another way to explain the operation of the law. When there is a dearth of an essential factor, there operates the diminishing returns and when all the factors have elastic supply and economies can be effected if the scale is increased then we have increasing returns. But if the requisite factors are available in the right quantity and we have reached the optimum of the economies, then increased application of the factors will simply lead to proportionate returns. The Law of Constant Returns will also operate if "rising costs due to scarce factors of any kind are just equal to the economies of large scale production".

9. Joint Supply. Here is another problem presented by the combination of factors. In case of joint supply two or more things are produced as the result of joint costs of production. They are generally produced in fixed proportions and the producer must accept them as they are. He will not be able to assign separate costs to each of the two products. Cotton and cotton seed is said to be the example of this type. The proportion of the two cannot be varied.

There are cases, however, when it has been found possible to vary these proportions. By cross breeding in the case of sheep it has
been possible either to breed good wool yielders or good mutton yielders. In a case like this it is possible to ascertain the marginal cost of each. A change in the quantities produced will make a change in the total cost and from this change marginal cost of each can be found out. If you breed more wool yielding breed, then the extra cost entailed or the addition to the total cost is obviously the marginal cost of so much extra quantity of wool. In the same way marginal cost of mutton can be ascertained. This knowledge of separate marginal costs will help the entrepreneur to adopt the most economical combination from his point of view, whether, that is, considering the respective demand prices, he wanted to have more wool or more mutton.

10. Composite Supply. Composite supply represents a case when a certain want can be satisfied by two or more commodities which are really substitutes for one other, e.g., tea and coffee or labour and machinery. It will happen in a case like this that when the demand for one thing increases, the demand for the other decreases. The combination of factors of production will be adjusted accordingly. If it is discovered that a certain combination will produce tea much more cheaply, then tea may replace coffee and the factors so far devoted to the growing of coffee may be diverted to the cultivation of tea.

11. Rationalization. After the World War of 1914-18, Germany, stripped of a part of its valuable territory and faced with heavy reparation demand, was forced to reconstruct its industry. This process of reconstruction has been called Rationalization. The movement soon spread to other Continental countries, England and America. But it had its fullest application in Germany. For Germany rationalization was an imperative necessity. Without this they could not support themselves and pay war debts. There rationalization became a popular cult.

The main idea underlying rationalization is to bring the efficiency of an industry as a whole to the highest pitch possible by eradicating all causes of waste and inefficiency, and to bring about consciously and deliberately an adjustment between supply and demand so far as the products of that industry are concerned.

Under competitive capitalism equilibrium is established by the free working of natural economic forces, but this natural adjustment entails suffering and sacrifice. For example if there is over-production, then price will fall, the working of some concerns will become unremunerative; they will struggle for some time, may be a year, but will ultimately go down so that supply may be adjusted to demand. The advocates of rationalization say that this struggle and suffering is avoidable by anticipating depression rather than waiting passively for it to come about. They point out that the industry as a whole can be so scientifically organised and systematically managed that such crises can be avoided altogether or their severity mitigated if they actually occur. The remedy is rationalization. In the words of Balfour: "It really is the method of technique and organisation
designed to secure the minimum waste in effort and material, added to
that, the scientific organisation of labour; the standardisation of
materials and products and the simplification of processes and physical
improvements in the system of transport and marketing."

The main planks in the rationalization programme are moderni-
sation, scientific management and amalgamations. Every producing unit
in the industry must have a most modern and complete equipment
of plant, machinery and other accessories, so that every part of the
equipment is nothing less than the every best. All worn out, old design
and obsolete machinery is to be ruthlessly scrapped. It requires
heavy financial investment, no doubt, but it is recognised that working
on the old plant really does not pay and the use of up-to-date machinery
is very profitable in the long run. The loss entailed in scrapping of
the obsolete plant is ultimately more than made up.

But mere modernisation is not considered enough. It must be
accompanied by scientific management. The idea of scientific
management originated with Taylor in America. It involves Time
Study, Motion Study and Fatigue Study. The personnel of the factory
is to be trained and instructed in using the best possible method of
doing the job in the minimum time. These methods are dis-
covered by the intensive study of time and motion involved in work.
The idea is to eliminate all waste of human energy, to do the job in
as little time as possible and with the minimum of fatigue to the
worker. Scientific management is also to be applied to the organi-
sation of the office and the factory generally. Modernisation and
scientific management are calculated to bring the efficiency of indi-
vidual units in the industry to the highest possible level.

Maximum efficiency of each individual unit in the industry, how-
ever, does not solve the problems of the industry as a whole. It may
rather create the problem of over-production when each unit is turned
to the highest pitch. The basic idea of rationalization is not effi-
ciency of the units but the health and efficiency of the entire industry.
This necessitates a collective action on the part of all engaged in the
industry. Most of the ills of the industries can be attributed to the
existence of isolated, independent and uncoordinated units. They
try to shift for themselves and bring down the industry in the attempt
just as a similar effort on the part of the depositors of a bank ruins the
bank and themselves. Close co-ordination and cordial cooperation
among the producing units seems to be absolutely essential. Without
centralised control the complicated and difficult problems of modern
industry, especially regarding efficient marketing, cannot be success-
fully tackled. With this end in view amalgamations are advocated
and fostered. The inefficient units are to be closed down and the
efficient ones are to be knit together so that the industry becomes an
integrated whole. Production is concentrated in the units which have
the lowest cost of production. Special attention is to be paid to scienc-
ific marketing while assigning quota of output so that cross haulage
is avoided and nearest markets are served by the nearest units. This
will reduce transport costs to the minimum.
FACTORS IN CO-OPERATION

But for the difficulty of finance and the danger of over-capitalisation and but for the problem of the displaced labour arising out of the introduction of labour-saving devices which rationalisation must involve, we have every good word to say for rationalization of industries. Periodical jolts and jerks can be avoided. All the economies of monopoly and large-scale production are available. Mass and standardised production lowers cost and brings products within the reach of poor members of the community. The industry can effectively defend itself against foreign competition and capture markets abroad. Its competitive strength is increased manifold.

Competitive capitalism is almost dead. It is a pity that the Indian industrialists are still living in the 19th century. Our jute mill industry, sugar industry and cotton mill industry and several others have been suffering from lack of cooperative action but they have not given up the path of isolated individualism. They prefer to sink alone to swimming together. The truth of the simple proverb 'unity is strength' has not yet gone home. A proposal for rationalization of the cotton mill industry was torpedoed by the senseless opposition of a few managing agents. Cement industry in India is the only industry which by cartellising itself chose the path of sanity and wisdom. Let us hope that our industries will rationalise themselves to meet the post-war industrial struggle.
CHAPTER XI.

FACTORS OF PRODUCTION IN RELATION TO THEIR MOBILITIES.

1. Introduction. We have discussed elsewhere how the functioning of the price-system tends to bring about a harmony between the producers and the consumers. The producers tend to produce that assortment of goods and services which the consumers most prefer. Any change in consumer’s scales of preferences must produce corresponding changes in the direction of productive activity. This striving after the satisfaction of the consumer’s wants goes on ceaselessly, because that way lies the maximum profit for the producer.

2. If The Factors Were Specific. The extent to which the entrepreneurs can make the desired changes in production depends upon one important fact, viz., how far are the factors of production mobile or adaptable to the changed conditions. If the factors were all specific without the least degree of flexibility in them, then the power of the entrepreneurs to introduce changes in the productive system would be seriously curtailed. It would not be possible then to make any variation in the assortment of goods and services which is being produced. Their work would be very simple then. They could either increase the quantity of goods and services or decrease it by using more or less of the factors. But the factors, being specific, could not have been moved out of their existing grooves.

3. Actually They Are Not Specific. Fortunately the factors of production are not so specific as that. They possess a high degree of mobility. The extent of the mobility of course, varies from country to country. It depends on several factors, viz., the development of means of communication and transportation, the state of technical knowledge and the extent to which political and social barriers have been broken down. In some countries the conditions in this respect are more favourable than in others, hence a greater degree of mobility.

4. What is Mobility? By mobility we do not mean merely physical or geographical mobility, i.e., the bodily transfer of a factor of production from one place to another, although the term mobility includes this too. But mobility also implies an alternative use either in the same place or in another place. In this sense mobility means mobility between occupations, mobility between places, and mobility between industries. A farm may be devoted to the cultivation of cotton instead of sugar-cane, it is change of industry but no change of place. A Manager of a cotton mill at Ahmedabad becomes a manager in a mill in Bombay; it is a change of place but not of occupation. A Professor of Economics in Lahore takes up a job of an Economic Adviser to a bank in Delhi; it involves a change of place
and a change of occupation. The person is the same, but he becomes a different factor altogether. A clerk gives up his job in a sugar-factory and becomes a clerk in a cotton mill; he has changed the industry. Thus a mobility of one type does not necessarily involve mobility of the other two types too. We shall discuss the extent of mobility in each agent of production.

5. Mobility of Land. Economists define land as consisting of natural resources like mountain, sea, rivers, climate, soil, air, sunshine etc. It is possible to divert the course of rivers by building dams and turn the water into canals. But we must confess our inability to move mountains from their places, to change a tropical climate into a temperate one, to carry our land to a region where rainfall is abundant or bodily transfer our college, building and hostel to a better locality. "Land" baffles our efforts as regards mobility since geographical mobility of land is out of the question. But this is not the only kind of mobility with which we are acquainted. Mobility, in the sense that we have defined it, means the possibility of a factor being put to alternative uses. Is land absolutely specific? Although some land as in Sind may appear to be barren and may be able to grow nothing except scanty grass blades for goats and sheep on account of meagre rainfall, yet most of the land is not such, and even this land may be made to grow several other things by human efforts. To a superficial observer, the Himalayan ranges may seem fit to grow forests and nothing else, and yet it is not so. The small irregular level patches of ground here and there show that man can turn even dense forest land into an arable one. Similarly, the marshy land can, by drainage, be made to grow rich crops.

6. How Land May be Made Mobile. Although land does possess some degree of specificity, yet within certain limits it can be made to grow quite a large variety of crops. A man may not be able bodily to transfer his land from one city to another, yet by selling it in one place and buying it at another, he has given it mobility. There is another way. A man having land in different places may divert labour and capital to one place and improve land there and neglect it at another place. Thus one land becomes more productive and the other loses productivity and it is productivity in which we are really interested. In this way land becomes mobile.

But a greater mobility is given to land where the product of land itself is transferred. It practically transfers the service of land from one place to another. We value a factor not for its own sake but for the service it renders. Thus land is not so immobile as is generally supposed. It can be put to several alternative uses, wheat growing land can be changed into pasture land and vice versa. If nothing else can be done its product can be transported. This degree of mobility is sufficient for the community to produce the assortment of things it most prefers. The only limiting factors are climate, and the nature of the soil. Large investment of capital may also be needed for making land fit for alternative purposes. But the limitations are not so serious as to render land entirely immobile. If
the Government imposes restrictions on the transfer of sale by heavy registration fees on transfers, it will tend to reduce its mobility. The Land Alienation Act of 1901 in the Punjab has somewhat restrictive effect for non-agriculturists who may like to invest capital in and are not permitted to purchase land from the agriculturists. Agricultural land is not allowed to be put to non-agricultural uses. The non-agriculturists in the Punjab are generally moneyed people. Restriction imposed on their purchases of land means a divorce between land and capital. The most efficient combination of the factors of production may thus be prevented. The Act, however, may be justifiable on other grounds.

7. Mobility of Labour. The human baggage is said to be the least portable. Let us consider to what extent mobility in all its forms exists among the workers. It may be repeated here that there are three types of mobility, viz., mobility between industries, between places and between occupations.

Mobility between industries. Mobility between different industries presents no difficulty. An accountant, a typist or a chowkidar in one industry can easily occupy a similar position in some other industry. The work of a machineman or a mechanical engineer or a salesman is practically same in every industry. There are a number of occupations common to all industries. Hence mobility between industries is quite easy provided there is no change in occupation. Whenever, therefore, some industry is contracting and another is expanding, such people can easily shift.

Mobility between places. As for mobility of labour from one place to another, called geographical mobility, there are found fairly formidable barriers. There is the dread of the change, very vague but nevertheless real. No person likes to be uprooted from familiar environments and transplanted in an ungenial soil. Few people have the heart to begin life afresh in a new place, especially it is so with people who are getting on in years. The youthful workers are enterprising and adventurous and they can be easily persuaded to move out. Differences of language, habits, customs and modes of life are other deterrent factors for labour to move either from one part of the country to another or from one country to another country. Mobility between countries is further hindered by immigration laws. India has an over-flowing population, whereas there is lot of elbow-room in Australia, New Zealand, Africa, Canada and America but immigration laws prevent the Indians from entering such lands, because the white-man's standard of living is threatened. System of poor relief, unemployment benefits and other state assistance offered to the workers in distress reduce desire for mobility and renders labour all the more immobile.

In India our crowded cities, congested industrial areas, lack of housing facilities, insanitary surroundings, high cost of living, an ever-recurring cycle of epidemics, are quite enough to frighten away labourers. That is why the Royal Commission on Indian Labour remarked that labour is pushed, and not pulled, into industrial employ-
ment. The development in the means of communication and transportation has facilitated geographical mobility considerably. When in the post-war years a journey to America can be performed by air in 48 hours and there is a corresponding stepping up of other means of transport, labour is sure to become more mobile.

Mobility between Occupations. Mobility between occupations, is the most difficult one. It is of two types: (a) Horizontal mobility i.e., mobility between two occupations on the same level, e.g., a professor of History becomes a professor of Economics or a blacksmith becomes a carpenter. Such a mobility is not so difficult; a man endowed with commonsense and of reasonably hardworking habits can, after a short period, adjust himself to the new position.

(b) Vertical mobility is the mobility to a higher level, e.g., a clerk becomes a teacher or a mistry becomes an engineer. This mobility is very difficult. Apart from natural aptitude, different occupations require different skill and knowledge and it is not so easy for one to fit oneself into another occupation, especially if one has already put in a certain number of years in one occupation. In case one is new to an occupation chances of one moving out are greater but as years pass they become remoter and remoter.

8. How Far is Labour Actually Mobile? There is said to be freedom of enterprise or occupation under the present economic system. But it is all in theory. A surgeon’s job is very paying and many people would like to send their sons into that profession. But how many parents can afford to spend Rs. 25-40 thousands on their training and education and how many young men have the patience, aptitude and a ability to get F.R.C.S. (London)? To tell a poor man that doors of all occupations are open to him is a cruel joke. Examinations, licensing system and demanding high premia for apparenticeship (e.g., in the case of chartered and incorporated accountants) apart from restrictions imposed by industries themselves are effective barriers which not many can cross. Some jobs, like the high civilian post or posts in diplomatic service, require high social status and influence of the parents. This last factor is the most potent one in keeping a young man of a poor family off. There is thus very little mobility among grades of labour. It is not surprising that the most respectable jobs happen also to be the most remunerative ones while those in the lower social scales are also in the lower economic scale.

But mobility within a group and among unskilled labourers is fairly sufficient for the purpose of making economic adjustments. There is a wide range of jobs that a man having reasonable physical fitness and endowed with a fair amount of intelligence can successfully take up. Further, a wholesale movement of labour is not needed in order to meet a new situation. Labour may be sluggish but mobility goes on slowly but surely and imperceptibly from occupations where the demand is less to those where it is greater.

Again, what is wanted is not direct substitution but merely indirect reshuffling. If cotton industry is contracting and the sugar industry is expanding, then it is not necessary that there should be a
direct transfer of the personnel from the former to the latter. What will actually happen will be the shifting into allied occupations. Some workers from cotton industry may move into jute industry and some of the latter may move into paper mills and workers from jute or paper industry may infiltrate into sugar industry. There will be several other lines in the chain. But ultimately, without much hardship or disturbance, the mobility from the contracting to the expanding industry will be effected.

A stationary or declining population is a handicap in the way of mobility, whereas a growing population like that of India is a great help, for the new generation can enter new occupations and avoid those which are becoming unremunerative. Our conclusion is that although there are very serious handicaps to the mobility of labour, yet, for adjusting economic factors to the new requirements of industry, it is sufficient, unless the changes are very rapid and fundamental which is seldom the case.

9. Mobility of Capital. Capital takes several forms. There is working capital consisting of a bank balance, stock of raw materials and semi-finished goods, and consumers' goods. About the mobility of this part of the capital there seems to be little doubt. Money is absolutely in a floating state and can be put to any use and may be taken anywhere, the same is the case with consumers' goods in the hands of producers. Raw materials and semi-finished goods are also fairly volatile.

Another component part of capital consists of tools and implements and simple machines which can be used by every industry and can be transferred to any place with ease and without much cost. This part of the nation's capital is also mobile.

But the most important and the most expensive part of the community's capital consists of the fixed capital goods i.e., buildings of factories, machinery, permanent equipment of railways like railway lines, station buildings, canals, tube wells etc. In such cases mobility is missing. All such capital is permanently fixed and cannot be easily moved to other places. Suppose a farmer has made a mistake in locating his farm house and well and he wants to interchange the place of the two. Nothing will prevent him from pulling down the farm house and dismantling the well. The materials can no doubt be used again. But at what cost? He will be able to salvage only a fraction of the original cost. The loss is so much that no man of ordinary prudence will undertake this type of reconstruction. Only Mohammad Tuglaq could change his capital from Delhi to Devgiri and order the wholesale movement of the people to, and then from Devgiri. There is a very recent instance of dismantling of plant and its transportation. When the deluge of Nazi hordes was hardly a dozen miles from Moscow, the Russians had to dismantle their plant and machinery and other equipment of heavy industries and transport them behind the Ural Mountains. But here cost was no consideration. Such a thing will never be done in normal times. A Hitler was needed for making the unusual usual. Under ordinary circumstances fixed capital is fixed and not mobile.
Further, such capital is usually also sunk or specialised. You cannot turn a cotton mill into an ice factory or a jute mill into a sugar factory. When an entrepreneur has started an undertaking, his die is cast. He has burnt his boats and there is no going back. Not only, therefore, the fixed capital must remain where it is but it must also continue to be used for the purpose for which it was originally intended. When we think of such capital, immobility seems to stare us full in the face.

But by mobility we do not merely mean geographical mobility, it also means the possibility of being put to alternative uses. In this latter sense even capital possesses a fair degree of mobility. Transport services can be made to carry anything. Several plants can be made to produce, with very slight modifications, entirely different products. It is said that the machinery used in the making of watches can be made to produce sewing machines. A plant meant for motor car production can be used to produce aeroplanes and other armaments. Even within its own line a wide range of articles can be produced in the same factory with the same plant. A cotton mill can make shirting, dhoties, suiting, towels, bedsheets and what not. A sugar factory can make ordinary sugar or sugar cubes. A jute mill may make hessian or sacking. The variety of final products which a paper mill can make is indeed very large. To a layman capital seems to be sunk but the entrepreneur knows what he knows. He has several strings to his bow and several schemes up his sleeve. Although, therefore, capital will remain where it is, yet the possibilities of alternative uses are not so limited.

Besides, flexibility to the capital structure can be imported in another way. There are new savings like the new generation of labour. These savings can be diverted to those uses which have become more important and more profitable. Every manufacturer sets aside a certain amount out of the annual profits towards the depreciation fund. The fund is utilised for repairs, renewals and replacements of the plant when it has become worn out or obsolete. But it will be very rare that the plant is replaced when the time comes, by another plant absolutely identical with the old one. A modern and up-to-date machinery will be installed instead. If the industry itself is decaying, then the entrepreneur may buy entirely a different plant and enter a new industry. Capital is thus being used up and replaced or not replaced as the new economic situation demands. This is nothing else but admitting that capital possesses mobility. It is not perfectly mobile, but the degree of mobility is sufficient for our purposes, viz., redistribution of capital so that the necessary changes may be made in the assortment of goods and services in keeping with the wishes of the consumer.

10. How Far is Modern Economic System Adaptable? Having examined the extent to which several agents of production are mobile we are now in a position to see whether the modern economic system as a whole is rigid or flexible. Does it admit of modification or are we tied down to a particular structure of economy for good?
We have seen that the free mobility of the factors of production is hindered in practice. Physical mobility of land is impossible. Huge investments of capital are sometimes needed for clearing, draining and improving land to make it arable. We are at the mercy of weather, climate and rain. These are some of the impediments in the way of mobility of land.

Labour is also not freely mobile. Few are willing to leave their homes and hearths for a petty gain. People like to live on in their native environments on account of difficulties of language and the differences of customs. Differences in skill required for different occupations, high cost of training in some professions, long period of apprenticeships in others, social disabilities and state regulations make free entry into an occupation a myth.

Capital is tied down to its roots. To dismantle it and transport it proves a costly pastime. It becomes so specialised as not to be available for any other use.

These are real difficulties. But in spite of them the structure of productive economy is fairly elastic. It is not so rigid as it might seem to be. Land can grow a fairly wide range of crops, and it can be put to several alternative uses indeed. Mobility of labour between industries is easy and that between places is being facilitated by cheap and efficient means of communication and transportation. Mobility between different occupations is being assisted by wide diffusion of educational facilities and those for technical training. The advent of the new generation makes up for the lack of mobility on the older generation and it is pushed into new channels. Physical mobility of capital may not be possible. Yet a given plant can be made to produce a number of alternative products, so that variations in the composition of final products or consumers' goods can be made without much difficulty. The factors of production, therefore, present little difficulty when an entrepreneur has decided to make changes in production.

**XI. Conclusion.** The spirit of individualism and competition is abroad. Three freedoms have been given to the economic world *viz.*, freedom of enterprise, freedom of contract and free use of property. The advent of democracy is breaking down political barriers against the common man. Spread of socialistic tendencies everywhere is sweeping the social disabilities. The phenomenal development in the means of communication and transportation has annihilated space and time. Economic dictatorship in some countries has bent everything to the will of the state and changes in the production structure would stagger a man of the last generation. Scientific progress and improvement in technical knowledge have opened unheard of possibilities for the entrepreneur. Several new industries have been developed and old ones allowed to decay unwrapt. The modifications have been smooth and imperceptible without the slightest shock to the economic system. We can, therefore, safely conclude that the modern economic system is perfectly adaptable. The World War II has demonstrated to what extent and with what rapidity the national resources can be diverted and put to uses which the community decides to be most urgent.
CHAPTER XII

FORMS OF BUSINESS ORGANISATION

1. The Individual Entrepreneur. Entrepreneurial work can be organised in different ways. The earliest and the most numerous, if not the most important type is 'one-man' business. Anybody who has a small capital can set up a business. The initiative is in the hands of the owner of the capital and not of any other factor. For starting a business capital is the primary requisite. The organiser of 'one-man' concern puts in his own capital and may also borrow some. He will rent a shop and have the service of assistants if necessary. He himself makes purchases and personally attends to the sales. He is his own manager. He initiates, organises, directs the work and takes the entire risk. The sole proprietor combines in his person the functions of capital, enterprise and even labour in many cases.

Such business is generally conducted on a small scale. This was the type of organisation in ancient India when her industrial achievements had reached their zenith. In agriculture and retail trade of all types, the sole proprietorship system is the rule in most countries even now.

The combination of financial interest and sole responsibility for running the business is conducive to efficiency. The individual entrepreneur works hard, long and late. The interest of his business is uppermost in his mind and provides an incentive for unremitting toil. All transactions and operations through prudent management are performed in the most economical manner and waste of all kinds is eliminated. No elaborate account-keeping is necessary. It is possible to pay individual personal attention to all customers and give them entire satisfaction at minimum cost. Every change in tastes and fashions is noted and provided for. The individual entrepreneur is in the best position to satisfy demand which is strictly local or fluctuating. Quick decisions are possible to meet rapid changes in business conditions. Few forms of business possess such a high degree of flexibility. This form of business is also the easiest to start and easiest to wind up. The individual owner is the only one concerned. Within its limited sphere this form of business organisation represents efficiency and economy of quite a high order.

But there are limitations to it. The capital at the command of the sole proprietor is generally meagre which prevents expansion of business, however profitable. Also one man feels very much handicapped in looking after the many sides of the business. There is a limit to human capacity. This makes him forego several economies and miss opportunities of making profitable bargains. These handicaps become more marked if the entrepreneur is becoming old and no longer possesses his youthful vigour, energy and mental alertness.
No first rate business can be built up in this way and no country can win industrial leadership when her business is organised in such a primitive manner.

2. Partnership. Limitations of one-man business give rise to another form of business organisation, viz., partnership. Two, three or more people combine, contribute capital and agree to share profits and bear losses in agreed proportions. It is not necessary that everybody must contribute and contribute equally towards the capital of the business. A partner may simply contribute his ability. Similarly it is not necessary that profits and losses should be shared in the same proportions. The terms of partnership are highly elastic. The responsibilities and the privileges of partners are laid down in the partnership deed, which, however, can be modified by common consent. There is no state control so long as the activities of the firm are legal.

Partnership is a very suitable form for all medium-sized businesses where personal efforts of the owners are essential, e.g., flour mills, hosiery factories, furniture works, ice factories, sports factories, banking firms etc. Although it is not so numerous as 'one-man' business but it is quite common.

This form of organisation offers several advantages. As compared with the individual entrepreneur, they have at their command larger capital, more business ability, larger resources and bigger man-power. It is possible to establish wider personal contacts to the mutual advantage of all. Business can be run on a larger scale enjoying the various economies of 'scale'. The union of ownership and management is a spur to efficient and economical working. It responds promptly to changes in business conditions and is very highly adaptable. The partners can take prompt decisions. There is no red-tapism. The whole procedure is simple and not cumbersome. The existence of unlimited liability curbs the speculative tendencies of the partners and prevents launching of rash and risky enterprises. But they have at the same time the ability and the resources to keep pace with the times. The partnership type is said to be virile, mobile, elastic and efficient if only they can work in harmony.

But this is a very big IF. In actual practice the partners behave in a selfish manner, doing the minimum and trying to get the maximum. In case of a mishap every one blames the other. There are dissensions instead of harmony. The dreams of congenial comrade-ship are seldom realised. Nothing gets done on account of constant bickerings. There is no wonder that partnerships are short-lived. According to law it must be dissolved in the event of a partner's death, bankruptcy or lunacy. There is thus no continuity of existence. But the greatest handicap is the unlimited liability. Every partner has the right to bind all others. Folly and obstinacy of one partner can ruin all others. In case of failure the partnership debts can be realised from any of the partners and their private property can be attached for the satisfaction of creditors. No partner can say that he is only responsible for his share. The unlimited liability
makes the policy of the firm timid and unenterprising. Further, the partnership resources are too limited to enable the partners to do big business. Obviously business of railway or shipping transport, insurance or iron and steel works could not be undertaken by a partnership. This form of organisation could not meet the requirements of modern industry.

3. **Limited Partnership.** The law allows a partner to get his liability for meeting the debts of the firm limited to a certain amount by agreement. But such a partner cannot participate in management. Also, even in limited partnerships, there must be some partners whose liability is unlimited. All the partners of the firm cannot limit their liability. This type of partnership has not been very popular.

4. **Joint Stock Company.** The Joint Stock Company is undoubtedly the most important type of business organisation today and it seeks to remedy the disabilities and the handicaps of the partnership.

Joint stock companies are of two types:—

(i) Private limited companies and (ii) Public limited companies.

*Private limited companies.* The minimum number of members is two and the maximum 50 exclusive of the employees. When a partnership business expands beyond the capacity of the partners to bear the losses, they can limit their liability by getting themselves registered as a private limited company. This device enables them to retain control of business in their own hands and they can create salaried posts, generally well-paid, for themselves, their relatives and friends and get profits in addition. The scale of salaries may be fixed so high that much may not be left to be distributed as dividend. But this does not worry them as they have amply compensated themselves through salaries. Only those suffer who have been induced to subscribe to capital without having a voice in the inner councils. Such are the devices adopted by some unscrupulous entrepreneurs. But all are not such.

This form of organisation offers all the advantages of partnership: secrecy, promptness, self-interest leading to economy and efficiency without its disadvantages arising out of the unlimited liability. A private limited company is not subject to any restrictions regarding minimum subscription of capital before it can legally start business nor need it file with the Registrar of Joint-stock Companies any annual return or balance-sheet. It has, however, to work under some other restrictions. It cannot publicly or through a public advertisement of the prospectus invite the public to subscribe to its share capital. The shares are also not transferable.

It is a very suitable form for launching speculative enterprises holding out a prospect for high profits but not requiring large finance. Most of the middle-sized industries are run in this manner and they are invariably converted into public limited companies, finally, if the business goes well.
5. **Public Limited Company.** A minimum of seven persons can form a public limited company and there is no maximum. Any seven persons, who intend to start a joint stock company for carrying on a business can do so by submitting to the Registrar, Joint-stock Companies, for his approval two documents (1) *Memorandum of Association* giving the name of the company, head office, aims and objects, denomination of shares and the amount of the share capital, and a declaration that the liability of the share-holders is limited and (2) *Articles of Association* giving the bye-laws of the company. If the Registrar is satisfied that all legal requirements have been fulfilled, he will grant the certificate of incorporation. The company is registered but it cannot start business unless a certain minimum of percentage of the issued capital has been subscribed. This is to safeguard the investors lest a few gullible investors should be roped in and defrauded of their money. The minimum subscription will show that many more people have joined and it must be a genuine venture. After getting it registered, the promoters of the company issue the prospectus, do a lot of canvassing and utilise the service of professional underwriters and sell the shares. The share money is not paid in a lump sum, a small amount is paid with application, then a certain amount per share on allotment of shares and then further calls are made as and when the company needs. Within six months of the allotment of shares, the promoters must call a general meeting of all the shareholders called the statutory meeting which elects the directors. But the election is a foregone conclusion. The promoters, who have floated the company and who know what is to be done and how it is to be done are naturally elected the directors. Once in the saddle, they show no inclination to quit. With sufficient number of proxy papers in their hands, they manage to get themselves elected every year. This is how the company gets going.

The company raises funds through the sale of shares and debenture. The student might well acquaint himself with certain terms used in connection with capital and the different kinds of shares.

6. **Shares and Share Capital.** *Authorised, Registered or Nominal capital.* This is the amount of the capital with which the company is registered. The company is authorised to sell shares up to this amount and not more. Actually the capital raised is different in amount. It is, therefore, only a nominal capital. Only a part of authorised capital is issued to the public.

*Issued capital.* It represents the amount of share capital which the public is invited to subscribe, but the whole of it may not be sold.

*Subscribed capital.* It means the amount of share capital sold to the people, but some of the subscribers may not be able to pay for the shares they have agreed to buy.

*Paid-up capital.* It represents the amounts actually paid by the shareholders.

The following are the types of shares sold by a joint-stock company:
Preference shares. The holders of such shares are guaranteed the payment of a certain percentage on their capital before anything can be paid to the ordinary shareholders. Preference share may be cumulative when the dividend on them goes on accumulating. They are paid when there are profits but their profits will go on accumulating, because their account will be credited even in the years when no profits are made. Preference shares may be non-cumulative in which case the shareholders will get dividend for the year when sufficient profits have been made.

Ordinary shares. The holders of ordinary shares rank for dividend next to the preference shareholders. Preference shareholders will be paid first and then the remaining profits are distributed among the ordinary shareholders.

Deferred shares. They are also called founders’ shares. The holders of these shares get profit only after the claims of all the shareholders have been satisfied. These shares are generally kept by the promoters for themselves.

They also raise funds by the sale of debentures. The holders of debentures are creditors of the company and not its shareholders. They must be paid interest, profits or no profit. This in brief is the organisation of a public joint-stock company.

7. Advantages of a Joint-stock Company. There are several advantages which can be claimed for this form of organisation. The company business is generally a large-scale business. Therefore it enjoys all the economies of large-scale production, internal and external, viz., specialisation of labour and machinery, commercial advantages in buying and selling, saving in rent, saving in advertisement costs, advantages of experiments and research etc.

But, besides these, there are several advantages peculiar to the organisation itself. It is difficult to see how in the absence of such an organisation so much capital could be raised. Shares are of small denomination and they suit all pockets and temperaments from the cautious to the speculative. Even people of small means are enabled to participate in business undertakings otherwise these small amounts would have served no productive purpose.

The fact that liability is limited and shares are transferable induces many people to subscribe to the share capital. Thus small and scattered amounts of capital lying in remote parts of the country are mobilised and turned into productive channels. Habit of thrift is strengthened. Many businesses like transport would have been impossible without large accumulation of capital. No entrepreneur of proved ability need suffer for lack of capital. Business can be expanded almost at will. The great problem of capital supply has been solved satisfactorily. It is only by this means that businesses requiring large initial capital outlay have been tackled.

The limitation of liability enables risk to be taken and thus many new fields of business are opened out. The risk of failure is insured and actual loss, if any, is widely distributed among numerous shareholders.
From the point of view of the individual investor, too, it has great advantages. Not only is his liability of the payments of the debts of the company limited, but he is enabled to spread out his investment over a number of concerns. He need not place all the eggs in one basket. Further, he is not wedded to the company for good. Whenever he wishes, either because he thinks that it is a bogus concern or because he needs money, he can dispose of his holdings through the stock exchange.

Unlike the partnership the company is a legal entity. It is a legal person apart from the share-holders or directors. It can sue and can be sued upon. It is independent of any particular person and enjoys a perpetual existence. This is a great gain. The business now need not come to an end when the original entrepreneur makes an exit. Further, it is on account of its everlasting existence that investors can be persuaded to invest money even though for years there is no prospect of profit.

Separation has been effected between the capitalist and entrepreneur, and the consequent specialisation has enhanced productive efficiency, because formerly the capitalist lacked business ability whereas the entrepreneur lacked capital.

The management is democratic, efficient and economical. The directors who run the business are elected by the shareholders and may not be re-elected if not found satisfactory. They are supposed to be people having wider vision, administrative ability and business acumen. Their expert advice and guidance is available to the company at a very moderate cost. They do not get any salaries but only a fee for attending the meeting of the Board of Directors.

8. Disadvantages of a Joint-stock Company. There is the other side too. The management is democratic only in theory; it is actually oligarchical. The directors are practically self-appointed and they remain there as long as they choose. Some of them are unscrupulous and exploit the unwary investor. They use inside knowledge for their own benefit. They manipulate matters in such a manner as to buy shares when the company is going up and unload when it is going down. Fraudulent publicity deceives the public. The rosy picture given in the prospectus is sometimes utterly false. The directors are often lawyers or doctors and have no business experience or knowledge. Their only qualification is the share qualification. Out of 175 directors of cotton mills in Bombay in 1925 only 11 had received technical training. “The choice of directors is a leap in the twilight.”

Business is depersonalised. The owners of business, i.e., the shareholders, are concerned only with profits. The welfare of the employees is utterly neglected by the paid managers who express their helplessness on the plea that the shareholders clamour for dividends. This loss of human touch is a net loss and the business becomes purely mercenary.

The liability being limited and the shares being transferable, the shareholders take no interest in the company. Few of them
attend the shareholders' meetings. Their apathy and indifference throws all powers in the hands of a few directors, who indulge in nepotism. Law is often evaded. Desire for personal gains rules.

Sometimes the directors launch rash enterprises because it is easy to play ducks and drakes with other peoples' money.

The organisation is too ponderous and unwieldy. It cannot take quick decisions. The policy is often vacillating and full of compromises. It is only suited to businesses which can be reduced to set rules, which are fool-proof and knave-proof. It is not fit for pioneering work or where changing conditions require constant changes in policy or production or where customers are won with difficulty and lost at the slightest pretext.

Weighing all these pros and cons we come to the conclusion that in spite of defects this kind of organisation is capable of doing much good. Its services in the economic field are great. In the absence of the joint-stock principle industrial development and efficient exploitation of the natural resources of the country would not have been possible. It has proved to be a powerful and an efficient engine of production.

9. Holding Company. This form of organisation represents no new type. It simply means an arrangement by which one company comes to acquire and control interest in another. The device generally adopted is the purchase of the majority of the shares of one company by another. The company which buys the shares and thus comes to control another company is called the Holding Company. It holds or contains the other in itself, as it were. And the company whose shares have been so acquired and which comes under the control of another company is known as the subsidiary company.

Sometimes a company is formed for the avowed purpose of purchasing the bulk of the shares of two or three going concerns. The holding company just buys the shares and controls those concerns but does no business itself. In some cases the holding company is itself a going concern, doing some business of its own, but decides to buy out one or two other companies which may be competing with it or because some other economies or benefits are expected from holding them.

This device of a holding company is found very useful in reaping economies of integration. Advantage is taken of the technical and expert staff of the other company; common purchases of stores and materials can be arranged with all attendant economies. There are administrative economies of having practically a common management; patents can be pooled and all the combined resources used to the mutual advantage of the two concerns. When trustification is not found feasible on account of the unwillingness of certain units to efface themselves, the holding-company device proves quite handy and is as advantageous as a trust.

It is even better than cartellisation (forming of cartels to be explained later) because a cartel lacks permanence and stability. It
does not enable a long range policy to be pursued. It is not an easy matter to retain the fidelity of the various units that form the cartel. They always work with mental reservations.

But there are less commendable aspects of the holding company too. The controlling group may just have a bare majority of the shares and ride rough-shod without caring for the big minority of the shareholders. Out of the share capital of one lakh of rupees, they may purchase 50,100 and then do whatever they like. The shareholders representing the stock of Rs. 49,900 are sacrificed. It is not a question of minority shareholders of one or two companies suffering. This device is contagious; it spreads its tentacles far and wide and builds up a long chain of satellites or subsidiaries. The shareholders’ money is used but they are deprived of any voice in the affairs of the company. It is so unfair and undemocratic.

There is another drawback of the holding companies from the public point of view. If the subsidiaries happen to be private companies, they are under no legal obligation to file any returns or balance-sheets with the Registrar of Joint-stock Companies. Their balance-sheets will, of course, be prepared but holding company may treat them as confidential. They may not disclose how the subsidiary company is doing. It may have incurred a heavy loss but the directors of the holding company may not give a clear and correct idea of the state of affairs. The condition of the holding company depends on the condition of the subsidiary. But the holding company may prefer to observe prudent silence about the affairs of the subsidiary and thus give a wrong impression to the public from its own balance-sheet.

In Germany holding companies are very common. The banks maintain financial interest in several industrial concerns and there is interlocking of directorates. It is a rare phenomenon in India. The nearest approach is the managing agency system under which a private firm of managing agents, generally a family concern, operates many different types of concerns, e.g. Dalmias have their own insurance company (Bharat); their own bank (Bharat Bank), cement factories, sugar factories, paper mills etc. This system makes available economies of integration both in distribution and production.

10. Monopolistic Organisation. Monopolistic organisations like trusts, cartels, rings, pools and combines play a dominant role in modern industrial structure. We propose to devote a separate chapter to the discussion of monopolies. Here it may be said that they take a variety of forms, sometimes temporary and sometimes permanent. The area of operation may be a district, a country or the whole world. Some of these are gigantic concerns. The essential feature of the monopolies is that they seek to eliminate competition, partially or wholly. Having control over the supply either by virtue of their owning some essential material or because it is not so easy to start a new concern of huge dimensions, they seek to impose their own terms on the market and thus maximise their profits.

After the War (1914-1918) combination movement spread as a part of a wider movement called Rationalisation. In several
countries like Germany and Japan state activity fostered the growth of such combinations. Stahlverein, a giant concern in Germany, was the result of fusion of six iron or steel companies. It owned 52 furnaces with a total capacity 9.25 million tons a year. The Japan Cotton Spinners contained 60 spinning companies out of a total of 74 and controlled 97% of spindleage in the industry. Oji Paper Manufacturing Company of Japan controlled 95% of the industry.

During the last depression, the British statesmen, too, who had always been the votaries of laissez-faire doctrine, started encouraging co-operative and collective action on the part of industrialists as a means the of fighting the depression. The Lancashire Cotton Corporation by 1931 had acquired a control over 107 companies.

The current belief is that such combinations are not necessarily inimical to public interest. On the other hand, they are productive of much good to the community. Imbued with a public spirit and turned into semi-public institutions they can be used for the furtherance of national interests. Cartellisation has been often recommended in India for cotton mills or jute mills. This is the only way that reorganisation of industry can be effected so that it is better able to meet the menace of foreign competition. Our cement industry saved itself from ruin by this device.

Besides the advantages of joint-stock organisation and the economies of the large-scale, the monopolistic organisations have economies of their own arising from the fact that wasteful competition has been eliminated. Several economies flow out of integration and co-ordination. Much duplication is avoided and all the resources are used to the best advantage. The community is bound to share some of these benefits. Monopolistic organisation is considered a definitely improved type on an ordinary joint-stock organisation. It is a pity that it has not made much headway in India.

**II. Co-operative Organisation.** As distinguished from the ordinary ‘capitalist’ enterprise there is the cooperative enterprise. Being convinced that they could themselves run the industry without the aid of the entrepreneur, who in the workers’ opinion devoured the lion’s share of profits and did precious little work, the workers have thought of taking the entrepreneurial work upon themselves. They contribute a little capital and borrow the rest, elect their own foremen and managers and employ some staff where necessary and start an undertaking. After paying all expenses, interest on capital, salaries and wages, the profits are divided among themselves. Thus they earn wages as well as get profits. A fine idea indeed! This is one type of co-operation called the Productive Co-operation or Producers’ Co-operation.

Such experiments have invariably failed. The reason is not far to seek. With the disappearance of the entrepreneur, profits also disappear. The entrepreneur is not a useless specimen of humanity as the workers are disposed to think. It is his initiative, power of direction and organising ability which produce profits and turn a losing concern into a profitable one. He has his price and gets it.
But the workers are not in a mood to pay this price and must remain without profits. Their managers are generally ill-paid. They cannot command the services of first-rate men at the salary they are prepared to offer. These elected foremen are not able to enforce discipline over their own people. The workers look upon them as persons just like themselves and are not much in a mood to listen to their instructions or to carry out their orders. Everybody's business is nobody's business. Little wonder that there are no profits. The workers have not, therefore, been able to meet the entrepreneur's challenge that he alone can carry on enterprises to a successful conclusion.

But there is another type of co-operation which has a long record of successes. It is consumers' co-operation or co-operation among consumers. The arrangement is that the consumers of a locality contribute capital in small shares and start a store of their own. They buy goods from wholesalers like other dealers and sell these goods to their members who are the consumers at the ordinary market rates. At the end of the year profits are ascertained and are distributed among the members in proportion to their purchases or, what is more simple, in proportion to the share capital. Generally the share capital is equally contributed and profits are, therefore, also equally divided among all. The elected managing committee manages the affairs generally honorably. The management is, therefore, democratic and honorably. The business is very simple and does not require a great commercial insight and ability to run it. The store keeps a few standard qualities of goods and does not attempt to provide a wide selection. It is consumers' own shop. They are, therefore, not very exacting in their demands and are easily satisfied. No overhead charges for advertisement and canvassing need be incurred. The market is assured.

These co-operative stores have been a splendid success and some of them count thousands among their members. In several cases they have not contented themselves with merely retailing consumers goods but have added on their own manufacturing organisations. But it is to be remembered that they are not run on the lines of producers' co-operation described above where the employees share both in management and profits. On the contrary, they are run on ordinary capitalist lines employing high grade managers working under the control of able committees.

The co-operative movement has proved specially suited to agriculture and allied occupations. It was successfully applied first in Germany and Denmark, and it has now spread to almost every country. In India co-operative departments are functioning in every province. In 1941 there were in all 142,000 societies with 64 lakh members and working capital of Rs. 109 crores nearly. Mostly these are agricultural credit societies but non-credit and non-agricultural societies are also being established. Since the Government of India, in 1934, gave an annual grant of Rs. 5 lakhs for the development of handloom industry, weavers' societies have been established in every province.
12. State Enterprise. In every country there are many public undertakings run by Central or Provincial Governments or local bodies like municipal corporations. Postal and Telegraphic arrangements are generally under the Central Government; and public utility services like water-supply, gas, electric supply or tram or bus service are managed by municipal corporations.

The organisation of the state enterprise is on the same lines as private enterprise with the usual paraphernalia of general manager, foremen, works manager, accountants, treasurer, departmental heads and so on. The work is done in generally the same manner as in a big joint-stock company.

But there is this fundamental difference that all the employees are Government servants with fixity of tenure and prospect of getting a pension on retirement whereas capital is provided from the state coffers which comes ultimately from the tax payers. The profits, if any, too, go to the state again to the relief of the tax payer.

The economists are generally agreed that Governmental machinery in the matter of running a business compares very unfavourably with private management. There is what is called a 'Government Swing' in the axe of the Government employee. The government manager, whose job does not depend on the sweet will of the immediate boss and who is getting a fixed annual increment and who will get promotion according to seniority, cannot be expected to show the same degree of initiative or hard work as the manager of a private company who may receive notice to quit any fine morning if the directors are convinced that he is not doing his best. A Government employee will not be much interested in lowering costs or improving the methods because he himself will gain nothing thereby.

The state employee can flout the senior officers if he has no ambition to rise. At the most he will be transferred or increment stopped if it comes to the worst. But it is not so easy to remove him. He does not consider himself the servant of any particular person but the servant of the impersonal state and that makes all the difference.

In a government-managed enterprise routine replaces responsibility. There is the tyranny of the desk. Frequent transfers, nepotism and entry into service by the back-door merit being not necessarily the test of promotion are some of the drawbacks in government enterprise. If there are losses nobody seems to bother. There is no counterpart of the shareholders whom the directors have to face every year. The tax payers are dumb. They do not pay taxes specially for any particular purpose and nobody really feels whose money has been lost. Their representatives in the legislature will no doubt raise hue and cry, yet the government usually has a comfortable majority and the caravan continues to move on.

It is, therefore, suggested that only safe businesses, which are of a strictly routine type, where there is no question of winning the markets and striving to maintain them, and which enjoy practically a monopolistic position, can be entrusted to the State. They have to
be so entrusted because public interests are involved so that the idea is not to make a profit but to ensure purity and regularity of service. The government represents the general body of consumers and as such takes upon itself to serve them collectively rather than leave these services at the mercy of the profit-grabbing entrepreneur.

We feel, however, that government weakness in business has been exaggerated. In big business, whether owned by government or private companies the same red-tapism rules. There is the same lack of initiative and inertia. The success of the Russian experiment has exploded the myth of governmental inefficiency. The achievements of their five-year plans may be described as sensational. The world now stands aghast at the unparalleled victories that have attended the Russian arms. People will now think twice in condemning the Russian methods which mean the state enterprise. The peoples' state can inspire and galvanise its citizens so that entirely new values are created and it is no longer possible to argue on old premises. The sphere of state enterprise is bound to extend further and further.

Even in England, the traditional home of laissez-faire, things are going to move pretty rapidly with the coming in power of the Labour party. They have already announced their intention of nationalising the Bank of England and the coal mines. But this is only the beginning. Death-knell of capitalism seems to have been sounded.

13. Production Under a Dictator. We may finally see what organisational changes we can expect if an economic dictatorship were established.

Under the present economic system, working under the laissez-faire doctrine, we have seen that functioning of the price-mechanism tends to bring about a harmony between consumers and producers. The multitudinous decisions of isolated entrepreneurs are somehow reduced to a system by the price steam-roller. The consumer is the king and that producer who is able to give him the maximum satisfaction will be able to enjoy the maximum profit. The entrepreneur will try various permutations and combinations of factors to hit on the most economical combination so as to maximise his profits. Through a great deal of reshuffling the various factors of production will be so distributed among the various industries that, according to the valuation of the consumers, the marginally products of each factor is the same in every industry in which it is employed. The ultimate arbiter is the consumer. All the productive resources of the community are utilised in the making of the assortment of goods and services which the consumer prefers most.

Things are different under a dictator. He will have his own scale of preferences, wise or foolish, and this will take the place of consumer's scale of preferences. The consumer loses his sovereignty. He is dethroned. Under economic dictatorship that assortment of goods and services will be produced which the dictator, and not the consumer, prefers most. It is his valuation which is going to take effect. The phrases "most economical combination," "maximum profit," "maximum efficiency," "maximum satisfaction," all lose
their meaning. They will be dismissed by him as so many vague statements and meaningless platitudes.

How will he allocate the factors of production among the various uses? He is also faced with the scarcity of means in relation to wants. If the dictator were also a magician and had "Alladin’s Lamp" in his possession, the things of course would be different. But we assume that he is endowed with no supernatural powers and that he is also helpless in changing the fundamentals of human nature one of which is that human wants are unlimited. He cannot, therefore, escape from a situation in which he finds that his desires are without a limit, whereas the means at his disposal to satisfy these wants are strictly limited. He is thus compelled to choose. He must decide which wants to satisfy and which to forego. But his standard of judgment will be his own. There is every possibility of an eccentric or ludicrous choice. The Indian dictator for example may decide that a langoti (loincloth) is sufficient by way of clothing and sufficient number of them can be made by the village weaver. All cloth mills may be scrapped and much of the land devoted to cotton growing may be turned into pastures so that people should have sufficient number of milch cattle to supply themselves with milk and milk products. Production of furniture may be stopped, a few charpais are enough, the banyan tree can serve as a sitting room. Educational equipment may be on Santinaketal model. Simple living and high thinking! Herr Hitler is said to have preached to the German nation "Guns are better than butter?" Our dictator may well replace the gun by the Charkha (spinning wheel). It is the dictator’s decision which goods to produce and which not. We cannot quarrel with him.

Having decided upon the assortment of goods and services that he prefers to place at the disposal of his people, he will then proceed to allocate the factors of production among these industries. The factors which are free gifts of nature will be used with other factors so as to maximise their output and the free factor will be used to such an extent that its marginal productivity is zero.

But few factors belong to that category. Most of the factors are actually scarce. The dictator will equimarginalise their productivities in the various uses. Each factor will be distributed among the various industries in such a manner that according to the valuation of the dictator, its marginal product is the same in every industry in which it is employed. The rule seems to be the pretty same as the one applying in competitive economy. But the qualifying phrase, according to the valuation of the dictator makes all the difference. We know that the marginal utility (for productivity) is subjective; it varies from individual to individual. The dictator has his own subjective valuation which may be a queer one. Hitler had ordered the German women to give up jobs and attend to domestic duties. A pleasure-loving and romantically inclined dictator may order them to have sun bath, air bath and sea bath on beaches most of the day and not worry about anything else so that the sum total of health and
happiness may be increased in the country. If he comes to the conclusion that the marginal productivity of a factor, according to his own standard, is greater in another industry than in the existing one, he will shift it from the latter to the former till the marginal productivity is equalised. But it is his valuation which will determine the marginal productivity. He may for example think that land used for a hunting preserve has greater utility than one used for growing wheat.

There are several problems he will have to face in organising production and he will decide each according to his own light and learning. He may find for example that some factor is specific. Some people may be fit only for clerical jobs (India has been producing enough of this commodity during the last 150 years.) If other factors are scarce relatively to this factor, then it will be like a free good and it will be so used, to maximise the production of other factors, in such quantities as to bring down its marginal productivity to zero. (Thank God that the marginal productivity of clerks in India has not fallen to zero, in the pre-war years it had become pretty low). If the dictator has a strong preference for clerks, then he will convert other persons too into clerks, then this shifting will equalise the marginal productivity of clerks and other men. In case he finds that more men cannot be made into clerks, much as he would have liked it, then this commodity (the clerks) becomes a precious commodity so far as this dictator is concerned. He will use them sparingly and consequently their marginal productivity will be higher than other men. It may be that our dictator is not particularly in love with the clerks and by training he changes them into other forms of workers. In this case the marginal productivity of the clerks will not be zero as it was in the first case when they were just like free gifts of nature. But still it will be less than other men. Thus the dictator will tackle the problem of specificity of a factor according to the best of his judgment.

Then there is the problem of joint supply. If the proportions of joint products can be varied, he will vary them according to his preferences. He may prefer mutton to wool or vice versa. His preference will settle as to which breed of sheep be reared more than the other. In case, however, proportion is fixed and the dictator finds himself helpless in changing it, then he will have to choose whether to devote additional factors in producing both products in the fixed proportion or forego both of them and produce something else instead.

The dictator will have to look to the future. He will have his own rate of discounting the future. Subject to this he will divert the factors of production from the production of consumer's goods and services for immediate satisfaction to the production of capital goods, their repairs, replacement and renewal so that system of production becomes more capitalistic or roundabout. This will enable the dictator to provide fuller satisfaction in the future. For the development and improvement of the human material, he may arrange for health
schemes, improve sanitation and medical arrangements and provide for wider diffusion of technical and general education. Large amounts of money may be spent on scientific research. He may supply ample quantity of necessaries of life. He alone will decide to what extent present gratification will be sacrificed for providing fuller and richer life in the future.

The dictator may not take advantage of standardised production of consumer's commodities and, thinking that variety is the spice of life, he may decide to offer a greater variety even though the cost of production may be higher.

He will also consider to what extent the indivisible factors of production should be utilised. Fuller utilisation of an indivisible factor may bring an increasing return, e.g., the trebling of some factors may increase the output six times but he may forego this advantage, because he prefers to utilise the factors in their present uses.

It is not also necessary that all his production units will be of the optimum size in the accepted economic sense. Much depends on how much of a particular good and service he wants to produce.

He may have his own ideas on population. He may offer a premium on increased birth rate, order early marriages, compulsory remarriage of widows or he may issue strict orders against procreation and fix maximum number of children for each family.

It is needless to multiply, by way of illustration, the economic problems he will have to face and tackle. The use of every acre of land, every human being and every rupee of nation's capital and every factor of production will be determined by him. He will fix the quality and quantity of each conceivable article to be produced. Regimentation of production will be followed by regimentation of consumption. Only a superman can attempt such a task. We may be sure that there will be reorientation even of economic theory. Some economic theories may be turned topsy-turvy.

The task of economic dictatorship is formidable but not impossible. The dictator need not go whole hog. He has not to begin on a clean slate. He can tackle his problems piecemeal and modify the existing economic system bit by bit. A sort of economic dictatorship is functioning in Russia, it functioned in Germany and whatever else one may think of them but none may question their efficiency.
CHAPTER XIII
MONOPOLIES

1. Introductory. We have studied the various forms of business organisation. But there is one organisation which has assumed great importance in modern times, viz., the monopolistic organisation or simply a monopoly.

2. What is a Monopoly? It sometimes happens that a producer or a group of producers come to acquire a more or less effective control over the supply of a commodity and they are thus enabled to exercise a perceptible influence over its price. They will be said to monopolise the commodity or to constitute a monopoly. The essence of a monopoly is the ability to influence the price free from the fear of rivals. It implies an elimination of competition, complete or partial. Monopoly, therefore, is an antithesis of competition. Whenever competition is absent, wholly or partially, we say there is a monopoly.

3. Monopoly is Seldom Complete. But it is very seldom that competition is completely eliminated. Just as perfect competition is rare, an absolute monopoly is also something very rare. As a rule actual competition is imperfect competition. The difference between competition and monopoly is not of kind but of degree. Monopoly may be properly described as a monopolistic competition or an imperfect competition. The Punjab Omnibus Service is said to have a monopoly of local bus service in Lahore. But the monopoly is far from perfect. Though there is no other bus service operating within the boundaries of Lahore, yet there is competition from other means of conveyance. Similarly, the Lahore Electric Supply Company is said to enjoy a monopoly of electric supply in certain parts of Lahore, yet there are other sources of light, like gas, available. Absolute monopoly is not to be met with. The monopolistic or "imperfect" competition arises from the use of trade-marks by which device the manufacturers are able to differentiate their own products, from those of others, and this insulates them from the market competition. It is also the result of costs of transport or of the fact that some customers knowingly or unknowingly pay higher prices for a product at a shop.

In the economic jargon the term monopoly refers to various forms of combinations among manufacturers like trusts and kartels.

4. The Economic Significance of a Monopoly. We have seen that Economics is concerned with the disposal of scarce means, which are capable of alternative uses, for the satisfaction of multiple ends. But wherever there is a monopoly this scarcity is all the more accentuated and the consumers are compelled to pay more than they would otherwise have paid. Those who happen to control the supply are able to create an artificial scarcity. The main economic significance of monopolies, therefore, is the reactions caused in certain
branches of expenditure by high prices due to artificially contrived scarcities of certain resources, especially when these happen to be commodities in universal use.

5. Kinds of Monopolies. Prof. Chapman classifies monopolies as under:

1. *Natural monopolies.* Natural monopolies are the outcome of natural scarcity. A certain territory happens to possess a natural control over the supply of a commodity. Africa has a monopoly of diamonds, Chile of sodium nitrates and India of jute.

2. *Legal monopolies.* Sometimes a producer, or a group of producers, comes to control the supply through law. A man invents a machine and gets it patented so that others are debarred from making it. This is the case of a legal monopoly.

3. *Social monopolies.* The term social monopoly refers to electric concerns, gas companies and other public utility services. It is obviously uneconomical, from the social point of view, that there should be two rival companies, in the same place, for the supply of gas or electricity. The public utility services are created monopolies on social grounds and are called social monopolies.

4. *Voluntary monopolies.* In economic discussions we are mostly concerned with this group of monopolies. When several companies enter into agreements voluntarily to restrict supply and to control price, it is a case of voluntary monopoly. Such monopolies do not arise from social necessity or legal restrictions or natural factors. They are created by the business men themselves; they are known as combinations which may be horizontal combination as between concerns engaged at the same stage of production, *e.g.*, combination between spinning companies or it may be vertical combination which combines all processes from the production of the raw material to the marketing of the commodity under the same management. A combination between spinning and weaving concerns will be a vertical combination.

These agreements take different forms some of which are:

(a) *Reduction or Regulation of output.* When a business is passing through hard times the producers take a concerted action to avert the catastrophe and they undertake to reduce the output or regulate it in response to market conditions. The Indian jute mills entered into such agreements during the last economic depression.

(b) *Fixation of price and other terms of sale.* In order to avoid cut-throat competition minimum prices to be charged by the rival producers are fixed. Lest they should be able to evade these agreements by granting other concessions like freight, credit and discounts, such agreements also ensure a uniformity in such terms.

(c) *Division of territory.* This is another device to eliminate competition. The rival manufacturers divide the markets. The Imperial Tobacco Company and the American Tobacco Trust had such an agreement between them.
6. Types of Combinations or Voluntary Monopolies. There are several well-known forms of business combinations the chief of which are the following:—

**Trust.** When several companies amalgamate and create a new company altogether and efface themselves, then they form a trust. The companies joining the combination completely lose their entity and entirely a new concern under a new name is created. It may also be called a merger.

All the existing cement companies of India formed a merger in 1936 under the name of A.C.C. (Associated Cement Companies of India). The constituent companies dissolved themselves and in their place one concern was formed. They merged themselves into this new concern, which purchased all their stock and equipment. The trust institutes a unified control over production and distribution.

**Kartel.** But in case the corporations joining a combination do not wish to lose their separate entity but wish to continue to functioning separately surrendering only certain functions to a newly formed organisation, then it is called a kartel. It sometimes happens that some concerns continue to function as separate producing units under their management and yet hand over their output to a common selling separate organisation. The Indian Sugar Mills formed an All-India Sugar Syndicate in 1936 and entrusted to it the marketing of all the sugar produced by them. The term kartel refers to such arrangements.

Certain differences between a Trust and a Kartel may be noticed. In the case of a Trust one new concern replaces the constituent corporations whereas in a kartel they retain their separate existence. In a trust both production and distribution are under one centralised control, whereas in a kartel only distribution is subjected to a central control but production is conducted under separate managements of individual firms. The trust is a permanent organisation, the constituent firms having effaced themselves completely and irrevocably; on the other hand a kartel is generally short-lived. The firms joining the kartel are constantly looking to their own separate interests and leave the combination whenever it suits them.

In some respects kartel is superior to a trust. It is more flexible, leaves the producers free to make their arrangements as efficient as they can and there is little danger of over-capitalisation from which a trust invariably suffers.

7. Merits and Demerits of Trusts and Kartels. Trusts and Kartels are able to reap all the economies of scale, viz., economies of specialised and expert management, of specialisation of labour and machinery, of buying and selling, of rent and publicity etc. They can use modern and costly machinery, spend large amounts on research and experiments. They can ensure a regular supply and face bad times with confidence. They can use inventions and trademarks of all the members.

They are also joint-stock concerns and, therefore, all the benefits
of joint-stock enterprise are open to them, e.g., democratic, flexible and efficient management, large capital, limited liability and transferability of shares etc.

But besides these two sets of advantages, they enjoy certain other advantages by virtue of their monopolistic position. As such they are able to effect special economies in buying and selling. Being in a monopolistic position they generally charge higher prices and, by offering a large custom, they can wrest special concessions in all their purchases. As producing units, too, they can attain higher levels of efficiency, because they generally command superior skill and can afford to spend lavishly on research. On the distribution side they can arrange matters in a very economical manner as they are not under the necessity of spending large amounts of money on publicity, there being no rival in the field.

It is for the purpose of reaping these advantages that combinations are formed. But there is the less worthy side also of the activities of Trusts and Kartels. Most of the evils of Trusts and Kartels arise from their abuse of the monopoly power. They ruthlessly crush their rivals and deprive the community of the contribution they might have made towards its welfare. They inflict unfair terms on their customers and exploit the consumers. Not infrequently they accord discriminating treatment to their customers in different areas favouring some at the cost of others. They bribe the legislators and thus lower business morality. By preventing the entry of new rivals into the fields they stand in the way of economic progress. There are also dangers of over-capitalisation.

8. Dumping. The combinations are also sometimes guilty of dumping. By dumping we mean the selling of a commodity in a foreign market at a price less than its price in the home market. It can be easily seen that the difference between the two prices must not be more than the cost of transportation otherwise the commodity might be reshipped and sold in the home market. The loss which the manufacturers undergo in a foreign market is made up to some extent by the higher prices charged in the home market.

There are three broad aims of the manufacturers in dumping goods in foreign markets.—

(a) To capture or retain a foreign market by killing a new rising industry in a foreign land.
(b) To dispose off a temporary surplus of a commodity.
(c) To expand the home industry and reap the benefits of the Law of Increasing Returns.

Dumping is usually a temporary phenomenon and by its very nature is not likely to confer a permanent benefit on a foreign market. Instead a positive and permanent injury is the usual consequence. All States, therefore, adopt protective measures against dumping.

9. Some Other Forms of Combinations: Holding Company. We have already discussed the way in which a company comes to
acquire a controlling interest in another company. The Standard Oil Company of New Jersey is said to have controlled about 40 oil companies in 1911.

Pool. The term pool generally refers to agreements for dividing the markets, sharing profits and limiting the output. They are very common among ice factories. Their popularity is due to the fact that the arrangements are very flexible; they are easily formed and they afford a very desirable control over prices and output. But their chief disadvantage is that they are temporary and the arrangements lack stability. Disputes are very frequent and they are as easily and quickly dissolved as they were formed.

(c) Ring. The combination among the shippers is generally known as a "ring" or a "conference". The shipping companies get the better of their rivals through devices like deferred rebate system.

(g) Corner. The term corner refers to the attempts at controlling the supply of a particular commodity. If a Marwari Seth or a group of them try to buy the entire Indian crop of cotton in a season so that they may be able to charge a very high price, it will be called a corner. In view of the improved means of communication and transportation such attempts are foredoomed to failure these days.

10. Factors Which Facilitate the Formation of Combinations. There are several factors which conspire to bring into existence large combines. Anything which facilitates co-operation or compels a concerted action in self-interest will lead to the formation of a combination. The following are some such factors:—

(a) Natural scarcity or control over certain essential raw material.

(b) Imposition of tariffs which necessarily limits or weakens foreign competition. Protection is said to be the mother of trusts. Free from foreign competition the home manufacturers combine to eliminate competition at home so as to maximise their profits.

(c) When the number of the manufacturers is very small and the industry is concentrated in a particular locality. The number of manufacturers in the field will be small if either the State imposes restrictions on new entrants or the capital outlay required is very large.

(d) Standardised Product. If the output is of one uniform quality, then there is nothing to distinguish one manufacturer from the other. It will facilitate a combination.

(e) The traditions in the country favouring joint action also lead to the formation of a combination.

11. Circumstances Unfavourable to a Combination. There are certain circumstances, however, which are averse to the formation of a combination. If there are no special difficulties in the way of new entrants then a combination or monopoly will be very unlikely. If the producers are scattered and each contributes only a small output to the market a combination will be difficult. If the
quality of the commodity is the most important consideration and personal attention is necessary, chances of a big combination producing such a commodity will be remote. Also, when certain producers are in a strong monopolistic position already there will be little inducement for them to join a combination.

12. Forces That Threaten a Combination. It is not always easy to maintain a combination once formed. It is constantly feeling the impact of two sets of forces which threaten and disintegrate it. These forces are operating both from within and from without.

Within the combination there are certain firms who begin feeling restive and find that the agreement is putting too great a strain on their loyalty. They do not find the combination is working to their advantage. Probably some of the constituent firms have made technical improvements and find that they can look after themselves and will capture the market if they are not restrained by the agreement. They may have to work below capacity and they feel that the unused capacity involves them into a dead loss. Probably the assignment of quotas is considered to be unjust. Combination is a device sometimes to meet bad times and when the times change the combination appears to be no longer necessary. The efficient firms feel they are making a sacrifice to keep the less efficient ones alive. Thus the changing conditions of trade and industry make it very difficult, and some times impossible, to retain the loyalty of all the firms in the combination. Desertions constantly take place.

But these are not the only disintegrating forces. There are also forces invading from without. The pressure of the outsiders or the new firms sometimes becomes too heavy and the combination breaks under the strain. The combination is able to prop up the price by curtailing the output which means that the firms have to work below capacity. But the new firms are constantly entering the field. They are under no necessity to resort to short-time working. They take advantage of the higher prices maintained by the combination but work themselves to full capacity. To prevent this increased production depressing the market the combination must further restrict output. Thus the outsiders or the new firms gain at the cost of the combination. When this pressure from outside becomes too much the combination has to be dissolved and freedom of action restored to all firms. The members of the Indian Jute Mills Association experienced this difficulty in the early thirties when they were under short-time agreement and had sealed a percentage of their loomage. Many new firms were started and the agreement became unbearable. The Jute Mills Association granted liberty of action to their members and put an end to the agreement. Threatened by forces from within and from without a combination cannot last long.

13. Economic Effects of Monopolies. The existence of monopolies affects consumers, the quality and the quantity of the output as well as the use and the remuneration of the factors of production.
(i) The remuneration of the factors of production is diminished because the demand for their services under monopoly is less than it would be in the case of competing firms.

(ii) In a combination a quota is usually assigned to each firm so that it has to work below capacity. Some productive resources, therefore, remain idle in a monopoly.

(iii) As the quotas come up for revision periodically each firm is anxious to secure an increased quota at the next revision. For that purpose additional equipment is silently installed during the currency of the agreement. The cumulative effect is that surplus capacity is created in the industry.

(iv) Another consequence of quota arrangement is that the production is also carried on in the less efficient units so that the more efficient units have to work below capacity merely to enable the weak units to exist. This is obviously detrimental to consumer's interests.

(v) Under a monopoly the factors of production are not distributed in keeping with the preferences of the consumers but according to the monopolist's own judgment. Monopoly, therefore, seriously limits the sovereignty of the consumer.

(vi) The monopolist stands in the way of new capital and enterprise and prevents its entry into the industry. The infusion of new blood might have proved of immense advantage for the community. The monopolist deprives the community of this advantage.

(vii) The monopolist also retards technical progress. He is anxious to maximise his profits and it is sometimes not worth his while to replace his old equipment by the new and modern equipment. He would rather continue with the existing equipment as long as possible. No fear of competition compels him to reduce his costs by making use of the new processes and new inventions; on the other hand, when there are a number of competing firms, the firms which make use of the latest devices will be ahead in the race. This stimulates the application of inventions to industry.

(viii) There is every reason that the price under the monopoly should be lower. The monopolist has greater access to economies, internal and external. He can make full use of the indivisible equipment and need not spend much on canvassing and publicity. He is always at an advantage in buying and selling. The size of his plant can be nearer the optimum one. The monopolist, therefore, is in exceptionally strong position in reducing costs. Yet, we find that the prices charged by the monopolists are generally higher than under competition. Human nature being what it is, he exploits his monopolistic position to his fullest advantage. He fixes a price at which his profit is maximised. There is no approximation of the prices to the costs of production as under competition. Thus although the monopoly need not be detrimental to consumer's interest, yet it actually is.

(ix) Finally we may note that monopolies have an adverse in-
fluence on wealth distribution. The monopolists are very rich and the tendency for them is to become richer and richer. Thus the existence of monopolies accentuates inequalities of wealth distribution.

14. Checks on the Power of the Monopolist. It would perhaps seem that the monopolist would be able to charge whatever price he liked, his sole consideration being to take his profit to the maximum level. But it is not so. The monopolist cannot, in actual practice, behave like an autocratic ruler. There are several checks on his sovereignty.

In the first place, he is always afraid of the potential rivals. If he charges too high a price, some other entrepreneurs will surely enter the field to take advantage of this high price.

Secondly, the consumers also may not take it all lying down. There is a limit to their exploitation. An increase of one penny in the price may act as the last straw on the camel’s back. The consumers may revolt and actively organise a boycott. No monopolist can afford to alienate the sympathies of his customers.

Thirdly, there is hardly any commodity for which substitutes, more or less satisfactory, cannot be found. The monopolist’s rapacious tendency can be effectively checked by resort to substitutes. The consumers are willing only to allow a certain margin between the price of the monopolised product and the substitute. As soon as the margin is exceeded, the substitute comes in.

Fourthly, the monopolist cannot ignore the conditions of demand and take independent and unilateral action. He is bound to consider at every step the state of demand. If the demand is small or elastic, the monopolist’s position is correspondingly weak.

Fifthly, we have seen that a combination is constantly threatened by forces from within. It is not so easy to maintain a combination. It is usually a house divided against itself and they cannot, therefore, do as they please.

Finally, there is the fear of state intervention. The state, as the custodian of the interests of the general public, cannot allow a monopolist to exploit the community. If need be, it is always prepared to intervene. This acts as a wholesome check on the autocratic tendency of the monopolist.

15. Recent Tendencies Towards Monopolies. There was a time when combinations in trade and industry were looked askance at and they were regarded as positively antagonistic to the interests of the community at large. Anti-Trust Laws were passed in America and states everywhere kept a vigilant eye on the combination movement. They were considered dangerous.

But this view has undergone a complete change. The combination movement is no longer regarded as inimical to public interest. Rather, they are now regarded as essential if industry is to be rationalised. After the World War I, when Germany was saddled with reparation payments, the German industry had to rationalise for the
sake of its very existence. Internal competition was eliminated and the competing units were put together under one organisation controlling production and distribution. Only thus could obsolete plants be scrapped, inefficient plants closed and production concentrated in the most modern and up-to-date plants. The marketing arrangements had also to be centralised to do away with unnecessary costs incurred in beating the rivals. The products had to be standardised. All this could not be achieved if the industry remained split up in scattered, isolated and independent units. The combination movement in Germany produced wonderful results. The movement, therefore, spread to America, Japan and other countries.

Everywhere the State took active interest in bringing about combinations. The State exerted the necessary pressure and even afforded the necessary financial assistance. Even in England steps were taken to rationalise the Lancashire Cotton Mill Industry. The last world-wide economic depression gave special fillip to the combination movement as rationalisation was considered essential to re-organise the industry and to place it on a sound footing.

In our own country we found that whereas jute mill industry, coal industry, cotton mill industry etc. suffered merely because their organisation precluded any concerted action on their part the entire industry, the cement industry furnishes the solitary instance of rationalisation. It saved itself from internecine warfare and also benefited the country. Centralisation seems to be one essential step towards placing our industries on a stable and sure foundation.

Monopoly is, therefore, very closely associated with industrial efficiency.

16. Public Control and Ownership of Monopolies. To control monopolies has been a problem, Anti-Trust laws like the Sherman Anti-Trust Law of 1890 and Clayton Anti-Trust Law of 1914 were passed in America. Laws against Kartels were passed in Germany and Austria. But such laws were not always effective. When one form of combination was declared illegal, the lawyers' ingenuity suggested another and sometimes informal understandings took the place of formal agreements. The memorandum submitted by Board of Trade to the Committee of Trade and Industry in 1927 showed that the legislative control was only partially successful.

Prof. Pigou suggests that the state should preserve potential competition and control the 'clubbing devices' which frighten away the potential competitor; these devices are destructive dumping, or cut-throat competition and boycott. But even he comes to the conclusion that "attempts to maintain potential competition by preventing the employment of clubbing devices can best be only partially successful".

The State can regulate the monopolies by controlling profits and prices. There are practical difficulties and it is not so easy to hit on a price which is reasonable for the consumer and fair to the producer. The monopolist will try to throw dust in the eyes both of
the public and the State and assume a pose of injured innocence. But it is worth while to attempt the task of regulating the monopolies. Purchasers' associations can also be organised.

The Committee on Trusts suggested in 1918 publicity and public supervision as useful antidotes to the abuse of monopolistic authority. It is suggested that periodical investigations be conducted in the affairs of the monopolies and the search-light of publicity focussed on their doings. It is expected that this will keep them in proper trim.

Finally, the monopolised business may be nationalised. When the business is of a purely routine nature and the market is assured, then it can be safely owned by the State. In such an industry there is not much room for individual initiative and personal attention of the entrepreneur. The business can be conducted by a fool-proof administration. The public utility services can be, and should be, nationalised. The present Labour Government in Great Britain is expected to carry on the process of nationalisation of such industries.

17. Monopolies of the Buyers. 'Monopsony' is the term applied to buyers' monopolies. The buyers are scattered throughout the length and breadth of a country and sometimes the whole world. It is very difficult for them to organise themselves. Therefore buyers' monopolies are very rare. It is very seldom that the consumers can form a combination. The consumers can buy from another shop if they are not satisfied with the behaviour of a certain shop-keeper. But if the product is a monopolised one, it is difficult to see what the consumer can do. He must pay the price or go without the commodity. Even if the consumers can combine and force the price down, it will be a short-lived triumph. The price may be unremunerative and capital will be driven out of the industry so that the supply of the commodity will decrease and price must rise again.

The buyers' monopolies are particularly ineffective if the demand for the good is inelastic. They cannot do without it. It may be a necessary of life or some essential raw material for the manufacturer. In such cases the seller is in a stronger position and can smash any purchasers' combination.

The only effective way for the consumers is to club together and form a co-operative store of their own. But this is an admission of the fact that they were not able to dictate their terms to the producers or sellers.

The employers' associations furnish another instance of a buyers' monopoly. The employers are able to dictate terms to the workers sometimes. But a strong trade union brings the employers to their knees and their Association cannot save them.

Thus we conclude that the buyers' monopolies are rare and weak and ineffective where they exist.
CHAPTER XIV

NATURE AND PROBLEMS OF EXCHANGE

I. Exchange. Ultimately analysed the act of Exchange consists in parting with one thing in return for another. Fundamentally, therefore, it is an act of substitution. An isolated individual, like Robinson Crusoe, thus may exchange in this sense when he substitutes an hour of work for an hour of leisure or an hour spent in repairing his hut for an hour utilised in gathering fruit.

But normally Exchange involves two parties. In primitive communities exchange takes the form of barter. Goods are exchanged for goods-stones for shells, food for skins, cattle for grain and vice versa. In our villages up to a hundred years ago barter was quite common. Even now women-folk buy vegetables and fruit from the itinerant vendor in return for grain.

In more advanced societies exchange takes place through the medium of money. Goods are "sold" for money and then other requirements are "purchased" with money. Exchanges thus take place between buyers and sellers in the market.

In modern societies production takes place through division of labour. The division of functions has gone to such an extent that normally things are produced to be sold not to be directly consumed by the producers. Production is undertaken (or services are supplied) in order to earn an income. This income is then spent to purchase the requirements of the family from the market.

A little reflection will show that the intervention of money, though it makes exchanges more convenient, does not in any way alter the ultimate nature of exchange. Ultimately human beings live by exchanging each others' productions. Exchange in its last analysis is barter.

2. Conditions of Barter. Let us see under what conditions barter takes place. Let us imagine a simple case of two persons, A and B with two commodities, A possessing X and B having Y. Under what conditions A will be willing to exchange units of X for units of Y and B, units of Y for units of X?

We are already familiar with the Law of Diminishing Marginal Utility. According to that law the larger the stock of a commodity in possession of a person the lower is its marginal utility for him. Now in order that A should be willing to part with some units of X to get some units of Y he should have in his possession such a quantity of X that due to the operation of the above law his marginal utility of X should have become lower than his marginal utility for Y, because then alone he will gain in utility by exchanging X for Y. On the other hand, in the same way the marginal utility of X for B should be greater than that of Y to make him a willing partner to exchange.
Suppose these conditions do exist and exchange begins to take place. Let us ignore for the time being the rate of exchange, i.e., how many units of $X$ are given for a given number of units of $Y$. As exchange proceeds $A$ acquires more units of $Y$ and $B$ more units of $X$. For $A$ the marginal utility of $X$ increases (as its quantity with him decreases) and that of $Y$ decreases (as its quantity in his possession increases). The opposite happens in the case of $B$. For him the marginal utility of $Y$ increases and that of $X$ decreases as exchange proceeds. If the exchange continues long enough a point will be reached either for one or both at the same time, when the marginal utilities of the two commodities will be equalised. Suppose this point is reached in the case of $A$ first, so that his marginal utility of a unit of $Y$ becomes equal to his marginal utility of a unit of $X$. If he continues exchange beyond this point his total utility will begin to fall since parting with an additional unit of $X$ will mean a greater loss of utility than acquiring an additional unit of $Y$ will mean a gain. He will stop exchanging, therefore, at a point where the marginal utility yielded to him by the two objects is equalised. In other words when both the commodities have the same position on his "scale of preferences". As long as the two commodities occupy different position on the scale of preferences of a person his total utility can be increased by his parting with the one occupying a lower position for one which occupies a higher position on this scale. Exchange is possible between two individuals only when the two commodities occupy reverse positions on their scale of preferences. In other words when one attaches more importance to one commodity and other to the other. Or in technical language when differences exist in their marginal utility ratios with respect to the two commodities.

3. The Marginal Rate of Substitution. What we have called in the previous section the ratio of marginal utilities has been called the marginal rate of substitution in more recent terminology. This term has been introduced by J. R. Hicks¹ and R. G. D. Allen. It is claimed that by adopting it one can do without utility altogether. Since utility is a subjective concept which cannot be quantitatively defined the new term is regarded as superior. According to this terminology what has been previously called diminishing marginal utility becomes increasing marginal rate of substitution. We have already seen that exchange (substitution) is possible as long as the marginal utility of a commodity to an individual is higher than the marginal utility to him of another commodity. He tends to substitute a commodity with higher marginal utility for a commodity with lower marginal utility. In other words as exchange or substitution proceeds the person requires larger and larger quantities of the commodity that he is acquiring to induce him to part with a given quantity of the good he possesses. Thus if a person is exchanging bananas for apples, as exchange proceeds, he will require larger quantities of apples to part with a lb. of bananas. Thus as his marginal utility for apples falls his marginal rate of substitution of apples will increase. In

¹ See Economica: Feb. 1934. See also Wicksteed's Commonsense of Political Economy, Vol. I, chap. IX.
our treatment, however, we shall stick to the usual concept of utility.

4. Ratio of Exchange under Barter. Let us pursue barter further and see how ratios of exchange are determined under a barter economy. We have already seen that exchange becomes possible between two persons if each possesses the goods which the other desires and if the marginal utilities of the two commodities concerned are different for each. We also know that exchange continues until the marginal utilities are equalised. We now want to investigate as to the ratio in which the two commodities will tend to exchange.

It is obvious that even if both parties desire each other's goods exchange will not take place unless the terms of exchange are attractive for both of them. Suppose a person A has apples and a person B has bananas. A may desire bananas but may not be willing to exchange them for apples unless he can get at least 2 lbs of bananas for a lb. of apples. B, on the other hand, may desire apples but may be only willing to part with at the most 1½ lbs. of bananas in return for a lb of apples. No exchange is possible on these terms. Since to A the utility of one pound of apples is equal to two pounds of bananas; if he accepts 1½ lb of bananas he will be exchanging for a good of greater utility (one lb apples) one of smaller utility (1½ lbs bananas) to him.

Suppose, however, that A would be prepared, in order to get 1½ lbs of bananas to part with a pound of apples. B, on the other hand, would be willing to give as much as 2 lbs of bananas to acquire one pound of apples. Now exchange will be possible. What will be the ratio of exchange? The actual ratio in such a case will be indeterminate. We cannot definitely say at what rate these two goods will be exchanged. We can, however, define the limits between which the ratio will be. The limits will be

1 lb of apples = 1½ lb of bananas.
1 lb of apples = 2 lbs of bananas.

A will not accept less than 1½ lbs of bananas and B will not give more than 2 lbs of bananas for a pound of apples. Between these two limits the actual rate will be determined by the relative skill in bargaining or relative intensities of reciprocal demands of the two parties. If A is more clever the rate will be nearer to 2 lbs of bananas per lb of apples, if B is more astute in bargaining the ratio will be nearer 1½ lb of bananas for a lb of apples.

The above was a case of isolated exchange, one individual against another. In the actual world such cases are analogous to bilateral monopoly, i.e., when both the parties to exchange are monopolists. For instance, if employers and employees are both strongly organized the rate of wages will be determined according to the principles considered above. Within certain limits the actual wage will depend upon the relative bargaining strength of the parties.

In the actual world, however, all sorts of conditions are found. There may be bilateral monopoly as considered above or bilateral

1. For a concise treatment of equilibrium under barter under varying conditions see Erich Roll: Elements of Economic Theory, pp. 67-87.
competition, where there are more than one person on each side. Or monopoly on one side may be found with competition on the other and vice versa (unilateral competition). The problem of ratios or values becomes more complex under such conditions though fundamentally there is no difference in principles. We could study the determination of value under all these conditions under the assumption of a barter economy. But since in the actual world exchanges normally take place through the intervention of money, we shall pursue this subject in terms of prices. The examples of barter were given in order to get some insight into the working of the forces behind the monetary valuations.

5. Problems of Exchange. After having some idea of the nature of exchange let us now briefly review the various problems that we have to study in order to grasp this particular aspect of economic activity.

The central problem of exchange, according to some of economists, is the problem of valuation. Since production is organised on the basis of division of labour and since this division of labour has attained greater and greater minuteness, goods are produced primarily to be sold in the market. Exchanges thus take place between buyers and sellers and ultimately between producers and consumers. Every one is a buyer and a seller in a barter economy. But when money serves as a medium of exchange the person offering goods (or services) is called the seller. There may be a monopoly on the buyer's side or on the seller's side or on both sides. Or there may be competition on both the sides. The buyers and sellers, may belong to the same country or to different countries. In the latter case exchanges take place on an international scale. Thus valuation has to be studied under all these different conditions.

Then there are problems connected with money through the intervention of which exchanges take place. Money takes various forms and is variously organised. Then there are substitutes of money, the various credit instruments, issued by banks. Money again has an international aspect when payments have to be made to foreigners or payments have to be received from abroad.

The main topics under which all these above problems will be studied are:

2. Determination of values under a variety of conditions.
3. Mechanism of exchange—money, credit and banks.
4. International aspect of exchange and value.
5. International aspect of money.

The next chapter is devoted to markets.
CHAPTER XV

MARKETS

1. Markets. In the ordinary language the term market is used to denote a specified place or area where buyers and sellers come together for purchase and sale of goods. In Economics the term is used in a wider sense. In the words of the French Economist Cournot, "Economists understand by the term market not any particular marketplace in which things are bought and sold but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly." "Originally," says Jevons, "a market was a public place in a town where provisions and other objects were exposed for sale; but the word has been generalised, so as to mean any body of persons who are in intimate business relations and carry on extensive transactions in any commodity. A great city may contain as many markets as there are important branches of trade, and these markets may or may not be localised. The central point of a market is the public exchange, mart or auction rooms, where the traders agree to meet and transact business. In London the Stock Market, the Corn Market, the Coal Market, the Sugar Market and many others are distinctly localised; in Manchester the Cotton Market, the Cotton Waste Market and others. But the idea of locality is not necessary. The traders may be spread over a whole town, or region of a country, and yet make a market, if they are by means of fairs, meetings, published price-lists, the post office or otherwise in close communication with each other."

Thus the essentials of a market are: (a) Commodity which is dealt with; (b) the existence of buyers and sellers; (c) a place be it a certain region, a country or the entire world; (d) such intercourse between buyers and sellers that only one price should prevail for the same commodity at the same time. "The more nearly perfect a market is," says Marshall, "the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market," allowing of course for the cost of transportation of goods from one place to another.

2. Evolution of Markets. The evolution of markets may be studied from two points of view: (a) Geographical (b) Functional.

Geographically speaking four stages can be observed in the development of markets, (1) the family market where exchange took place within the bounds of a family only. (2) Local market: when buying and selling were confined to a town or a village or near about. (3) The national market: when the whole nation could be regarded as one market for certain commodities.

The world market: when market for certain goods embraced the whole world. The last three divisions exist even today. Some goods have only a local market e.g., fresh milk; others only a national market, e.g., certain kinds of fruit; and still others enjoy a world market, e.g., certain raw material like cotton and silk and precious metals etc. We shall presently see what factors determine whether a market would be narrow or wide in the geographical sense.

As regards functional development markets have shown the following stages:

1. The general market: where a great variety of articles are purchased and sold and buyers and sellers from immediate neighbourhood gather in certain localities to do business. Prices are fixed by bargaining based on a rough estimation of supply and demand. Such markets even now exist all over the world.

2. The specialised market: with the greater development of industry and trade as well as transport the need for specialised markets arises. For instance separate markets arise for cotton yarn, cloth etc.

3. Marketing by samples: With the increase in the variety and volume of goods and extension of the area of demand it is not possible to display all the stock. Goods are standardised and buying and selling takes place on the basis of samples. This method is particularly useful for raw materials which are bulky but homogeneous when standardised.

4. Marketing by grades. This is a further development from the sample system. This applies to raw materials that can be easily classified according to quality. The quality is exactly defined and named so that even seeing of the sample becomes unnecessary and the purchasers can order with confidence with reference to the grade of quality. This makes it possible to buy and sell things by telegrams over long distances. The area of the market thus can be enormously extended.

3. The Extent of the Markets. The area or extent of the market will depend upon several factors:

(a) The character of the commodity itself. A durable commodity which can be easily described, sampled or graded, will enjoy a wider market than one lacking in these qualities. “The whole western world,” says Marshall “may in a sense, be regarded as one market for many kinds of stock exchange securities, for the more valuable metals and to a less extent for wool and cotton and even wheat; proper allowance being made for expenses of transport, in which may be included taxes levied by any customs houses through which the goods have to pass.” Things having small value and large bulk are not profitable to take to distant places and will have only local markets. Similarly, perishable goods (e.g., vegetables and fruit) unless they can be pr-
served profitably will have only local markets. Market for real estate (e.g., land and buildings) is local.

(b) The nature of the demand for the commodity. A commodity of universal demand (e.g., gold and silver) will have a wider market than one of a limited demand (opium in India).

(c) Means of communication and transport. Only a hundred years ago famine in India could exist side by side with plenty within a few miles of each other. Food grains could not be moved from places of plenty to places of scarcity due to the lack of transport facilities. Now food grains and other things can be imported from distant lands and also can be transported from India to distant places.

(d) Peace and security. Obviously goods cannot be marketed in distant places unless peace and order secures them safety. In war time due to insecurity in the war zones, markets get restricted.

(e) Currency and credit system. The factor of finance is also important. If the currency and credit system is well developed marketing can be conveniently and profitably carried on over extensive areas. In the absence of such facilities goods only move over smaller distances.

(f) The policy of the state. Markets may be restricted by the policy of the state. Prohibitive duties may be imposed on imports or exports.

(g) The degree of the division of labour. We have seen in a previous chapter how division of labour is limited by the extent of the market. The converse of this is also true. The extent of the market also, in its turn, depends upon the degree of division of labour present in the productive process. If there is no division of labour in production there would be no need for exchange and there would be no markets. The greater the degree of division of labour the larger the area over which exchanges will take place in order to supply the needs of the people engaged in production. In other words, the greater the division of labour the larger the extent of co-operation necessary on the part of the people to satisfy their wants, and consequently the larger the area over which exchange will take place of given commodities, hence the greater the extent of the market.

4. The Role of Competition in a Market. We have to study the process of valuation under competition and under monopoly. In fact there is neither perfect competition nor perfect monopoly in the actual world. What actually exists is the various degrees of what is called 'imperfect competition' of which more later. It is necessary, however, to assume perfect competition in order to explain the various forces at work in a competitive market. These forces are very complex and can be studied only under artificially simplified conditions.

Perfect competition exists where two conditions are fulfilled:—

(a) Factors of production can move freely from one occupation to another in search of the highest reward.

(b) Neither any single buyer nor any single seller can by his
individual action appreciably affect the price of the thing bought or sold.

The first condition implies the absence of all restrictions which might prevent movements of labour in search of better wages, capital seeking higher rates of interest, producers of raw materials, seeking higher prices etc. For instance, if a trade union limits the number of new persons entering a particular occupation by charging high entrance fees, and thus keeps their wages artificially high, the competition will not be regarded as perfect under such conditions.

The second condition implies: (1) a large number of buyers, (2) a large number of sellers (3) buying and selling the same commodity or service, (4) each knowing the price at which others are buying and selling. The result of these conditions will be that one commodity will have only one price in the same market. But the second and more important result will be that no buyer or seller (producer or consumer) will be able to affect the price by his own individual action. The reason for this is quite plain. Since there are a large number of buyers whether one buyer buys more or less or keeps away makes no difference to the price. Similarly, since there are a larger number of sellers whether one seller sells more or less or keeps away does not affect the price. The quantities involved, in relation to the total quantity of the commodity bought or sold respectively, are insignificant. This fact, as we shall see, has great importance in the determination of value under competition.

When we speak of competition we mean competition between buyers and buyers on the one hand, and between sellers and sellers on the other. Competition among buyers tends to raise prices and competition among sellers tends to lower prices. Their mutual action tends to establish the same price in the same market.

Competition is more perfect in a wholesale market than in a retail market. In the wholesale market buyers and sellers are better informed about the conditions of supply and demand. Things are bought and sold for profit and in large quantities. In retail markets, where things are bought for direct consumption by consumers, competition is relatively imperfect. A man may buy the same thing at a higher price on the Mall rather than go to Anarkali or Dabbi Bazar to save a few annas. People may buy from their favourite shops even though they may have to pay a little more. Consumers do not buy for business purposes and buy in small quantities, hence they do not trouble themselves about small differences of price. They do not keep themselves so well informed about prices as those who buy wholesale for profit do. Wholesale markets are, therefore, subject to greater competition and are more perfect than retail markets.

5. Market Transactions. Several kinds of transactions take place in markets. Things that are bought and sold may be divided into eight classes:

(a) Consumer's goods; (b) Producer's goods; (c) Labour ser-
services; (d) real estate; (e) loans of money; (f) paper titles; (g) rights and (h) other currencies.

(a) Consumer's goods:—Consumer's goods are wanted for direct satisfaction of human wants. In this group are included services of doctors, houses and cinemas—purchased for direct consumption. The retail shops specialise in such goods. As we have seen, retail markets are less perfect than wholesale markets. Retail prices thus show appreciable differences in different localities and consumers can save money by taking some trouble to find the cheapest shops.

(b) Producer's goods:—Producer's goods are not wanted for direct satisfaction of wants. Demand for these is "derived" from demand for consumer's goods for the production of which they are used. Examples of such goods are raw materials like rubber, wool, cotton etc.; intermediate products like steel bars and yarn, machines and tools etc. The same good may be used as a consumer's good or a producer's good. Coal for instance may be burnt in the kitchen or in the boiler of a factory. This fact, however, does not make our classification useless. "Economic analysis is concerned," says Benham, "with functions of goods, with the part which they play in the economic system, rather than with their origin or their intrinsic qualities".\(^1\)

Producer's goods are, as a rule, purchased wholesale, hence the markets for them are more perfect due to reasons already given. Markets for them in many big cities are specialised. In London, for instance, you have Rubber Exchange, Corn Exchange etc. Here buyers and sellers meet, commodities are exposed for inspection and transactions take place.

(c) Labour services:—Apart from domestic servants, demand for most labour is "derived" from the demand for consumer's goods. In some countries minimum wages are fixed by authority; in many countries they are settled through negotiations between trade unions and employers' associations.

In some countries (e.g., England) Government sets up Employment Exchanges, to bring together employers wanting labour and labourers wanting jobs.

The study of wages, however, belongs to the Department of Distribution since labour is not merely a commodity. But we can conceive of a labour market all the same.

(d) Real Estate. Lands and houses differ on account of situation in addition to other qualities. Thus they cannot be sold by samples. Such business is, thus, in the hands of specialised agents who bring buyers and sellers together in return for a commission. Advertisements are also used. The market for real estate is relatively perfect since buyers take lot of trouble before they purchase it.

(\(e\)) Loans of Money. In the money market, money is loaned and borrowed. The lenders may be private individuals or banks

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or issuing houses, the last being middlemen who advise the borrowers what terms to offer in return for a commission. The borrowers may be public authorities, private firms or individuals. The price paid for loans is interest and shall be considered under Distribution in a subsequent chapter.

(i) Paper Titles. Paper titles are of two types, those yielding fixed incomes and those giving fluctuating returns. Examples of the former are bills of exchange, treasury bills, loans raised by government, debentures. Examples of the latter are ordinary stocks and shares of companies. They yield "dividends" which fluctuate with the profits of the companies. Some paper titles have an in-between character, e.g., participating preference shares. The holders of these receive a fixed return as well as something extra when profits are high. Such transactions take place in the Stock Exchange.

(g) Rights. Rights may also be bought and sold. e.g., "Goodwill" of a business, use of a "patent" of another firm may have to be paid for. "Options" are rights to buy something at a given price before a specified date. "Futures" means buying and selling rights to commodities at future dates.

(h) Other Currencies. Currencies of foreign countries are purchased for making payments abroad and are sold for receiving payments from abroad. Their market is called Foreign Exchange market. We shall study details of it under Foreign Exchange.

To start with we shall be mainly concerned with markets for commodities. The working of other markets will be considered in their proper place.

6. **What is a Commodity?** Generally when we speak of a commodity we mean a whole class of commodities. This is so because the same name may include several varieties. For instance, Cotton, Wheat and Tea, may not be three commodities but as many as all the varieties of them available for sale. From the point of view of the market each variety will be a separate commodity since each will command a different price. "Two units", says Benham, "do not really belong to the same commodity unless they are perfect substitutes, that is unless every potential purchaser would be quite indifferent as to which of the two he received for his money."

The same product would be regarded as a different commodity if sold under a different trade mark. Thus "Lipton's Tea" may be exactly the same tea as 'Darjeeling' but since they are sold under different trade marks each will have a market and price of its own and will represent different commodities.

Similarly, exactly the same thing will be a different commodity at different places if its price does not tend to equality easily and quickly. In the same way the same product may represent different commodities at different times. Fluctuations of prices over time, however, are considerably reduced by the actions of speculators.

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1. Securities bearing fixed interests.
7. Speculation. Transactions in the various markets take place not only for genuine buying and selling, but also for purposes of speculation. In speculation things are bought and sold by dealers to take advantage of expected differences in prices over a period of time. Speculation is also called dealings in futures. Such dealings may be in commodities like cotton, wheat etc. These latter are carried on in what is called the Produce Exchange.

Speculative dealings may also be conducted in invested capital in the form of stocks and shares. People purchase stocks and shares in order to get income from their superfluous money. Those who merely purchase shares in order to sell them when prices rise are speculators. Their aim is speculation, not investment. The market in which such dealings are carried on is called the Stock Exchange.

Speculators in the Stock Exchange are of two types:—

(i) The Bulls. These are the ones who buy stocks and shares in the expectation that prices will go up. (ii) The Bears. Bears sell in the present because they suspect that prices are going to fall in the future.

8. Benefits and Dangers of Speculation. Speculation if carried on by people who understand the forces of supply and demand and act after getting the best information is not without its advantages. It helps in making prices steady by equalising the forces of supply and demand over a period of time. Take the case of cotton. Suppose a speculator in cotton in autumn, by studying all the factors acting on supply of and demand for cotton, comes to the conclusion that by next spring the price is bound to rise. He will proceed to purchase as much cotton as he can and other speculators will also do the same. This will create great demand for cotton in autumn when the new crop is coming and will raise its price. Suppose the price in autumn on account of the action of the speculators was raised from Rs. 10 a maund to Rs. 13 a maund. In spring suppose the price would have risen, if there had been no speculation to Rs. 18 a maund. But since the speculators have purchased large quantities of stocks in autumn, they will sell it in spring and thus increase supply to meet the higher demand. Suppose the actual price, due to the action of speculators, settles at Rs. 15 a maund instead of Rs. 18 a maund. This means that on account of speculation the difference in the price of cotton between autumn and spring has been reduced from Rs. 8 (Rs. 18—Rs. 10) to Rs. 2 (Rs. 15—Rs. 13) only.

If, however, speculation is carried on by ignorant people it is a mere gamble. They are likely to make serious mistakes of judgment and thus may purchase when they ought to sell, thus increasing rather than reducing price fluctuations. Such speculation is socially harmful and deserves condemnation.

In our example above, we talked of the forces of supply and demand determining price of cotton. Let us see how these forces actually operate.

1. These terms originate from the fact that a bull throws its victim upwards and a bear down to the ground at the time of attack.
CHAPTER XVI

SUPPLY AND THE LAW OF SUPPLY

1. Introduction. In the previous chapter we studied something about the nature and functions of markets. Value is determined by the interaction of two sets of forces, i.e., Supply and Demand. The equilibrium between these forces takes place in the market. We have already seen in the Department of Consumption how demand arises and how market demand can be expressed in the form of a demand schedule and a demand curve. The demand schedule and the demand curve we have seen illustrate what is called the Law of Demand.

Corresponding to the Law of Demand there is a law working on the side of supply which is called the Law of Supply. Before we can understand how equilibrium of supply and demand takes place we must know something about supply and the Law of Supply.

For the purpose of studying market price we need not make any reference to the forces behind supply especially of reproducible commodities. Market price is the price that tends to prevail in a market on a particular day. The time is so short that production has little influence on the supply, rather the stock, of the commodity under consideration. But we must explain these terms.

2. Supply and Stock. Supply means the amount offered for sale at a given price, just as demand means the amount purchased at a given price. Supply should be carefully distinguished from Stock. Stock is the total volume of a commodity which can be brought into the market for sale at a short notice. For some commodities the stock and the supply may be practically the same. These are the commodities which must be sold within a short period whether the price is high or low. Perishable commodities like fish and melons are of this kind. Other commodities can be held back if prices are not favourable to the sellers, e.g., toys, cloth etc. Here supply may only be a small portion of the stock available. If the price is high, larger quantities are offered by the sellers from their stock. If the price is low, only small quantities are brought out for sale.

3. The Law of Supply. This brings us to the Law of Supply. Just as there is a Law of Demand, there is also a law that governs supply. It may be stated thus:

'Other things remaining the same, as the price of a commodity rises its supply is extended, and as the price falls, its supply is contracted.' Note here that this is just opposite of what happens to demand. Thus when price rises, while supply is extended, demand is contracted, and when price falls supply is contracted and demand is extended. This is because higher prices are favourable to sellers and lower prices to buyers.

4. The Supply Schedule. Corresponding to the demand schedule already explained in our chapter on Demand, we can construct
an individual's supply schedule and by totalling up the amount supplied at various prices by all the sellers in a market, we can obtain the supply schedule of the market.

Let us suppose the commodity is apples as before and that the following is the (market) supply schedule of apples.

<table>
<thead>
<tr>
<th>Price per doz. (Rs.)</th>
<th>Quantity supplied in dozens.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>40</td>
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<tr>
<td>6</td>
<td>33</td>
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<td>5</td>
<td>29</td>
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<td>26</td>
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<td>3</td>
<td>23</td>
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<td>2</td>
<td>16</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

It will be seen that when the price is as high as Rs. 7 per dozen as many as 40 dozen apples are offered for sale. As the price falls, the amount supplied also falls. When the price is as low as Re. 1 a dozen, only 10 dozens of apples are offered for sale. This means that as price falls supply is contracted, as price rises, supply is extended. This is the Law of Supply corresponding to the Law of Demand studied under Consumption.

5. Supply Curve. The supply schedule given above can be represented in the form of a curve, called the Supply Curve, which corresponds to the Demand Curve already noted.

Quantities supplied are measured along OX, and prices along OY. SS' is the supply curve. If from any point P on the supply curve, PM is drawn perpendicular to OX and PO' to OY, then at price PO' (=O'O) quantity will be supplied.

It should be noted that the supply curve slopes from right to left, as contrasted with the demand curve, which slopes from left to right. The reason is that when price falls demand is extended, supply is contracted and conversely when price rises, demand is contracted, supply is extended.

6. Elasticity of Supply. Just as there is the concept of the elasticity of demand there is also the idea of the elasticity of supply. When a small fall in price leads to a great contraction in supply, the
supply is comparatively elastic; when a big fall in price leads to a very small contraction in supply, the supply is said to be comparatively inelastic. Similarly as regards a rise in price the converse is true. A small rise in price leading to a big expansion in supply shows elastic supply; a big rise in price leading to a small extension in supply indicates inelastic supply.

The following curves illustrate the degrees of elasticity of supply:

In the case A, supply is inelastic. Price falls from O'O to O'O', supply extends from OM to OM'. A large fall in price (O'O'), leads to a small increase in supply (MM').

In the case B, supply is elastic.

A small fall in price (O'O') leads to a big extension of supply (MM'),

7. Rise and Fall in Supply. As there can be a rise and fall in demand already noted, there can also be a rise and fall in supply.

Supply rises when at the same price more is offered for sale, and falls, when at the same price less is offered for sale. This is illustrated by the accompanying diagramme:—

If SS is the supply curve before the change, S'S'' show a fall in supply because at the same price OK (=P'M') less is offered for sale (OM' instead of OM). S''S'' shows a rise in supply because at the same price OK (=P''M'') more is offered for sale (OM'' instead of OM).

8. Causes of Rise and Fall in Supply. The rise and fall in supply may take place on account of a number of factors.

In the first place, cost of production of a commodity may rise due to increase in the prices of the various factors of production, like raw materials and intermediate products, used in its production. This will result in a fall in supply. Conversely, a fall in the prices of such factors will lead to greater production and consequent rise in supply. "During 1936 and 1937," says Benham, "the rise in the prices of timber, steel and other materials changed the conditions of supply of such goods as houses, ships and motor-cars."
Secondly, as regards agricultural commodities better rainfall, improvement in irrigation, more supply of manure and better methods of production naturally would increase supply and failure of rains, floods, fires, dust-storms, earthquakes etc. will decrease supply. In India the supply of food grains depends to a large extent on seasonable rainfall. Increase in the area under agricultural products also would increase their supply. This happened in Russia, Australia, Canada, and America during the inter-war period.

The cost of production of commodities may also be influenced through improvement in technique, better organisation of production and marketing. This will increase supply. On the other hand, higher taxation imposed on the output of the commodity or its factors of production will decrease supply.

Improvements in the means of communication and transport may increase supply of particular commodities if imports from foreign countries are encouraged and may reduce it if exports are encouraged thereby.

Political disturbances like a war may disorganise or divert channels of trade and thus create scarcity of certain kinds of goods. The Bengal Famine of 1943 was mainly due to cutting of the supply of rice from Burma. Scarcity of cloth in India nowadays is the result of diversion of industrial activity to war needs, difficulties of importation and disorganisation of normal trade channels.

Supply may be consciously decreased by agreement among producers. Part of the supply may be destroyed in order to raise prices. During the Great Depression the production of rubber, tea and some other products was restricted through international agreements among the producers. Coffee was thrown into the sea in Brazil or burnt.

By levying high import duties a government may restrict supply of a foreign commodity to encourage its production at home. Government may restrict production of certain articles for reasons of health. (e.g., opium in India).
CHAPTER XVII

MARKET EQUILIBRIUM OF SUPPLY AND DEMANDS

1. Equilibrium. Equilibrium means a state of balance. When forces acting in opposite directions are exactly equal, the object on which they are acting is said to be in a state of equilibrium. Tie a chord to a piece of stone and dangle it in the air. After oscillating from side to side the stone will come to rest if no further disturbance is caused. The stone is then in a state of equilibrium. This particular type of equilibrium is called stable equilibrium for the object concerned after having been disturbed tends to resume its original position.

Balance a rather thick stick with the flat end on the ground in a vertical fashion. Disturb this balance and the stick will fall flat. It will not tend to regain the original position of its own accord. The stick was in a state of unstable equilibrium.

For stable equilibrium it is not necessary that the object should attain balance. If there is constant disturbance it may not come to rest, like the pendulum of a clock. But it always tends to come to its original position of rest. If undisturbed it would succeed in doing so; it is thus in a state of equilibrium.

2. Equilibrium of Supply and Demand. The idea of equilibrium has been applied to supply and demand. These are two sets of forces tending in the opposite directions. Larger supply tends to lower price, greater demand tends to raise price. When the pressure of these two forces is equal in the opposite directions they tend to maintain a certain price which is called the equilibrium price.

The table given below combines the supply and demand schedules already noted and shows how equilibrium takes place between these two sets of forces. The commodity taken is apples:

<table>
<thead>
<tr>
<th>Price per dozen</th>
<th>Quantity demanded</th>
<th>Qty. supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
<td>29</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>38</td>
<td>10</td>
</tr>
</tbody>
</table>

It will be seen that when price is Rs. 3 per dozen 23 dozens are supplied and 23 dozens are demanded, the supply is equal to demand. Rs. 3, therefore, is the equilibrium price. Any disturbance of this price will set forces into operation which will tend to bring it back. For instance, if price rises to Rs. 4 supply (26 dozens) will be more than demand (15 dozens) at the price. Competition among the sellers to
capture the limited demand will push price down to the equilibrium level. If price falls to Rs. 2 demand (29) will be greater than supply, (16) and competition among the purchasers for a limited supply will force up the price to the equilibrium level. Rs. 3 thus is the equilibrium price; 23 dozens is called the equilibrium amount which is bought (and sold) at the equilibrium price.

The following diagram illustrates the same thing. The supply and demand curves represented by the above schedules are brought together.

The two curves cut each other at P which is thus a point on both the curves. PM is drawn perpendicular to OX and PO' to OY. PM (=OO' = Rs. 3) is the equilibrium price.

If price rises to p'm' (=Rs. 4) per dozen Om' (=15) will be less than supply Om (=26) at the new price. Price will be pushed down to PM (=3), the equilibrium level. The opposite will happen if price falls to Rs. 2 when the demand will be greater than supply at this price, and competition among the buyers will push it up to Rs. 3, the equilibrium price.

We have taken apples, their prices and quantities for illustration only. Any other commodity, its prices and quantities supplied and demanded at various prices will give the same results.

3. Market Price. Market price is the price which tends to prevail in a market on any particular day. It is the result of the equilibrium between supply and demand for that particular day. The time is so short that supply can only come out of the stock that is already in the market, or that can be brought at a short notice, or is 'in sight'. When the period is very short (a day) stock is practically fixed. The question of its increase by further production, therefore, does not arise. The cost of production, therefore, has only an indirect influence on price. If the commodity cannot last for more than a day (fish for instance), i.e., is perishable, the cost of production has practically no influence on price. The whole amount has to be sold and it will be sold at a price, which measures the marginal utility of the consumers (taken in the aggregate) for the amount.

4. When the Commodity is Perishable. An example will make this clear. Suppose a perishable commodity, like fish, is brought to a market on a particular day, to the amount of 100 seers. At what price this 100 seers of fish will sell? As the commodity is perishable the whole of it must be sold during the same day. We
assume that the sellers of fish have no demand for fish themselves. There will be some fish consumers, who will be willing to pay perhaps a price of Rs. 5 per seer rather than go without fish. Their marginal utility for fish is very high, and is measured by Rs. 5. At this price, perhaps, five seers of fish will be sold. Similarly, there will be consumers who are willing to pay lower prices according to their marginal utilities. Let us make a demand schedule of this market. It will be something like this:

<table>
<thead>
<tr>
<th>Prices per seer</th>
<th>Amount demanded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs.</td>
<td>seers</td>
</tr>
<tr>
<td>5-0-0</td>
<td>5</td>
</tr>
<tr>
<td>4-0-0</td>
<td>7</td>
</tr>
<tr>
<td>3-0-0</td>
<td>12</td>
</tr>
<tr>
<td>2-0-0</td>
<td>20</td>
</tr>
<tr>
<td>1-0-0</td>
<td>40</td>
</tr>
<tr>
<td>0-8-o</td>
<td>60</td>
</tr>
<tr>
<td>0-4-o</td>
<td>80</td>
</tr>
<tr>
<td>0-3-o</td>
<td>100</td>
</tr>
<tr>
<td>0-1-o</td>
<td>150</td>
</tr>
</tbody>
</table>

The price ultimately settled will be annas 3 per seer, because at this price the whole of the fish can be sold. Those consumers whose marginal utility of fish is measured by annas 3 will be the marginal consumers, and they must be attracted if the whole fish has to be sold. But as in a perfect market there can be only one price for the same commodity, everybody will pay annas 3 for a seer of fish, even the rich man who was willing to pay Rs. 5 per seer. He will get a consumer’s surplus of Rs. 4-13-o.

The accompanying diagram illustrates how the market price of fish will be determined.

Measure amount along OX and price along OY. Since the supply is fixed the supply curve SM will be parallel to OY.

Let the point of intersection of the supply and the demand curves be called P. Then PM will be the market price at which 100 seers of fish will be sold. PM = as. 3.
5. When the Commodity is Non-Perishable. If the commodity is not perishable, it can be stored if the sellers expect better prices in the future. In that case, the amount offered for sale will not be fixed. It will vary with price. Suppose the commodity is toys. Taking the same figures for demand, we could have also a supply schedule for toys. If the price is very high (say Rs. 5), perhaps the whole stock will be offered for sale, but as the price falls some sellers would rather wait for the next day, or would rather keep the toys for their own children. In that case, the marginal utility of the sellers for the toys, will be the minimum below which they will not accept any offer. Thus:

<table>
<thead>
<tr>
<th>Price per toy annas</th>
<th>Amount demanded toys</th>
<th>Amount supplied toys</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>64</td>
<td>7</td>
<td>90</td>
</tr>
<tr>
<td>48</td>
<td>12</td>
<td>80</td>
</tr>
<tr>
<td>32</td>
<td>20</td>
<td>70</td>
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<tr>
<td>16</td>
<td>40</td>
<td>65</td>
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<tr>
<td>8</td>
<td>60</td>
<td>60</td>
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<tr>
<td>4</td>
<td>80</td>
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<tr>
<td>3</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td>1</td>
<td>150</td>
<td>20</td>
</tr>
</tbody>
</table>

After haggling and bargaining the price will tend to be fixed at 8 as. per toy. This price is higher than the price at which fish was sold because the sellers of toys can wait. Owners of 40 toys have refused to sell at this price. They would rather wait for better times, or some of them would rather use the toys for their own children's benefit than accept a low price.

Annas 8 is a price which is the result of the equilibrium between supply and demand, on that particular day, in that particular market for toys. The curve given above shows how the equilibrium price is reached in the case of toys.

As before price is measured along OY and amount (in units) along OX.
MARKET EQUILIBRIUM OF SUPPLY AND DEMAND

SS is the Supply Curve, DD being the Demand Curve as before. P is the point of their intersection. MP thus is the equilibrium price. PM = as. 8.

6. Price of Irreproducible Commodities. So far we have assumed that the commodity concerned whether perishable or durable can be reproduced. How is the market price of commodities, that cannot be reproduced, determined? Such commodities may be pictures by old masters, unique diamonds, old manuscripts etc. In principle there is very little difference in these cases and the cases considered above. The stock of such commodities is fixed. The seller, however, can wait. Ultimately the price will be determined by the marginal utility of consumers. The lowest limit of price will be determined by the marginal utility of the seller himself. The highest limit if there is only one unit to be sold will be determined by the highest offer among the purchasers. If there are a number of units of the same commodity and they are all on sale at the same time, price will be decided by the marginal utility of the consumers taken in the aggregate. Such price will have no relation to the cost of production of the commodity. The question of cost of reproduction does not arise since the commodity cannot be reproduced. Marginal utility is supreme here, whether the period is short or long.

Such cases differ from the case of reproducible commodities in the fact that in the latter case the marginal cost of production ultimately sets limits to the increase of supply. Unless cost is met reproducible commodities cease to be produced. This, however, is the problem of normal price as against market price. We shall consider it in the chapter after the next one.
CHAPTER XVIII

THE CONCEPT OF COSTS OF PRODUCTION

1. Normal Price. In the last chapter we were concerned with market value. We studied the various forces that determine price in the market on any particular day. Market price may fluctuate violently due to sudden change either on the side of supply or demand. A big arrival of fish may depress its price in a particular market. A sudden heat wave may raise the price of ice. These prices are, however, temporary influences and cause temporary disturbances in the market value. In the absence of such disturbing causes the price tends to come back to a certain level. This level itself may not be a fixed point for all times. But if the methods and scale of production remain on the whole constant, this level may be taken as a fixed anchor around which, in its day-to-day movements, market price fluctuates. Adam Smith called this level as "natural" price and Marshall has called it "normal" price. In this chapter we shall be concerned with the study of influences which determine this level.

It should be obvious that the question of normal price arises only in the case of reproducible commodities. Commodities the stock of which cannot be increased have no long-period price problem. They sell according to the marginal utility of the consumers for the quantities offered for sale. In the case of reproducible commodities if the demand price is attractive enough it pays producers to undertake further production, whether they will or will not depend upon the cost of production in relation to the prevailing or expected price.

2. What is Cost of Production? There is considerable confusion about the definition of this term. One distinction is between (i) Nominal or money cost or expenses of production as incurred by the entrepreneur for the production of a commodity; and (ii) the real cost of production. This latter has been variously interpreted. Adam Smith regarded pains and sacrifices of labour as real cost. Marshall includes under it "real cost of efforts of various qualities" and "real cost of waiting". This is called the social cost by Marshall. (iii) The Austrian School of Economists and their followers have given a new concept of real costs. According to them the real cost of production of a given commodity is the next best alternative sacrificed in order to obtain that commodity. We shall consider this concept in greater details in a subsequent chapter.

For the moment we shall use the word cost of production in the sense of money cost or expenses of production. This is the point of view of the entrepreneur. Whatever is the nature of the real cost the employer thinks in terms of money costs. He continues to produce only as long as he can recover his expenses of production, including normal profits necessary to keep him in business as an entrepreneur. To start with, therefore, we shall analyse the entrepreneur's cost of

production and then see in what manner such costs influence prices. Later on we shall go behind these monetary expenses to more fundamental forces determining value.

The entrepreneur's cost of production includes the following elements: (i) Wages of labour (ii) interest on capital (iii) rent or royalties paid to owners of land or other property used; (iv) cost of raw materials, (v) replacement and repairing charges of machinery, (vi) profits of the manufacturer sufficient to induce him to carry on the production of the commodity under consideration.

3. Prime and Supplementary Cost. The cost of production of the entrepreneur may be analysed from another point of view. Some costs vary more or less proportionately with the output, others are fixed and do not vary with the output in the same way. The former are known as prime costs and the latter as supplementary costs of production. Take the case of a sugar factory. Some of its costs are constant whether the output of sugar is say 15,000 maunds or 1,500 maunds a year. The rent of the factory building, interest on capital invested in machinery and salaries of the permanently employed staff must be paid, whether the output to be produced is large or small, even if the factory is not working for a time. Such costs are called the supplementary costs of production. Costs of casual or daily labour employed are only incurred when the factory is at work and roughly only in proportion to output. Such are the prime costs of production. In the long run both the prime and the supplementary costs of production have to be met out of the sale proceeds of the commodity produced, sugar in our example. But in some cases the actual price charged may be such as to meet only the prime costs and a very small portion of the supplementary costs of production. In such cases the price is below the total cost of production. Such occasions are given below.

4. When Price May be Lower than the Costs of Production. (a) During a trade depression price may fall so low that a producer is unable to meet his cost of production. He has two alternatives in such a case. Either he should stop production altogether and wait for the time when condition of the market is more favourable. But he might lose altogether his hold on the market if he adopts this course. The second alternative is to go on producing his commodity so long as he can meet the prime costs and a small portion of his supplementary costs, however small. If he stops production he will have to incur his supplementary costs in any case. It will be to his advantage, therefore, (unless he wants to retire from business altogether) to adopt the second alternative. This course, however, can be followed only on the assumption that depression will not last too long.

(b) In the case of fixed and specialised capital being used in a business it may pay the producer to continue with his old capital, even if he does not recover his total costs of production. This is so because if he sells out his old fixed capital and installs more up-to-

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1. For details See Meade: Economic Analysis and Policy pp. 2—5.
date machinery his loss on the old capital may not be covered by increased profits from the new capital.

(3) For dumping abroad. It may pay a producer to produce on a very large scale in order to reduce his costs of production, sell a part of it in the home market at usual prices, while selling the surplus in foreign markets below the cost of production. This is called dumping. What the producer loses abroad, he gains by charging higher prices at home. But since costs of production for the higher amount is very much less he is able to earn profits at home even at moderate prices.

(4) To Combat Foreign Competition. A producer may charge prices below his cost of production in order to kill foreign competition. After such competition has disappeared he raises his price again and thus covers earlier losses.

These are, however, all temporary contingencies. Ultimately the price must be high enough to cover the cost of production of the commodity concerned including both the prime and the supplementary costs. But there are all sorts of producing units supplying the same market, whose cost of production must be covered. Presumably they are not all producing at the same cost of production. Further, even the same producing unit or firm does not produce all the units of production at the same cost. Cost of production of which unit should be covered by the price? Let us now investigate these questions.

5. Marginal Cost of Production. The term marginal cost often causes confusion in the minds of students of Economics and requires a careful understanding. But before we explain this term it will be necessary to explain two other terms, marginal firm and marginal output.

Marginal firm is the least efficient of all existing firms, its expenses of production are the highest per unit, and it is just able to keep its head above water. If the price in the market were to fall but slightly, it will go under, because at the prevailing price it is just remunerated for its expenses of production, earning no extraordinary profit but just the normal, average profit. If there are three cycle manufacturers serving the market A, B, C and have their cost of production per cycle respectively as Rs. 25, Rs. 40 and Rs. 50 then C, with its highest cost Rs. 50, is the Marginal Firm.

Marginal cost of production, in one sense, means the cost of production per unit of the marginal firm like the one described above.

But the marginal firm may not always be one working under the least advantageous conditions. The essential point about the margin is the relation between the price and the output. When the price falls output will have to be decreased. Some firm may think it worth while to divert its labour and capital to some other industries. This will be marginal firm but is it sure that it will be the least efficient one? Rather it may be the one managed by superior entrepreneur who, looking more clearly than others at the signs of the time, may decide to quit. The firm which is on the margin of
doubt whether to continue or quit is the marginal firm.

The traditional view of the marginal firm presupposes the existence of firms of varying efficiency. But the margin will be still there even if all firms were of the same efficiency. In case of contraction of supply, the output lost will be the marginal output. It may not be of any particular firm but distributed by agreement among all firms.

Marginal output. As a business expands and increases its output the Law of Diminishing Returns may operate and costs may rise. But the entrepreneur will go on increasing, successively, his output till the extra income that he gets is equal to the extra expense that he incurs. The last addition to the output is called the marginal output. The cost of production per unit of the marginal output is the second sense in which the term marginal cost of production is used. If a farmer is intensively cultivating his land he may raise the first 100 mds. of wheat at Rs. 3 per md., 2nd unit of 100 mds. at Rs. 5 and the third at Rs. 7 per md. which is the cost per unit of the marginal output (i.e., the last 100 mds. of wheat raised). This is the marginal cost of production. Marginal cost of production has also been defined as the addition to the variable cost associated with a small increase in output.

It will be clear that the fixed or supplementary-costs do not form part of the marginal cost in the short-period. They have to be paid out whatever the output. They do not vary with the output. A producer will go on producing more till the price is greater than the additional (i.e., marginal) cost of producing another unit. But longer the period the greater will be the number of cost items out of the supplementary list which must form part of the marginal cost.

6. The Importance of the Margin. The concept of the margin is of special importance in relation to output. It is the determining factor in fixing the size of the output. In deciding how much to produce the producer does not consider the average cost of production but the marginal cost of production. It is more important for him to consider how much more he will have to spend if he increases the output and he will compare this additional expense with the anticipated additional income from that extra output. The rule which will guide him is the equating of the marginal costs with marginal revenue or the price. Every firm, producing under competition, will have the same marginal cost because price is the same for all. The inefficient firms will stop producing earlier, for their marginal cost will soon overtake price whereas the efficient ones will have a larger output and then their marginal cost will come up to the price. Temporarily, however, in the circumstances mentioned above, a firm may produce even if the price is less than the marginal cost. The entrepreneur is prepared to suffer a loss in the hope of better days when price will rise and he may be able to make good the loss.

7. The Optimum Firm. The optimum firm, or the optimum unit of production, is a firm which has the most efficient combination of the various factors of production. From the point of view of the entrepreneur it produces at the minimum average cost per unit. Its size is such that a little enlargement or a little curtailment would tend to lower its efficiency or, in other words, increase the cost per unit. Under perfect competition every firm tries to attain the optimum size because such a size yields maximum profits to the entrepreneur.

It should be remembered that the optimum is not a fixed point. Like the optimum size of the population it is a relative not an absolute concept. It may be different with different sets of resources, changing with any modification in one or more of such factors. Improvements in technique in the art of marketing, better facilities for acquisition of capital may increase the size of the optimum unit. Any difficulties in commanding one or more types of resources, on the other hand, may make the optimum move in the reverse direction.

We have seen above that under competition every producer tends to expand his output up to the point at which his marginal cost equals the price. The volume of output thus produced is called the optimum output, because it yields maximum profits to the producer. Under conditions of perfect competition therefore, every firm tries to achieve the optimum size by producing the optimum output. But this does not mean that it actually achieves this size. The degree of its approach to the optimum size will depend upon the nature of its business. An optimum size with respect to one set of resources may not be the optimum with respect to others. For instance, from the point of view of direction a bigger size may be the most efficient, but from the point of view of the technique of production a smaller size may yield best results. To meet this difficulty sometimes several complete units of production are put under one direction. In the opposite case several independently directed units may contribute to the production of a single commodity. For instance in the engineering industries the optimum from the point of view of technology is larger than from that of direction. Some intermediate processes are in such cases handed over to independent firms of small size. But the same business may subdivide and schedule its process at different places according to the conveniences of raw material and transport. For instance, Morris Motors are assembled from parts made by branches of the firm located at several places.

8. Optimum Firm versus Marshall’s Representative Firm. It has been claimed that the concept of the optimum firm is superior to that of Marshall’s Representative firm for explanation of value. In the words of Marshall the Representative Firm is a firm which "must be one which has had a fairly long life, and fair success, which is managed by a person with normal ability, and which has normal access to the economics, external and internal, which belong to that aggregate volume of production, account being taken of the class of goods produced, the conditions of marketing them and the economic
Thus such a firm is neither too well-managed nor too badly managed; it is neither very new nor very old; and enjoys moderate economies of large-scale production. In a word it represents its class as a typical firm. It is the marginal cost of production of such a firm to which, according to Marshall, price approximates in the long run. Firms that cannot sell at such a price sooner or later have to close down. Those which can just manage to sell at this price are marginal firms for such an industry. According to this view, therefore, normal price tends to equal the marginal cost of production of the average or Representative Firm.

More recent economic analysis rejects Marshall’s concept. It is argued that the conception of the “representative firm” like that of Ricardo’s, “economic man” is too abstract and static to have much practical utility. Industrial conditions being essentially dynamic, it is held, it would be impossible in practice to locate the representative firm in any industry. Professor Robbins has pointed out that Marshall did not find it necessary to introduce into the subject the concept of a representative piece of land or a representative labourer.

“The optimum firm, on the other hand, is a concrete possibility: It is the unit of size which conscious direction and the forces of competition compel all firms to attempt to approach, who wish to survive in the struggle for existence.”

9. For the Optimum Firm Average Cost Equals Marginal Cost. When a firm reaches the optimum size its marginal cost and its average cost become equalised. This is a mathematical truism and can be illustrated by a simple example. Suppose a postman on his round of duty has a walking average of 15 miles a day. If by going round an additional day his average is reduced it means he has done less than 15 miles that day, if it is increased he has done more than 15 miles and if he maintains the same average he has done exactly 15 miles on the additional day. In the same way let us suppose the average cost per unit of a producer is Rs. 15. If by producing another unit his average cost is reduced, the additional unit or the marginal units must have cost him less than Rs. 15. If the production of the additional unit raises his average cost, the marginal unit must have cost him more than Rs. 15. And finally, if his average cost remains unchanged the marginal unit must have cost him exactly Rs. 15. In other words, in the third case, his marginal cost and average cost are equal. Now the size of a firm is optimum when its average cost has stopped falling and has not yet started to rise. In other words, when the marginal cost neither raises nor lowers the average cost (is equal to the average cost) the firm is of optimum size. This is the same thing as to say that for the optimum firm the marginal cost is equal to the average cost.

10. Optimum Firm in Relation to Laws of Return. We have seen above the fact that when a firm has reached its optimum size its

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marginal cost equals its average cost. Since its average cost remains constant its marginal cost is also constant. Thus to an optimum firm the Law of Constant Returns applies. It produces its additional units at a uniform cost per unit whether conceived as average costs or as marginal costs.

If the size of the firm is smaller than the optimum, or in other words, if its expansion leads towards the optimum point, every additional unit will be produced at a falling cost. Since the marginal cost will be falling its average cost also must fall. In other words such a firm will obey the law of Increasing Returns.

If the size of the firm has passed the optimum size, in other words, if its expansion leads away from the optimum point, every additional unit will be produced at a rising cost. Since the marginal cost will be rising, its average cost will also be rising. In other words, such a firm will be obeying the law of Diminishing Returns.

We have already seen in the Department of production that the law of Diminishing Returns is a matter of defective proportions of factors combined for production. If the factors are combined in proper proportions the tendency to diminishing returns disappears. Under perfect competition factors are perfectly mobile, therefore, a combination tends to take place which gives the lowest cost per unit under the given conditions. The unit of production, in other words, tends to become of optimum size. In the actual world competition is not perfect, hence in spite of all efforts the best combination of factors may not be possible. This may either be due to the difficulty of moving factors from one use to another or the fact of a high degree of scarcity of a particular factor, e.g., land, which cannot be increased. In such cases the law of Diminishing Returns is inevitable.

The law of Increasing Returns may be due either because, to begin with, the size of the firm is too small and hence as the size grows economies of large-scale production are available. Or certain indivisible factor or equipment is being used (expensive management, expensive machinery, etc.) and further units can be produced at a less than proportionate increase in costs. This applies to firms or industries in which the supplementary costs forms a high proportion of the total costs.

Thus both the laws, that of Increasing and of Diminishing Returns, are the result of two sets of circumstances (i) the matter of proper proportions; (ii) the matter of size. In many cases these circumstances are interdependent. Let us take a concrete example.

Let us suppose a factory is installed to produce sugar with very efficient but expensive machinery. Suppose this machinery is best utilized if 15,000 maunds of sugar were produced in a year. Suppose the sugar that is actually being produced is, say, 10,000 maunds. If, therefore, the size of the output is increased cost per unit, as well as marginal cost, will go down since the expense of the machinery will get distributed over a larger number of units. This will go on until the output produced is the optimum, i.e., 15,000 maunds. Upto that point the Law of Increasing Returns will apply. The cost per unit will go
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down partly because of the use of the indivisible factor, and partly because of other economies of scale which we have studied elsewhere.

When the firm has reached its optimum size both marginal cost and average cost will stop falling and will become equal. For a time constant returns may be available. At this stage the Law of Constant Returns will be in operation.

Now suppose the firm expands still further. The ideal proportion of the factors will get disturbed. For instance, it may become too unwieldy to manage, or raw materials may become deficient, etc. Once the proportions have been disturbed from their equilibrium position some factors will become scarce relative to others. All factors will not increase in the proportions which give the best combination, and hence the Law of Diminishing Returns will set in. We may either say that the size of the firm has passed the optimum point or that certain factors fail to increase, therefore defective proportions have resulted. Either the size must be decreased and the old optimum point re-established or the scarce factors must be increased so that a new optimum at a larger size is achieved. If it is not possible to do either, the Law of Diminishing Returns will operate. In the real world it frequently happens that neither can the scarce factor be increased nor can the relatively less scarce factor moved out of the firm or industry. This may be due to the lack of perfect competition or absolute scarcity of a factor like land. Hence the Law of Diminishing Returns is frequently found in operation.
CHAPTER XIX

THE THEORY OF NORMAL PRICE

1. Introduction. In the last chapter we have explained what is meant by the cost of production. We analysed such a cost in its component parts. We conceived of what is called the marginal cost of production and tried to explain the marginal cost with reference to the various conceptions of the producing unit or the firm, i.e., whether marginal, representation or optimum firm. Our next task is to study the relation between the marginal cost of production and value. In what sense marginal costs may be said to determine normal price?

2. Price in Relation to Marginal Cost. We have already seen that so far as any individual firm is concerned since its output forms an insignificant proportion of the total output, it can expand its output without appreciably affecting price. Price, however, is affected if a large number of firms increase or decrease their output, or if new firms come into the industry or old firms move out of it. An individual firm, however, adjusts its output to the prevailing market price. It produces an amount for which its marginal cost of production is equal to the price. When competition is perfect each firm tends to be of the optimum size. The price that prevails in the long run, therefore, must be high enough to cover the average cost of production of the optimum firm. We have seen, in the previous chapter, that for such a firm average cost is equal to the marginal cost.

The forces of competition thus tend to establish a price which covers the cost of production (marginal-average) of the optimum firm. If the market price rises above the average cost of the optimum firm and stays there long enough, the firms in the industry will be able to make higher profits by producing the output near their optimum output and selling it at a higher price. As a result new firms will be attracted to the industry, the total output will increase and the price will fall to the level of the cost of the optimum firm. In the opposite case if the market price falls below the cost of the optimum firm, no firm in the industry will be able to cover its costs. Some firms would leave the industry, the total output will be reduced, until the price will rise to a level high enough to cover the cost of production of the optimum firm. Under perfect competition, therefore, the price offered for a commodity tends to equal the average (and marginal) cost of production of the optimum firm.

3. Does Marginal Cost Determine Price? But to say that price equals the marginal or average cost of production of the optimum firms does not mean that it is "determined" by such cost in the sense of causing it to be what it is.

During the 19th century there was a considerable controversy whether price is determined by utility or by cost of production. The Classical School of British economists following Adam Smith believed
that cost of production determined value. Later in the century Jevons in Great Britain and some Continental economists evolved a Utility Theory of value. Marshall presented a synthesis of both kinds of forces those acting on the side of demand and those on the side of supply. He argued that utility and cost are both equally important. Let us, therefore, study Marshall's Theory before coming to later views. The study of Marshall's view is important because much of what he wrote still holds the field and also because his views have dominated the English speaking world for more than a generation. Many eminent economists still adhere to Marshall's position.

4. Marshall's Theory of Value. Marshall gives equal importance to cost of production and marginal utility in the determination of value. His famous analogy of a pair of scissors may be quoted: "We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that when one blades is held still, and the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second, but the statement is not strictly accurate, and is to be excused only so long as it claims to be merely a popular and not a strictly scientific account of what happens."

The relative importance of these two influences, however, differs with time. "As a general rule" says Marshall, "the shorter the period which we are considering, the greater must be the share of our attention which is given to the influence of demand on value; and the longer the period the more important will be the influence of cost of production on value. The actual value, at any time, the market value, as it is often called, is often more influenced by passing events and by causes whose action is fitful and shortlived, than by those which work persistently. But in the long periods these fitful and irregular causes in large measure efface one another's influence; so that in the long run persistent causes dominate value completely. Even the most persistent causes are, however, liable to change. For the whole structure of production is modified and the relative costs of production of different things are permanently altered, from one generation to another."

Thus Marshall gives great importance to the element of time, in the determinatio of value. He sums up his position in the following words: "Four classes stand out. In each price is governed by the relations between demand and supply. As regards market prices, supply is taken to mean, the stock of the commodity in question which is on hand, or at all events "in sight". As regards normal prices, when the term normal is taken to relate to short periods of a few months or a year, supply means broadly what can be produced for the price in question with the existing stock of plant, personal and impersonal in the given time. As regards no mal prices,

2. Ibid., pp. 349-50.
when the term normal is to refer to long periods of several years, supply means what can be produced by plant which itself can be re-
merator and applied within the given time; while lastly there are very gradual or secular movements of normal price, caused by the gradual growth of knowledge, of population and of capital and the changing conditions of demand and supply from one generation to another. 1

5. A Concrete Illustration. Let us further explain Marshall’s Theory of Normal price by an illustration. Take the case of a commodity, say radio sets. Suppose at a particular time due to the temporary equilibrium between supply and demand the market price of radio sets is indicated by PM in the diagram given below:

SS is the supply curve and DD the demand curve, giving PM (=OO’) the equilibrium price at the moment.

Let there be now a rise in demand which is shown by the dotted curve D’ D’ in the diagram. The new equilibrium price will be P’ M’ (OO”) which is higher (by O’O”) than the old price. If the rise in demand is due to temporary causes, it will disappear after a short time and the old price PM will be re-established.

But suppose the rise in demand is permanent. What will happen to the market price in the long run? In other words what will be the normal price. The normal price will depend upon the marginal cost of production of the larger supply that will come forth to take advantage of the larger demand and higher profits. For some time the factors of production that are already in the radio industry will be worked under greater pressure, or factors from neighbouring industries or similar industries will be attracted to the radio industry. If these factors are not efficient, marginal costs may go up for a time. The price that will prevail during this stage is called the sub-
normal price. This is the short period normal price and stands midway between the market price and the long-period or real normal price.

If the demand still continues high, new factors of production will

1. Ibid pp. 378-79.
move into the radio industry. New labour will be trained for this work. New capital will find investment in this industry etc. On what terms are these factors attracted? The cost of production of these factors of production must be met in the long run. Supply now will mean what can be supplied by the help of these factors of production. The emergency arrangements will now give place to permanent arrangements for the new supply. The new supply price will depend upon the way the marginal cost of production behaves in the industry concerned.

In the radio industry, most probably the marginal costs per unit will fall as greater volume of radio sets have to be produced. This is because such an industry is likely to obey the Law of Increasing Returns. In the case of an industry which obeys the Law of Diminishing Returns the marginal cost and hence the long period supply price will tend to rise. If the tendency towards Diminishing Returns is exactly balanced by other factors which tend towards Increasing Returns the industry may be said to obey the Law of Constant Returns. In other words marginal cost or long-period supply price and hence normal price will tend to return to its old level that is the level at which it stood before the rise in demand occurred.

The same reasoning will apply if we assume a fall in demand for a sufficiently long period to allow forces on the side of supply to adjust themselves to the changed conditions. Normal price will be higher, lower or it will remain the same according as the industry obeys the Law of Increasing, Diminishing or Constant Returns respectively.

6. Marshall's View of Marginal Costs Determining Price. Thus according to Marshall, normal price is determined by the marginal cost of production of the commodity concerned. Marginal cost is here conceived of in two ways. (1) It is the average cost of production of the marginal firm or, (in agriculture) marginal farm. (2) or the marginal cost of production of the Representative firm. In agriculture or industries which produce larger output in accordance with the Law of Diminishing Returns the concept of the marginal farm or the marginal firm, as the case may be, is used. It is the firm or the farm, the output of which is necessary to meet the market demand. Its cost of production must be met. This producing unit has the highest cost of production among those supplying the same market. If the price falls a little, or cost of production rises a little, such a firm cannot continue to produce. If its product has to form a part of the supply to meet the existing demand, the price must be high enough to meet its costs of production, including normal profits.

When dealing with industries that obey the Law of Increasing Returns Marshall uses the concept of the Representative firm as explained earlier. The marginal costs of production of such a firm must be met. Once the price is determined by this marginal cost, other firms increase their output to equate their marginal costs to this price.

7. Comparison of Marshall's View with the New View. It
will be clear from the above, in what respects recent economic analysis differs from Marshall's regarding the relation between marginal cost and Normal price, under conditions of perfect competition. Marshall gives two conceptions of marginal cost of production i.e., average cost of the marginal firm and marginal cost of production of the average or representative firm. The former is applied to industries obeying the Law of Diminishing Returns and the latter to those obeying the Law of Increasing Returns. Recent Analysis conceives of the marginal cost as the cost per unit of the optimum firm. Marshall makes the marginal firm a firm producing at the highest average cost. The marginal cost of production of Marshall's representative firm is also the cost of the units produced under the least advantage, compared with the cost of extra-marginal units. We have already seen why the concept of the optimum firm is superior to Marshall's representative firm.

Moreover, modern analysis does not classify firms of an industry into different categories according to the laws of production to which they conform. The laws of production are conceived of as matters of proportions of combinations of factors of production. They may form different stages in the evolution of the same firm. Under perfect competition all firms tend to become optimum firms producing at a uniform marginal and average cost. It is, however, agreed that the optimum is not a fixed point. It changes with changes in the technique of production and organization.

Disagreement with Marshall's Theory, however, does not end here. When we go behind the 'money' cost of production and investigate the forces acting behind such costs, the new analysis fundamentally differs from Marshall's and that of the English Classical School. Marshall, as well as his predecessors of the cost of production theory, agree that money cost of production do not fully explain value. Behind money costs are real costs. These real costs are variously conceived of as (i) Painful efforts and sacrifices of workers: i.e., the Labours Theory of value (ii) Painful efforts and sacrifices of workers along with sacrifice of waiting, i.e., Cost of Production Theory, and more recently (iii) the next best alternative use foregorie, i.e., Opportunity Cost which explains cost of production in terms of utility. This is the Marginal Utility Theory of value. The latest trend among economists is towards the acceptance of this last theory. In the next chapter all these theories are considered in their historical order.
CHAPTER XX

REAL COST IN RELATION TO VALUE.

1. Introduction. In the last two chapters cost of production was taken to mean money cost of production or expenses of production as they are called. These expenses are extremely important from the point of view of the producer. The price of the product, in the long run, must cover the expenses, inclusive of normal profits, otherwise production under the system of private enterprise (capitalism) cannot continue.

But from the point of view of the community as a whole money costs do not tell the whole story. Money is after all only a measure of value. Money costs ultimately are nothing else but prices that the producer has to pay for the various agents of production which he brings together to set the process of production in motion. We, therefore, cannot explain one set of prices in terms of another set of prices. Several attempts have been made to get out of this difficulty. Some have made labour as the ultimate measure and determinant of value; others have included labour with waiting. More recently utility has been made to explain short-period as well as long-period value. There are thus three theories of value based on these three views respectively (1) Labour Theory of Value. (2) Cost of Production Theory of Value and (3) Marginal Utility Theory of Value. Marshall's position is midway between the Cost of Production Theory and Marginal Utility Theory. In his synthesis, however, his ideas of cost of production are merely an elaboration of the conception of the cost of production held by those, like Mill, who explained value in terms of "effort and sacrifices."

2. Labour Theory of Value. The Labour Theory is associated with the names of Adam Smith, Ricardo, and Karl Marx. Before Adam Smith, Petty and Locke also had regarded labour as the source of value.

Adam Smith regarded labour as the ultimate standard of value. "The real price of every thing, what every thing really cost to the man who wants to acquire it," wrote Adam Smith "is the toil and trouble of acquiring it..............what is bought with money or with goods is purchased by labour, as much as what we acquire with toil of our own body."

Smith, however, believed that only in earlier stages of society labour formed the basis of exchange value. Afterwards since land became scarce and capital accumulated the owners of these also had to be paid, and labour ceased to be the only cost of production. Thus he was led to the Cost of Production Theory. Ricardo, on the other hand, thought that even in the contemporary world value of a

1. Adam Smith—Wealth of Nations: Book I, Chapter V.
commodity, or the quantity of any other commodity for which it will exchange, depends upon the relative quantity of labour which is necessary for its production.  

Ricardo did not ignore land and capital as agents of production. The cost of land, according to his view, did not count because the price of grain was governed by the cost of production on the poorest land that was under cultivation, where no rent had to be paid. As regards capital it was the result of labour applied in the past.

Adam Smith had admitted that labour varied in quality and hence could not be compared except in very primitive societies, to which alone according to him the labour theory applied. But Ricardo, since he believed labour to be the foundation of value in advanced societies as well, had to explain this difficulty of comparing different qualities of labour. His explanation was that these differences are adjusted in the market so that each kind of labour gets placed in its proper position in the scale of value, and the scale once formed is liable to little variation. "If a day's labour of a working jeweller be more valuable than a day's labour of a common labourer" says Ricardo, "it has long been adjusted, and placed in its proper position in the scale of value." But this explanation is far from convincing.

A common objection against the labour theory is that it does not explain the value of irreproducible goods. To this Ricardo replied that "there are some commodities the value of which is determined by scarcity alone.............their value is wholly independant of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them." In modern language he meant that the marginal utilities of the consumers determined the value of such goods. So far he was in agreement with modern thought. But this explanation cannot satisfy the critics of the labour theory since it proves the inadequacy of this theory, if it prove anything at all.

3. The Socialists and the Labour Theory. The Ricardian theory of value had a special appeal to the socialists. Since labour was the sole originator of value, but actually wages formed a small portion of the total value thus created, it was easy to argue that the capitalist by taking the lion’s share of the produce exploited the workers. Following Rousseau the socialists Thomson, Gray and Bray had already developed the theory of capitalistic exploitation. Rodbertus and Karl Marx made it the central feature of their work.

Marx, the father of scientific socialism, gave his views on value in his monumental work, Capital where he made a strong attack on the capitalistic system. Marx regarded value as crystallized human labour. To him the value of a commodity was the "labour time socially necessary" for its production. This he defined as the labour time "required to produce an article under the normal conditions

of production, and with the average degree of skill and intensity prevalent at the time."

Marx explained capital in the same way as Ricardo had done in terms of past labour. As regards differences in quality his view was that "skilled labour counts only as simple labour intensified. A given quantity of skilled labour he considered equal to a greater quantity of simple labour. "Experience shows" he wrote, "that this reduction is constantly being made. A commodity may be the product of the most skilled labour, but its value, by equalising it to the product of simple unskilled labour, represents a definite quantity of the latter labour alone" these proportions between skilled and unskilled labour are fixed by the force of custom according to Marx. He attributed the higher value of skilled labour to the fact that such labour power costs more time and labour to produce than unskilled or simple labour power.

4. Marx's Theory of Surplus Value and Exploitation. From his labour theory Marx developed his Theory of Surplus Value. He argued thus: for the worker to continue production instruments and maintenance are necessary which he does not possess. He, therefore, sells his labour to the capitalist. For the capitalist it is not necessary to pay the worker the full value of what he produces. Here Marx brings in the aid of another classical theory, the Subsistence Theory of Wages according to which wages tend to a level which is just enough to enable the worker to subsist. But the worker continues to work beyond the time necessary to produce his subsistence. In the words of Marx, 'the labour process may continue beyond the time necessary to produce and incorporate in the product a mere equivalent for the value of the labour power. Instead of six hours that are sufficient for the latter purpose, the process may continue for twelve hours. The action of the labour power, therefore, not only reproduces its own value, but produces value over and above it. This surplus value is the difference between the value of the product and the value of the elements consumed in the formation of that product, in other words of the means of production and the labour power.' This surplus value enables the capitalist to purchase more labour and to get more surplus value. Thus the capitalist class becomes rich at the expense of the working class. That is how Marx arrives at his theory of exploitation from his theory of value.

5. Criticism of Labour Theory of Value. The Labour Theory of Value has been criticized on various grounds. Some criticisms apply to the general statement of the theory as by Ricardo, and others to its exposition by socialists, above all, Karl Marx. The various points of criticism are given below:

(i) Labour is of various kinds and categories and cannot be brought to a common standard. For instance, how can we compare

2. Ibid. Pt. III. Chap. VII. Sec. 2.
3. Ibid. Pt. III. Chap. VIII.
the labour of a worker smashing stones on the road with that of a Field-Marshall smashing enemy resistance on the battlefield; or the labour of a Bernard Shaw dictating his dramas and that of his typist typing them. Reduction by the force of custom of all labour to standardised unskilled labour is not a convincing explanation. Nor does the idea of "generally necessary labour-time" help us in the modern complex and changing world.

(ii) The value of a Commodity may change, and frequently changes, after labour has been incorporated in its production. Marx explains it by saying that if the time socially necessary for the production of any commodity alters all previously existing commodities of the same class are affected. Marx was thus thinking of the cost of reproduction not of production. Labour, therefore, cannot be said to be the original cause of value, it may be a measure of value, at Marx's own showing. The two concepts are not the same.

(iii) The Theory ignores the commodities that possess value but for whose production no labour is required, and also those which are valued disproportionately to the labour incorporated in them. Examples of the former are the discovery of a medicinal spring, autograph of a dead person, and of the latter, pictures and statues by old masters. Moreover misdirected labour may produce no value.

(iv) Further, Marx's concept of surplus value which is based on his labour theory, is criticised in the light of modern ideas of competitive equilibrium. Under competition surplus value should disappear. In the words of Whittaker, "Under conditions where the output of single form is small in relation to the total production of the industry (as was probably the case at the middle the 19th century in the English Textile industry, from which Marx drew many of his examples) any expansions in the output of one firm could have little effect on the market price of the commodity produced. The surplus value, per unit of output, therefore, would remain virtually unchanged. More units being produced, it follows that the total surplus value received by the firm would be increased. Obviously the firm would be under the inducement to expand its output. Not merely one but all firms in the industry would be in this position. Yet, if all expand, the market price of the product would decline, causing the surplus value to diminish, and ultimately to disappear."

Thus, Labour Theory of Value though superficially appearing in accordance with the ideas of equity and justice fails to give an adequate explanation of value.

6. The Cost of Production Theory of Value. It was Cantillon who defined value (or intrinsic value as he called it) of a commodity as "the measure of the quantity of land and labour entering into its production, having regard to the fertility or produce of the land and to the quality of the labour." This, however, did not necessarily coincide with the market value of the commodity which depended on demand of the consumers. He believed further that given the time, supply adjusted itself to demand. If the com-

modity was scarce price rose and production expanded. If it was plentiful the opposite took place. Thus he laid the foundations of the classical theory of value which was further built upon by Adam Smith, Senior, and J. S. Mill.

What Cantillon called intrinsic value Adam Smith called "natural value" and later on, Marshall called it normal value. The 'natural' or 'normal' value depended upon the cost of production according to the theory under consideration.

Ricardo explained capital by calling it past-labour. But Senior developed the concept of interest as payment for waiting or abstinence. He argued that abstinence as well as labour was necessary for production. Abstinence according to him was sacrifice, so that real cost of production, which according to him determined value, consisted not merely of labour but labour and abstinence. Except that he excluded the rent of land as an element of costs, Senior's theory followed Adam Smith closely. He was conscious of the fact that since competition is never perfect value coincided with the cost of production thus defined only in the long run.

J. S. Mill while accepting abstinence as an element of cost elaborated the theory further by bringing in the influence of the "laws of returns." Like Senior he also regarded the conformity of value to costs a long run phenomenon. But Mill changed the basis of discussion of costs from real costs of labour and abstinence to money costs. Marshall took on the cost theory of value at this point from Mill.

For Marshall, however, cost of production was only one blade of the pair of scissors, the other being marginal utility. Marshall attempted to reconcile money costs and real costs by saying that while money costs were important from the point of view of the employer, from the point of view of the community real costs (painful efforts and sacrifices of waiting) were also fundamental. Moreover, he held that if the purchasing power of money, in terms of efforts, has remained about constant, and if the rate of remuneration for waiting has remained about constant then the money measure of costs corresponds to the real costs: but he wisely adds "such correspondence is never to be assumed lightly."

We have already noted that the concept of cost of production as expenses of the entrepreneur, however useful for purposes of calculation, did not explain the problem of value, since it meant explaining prices of commodities in terms of prices of factors of production. Real cost of production in the sense of painful efforts could not be added unless converted to money costs. Apart from this difficulty of the conception of cost there were other weaknesses of the cost of production theory of value.

7. Criticism of the Cost of Production Theory. The cost of production theory does not adequately explain the phenomenon of value for the reasons given below:—

(i) The theory does not allow for the misdirected labour and
capital. A palace may be built in a desert at enormous cost but unless there is demand for it, it will have no value. A patented article may meet the competition of better substitutes and thus be driven out of the market.¹

(ii) Value of a commodity may change after it has been produced. A sudden cool shower may depress the price of ice or a heat wave may raise it irrespective of the cost of production. In fairness to the holders of the theory it may be said that they only explain long-term value in terms of costs while market value, they agree fluctuates according to changes in demand.

(iii) The theory does not explain scarcity value especially the value of irreproducible goods like statues and pictures by old masters etc. The values of these things have no relation to their cost of production.

(iv) In some cases it is not possible to determine the cost of production of particular goods or services. For example the case of by-products or articles produced jointly like wheat and straw or wool and mutton, or the cost of running an excursion train.

(v) Moreover, cost of production varies with different firms and for different units in each firm. Which of these costs determine value?

The real fact is that value is determined by the relationship between scarcity on the one hand and demand on the other. The scarcity may be due to high cost of production or it may be due to any other cause. When it is due to high cost of production it merely means scarcity of the factors of production in the light of the variety of uses or alternative demands calling for their service. Thus it is possible to explain cost of production in terms of utilities or competing demands for the scarce factors of production. This new concept of costs is associated with the marginal utility theory of value. Let us see how this theory was developed.

8. Development of Marginal Utility Theory of Value. Early writers like Barbon (1640-1698) Law and Jurgot (1727-1781) had based value on utility. It was Lauderdale (1759-1830) who argued that both utility and scarcity were essential for value. He established relation between intensity of a man's desire for a commodity and its value and was aware of the nature of elasticity of demand. On the side of production or supply he followed Locke Cantillon and Adm Smith (1723-90) while on the side of demand he anticipated the later marginal school.

F. W. Lloyd during the thirties of the last century set down more clearly the relationship between utility and value. He pointed out how with increase in supply of a good the value a person puts on it diminishes. This was what was later called the Law of Diminishing Utility. He was also aware of the concept of marginal utility. He identified value either with marginal utility, or cost of production whichever was less.

Senior (1790-1864) while recognizing the principle of diminishing utility pointed out that man demands variety and luxury as a consequence of the unsatisfied nature of human wants. Though he appreciated the importance of utility, Senior supported the cost of production theory of value. He was unable to present a synthesis of the forces of supply and demand, which Marshall had to accomplish later.

Writing about the same time as Senior in England (mid 19th century) were Longfield in Ireland, Von Thiinen in Germany and Dupuit in France. The former two anticipated the Marginal Theory of value in a remarkable manner, though they were primarily concerned with the problems of distribution. Dupuit clearly represented the principle of diminishing utility and illustrated it by a diagram. He also arrived at the concept which was later named 'Consumer's Surplus' by Marshall. Dupuit called it "relative utility".

The Marginal school was much more clearly anticipated by the German economist H. H. Gossen (1810-1856). His doctrine was almost identical with that of W. S. Jevons' whose book appeared at the same time (1871) as Gossen's, though Jevons was not aware of it.

About this time (1870) a new school of economists appeared in three different countries of Europe. Carl Menger (1840-1921) in Austria, Walras (1834-1910) in Switzerland and Jevons (already mentioned) in England. They wrote more or less simultaneously, and the result was a new system of economics founded on utility. Their ideas were not entirely new, but they presented them more lucidly and systematically. They soon achieved a dominant position in Western Europe.

On the basis of "final utility" (later called marginal utility) Jevons elaborated his theory of exchange. His conclusion was: "The rates of exchange of any two commodities will be the reciprocal of the ratios of the final degrees of utility of the quantities of commodities available for consumption after the exchange is completed". In modern language he meant that values conform to marginal utilities.

The influence of Marshall dominated English Economic thought for a full generation after 1890. Thus in that country Jevons' Marginal theory was pushed to the background. Marshall, however, incorporated Jevons' ideas in his theory on the side of demand, and Mill's doctrine on the side of production or supply and presented a dual theory of value exemplified by his famous analogy of a pair of scissors.

On the Continent of Europe, however, Jevons' contemporaries, Menger and Walras had greater influence.

They were followed by Bohm Bawerk and Weiser This group is known as the Austrian School.

As contrasted with Marshall's idea of cost of production, already noted, Weiser developed the concept of alternative, opportunity or transfer cost. He made costs not merely "disutilities and pains"

suffered on account of labour and abstinence but conceived them as ".utilities_and._pleasures._sacrificed." Thus he conceived of cost in terms of utility and made it possible to have a Monistic view of value as contrasted with Marshall's Dualistic view. Let us examine this view of cost and its significance in the theory of value.

9. Alternative, Opportunity or Transfer Costs. The American economist Davenport explains this concept as follows: "Suppose for example that a child has been given both a pear and peach, that some predatory boy tries to seize them, and that the only method of saving either is to drop one, say the pear, in the wayside weeds, and to run for shelter with the peach while the aggressor in picking up the pear. What has the peach cost? True the peach was a gift. In a certain sense therefore it cost nothing. Nevertheless it is retained only on terms of foregoing the pear. The term cost seems not quite satisfactory to cover the case. Perhaps displacement or foregoing would be preferable. Or if one offers you your choice between a ride and an evening at the theatre, it is awkward to say that the acceptance of the one is at the cost of the other. Yet the resistance to the taking of the one is the letting go of the others. Or, if with a dollar which you have earned you are at a choice between buying a book or a pocket knife, and finally buy the book, the resistance overcame is best expressed, not by the labour devoted to the earning of the dollar, and not by the dollar itself, but by the alternative application of the dollar....... The highest cost of the book, the best test or measure of its worth to you was in the significance of its strongest competitor the knife."

Conceived on these lines cost of production means not the effort and sacrifices undergone, but the most attractive alternative forgone, or the next best choice sacrificed. Real costs are thus not entities, ultimate and independent of utility, but they are sacrifices of competing demands.

10. Significance of Costs in this Sense. What is the significance of this concept of costs in relation to price? For the entrepreneur's costs are monetary expenses or payment necessary to obtain command over scarce resources which have alternative uses. Socially speaking the cost of using a certain resource for a particular end is the sacrifice of the next best end to which this resource could be applied. This is because resources are scarce and have alternative uses. There are thus competing demands (depending upon the marginal utility of consumers) for the same resources. Since these resources are scarce certain demands are satisfied only at the sacrifice of other demands. The resources tend to move from those uses in which their demand price (marginal utility to the consumers in the aggregate) is lower to those in which it is higher until they tend to be distributed in various uses (for the production of various commodities and services) in such a way as to equalise their marginal utilities in the various uses.

1. Davenport: The Economics of Enterprise, p. 61
It is thus the demand price or marginal utility which determines how much of a particular factor of production will be utilized for the production of a particular commodity. The supply of a commodity, therefore, ultimately depends upon the attraction offered by the demand price (or marginal utility) to the relevant factors of production. If this demand price is not high enough these factors will be used for the production of commodities the demand price for which is high enough to attract them.

II. Marginal Utility Theory of Value. According to the Marginal Utility Theory of value price is determined by marginal utility, or demand in relation to scarcity, of the commodity concerned. The sole function of the cost of production is to determine the degree of scarcity of the commodity. It is the degree of scarcity that is important whatever the reasons for this scarcity. Thus the same principles will explain value whether the commodity is reproducible or not, whether the scarcity is due to the permanently fixed quantity of the commodity or due to difficulties of producing it, which latter may in its turn be due to the necessity of offering higher terms to attract factors for its production from other uses. But since thorists, higher terms are nothing else but higher demand price, it will be clear that demand price, or marginal utility of consumers on which it depends, is the ultimate determinant of value.

It may appear from the above that there is little difference between this view of value and that of the cost of production theorists, since they also hold that cost of production determines supply and in turn supply determines prices. In fact, in spite of the seeming similarity in certain respects, the ground is fundamentally different. According to the marginal utility theory it is not the cost of production that determines value. Cost of production does influence scarcity, but even that indirectly and secondarily. Scarcity is only a relative term. A thing is scarce in relation to the demand for it. As we have seen, scarcity may not be the result of cost of production as in the case of rare objects. The determining factor therefore is not the entrepreneur’s costs nor the painful efforts but it is competing demands. It is the competing demands to which supplies and cost adjust themselves. The only sense in which costs influence prices and values is the sacrifice of alternatives variously termed as displacement, alternative or opportunity costs. The demand price offered must in the long run cover those expenses of the entrepreneur which are necessary for withdrawing factors of production from their next best alternative uses. This conception of cost therefore is not independent of utility.

It is for this reason that the Marginal utility theory in its most recent form is called the “Monistic” as contrasted with Marshall’s ‘Dual’ explanation of value. For Marshall utility and cost were two independent categories and both contributed equally in the determination of value. The degree of their importance however varied with time. According to the monistic explanation, the cost of production is also an aspect of utility and is not an independent category. “Since costs represented alternative utility both supply and
demand came to depend on utility."

The identification of forces behind supply and demand has been pushed even further by the Austrian School and their followers notably the English economist Wicksteed. The latter has shown conclusively that there is no fundamental difference between the psychological forces in the minds of the buyers and the sellers in the market. Below a certain price (called sellers reserve price) the seller appears in the role of a buyer because he withdraws the commodity from the market if the price falls below that level. In other words he purchases his own commodity, as it were, once this level of price has been reached. "It used to be a common custom at auction sales" write Briggs and Jordan, "of all kinds of sellers, whose identity was unknown to the crowd, to actually enter into competition in order to force up prices."

Marginal Utility Theory is now the most accepted theory of value. Though its foundations, as mentioned above, were laid by Jevons in England and a group of Continental economists (Weiser, Bohm Bawerk and Menger) collectively known as the Austrian School, in the last quarter of the 19th century, the theory in its most recent form is associated with the names of Wicksteed, Wicksell, Davenport, Cassel and others.

5. Lectures on Political Economy.
6. Economics of Enterprise.
CHAPTER XXI.

INTER-RELATED VALUES

1. Introduction. So far we have studied value in relation to an isolated commodity. This was, however, only in the interests of convenience. In the actual world few commodities stand isolated whether we take the point of view of production or consumption. In a general way our demand for any particular commodity is directly or indirectly related to our demands for all the commodities that enter our range of consumption. This is so not only because some commodities are jointly demanded like milk, tea and sugar and some can serve as substitutes of each other like tea and coffee, but also because our incomes are limited. If we spend more on one thing we have to spend less on other things. Thus a fall in the price of wheat may enable us to consume more of milk and vice versa. Thus the various demands get inter-related. It is, therefore, more correct to speak of a system of demands rather than the demand of an isolated commodity. Our demand schedule for one commodity, therefore, depends upon our demand schedule for other commodities.

Similarly regarding the supply of commodities, supplies are also inter-related. Some goods are always produced together; others have alternative (or substitute) sources of supply. But in a general way the supplies of different commodities are inter-related because the factors of production are scarce in relation to demand for them for various uses. For instance if more land is used for growing wheat less can be used for other crops etc. Similarly in the case of labour power and capital resources though with some modifications.

The inter-dependence of values due to limitations of resources of consumers and producers in general, we have already accounted for while analysing the forces behind demand and supply. In this chapter we want to study certain special cases of inter-dependence on the side of supply and demand.

On the side of supply there are the cases of joint supply and composite supply and on the side of demand those of joint and composite demands. These terms have already been explained in a previous chapter. How are the values of such commodities determined? Let us take them in turn.

2. Value of Joint Products. When more than one things are always produced together they are in joint supply or are called joint products. For instance when mutton is produced, wool is also produced along with it. Same is the case with wheat and straw, cotton and cotton-seed, coke and coal gas etc. How is the price of each separate product determined?

There is no essential modification necessary in the theory of value in order to explain the cases of joint products. The market price is determined by the equilibrium of the respective supplies and demands of
each. As regards normal price, the prices of joint products taken together must be high enough to cover the marginal cost of production of them again taken all together.

The difficulty, however, consists in the fact that it is not easy to find out the marginal cost of production of these products individually. Two circumstances can arise in such cases, i.e., either the two products (supposing they are only two) are always produced in the same proportion or (ii) their proportion can be varied. In the former case a rise in the price of one will be followed by a fall in the price of the other provided no corresponding change in the demand for the latter has taken place. In the second case since the proportions can be varied a rise in the price of one may not lead to the fall in the price of the other to the same degree as in the first case.

Let us take the example of mutton and wool which are joint products of sheep. Suppose the demand for wool rises. The price of wool in the market will go up. Production of wool will become more profitable. More sheep will be reared to increase the supply of wool. But this will also increase the supply of mutton. But suppose the demand for mutton remains constant. The price of mutton must fall to take away the additional supply from the market. But if by certain methods of breeding new types of sheep can be produced which yield larger proportion of wool to mutton, then it is possible to increase the supply of wool in a larger degree than the supply of mutton. In that case the price of mutton will not go down to the same extent as before.

Such changes in breeds were actually made in Australia and Newzealand. Before the days of cold storage wool was in greater demand for export while mutton had to be sold within the country. Australian farmers, therefore, concentrated on breeding the marino variety of sheep, the wool yielding qualities of which were superior to mutton yielding qualities. Later, when through methods of cold storage, meat could be exported in large quantities, the opposite policy was followed. In place of marino sheep the farmers substituted cross bred sheep which yielded larger quantity of mutton and smaller quantity of wool.

It is possible, however, in some cases to find out the marginal cost of production of each commodity separately by comparing different combinations of joint products. For instance suppose, a certain number of sheep of a certain breed yield a given quantity of mutton and a larger number of another breed yielding more wool and less mutton is required to produce the former quantity of mutton. Now the extra expense of rearing the larger number of sheep has resulted in the production of the extra wool. In the same way the marginal cost of mutton may be ascertained.1

In any case the prices respectively of the commodities in question will be such as to cause them to be consumed in the same proportion as they are produced. The total price paid must be high enough to meet the marginal cost of the commodities taken together, given

1. See Henderson: Supply and Demand Pp, 65-69
sufficient time for necessary adjustments to take place.¹

3. Value of Jointly Demanded Goods (or Service). Commodities that are always demanded together are in joint demand, for instance, pen and ink, motors and petrol, tennis balls and rackets. But cases of derived demand are most significant in this connection. They consist of materials and services which go to the making of a final commodity. Their demand is derived from the demand for that final product of their co-operation. For instance the various materials and factors required for house building (bricks, cement, iron wood etc.) are in joint demand. Their demand is also derived demand, since it is derived from the demand for houses.

The source of difficulty in such cases is that on the demand side they are related but on the side of supply each may have independent conditions and sources governing them. While, therefore, it may be easy to find their marginal cost of production it is difficult to separate their marginal utilities. How are the prices of such things determined?

Let us take a concrete example. Suppose the demand for houses suddenly goes up and their price rises. How will this rise in the price of houses affect the prices of the various materials used in house building? The immediate result will be a rise in the demand for such materials and hence a rise in their prices. But the rise in the prices of each of them will not be in the same proportion because their conditions of supply are not the same. Moreover, it may be possible to increase or reduce the demand of some of them by varying proportion of their combination. Several considerations, therefore, will determine the degree of rise in price in each case, elasticity of demand combined with the degree of scarcity being the main factor. Thus —

√[(a) Other things being equal the more scarce materials will show a higher rise in price. (b) It may be possible to reduce the proportion of certain materials in use if their prices rise too high. In that case to some extent such rise will be prevented. Cheaper substitutes may be available for some hence their price will not rise so much. (c) Some materials may have high paying alternative uses and unless higher prices are paid for them by house builders they might move to other uses. Their prices will rise more than otherwise. (d) If the cost of a certain material forms a very slight proportion of the total cost of the final product its price can rise quite high since it will not affect to any significant degree the price of the final product and hence its demand. If, however, the cost of a certain constituent (e.g., labour) forms a high proportion of the total cost of house-building its remuneration or price cannot rise very much since it will greatly raise the price of houses and hence decrease demand for them. This will again bring down the price of houses and thus will react on the price of the material or factor whose price was inordinately raised.

On the whole, therefore, the price of such goods is determined by the marginal utility of the product in the production of which they

¹ For diagrammatic representation of Joint Supply (and Joint Demand) see Chapman: Outlines of Political Economy, P 174.
contribute. In the long run each must be used to such a degree as will equate its price to its marginal cost of production. In most cases it is not possible to separate the marginal utility of each of them individually.

In some cases, however, the marginal utility of a particular good of the group in joint demand can be calculated by taking two separate combinations in which its quantity is used in different proportions while the others remain constant. In the words of Henderson, "We can take the various possible combinations of the factors of production, and contrast two cases in which different quantities of one factor are employed, together with equal quantities of others. The extra product which will be yielded in the case in which the larger quantity of the varying factor is employed, can then be regarded as the marginal product (or marginal utility) of the extra quantity of that factor, we can say that the employment of this factor will be pushed forward to the point where this marginal product will be roughly equal to the price that must be paid for it."

Incidentally it is clear from the above that the relation between marginal utility and price holds good generally of the ultimate agents of production as much as of goods directly demanded by consumers. The rent of land, the wages of labour and the profit for capital tend to equal their (derived) marginal utilities or as it is sometimes called their marginal net products. But more of it later in the Department of Distribution, which is merely an extension of the theory of value.

4. **Value of Goods in Composite Supply.** Goods for which alternative sources of supply exist are called in composite supply since their supply is composed of the sum total of supplies from the various sources. For instance salt can be obtained from salt mines and also by evaporating sea-water. But the most significant cases are those of the substitutes. Substitutes can be assumed to be practically the same commodity since they supply the same need, not in co-operation with each other as in the case of joint demand, but as rivals of each other. In the broadest sense all commodities within the range of a consumer's demand are rivals of each other since he can substitute one for another. Here we shall confine our attention to substitutes in the narrower sense of tea, coffee and milk as drinks, beef, mutton and fish as meat, wheat and rice as grains etc. To the extent that they are not exact substitutes, our theory will not apply to them. But on the whole the price of one is related to the price of others. They tend to move in the same direction. Thus if the price of wheat goes up many people will substitute rice or the inferior grains in its place. The demand for such substitutes will raise their prices. On the other hand, a fall in the price of wheat will reduce demand for substitutes of wheat and hence lower their prices. The total supply of all the substitutes in relation to the total demand will affect the price of each of them. Their prices will not necessarily be the same unless they are perfect substitutes for each other which means practically the same commodity.

1. Supply and Demand op. cit. p. 70.
Usually they are not perfect substitutes. Their prices move up and down together with a more or less fixed distance from each other. Thus their marginal utilities move together though they are not identical. The price of each tends to get adjusted in the long run at points where its marginal cost of production equals its marginal utility to the consumers in the mass.

5. Value of Goods in Composite Demand. A good is said to be in composite demand if it can be put to more than one use. Its total demand is composed of its demand in all these uses taken together. For instance, coal can be used in the railway engine, the factory boiler, for heating the rooms and for cooking purposes. Wheat can be used for making chapatties for making English bread, for various kinds of sweets etc. The price of coal and of wheat in its various uses tends to be the same. For instance if the demand for coal on the part of railways rise, coal will flow towards railways. Its supplies for other uses will decrease hence its price will rise for those uses as well. The price of a commodity in composite demand is, therefore, determined by its marginal utility in all its various uses. The marginal utility tends to be the same since the commodity can move from one use to another. In the long run, its price as usual must be high enough to cover its marginal cost of production.

6. Other Cases of Inter-related Value. Other cases of inter-related values are mostly extensions of the cases explained above. For instance there is the case of "multiple products". This is an extension of the idea of joint products. Many producers produce not one commodity but a wide range of products. A factory may produce several kinds of machines and also may perform repair work. A shop may sell miscellaneous kinds of goods. In fact such cases are the rule rather than the exception. Railways perform various kinds of services, e.g., carrying different classes of passengers and different qualities of goods. In such cases it is almost impossible to fix marginal costs of separate services performed. The prices of such services (or goods) are fixed on the principle of what the traffic will bear.

Take the case of railways. They carry gold as well as coal. Gold has high value and coal has low value. Obviously no uniform rate either based on space occupied or on weight will be practical. A uniform rate if too high will make movement of coal uneconomical, if too low it will not pay the railways to undertake transport service. The railways, therefore, charge according to what each of the traffic items can bear to pay. The losses incurred on moving coal are more than made up by gains made from gold, since gold can bear a much higher charge than coal can.

Similarly retail shops charge very little profits on standard goods the prices of which are more or less uniform and can be easily ascertained. They make up by charging high prices of specialities that appeal to individual fancy. Producers of such goods and services seek to meet the primary and supplementary costs along with fair profits not on every individual item but on the total transactions undertaken by
them. A uniform rate of profits will discourage many customers and will not give the producers or sellers maximum returns.

The case of alternate supply or alternative products is closely connected with the above. When the same factors of production can be used for supplying more than one product the producer will tend to supply those items which give him the maximum advantage. This is an extension of the case of joint products when several combinations are possible by changing the proportion of one or more of the products concerned. The producer reduces his activities in lines in which he meets loss and substitutes for these lines which are more profitable. In this way by varying the supplies the producers can influence their respective prices. When the producer is a monopolist his powers of influencing prices are much greater than when he is only one of the many suppliers. In the latter case he adjusts his supply to price prevailing in the market. But if a large number of producers produce one good at the expense of another their conduct will affect the prices of both the goods concerned. In this way the original differences in the profits of the two lines of activity will tend to disappear.

An example will make this clear. Suppose a shopkeeper finds that selling of razor blades at the prevailing price gives him little profit while selling of toilet soap is much more profitable. He will increase the supply of soap and decrease the supply of blades. Suppose a large number of sellers (or producers) come to the same conclusion. The supply in the market of blades will be greatly reduced hence their price will go up while the supply of soap will be greatly increased and its price will go down. This will continue until the normal profits from both these lines of business will be equalised.

In actual fact, however, the sellers may go on selling blades at nominal profits to attract customers and more than make up by selling fancy toilet soaps at high profits. In such a case the disparities of profits in the two lines will continue.
CHAPTER XXII

VALUE UNDER MONOPOLY

1. Introduction. In our study of value in the previous three chapters we assumed that perfect competition prevailed among the buyers as well as the sellers. In this chapter we shall assume the opposite condition i.e., that of monopoly. Broadly speaking the term monopoly is used to "cover any effective price control, whether of supply or demand, of services or of goods; narrowly it is used to mean a combination of manufacturers or merchants to control the supply price of commodities or servants". In a previous chapter we have seen the various forms that such combinations take.

Since buyer's monopoly (or monopsony, as it is sometimes called) is very rare, we shall give our main attention to seller's monopoly. To start with we shall assume conditions of perfect monopoly in which the seller has complete control of supply. In actual fact, however, perfect monopoly is as rare as perfect competition. In real life what exist are the varying degrees of competition, ranging from almost perfect monopoly on the one hand to almost perfect competition on the other. To grasp the essential principle of monopoly value, however, it is necessary to assume perfect monopoly, just as we assumed perfect competition to understand the essential principles of price under competition. In the next chapter we shall study intermediate cases, which are more typical of real life, of "imperfect competition" or "monopolistic competition" as their condition is variously called. First of all, let us see how monopoly conditions arise.

2. How Monopolies May Arise. Monopoly may arise due to any of the following reasons:

(i) Legal cases:—Legal ownership of a particular raw material may be in one or a few hands. Law may confer monopoly of producing a particular good or a service e.g., patents and copyright articles, gas, electricity and water supply, postal services etc. are of this kind.

(ii) Natural causes. Some regions or countries may be the sole or chief producers of a commodity e.g., jute by India, diamonds by South Africa, Nitrate by Chile. These countries have control over the major portion of the supply, hence have monopoly power in price determination.

(iii) Economic causes. Along these are combinations consciously formed by the producers of a commodity for the sake of restricting supply and realising monopoly profits. The various trusts and kartels studied in a previous chapter fall in this category.

Another economic cause is the necessity of large capital equip-

1. Thomas op. Cit P. 215
ment for the production of a commodity. The largest producing unit secures the largest economies of scale and ends by eliminating competition.

If an industry yields important economies of large scale production, the total demand for its product may be less than the optimum output of a single firm; or a few firms of the optimum size may be able to supply the whole of the consumers' demand. In such a case unless government interferes high prices and high profits may not attract other competitors. The potential rivals will realise that if they entered such a business they will not only reduce the existing normal profits, but the price may fall so low as to make it impossible to cover their costs of production e.g., electrical current supplied through capital outlay, railways requiring enormous capital.

3. Evolution of the Theory of Monopoly Value. It was admitted quite early in the history of economic thought, that situations could exist where the producer could charge prices above their costs of production by restricting the supply of a commodity. Cantillon and Adam Smith both recognised the possibility of price rising above or falling below production costs in the short period. Due to natural scarcity products could be sold above costs permanently. But Adam Smith thought the monopolist charged the maximum price that he could extract from the buyer, in contrast to the producer under competition who charged the minimum he could afford to charge. Adam Smith failed to take account of the elasticity of demand.

Ricardo paid little attention to monopoly except as regards the influence of scarcity in the case of non-reproducible goods and of rent which he regarded as monopoly price.

Senior paid some attention to monopoly, but did not elaborate his ideas in any detail.

J. S. Mill mentioned cases of abnormal profits by patentees and others.

Cournot, a French contemporary of the later English classical writers, however, showed a remarkable grasp of monopoly value. He showed by illustration how a monopolist fixed the price at a level where profit per unit multiplied by the number of units sold is at the maximum. Thus he paid adequate attention to elasticity of demand. He also anticipated some of the recent ideas regarding imperfect competition.

Marshall gave a comprehensive treatment of monopoly value and showed that the monopolist does not always try to obtain maximum net revenue. In some cases, according to him, the reason may be philanthropic but in others fear of state intervention or of substitutes or public opinion may stand in his way. When monopolies are publically owned the authorities have to consider interests of consumers which are often the same as of the owners.

More recently, as we have seen, the emphasis is on imperfect competition rather than pure monopoly.
4. Aim of the Monopolist and how he can attain it.
Every producer and seller aims at maximising his net profits. Under perfect competition, since price tends to equal the marginal cost of production, producers only realise normal profits which form a part of the cost. Monopoly power consists in the ability of the monopolist to realise profits above the normal. This he does by selling his commodity above his marginal cost of production.

It is obvious that no monopolist has the power to fix both the output and the price. He can either produce a given quantity of output and let the forces of demand (or rather elasticity of demand) of the consumers decide at what price his output could be sold. Or he can fix the price and let demand determine the output to be produced and sold. Usually the monopolist follows the latter course. He fixes the price and lets the demand at that price determine how much should be produced.

Now the question arises: What price would be most profitable to the monopolist? Theoretically speaking he will fix a price which makes his monopoly gain maximum. Such a price is not necessarily a high price, nor is it necessarily a very low price. If the monopolist fixes his price too high very few units will be sold; if the price is fixed too low he will get little profit per unit of sales. He must, therefore, fix a price at which the figure obtained by multiplying monopoly gain per unit and the number of units sold is the maximum quantity. To put the same idea in another way, to maximize his monopoly gain, the monopolist “should keep increasing his output and sales beyond zero units, until the addition to the total revenue caused by adding one unit just equals the addition to total cost caused by adding this unit.” More technically speaking, the monopolist should extend his output to the point where marginal revenue equals marginal cost.

5. Equalization of Marginal Revenue and Marginal Costs.
We have already explained what is marginal cost. It is the cost added to the total cost by the production of the additional unit. In the same way marginal revenue may be defined as revenue added to the total monopoly revenue by the additional unit sold. It is obvious that as long as every additional unit produced and sold adds more to revenue than to cost it will pay the monopolist to increase his output and sales. If the additional output adds more to costs than to revenue it will be profitable to reduce the output. The point where marginal revenue and marginal cost just balance, represents the optimum output i.e., output giving maximum monopoly gain. Where really will this point be will depend upon the nature of the demand and cost schedules.

The following is a simplified numerical illustration:

<table>
<thead>
<tr>
<th>Price (Rs.)</th>
<th>Demanded Units (Doz.)</th>
<th>Revenue (Rs.)</th>
<th>Marginal Revenue supplied (Rs.)</th>
<th>Total Cost (Rs.)</th>
<th>Marginal Cost (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td>81</td>
<td>9</td>
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<td>8</td>
<td>2</td>
<td>16</td>
<td>7</td>
<td>64</td>
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<td>7</td>
<td>3</td>
<td>21</td>
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<td>49</td>
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<td>16</td>
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<td>1</td>
<td>1</td>
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</tbody>
</table>

In the above table prices, units demanded and units supplied at each price are assumed, total cost is also assumed. The other figures are obtained as follows:

(a) Total Revenue = price \times units demanded.

(b) Marginal Revenue: total revenue for 1 unit is 9, total revenue for 2 units is 16, marginal revenue for 2 units is 16 - 9 = 7 and so on.

(c) Average Cost: Total cost \div units supplied.

(d) Marginal cost: Total cost for 8 units is 64.

If we assume that the unit of 1 doz cannot be split then monopoly gain will be made largest if three units are produced and sold, since this is the output which makes marginal revenue and marginal cost equal. Thus:

<table>
<thead>
<tr>
<th>Units</th>
<th>Total revenue</th>
<th>Total cost</th>
<th>Net monopoly revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>4</td>
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<td>21</td>
<td>49</td>
<td>-28</td>
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<td>8</td>
<td>16</td>
<td>64</td>
<td>-48</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>81</td>
<td>-72</td>
</tr>
</tbody>
</table>

In the above illustration monopoly revenue is maximum for three units and also for two units. If the unit could be indefinitely divided this arithmetical inaccuracy could be eliminated. The most profitable output in fact, under the above conditions should be 2\frac{1}{2} units i.e., between 2 and 3 units.
6. Optimum Output Under Monopoly. It is important to note that the optimum output (output giving maximum profit) is smaller under monopoly than under competition. We have already seen in an earlier chapter, that under perfect competition an individual producer is incapable of appreciably affecting price by varying the amount of his output. This is so because his output forms an insignificant proportion of the total supply. He, therefore, produces an amount for which his marginal cost equals to the price prevailing in the market. If his amount is less than this, he will gain by producing more, if it is more than this, he will benefit by producing less.

The case of the monopolist is different. When he increases his output, he has to lower his price to sell the additional output. It is thus not only the price of the additional output that falls but the price of his total output goes down. Since his output affects the price at which he can sell, price is not a given factor for him as it is for the man producing under competition. He, therefore, cannot expand his output to the same degree as the producer under competition can. He can only expand it profitably up to a point at which his marginal cost equals his marginal revenue. This point arrives earlier for the monopolist than it does for the man producing under competition. This is so because his additional output lowers the price of his total output while for the producer under competition the price remains unaffected. Hence the monopolist must stop expansion of his output at a point earlier than the producer under competition would do. The same reasoning applies when the producer is producing under imperfect competition.

The table on page 218 illustrates this point clearly. Here conditions of perfect and imperfect competition are compared. What is true of imperfect competition is true with greater force of monopoly.

The table shows that under perfect competition demand price [Col: (e)] remains constant, since increase in output of any individual firm does not affect price appreciably. Since demand price is constant marginal receipts (or marginal revenue) is also constant for the producer under competition. Output will expand up to a point where marginal cost is equal to the demand price i.e., up to 11 units.

Under imperfect competition, as output expands demand price Col: (h) goes down, therefore marginal revenue also goes on decreasing until it becomes negative. In this case the producer must stop expansion at 7 units. If he produces more his marginal costs will exceed his marginal revenue. At 7 units they are approximately equal.

Notice that for the producer under competition marginal receipts (or marginal revenue) is the same thing as demand or market price. For the monopolist or the producer under imperfect competition they are not the same. For 7 units (optimum output) demand price is higher than the marginal cost.
<table>
<thead>
<tr>
<th>Price</th>
<th>Demand</th>
<th>Marg. R.</th>
<th>Total Demand</th>
<th>Marg. R.</th>
<th>Total Demand</th>
<th>Marg. R.</th>
<th>Total Demand</th>
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</table>

**Units of Average Total Output**

<table>
<thead>
<tr>
<th>Perfect Competition</th>
<th>Imperfect Competition</th>
<th>Assumed under identical Perfect and Demand Conditions</th>
</tr>
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</tbody>
</table>

**Price, Cost, Marginal, Demand, Total, Marginal, T.P., Marg. R.**

**Output, Marginal, Cost, Total, Average**

**Demand Conditions**

**Imperfect Competition**

**Perfect Competition**

**Cost Conditions**
7. Laws of Return and Monopoly Price. We have seen in an earlier chapter that additional units of a commodity may be forthcoming at constant costs, increasing cost, or decreasing costs per unit. How far does this fact modify the theory of monopoly value? The principle of price determination remains fundamentally unchanged. The monopolist will in every case try to fix a price or produce an output which gives him the maximum monopoly revenue. In every case he will achieve this by pushing his output to a point where his marginal revenue equals his marginal costs. The Laws of Return, however, along with elasticity of demand will determine whether this will happen at a smaller or a larger output.

In each case, therefore, the monopolist will have to keep two factors in mind:

(a) How does his marginal cost behave with increasing output? i.e. which Law of Return is at work?

(b) How does the elasticity of demand of consumers of the commodity behave?

Thus:

(i) If the article is being produced under the Law of Constant Return, the elasticity of demand will determine whether more or less should be produced, since cost per unit is constant. If the demand is very elastic (i.e., extend rapidly with a slight fall in price, and contracts quickly with a slight rise in price) then the monopolist will gain most by producing to the fullest of his capacity and lower his price. If the demand is inelastic it will be to his advantage to restrict supply and charge high prices.

(ii) If production follows the Law of Diminishing Return, it will pay the monopolist to restrict supply, and sell at a high price. The output will be smallest when the article produced under increasing costs (Diminishing Return) meets with very inelastic demand.

(iii) If the commodity is produced under Increasing Return, it will be to the advantage of the monopolist to produce a large output and sell it at a low price. His output will tend to be the largest when the article produced under decreasing costs (Increasing Return) meets with very elastic demand.

8. Theory of Monopoly Value Concluded. We thus come to the following conclusions regarding the determination of value under monopoly. These are also true for the cases of Imperfect Competition so far as they have an element of monopoly in them.

(a) The monopolist has two alternatives either (i) to fix the price and leave the quantity to be sold (or produced) to the demand of the consumers at that price; or (ii) to fix the amount to be sold (or produced) and leave the price to be determined by the forces of demand in relation to this supply. He cannot do both of these things.

(b) If the monopolist fixes a very low price he can sell a larger number of units than he would at a higher price. If he fixes a high price his receipts per unit will be high but he will sell fewer units. How demand will vary in response to variations in price will depend
upon the elasticity of demand of the consumers of the commodity in question.

(c) It will be to the interest of the monopolist to aim at maximising his total monopoly revenue. He will, therefore, try to fix a price which makes his net revenue per unit multiplied by the number of units sold a maximum quantity.

(d) If the commodity in question costs him nothing the monopolist will expand his sales up to a point where his marginal receipts become zero. This is so because every positive marginal receipt will add to his monopoly revenue, there being no costs to cover.

(e) If the production of the commodity involves costs of production then the monopolist will produce that quantity of output of which his marginal receipts are equal to his marginal cost of production. This will be so whichever law of production is at work in the production of the commodity concerned. The most profitable amount of output, however, will be smallest when the Law of Diminishing Return in production meets with a very inelastic demand. It will be largest when the Law of Increasing Return in production meets with a very elastic demand. In the former case a high price with a small output and in the latter case a low price with a large output will maximize monopoly revenue.

(f) Under perfect competition "marginal receipts" and selling price are the same since by selling more or less on the part of a seller under competition price remains unaffected. Under monopoly (and imperfect competition) since sale price falls with increased sales, at the optimum output (output giving maximum monopoly revenue) the marginal receipts or revenue will be lower than the selling price.

(g) Other things being equal the optimum output will be of a smaller amount for the producer under monopoly and imperfect competition than the one producing under perfect competition. This is so because under imperfect competition, production must stop earlier than the point at which marginal cost becomes equal to selling price. The producer under competition can push his sales until his marginal cost is made equal to the prevailing market price.

9. Price Discrimination. So far we have assumed that the monopolist charges only one price from all the purchasers of his commodity. This need not be so. The monopolist can, and some do, charge different prices from different people, provided these people form "different markets" or belong to what are called non-competing groups. This is known as price discrimination.

Price discrimination may be (a) personal, (b) local or (c) according to trade or use. It is personal when different prices are charged from different persons usually according to their economic position. It is local when the price varies according to locality (e.g., dumping) Discrimination is according to use when different prices are charged according to uses to which the commodity is put. e.g., electric current is usually sold cheaper for industrial uses than for domestic purposes.

Discrimination is possible because of the variations in the intensities of demand for the same commodity. These enable the mono
VALUE UNDER MONOPOLY

polist, if he has complete control of supply, to divide the demand into a series of markets according to its intensity. He can thus charge higher prices from those who can afford to pay higher prices and lower from those who are only able to pay lower prices. This can obviously happen only if the commodity cannot be transferred from the cheaper to the dearer market.

A few illustrations will make this point clear. In the case of certain books, the first edition is issued at a high price. Those whose marginal utility (intensity of demand) for the book is very high purchase it at this price. After this edition is exhausted a second edition is issued which is priced lower than the first. People of lower marginal utility also can now purchase the book. This process may be repeated several times and a very wide sale obtained. People with greater intensity of demand will not wait for cheaper editions. In this way the monopolist appropriates the major portion of the consumer's surplus and increases his monopoly revenue to a point otherwise not possible.

Other similar examples easily come to one's mind. A doctor charging fees according to a person's income, different classes of fares in the railways when the increase in comfort is not fully in proportion to the higher fares charged. Similar discrimination may be made in the case of goods according to the principle of "what the traffic will bear." Discrimination may be made between the home and the foreign markets. Certain English cigarettes, for instance are priced lower for foreign markets like India. Certain books have cheaper "Overseas" editions etc. Dumping also falls in the same category as we shall presently see.

In certain cases price discrimination may be to the advantage of a community for instance, what particular service may be very useful to a community. If the price is fixed low enough for the poorer classes production costs may not be met due to absence of normal profits per unit. If the price is fixed too high, the total receipts again may be low due to meagre sales. The commodity may thus not be produced at all. If discriminatory prices are charged the total receipts may be adequate to meet the total cost with profit. Thus every one may gain by producing such a commodity provided discriminatory prices are charged.

When discrimination takes the form of dumping it is regarded as an obnoxious practice.

10. Dumping. Dumping occurs when producers (usually monopolists) of one country sell their goods in another country at prices below those charged from the consumers in the country of origin. In some cases it may pay a monopolist to sell his commodity in the foreign market below his cost of production.

The monopolist may have several motives for dumping (a) to dispose of an overstock casually produced due to wrong judgment of demand (b) to develop new trade connections by charging low prices (c) to drive competitors out of the foreign market whether foreigners or native producers and (d) to reap economies of large scale production.
An extreme case of dumping may be illustrated as below:—

**Home Market**

<table>
<thead>
<tr>
<th>Sale price Rs. as.</th>
<th>Cost price Rs. as.</th>
<th>No. of units</th>
<th>Net Revenue Rs. as.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 0</td>
<td>5 0</td>
<td>100</td>
<td>500 0</td>
</tr>
<tr>
<td>9 12</td>
<td>4 12</td>
<td>150</td>
<td>750 0</td>
</tr>
<tr>
<td>9 4</td>
<td>4 8</td>
<td>200</td>
<td>950 0</td>
</tr>
<tr>
<td>8 8</td>
<td>4 4</td>
<td>250</td>
<td>1062 0</td>
</tr>
<tr>
<td>7 12</td>
<td>4 0</td>
<td>300</td>
<td>1125 0</td>
</tr>
<tr>
<td>7 0</td>
<td>3 12</td>
<td>350</td>
<td>1137 8</td>
</tr>
</tbody>
</table>

| 5 12              | 3 4               | 400          | 1000 0            |
| 4 8               | 2 12              | 450          | 787 8             |

It will be seen that if the monopolist only produced for the home market he would produce 350 units and sell them at Rs. 7 a unit. This will give him the largest net revenue *i.e.*, Rs. 1137 8-0.

Suppose he produced 450 units instead of 350. His total cost will be Rs. $450 \times 2\frac{1}{2} = Rs. 1237\frac{1}{2}$-0. For 350 units his total cost would have been Rs. $350 \times 3\frac{3}{4} = Rs. 1312\frac{1}{8}$-0.

Thus the monopolist can lower his total cost by Rs. 75 (Rs. 1312\frac{1}{8}-Rs. 1237\frac{1}{2}) by producing 100 units more.

It will be to his advantage to produce these extra 100 units even if he has to destroy them. He can thus sell all these additional units in a foreign market with profits if he can charge a price just over the cost of transporting them. No foreign producer can compete with him at such a price.

Such a big advantage, however, is rare. We took an extreme case to illustrate the principle involved. Moreover, if the difference between the home price and the foreign price is greater than the cost of transporting the commodity back to the country of its origin, the commodity may be re-exported back, unless high tariff walls stand in the way. Foreign countries usually raise high tariff walls against dumping especially if it affects their own industries.

11. **Is Monopoly Price a High Price?** We have seen that monopoly power enables a monopolist to restrict his output and charge a price higher than his marginal cost of production. Competitive price tends to equal the marginal cost of production of the commodity concerned. This, however, does not mean that monopoly price will be necessarily and invariably higher than competitive price. Several influences may keep monopoly price down and in some cases may bring it to a level lower than would be under competition.

The monopolist may be able to produce an article at a lower cost per unit on account of the exceptional advantages that he may enjoy as regards the scale of production, in advertising, marketing expenses and other overhead charges. Thus even though he may charge a price higher than his own marginal cost it may be lower than would be the marginal cost under competition. This is the case especially with industries using large and expensive indivisible equipment, and the
demand for the products of which is elastic. Expansion of output in such industries reduces cost per unit and larger output can be sold at remunerative, though low, prices.

Normally, however, monopoly price is rarely lower than price under competition. But this does not mean that monopoly price is inordinately high price. As we have seen, there are serious limitations on the powers of a monopolist. He is not always able to charge prices which would theoretically maximize his profit. Apart from the fact that the monopolist may be ignorant of the level of price which gives him maximum returns due to difficulties of assessing the factors involved, there are certain considerations which few monopolists can ignore. These we have already referred to in an earlier section and may be noted again —-

(a) No monopoly is perfect. The fear of competitors in the same line or producers of substitutes is always a restraining influence. If monopoly price becomes excessively high, either consumers will take to substitutes or rivals will appear, somehow or the other, to exploit such a favourable field of activity. The American Sugar Refining Company, for instance, had to buy out competitors time and again, who came into the field due to abnormally high prices.

(b) The consumers' sovereignty cannot be ignored. Apart from the substitutes that may be available (e.g., coffee for tea) the consumer may entirely dispense with the particular kind of service. In other words the demand may be very elastic and the fear of its contraction may keep monopoly price down.

(c) The third consideration is the fear of State intervention. If the authorities think that the monopolist is unduly exploiting the public, they may intervene. In such cases the State may fix a maximum price or undertake to supply the service itself e.g., public utilities like electricity, gas and water supply.

(d) Buyers' monopoly is another restraining influence where it exists.

12. **Buyers' Monopoly.** When buyers are in a position to control demand and thus influence price, a buyer's monopoly or monopsony is said to exist. If the sellers said, "Buy from us, or you don't buy," the buyer can retort, "Sell to us or you don't sell." The big meat packers in South America found this out in World War I. The buyer was the British Government, which had the power to control the refrigeration space on ocean vessels". Another similar case was the American automobile manufacturers who by working together were able to bring down the price of rubber—a Dutch Monopoly. Another case of a buyer's monopoly is the purchasers of a particular kind of skilled labour which has no alternative market.

Buyers' monopolies, however, are much rarer and are more difficult to maintain than seller's monopolies. In most cases the buyers can only maintain their monopoly power by restricting their

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1. Knight, B. W.—Economic Principles in Practice, 1940, P. 177
purchase of essential commodities. They, therefore, inflict as much punishment on themselves as on the sellers (e.g., buyers of milk in a town, supposing they acted as one) Alternative markets, moreover, cannot always be ignored.

13. Evils of Monopoly. In spite of the various restraints on the activities of the monopolist, private monopoly on the whole, is an evil. Its economic effects are unfavourable for the welfare of the community.

Monopoly, in the first place, makes the distribution of wealth uneven. This, however, is not always the case. Bengal has a monopoly of jute, but many consumers of jute are richer than the producing peasants. In most cases it is true that the existence of huge monopolies lead to concentration of wealth in a few hands.

Secoenedly, monopoly may retard the application of inventions if such inventions require new types of capital equipment. A firm producing under monopoly will scrap old equipment in favour of the new only if the cost of working the latter plus interest and amortisation upon its purchase price is less than the cost of working the existing equipment. It will install equipment of the new type side by side with the old only if the profits from the former exceed the reduction in profits upon the latter due to the increased output and consequent fall in price of its commodity."1 In the absence of this condition such a firm will not utilize the new invention and thus deprive the consumers of the benefits of the more efficient method of production. If there is no monopoly new inventions will be used by new producers, who will enter the field and who will not be deterred by the fact that a lower price to consumers will reduce the earnings of existing equipment belonging to their competitors.

In the third place, monopoly restricts output and thus deprives the community at large of satisfactions that could be available. This may be done in several ways:--

(i) Some output already produced may be destroyed to keep the price up. For instance, over 2 million tons of coffee was destroyed by the Coffee Institute of Brazil between 1931 and 1934 to this end.

(ii) A monopolist may leave some of his productive resources idle. e.g., not tapping some rubber tree, not utilizing certain lands though best suited for certain crops, keeping some plant and equipment idle or working them below capacity if the working will reduce monopoly profits.

(iii) Free capital and enterprise are prevented from entering the monopolised industry, even though they can earn better returns in such an industry than elsewhere. The monopolist only employs those resources which are sufficient to maximize his monopoly revenue. The output that does this is less than that which would be produced under competition. This restriction of output reduces the demand for the factors of production in the monopolised industry. The productive factors are thus not used to their best advantage.

(iv) One natural result of restriction of output and hence defective use of productive resources is, that "the assortment of goods and services produced is not the assortment which consumers want most. To this extent monopoly limits the sovereignty of the consumer.

14. Control of Monopolies. In view of the various evils of monopolies considered above control of monopolies by the state is usually recommended. This control may take various forms.

In the first place, formation of monopolies may be prohibited by legislation. The classical example of such legislation is American Anti-Trust Laws. The Sherman Anti-Trust Act was passed in 1890. It prohibited, under severe penalties, every contract or combination in restraint of inter-State and foreign commerce and every monopolisation or attempt to monopolise such commerce. This Act was extended in 1914 by the Clayton Anti-Trust Act, prohibiting practices like price discrimination, tying contracts, inter-locking directorates and formation of holding companies. On the whole, these measures did not succeed in their object. They were whittled down by Court decisions and were evaded by one method or another.

In the second place, the state may regulate monopoly prices and profits. Maximum prices may be fixed for the commodity concerned. Also minimum rewards to factors of production may be enforced. In this way conditions approximating to competition may be created so that it may no longer be to the advantage of the monopolist to limit his output and keep productive factors out of production of employment. The difficulty here is to arrive at correct levels of prices and rewards of factors. This, however, can be achieved if proper machinery is established for the purpose and the method of trial and error is followed to arrive at correct prices.

The method of taxation can also be used to limit profits and encourage the movement of factors of production from those employments in which their marginal productivity is low to those in which it is high, thus, putting them to the best advantage. Monopoly conditions act as barrier to such free movement.

Another method suggested is that of greater publicity and supervision. Proper organs can be created for this purpose by the State (e.g., a state Bureau of Investigation) whose duty it should be to supervise the activities of monopolies and bring to light any anti-social aspect of them if found. This will help in keeping most of the evils of monopoly down.

Finally is the extreme step of nationalization of monopoly. It is suggested that the industries in which competition is either impossible or undesirable on technical grounds, should be owned and managed by the state or by municipal authorities. This is already the case in most countries. Such enterprises as railways, trams, electric supply, gas and water, come under this category. Some people would go even further and would like to see under state control, all enterprise in which monopolies have emerged and are likely to emerge. This is a controversial matter though general trend of opinion is growingly in favour of such nationalization.
CHAPTER XXIII

VALUE UNDER IMPERFECT COMPETITION.

1. Introduction. We have so far considered value under perfect competition and under perfect monopoly. Neither of these conditions are typical of real life. Most of the situations are intermediate between the two and are variously termed "Monopolistic Competition" and "Imperfect-Competition". In this chapter we intend to study value under such conditions.

We have seen in a previous chapter that when competition is perfect two conditions must be satisfied viz. (i) absence of restrictions on the movement of factors of production (ii) No single unit of control can appreciably affect price. This is so because any particular individual buyer or seller buys and sells a very small proportion of the total amount of the commodity. A further implication of the second condition is that each buyer knows the price at which the sellers are selling. Therefore any seller can attract all the buyers to himself by slightly lowering the price below that of his rivals. Similarly, if he charges even a slightly higher price than the prevailing price he will lose all his custom. In the technical language of economics it means that under perfect competition, to each seller, the demand of the product is infinitely elastic within a small range on each side of the market price.

2. Imperfect Competition. The above conditions are absent where competition is imperfect. Thus (i) There are natural or artificial restrictions on the movements of factors of production from one employment to another. This prevents their marginal productivity being equalised in the various employments. (ii) The unit of control is large enough to be able to affect price by producing more or less. When competition is imperfect rival producers for reasons to be elaborated presently, cannot attract each others' customers by a slight lowering of price. Consequently they can charge considerably higher prices without losing their customers to their rivals.

3. How Imperfect Competition May Emerge. Apart from the more or less clear cases of monopoly considered in the previous chapter, certain causes may lead to competition becoming imperfect. Here semi-monopoly situations may arise which may allow seemingly competing sellers to realise monopoly profits. Such a state of affairs may exist due to an imperfect market for goods produced by individual producers, even though similar goods are being produced by a large number of producers. Such condition may arise because of:

(a) The existence of transport costs. The cost of transport may
restrict the area of a market and thus keep out rival products from the field. This will enable a seller to charge monopoly prices.

(b) Lack of knowledge on the part of consumers. Consumers may be ignorant of the fact that they can buy an identical article from another producer at a lower price. Thus they may pay prices higher than competition prices.

(c) Real or imaginary differences in quality. This is also called product differentiation. Consumers get used to a particular brand of say tea, coffee, soap, cigarettes, cloth etc. This enables their producers to charge more than competition prices.

(d) Some consumers prefer to buy from shops situated in fashionable quarters e.g., The Mall at Lahore instead of the Anarkali or Dabbi Bazar. Shop keepers on the Mall, therefore, can charge (and do charge) higher prices for the same article.

In the last two cases if the price charged is too high the consumers may change the brand or the locality of purchase.

4. Implications of Imperfect Competition. The implications of imperfect competition are generally speaking the same as studied under monopoly. Under monopoly we assumed the existence of one or a combined body of sellers or buyers. Under imperfect competition there may be several sellers or several buyers with respect to the "same" commodity, but each may have a separate market to himself due to the reasons given in the previous section. They are in competition with each other but the competition is imperfect, as a result monopoly conditions exist, though within a narrower range.

5. Value under Imperfect Competition. With reference to the determination of value the implication of imperfect competition may be considered. As in the case of a monopoly, under imperfect competition price will settle at the point where the marginal cost and the marginal revenue of the producing unit is equal. In order to maximize his profits each producer will go on increasing his output as long as his marginal revenue is above this marginal cost. His output will be optimum when his marginal revenue just equals his marginal cost of production. Marginal revenue, it will be remembered, is the revenue added to the total revenue by the sale of the additional output.

The table given in Sec. 6 of the last chapter illustrates how value is determined under imperfect competition. It will be seen there that under imperfect competition (as under monopoly) marginal revenue is less than the price; under perfect competition it is equal to price. Under imperfect competition the optimum output is less than that under perfect competition, optimum output being the amount for which the profit (monopoly revenue for the monopolist or producer under imperfect competition) is maximum.

6. Size and Number of the Firms under Imperfect Competition. We have already seen that under perfect competition the number of firms are so adjusted that in equilibrium each of them
will be of the optimum or most efficient size. Under such conditions a firm of less than optimum size will tend to expand. As it expands its costs will fall while the price that it will receive for its additional product will remain the same as before. If competition is imperfect such a firm may not expand. Its expansion no doubt will result in lowering its marginal cost but it will also lower its price since its output appreciably affects price. It is quite possible that the loss incurred on account of lower price may more than balance the gain from the larger sales. The firm may thus have no incentive to expand. Thus inefficient firms may continue to exist when competition is imperfect. All firms thus will not tend to be of the optimum size. It will also be clear from the above that under imperfect competition the number of firms in an industry may be larger than that under perfect competition. This is so because inefficient firms tend to be eliminated under perfect competition. Under imperfect competition efficient firms may be unable to drive inefficient firms out of the market. Because to do this the efficient firms will have to lower its price considerably to overcome the prejudices of the customers of inefficient firms. This the former might not think worth while doing. A slight reduction in price under perfect competition, on the other hand, would by attracting all the customers of the inefficient firms would drive them out.

Thus when competition is imperfect there may be a large number of firms each producing an output which is less than the optimum. Most of them may be earning more than normal profits. The monopoly here may consist only in the fact that each has a semi independent market protected by transport costs, ignorance or goodwill of the buyers. Under such conditions it may be to the advantage of the community if the industry is concentrated in the hands of a smaller number of firms. By reducing their number each firm will become optimum with larger output and lower costs and price.

This brings us to the wastes of imperfect competition.

7. Wastes of Imperfect Competition. Some other evils, other than those noted under monopoly, are associated with imperfect competition. Superficially, these are some times considered "wastes of competition" but they can more fitly be described as "wastes of monopolistic conditions" or of imperfect competition. These are mostly due to what are technically called irrational buyers' preferences i.e., buyers, preference of a commodity or a shop due not to any real difference in quality but to irrational factors like habit, prejudices or ignorance. Some of these cases are given below.

(a) Expenditure on competitive advertisement is usually regarded as a waste of competition. In fact it is due not to perfect but imperfect competition. If competition is perfect there is no need for such expenditure to be incurred, because then each firm can extend its sales by an inconsiderable lowering of price. Under imperfect competition large reduction of price will be necessary to overcome the
irrational preference of consumers. It pays, therefore, to spend money advertising and thus persuading the consumers that the product of one advertising firm is better than its rivals. Such expenditure is a waste from the point of view of the community.

(b) Another similar waste is ‘expenditure on cross transport. A firm in the north of India may be selling a commodity to the consumers in the south. At the same time the same (or substantially the same) commodity is perhaps being sold by a firm located in the south to consumers living in the north. This state of affairs is also due to the absence of perfect competition, which in its turn is due to irrational buyers’ preferences. If competition was perfect the firm in the north would have attracted all the buyers in the north, and the firm in the south all the buyers there, by a slight lowering of price. This would have saved the cost of the transport. As it is, the firms deem it worthwhile spending considerable sums on advertisement and transport cost, rather than reduce price adequate enough to attract the neighbouring consumers with irrational preferences.

(c) A third waste of imperfect competition is the failure of each firm in an industry to specialise in the production of those things for which it is best suited. Under perfect competition such a specialisation would naturally take place, provided it led to any real economies. Under conditions of imperfect competition, since each firm has to spend money on advertisement or to sell at considerably lower prices in order to attract customers from its rivals, “each firm may find that it pays it better to produce a varied assortment of types and qualities to sell to its own particular customers, rather than to face the cost if attracting a large number of customers for one type of product alone”.

(d) Still another waste of imperfect competitions has already been noted. This is that under such conditions the efficient firm which can produce at lower cost may fail to drive out the inefficient firm as would happen if competition was perfect. If competition is perfect the efficient firm (or firms) will increase output until the price comes down to the marginal cost of production at which the inefficient firm will not be able to supply. But if competition is imperfect and the efficient firm has to spend considerable sums to attract consumers from inefficient rivals or it has to lower its price considerably to achieve the same end, it might prefer not to drive out the inefficient firms even though the latter were charging prices higher than the marginal cost of the efficient firm.

(e) Finally, imperfect competition may prevent that standardisation of commodities which is essential if the most efficient methods of production are to be adopted. Different types of cars may be produced by a large number of firms each at a high cost of production. If only a few designs were produced cost per unit could be lowered considerably due to economies of large-scale production. Under perfect competition such large producing units would emerge. Under imperfect competition no producer would take the risk of producing any particular design on a large scale since the cost of attracting buyers from his rivals would outweigh the advantages of scale obtained by producing the larger output.

CHAPTER XXIV

DISTRIBUTION: GENERAL PRINCIPLES

1. Introduction. By "Distribution" in the present context, we do not mean the distributive activities of traders and middle men, by means of which goods pass from the factory to the wholesale and retail markets and then to the consumers. These activities are covered under production. The process of production, we have seen, does not end until the commodity is in the hands of the final consumers. "The economics of distribution" in the words of Chapman, "accounts for the sharing of the wealth produced by a community among the agents, or the owners of the agents, which have been active in its production".1

In a primitive society the productive process is so simple that all the factors are supplied by one and the same individual. The question of distribution, therefore, does not arise, or at any rate does not require much explanation. But as production becomes complex and the various agents achieve specialisation, they have to be drawn from different sources and must be paid their due remuneration. It became also difficult to attribute any particular portion of the product to any particular factor. The problem becomes complicated and requires careful study.

2. Need for a Separate Theory. Marshall justifies the need for a separate theory of distribution on the ground that "free human beings are not brought up to their work on the same principles as a machine, a horse, or a slave." "If they were," he continues, "there would be very little difference between the distribution and the exchange side of value; for every agent of production would reap a return adequate to cover its own expenses of production with wear-and-tear, etc. at all events after allowance had been made for casual failures to adjust supply to demand".2 Actually, however, not only human beings but other factors of production, like land, are subject to peculiar conditions, specially as regards supply. We cannot for instance speak of the marginal cost of production of factors of production in the same sense as when we use this term in relation to ordinary commodities. Land, for example, is a gift of nature. Its total supply is fixed and once all the land has been brought under use, this supply cannot be increased, however attractive the reward for its services. It has no cost of production in the sense that, for instance, radio sets, have. Capital can be increased, but its supply price does not depend upon its marginal cost of production in the same sense as does that of other commodities. As for labour what can be the marginal cost of production of a human being? Human beings are not

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produced on business considerations. The same is true of enterprise.

In spite of these qualifications the general theory of demand and supply does apply to agents of production. But since it requires essential modifications it is necessary to have a separate theory of distribution as distinct from the theory of value.

The conditions of supply of factors of production not only differ from those of ordinary commodities but also differ as between the factors themselves. It will be necessary, therefore, to study each of them separately. We shall have to see how rent, wages, interest and profit as rewards respectively of land, labour, capital and enterprise, are determined. As far as the conditions of demand are concerned they can be explained in more or less similar terms, and a common theory can be applied to all the factors. That Theory—the Marginal Productivity Theory which is analogous to the Marginal Utility Theory of value—we study in the present chapter.

We shall proceed as follows as for as this preliminary discussion is concerned: In the first place, we must get a clear idea of what actually is distributed, in other words what really is meant by the National Income or National Dividend. Secondly, we must explain the agencies through whom distribution takes place. Thirdly, we shall expound the general principles according to which the share of each factor is settled.

3. The National Dividend. National Dividend has been variously defined. "National Dividend" says Pigou,...."is that part of the objective income of the community, including of course income derived from abroad, which can be measured in money." Thus according to Pigou in estimating the national dividend only those goods and services should be included which are exchanged in the market. This definition would exclude the services that one renders to one's self, to members of one's family or friends without payment. Similarly, free benefits derived from public property like parks and toll-free bridges will also not be counted. This definition is a very narrow one. More over, it gives rise to paradoxes. One is mentioned by Pigou himself. If a man marries his housewife the national dividend is diminished! This is so because he has no longer to pay for her services though the same services are still being rendered.

Some writers define national dividend in terms of goods produced, others in terms of goods consumed. "The labour and capital of the country, acting on its natural resources, produce annually a certain net aggregate of commodities, material and immaterial, including services of all kinds." This Marshall calls the National Income or the National Dividend. The qualification 'net' is used to indicate that out of the total gross produce must be deducted a certain amount to provide for depreciation and wearing out of plant and other capital equipment, while the net income from foreign investment must be added. According to Fisher, on the other hand, the true national

1. Pigou: Economics of Welfare.
income is that part of the annual net product which is directly consumed during the year. Fisher's definition is more logical but Marshall's is more convenient, since it is easy to measure goods and services produced during the year than to make a list of those actually consumed. As Marshall¹, points out depreciation is also consumption in the broad sense of the term. "And in this broad sense" he adds, "it is true that all production is for consumption," except under certain exceptional conditions. The estimate of the national dividend on the basis of production is, therefore, roughly identical with that based on consumption.

4. Measurement of the National Dividend. As regards, measurement of the national dividend three methods are usually suggested:

(a) Estimate the value of all produce industrial or agricultural raised during the year. Make allowance for depreciation or replacement of the assets. How replacement is allowed may be illustrated by an example. Suppose at the beginning of the year a machine of the value of Rs. 10,000 is employed and it is estimated to last ten years. Then at the end of the year its depreciation will be Rs. 1,000. This must be deducted from its total product in order to arrive at its net product. Similarly, allowance will have to be made for the using up of circulating capital in the form of various raw materials and for the exhaustion of the soil, mines etc.

(ii) The second method consists in adding together the incomes of persons who pay income tax and those who do not pay the tax.

(iii) The third method is that of occupational census. This consists in estimating the earnings of all the persons employed in the different productive activities in the country.

While estimating incomes, rather money incomes, the value of gifts against which no services are rendered should be excluded. Similarly, should be excluded interest on the internal unproductive debt, old age pensions, incomes earned by fraud etc. Moreover, precautions should be taken against double counting i.e., the same income may not be counted twice.

The national dividend thus derived is the source from which all the factors of production must receive their rewards. It should, however, be noted that the national dividend is not a fund; it is a flow as Marshall puts it. It is not first-produced and accumulated and then distributed at the end of the year. Purchasing power is being distributed in the form of rent, interest, wages and profits and as commodities and services flow out of the productive system they are constantly being purchased by the holders of the purchasing power in the market. Thus the national dividend is constantly being produced and consumed. At the end of the year there may be nothing in the way of the surplus to show. Capital may have been kept in tact and the rest may have all been consumed. The dividend in

that case would be represented by all the utility enjoyed by the community during the year.

It should further be remembered, that this division does not take place among the individuals as individuals, but as factors of production. The same individual may represent all the four factors. A Punjab peasant, for instance, may receive rent as owner of land, wage as labourer and profit as enterpriser of his operations. Even when all the factors are supplied by the same individual, it is not difficult to determine their reward separately. The simplest method of working out their shares in each case is to find out what rent the peasant would have received if he had let his land out on rent and what wages he would have to pay if he had hired a labourer etc.

5. The Agency of Distribution. It is obvious that the share each factor of production receives for its services is in a way its price. Who is then the buyer and who is the seller? The seller of course is the agent itself or its owner. As regards the buyer we have seen in a previous chapter that the agency which brings together the factors i.e. land, labour and capital is the entrepreneur who may be one individual or a collection of organized individuals like a joint stock company. It is the Entrepreneur who plans, initiates and bears the risks of the productive enterprise whether it be a farm, a factory, or a shop. He undertakes these enterprises, because he hopes to make profit. His profits depend upon the relation between two quantities, cost of production and price. Entrepreneurs tend to move towards enterprises in which differences between these two quantities are expected to be high. They have to forecast movements of prices and have to estimate the costs of production of commodities they intend to produce. When they expect to make profits in a particular line they start new or expand old enterprises. This creates demand for the various factors of production. The entrepreneurs are therefore, the buyers of services of the factors of production. They buy these services not for their own personal use but to supply the needs of the community. They thus act on behalf of the community. Ultimately it is the community that is the purchaser of the services of all the factors of production including that of the entrepreneur. As we shall see later, forces of competition decide the remuneration of the entrepreneur. He is the purchaser of the services of the other factors and it is through him that the shares to each of these are distributed in the form of wages, rent and interest.

6. The Principle of Substitution. The entrepreneur in employing the various factors of production acts according to the principle of substitution. We have already seen the working of this principle in consumption. There, a consumer distributes his money income over the various items of expenditure in such a way as to derive maximum satisfaction. This we have seen, he achieves when the utility derived by him from the last unit of money spent on each head is equalised. In other words a consumer achieves maximum total utility by equalising his marginal utility from the various lines of consumption.
The entrepreneur acts in a similar way. The only difference is that he undertakes expenditure not for direct satisfaction of his wants but to make as high a profit as possible. His profit depends upon the difference between two quantities. His total expenses of production and his gross income from sales. Ultimately his expenses are the payment that he has to make for the various factors of production. For an individual entrepreneur acting under conditions of perfect competition the prices of the factors (rent, wages interest) and the price of the product to the production of which they contributed are given facts settled by the market forces collectively. He can, therefore, maximise his net income only by achieving the best combination of the various factors employed by him. By employing a little more of labour or a little less of land or capital he will bring about the most advantageous combination from the point of view of productivity. Just as the total utility is maximum when marginal utility of each item of consumption to the consumer is the same, total productivity is maximum when the marginal productivity of each factor of production employed by the entrepreneur is the same. What is marginal productivity?

7. Marginal Productivity. By the marginal productivity of a factor of production we mean the addition made to total production by the employment of the marginal unit i.e., the unit which the employer just thinks worth while employing. At the margin of employment the payment made to the factor concerned is just equal to the value of the addition made to the total production on account of the employment of the additional unit of the factor. Note that the additional production is not the contribution of the additional unit of the factor in the sense that this unit alone has produced it. Production is a collective process and results from the cooperation of all the factors employed. We cannot separate the contribution of each. We can only measure the difference made in total production by the employment of the additional unit of a particular factor assuming every thing else to be the same. When this additional unit is just worth while employing (it adds to total revenue just as much as it costs) it is the marginal unit. Its productivity is marginal productivity of the factor of production under consideration.

We have seen in consumption that an increase in the supply of a commodity, demand remaining the same, lowers its marginal utility and vice versa. In the same way an increase in the supply of a factor of production lowers its marginal productivity and vice versa. The fall in marginal productivity means that on account of larger supplies the factor is employed in those uses where its productivity is low. Similarly, a rise in marginal productivity means that when the factor becomes scarcer than before it is withdrawn from those uses where it is productivity is the least.

8. Marginal Productivity Theory of Distribution. Now we are in a position to state the Marginal Productivity Theory of Distribution which is analogous to the marginal utility theory of value already studied. According to the marginal productivity theory the reward of each factor of production tends to equal its marginal
productivity. Factors of production tend to move from those uses in which their marginal productivity is low to those in which it is high. In this way a given supply of a factor of production is distributed in such a way that its marginal productivity is equal in all the uses. Take the case of a certain kind of labour. If all the labour units are perfectly interchangeable and can move fully from one employment to another, the given supply of labour will get distributed in such a way that its marginal productivity is the same in all the employments. If the marginal productivity of labour is higher in one employment than in another labour will move from the latter to the former employment. Larger supply in the former employment will lower its marginal productivity and smaller supply in the latter will raise its marginal productivity. This process will go on until its marginal productivity in both the employment is the same.

In each employment, on the other hand, the entrepreneurs are substituting factors of production against one another under the principle of substitution. The entrepreneurs tend to arrive at that particular combination which gives them maximum total productivity. This will happen when the marginal productivity of the various factors combined achieves equality. If for instance an entrepreneur thinks that the marginal productivity of labour to him is higher than that of capital, he will employ more labour and less capital. Marginal productivity of labour will fall and that of capital will rise. This process will go on until in equilibrium the two marginal productivities will be equalised.

It should be noted that for any individual employer working under competition the prices that he has to pay for the factors of production are already determined. Since his demand for the factors of production is only an insignificant proportion of the total demand his employing more or less of the factors does not appreciably affect their prices. What he does is to push the use of each of the factors to such a point as to make its marginal productivity equal to its price as already determined by the market forces. His position is the same as that of the consumer who pushes his purchase of a commodity to a point at which his marginal utility is just equal to the prevailing market price. Just as the market price is determined not by the marginal utility of an individual consumer but by the marginal utility of the consumers in the aggregate, the price of a factor of production is determined by the marginal productivity not of any particular employer but of the employers in the aggregate.

Thus in a position of equilibrium: (i) The marginal productivity of a factor of production is the same in all employments. (ii) The marginal productivity of each factor of production is equal to every other factor of production in the same employment. (iii) The marginal productivity of a factor of production is measured by the price of the factor of production.

Over the whole field of employment, therefore, each factor of production tends to be paid in proportion to its marginal productivity.
9. Assumptions of the Marginal Productivity Theory. The Theory is true only under certain assumptions: Firstly: It assumes that all the units of a factor are homogeneous, so that any one unit is as good as any other. If the units are not homogeneous they will not be uniformly rewarded. The more efficient or effective unit in that case will command a higher reward. In fact non-homogeneous units cannot be regarded as belonging to the same factor.

Secondly: That different factors are capable of being substituted for one another, so that at the margin it is possible to use a little more land or a little more labour or capital etc. If this substitution is not possible marginal productivity of the various factors may remain unequal. In that case total productivity will be less than the maximum.

Thirdly: It is also assumed that the amount of a particular factor that is used can be continuously varied. So that it is possible to apply a little more or a little less of the same factor. If this cannot be done the use of the factor cannot be pushed to the point at which its marginal productivity becomes equal to its cost.

Fourthly: It is assumed that factors of production are mobile as between various uses. If a factor cannot be moved from one use or employment to another, its marginal productivity in the various employments may remain unequal.

Lastly, the theory is based on the law of diminishing returns as applied to the organization of a business. This means that other things being equal a disproportionate increase in the supply of any one factor increases total production at a diminishing rate.

Under these assumptions the theory explains the rewards all of the four factors of production i.e., rent of land, interest of capital, wages of labour and profits of enterprise. The reward of each tends to equal the value of its marginal net product. The rent of a plot of land (assuming all plots to be perfectly interchangeable) will be equal to the marginal productivity of that plot. The interest on capital will equal to its marginal net product, the wages of labour will measure the marginal net product of labour. In the same way competition will make the profits of the entrepreneur equal to the marginal productivity of his services to the community i.e., the amount that the community is able to produce with the help of a little more his services over and above what it could produce without this increment of his service.

10. Criticism of the Marginal Productivity Theory. Even within these assumptions the marginal productivity theory has not been uniformly accepted by economists. Several of its criticisms may be noted.

(i) One common criticism is that a product is the result of the cooperative effort of all the factors of production and that it is impossible to separate the share contributed by each. This criticism advanced by Taussig and Davenport is obviously based on a misreading of the concept of marginal productivity. As we have already
explained, marginal productivity is not the net product solely due to the marginal factor. We merely impute that product to the factor on the margin of use. It is the net addition made to total production by the employment of this additional factor or deduction caused in it if this factor were withdrawn.

(ii) Another attack is made by Hobson. It is held that if any particular factor unit is withdrawn the whole business will be so disorganized that the loss to production will be much more than the productivity of the unit withdrawn. This criticism is also due to the wrong application of the theory. The attention is fixed on a small business organization and large units of factors. If we conceive of a large business and small units of factors it will be clear that withdrawing a unit at the margin will not appreciably affect the productivity of the other factors.

(iii) Then there is the opposite view according to which the sum of the marginal net products of all the factors will be less than the total product. The surplus being due not to an particular factor but their cooperation. Wicksteed has answered this criticism. He assumes that the increase of all the factors will increase the quantity of the product in the same proportion. But this assumption which implies that the industry obeys the Law of Constant Returns is not always valid, and introduces certain difficulties.

(iv) Another serious difficulty which relates to the measurement of the marginal net product has been pointed out by Joan Robinson and J. A. R. Hicks. It is argued that when there are economies of large scale production, the marginal productivity of a unit of a factor to a particular firm will be considerably less than that to the industry as a whole. This is so because when an additional unit is made available to an industry it brings about a greater division of labour. But when the industry has adjusted itself to the new supply it is quite possible that the marginal productivity of a factor to an individual firm is less than that to the industry as a whole. Because its withdrawal will mean a much greater loss to the industry than to an individual firm. In such industries, therefore, marginal productivity of a factor is indeterminate.

(v) Hobson thinks that it is not possible to vary the use of factors in most cases. The proportion in which factors are used is determined by technical conditions of the business, the existence of fixed capital like machinery etc. Many a machine for instance would require only one labourer, two would be uneconomical and so on. Since we cannot vary the use of a factor how can we determine its marginal productivity? To this it is replied that in general there are infinite possibilities of variations in the proportions in which different factors are combined. Such variations are the very conditions of progress in business organizations. Even fixed capital can be varied through not being replaced if long enough period is assumed.

1. Economics of Imperfect Competition, p. 327.
2. Economics of Welfare.
3. The Theory of wages.
Finally it is objected that the theory assumes that supply is fixed. In actual practice the reward enjoyed by a factor does affect its supply in most cases. The theory only approaches the problem from the side of demand and ignores the forces of supply. In fact the theory does not ignore supply it assumes supply to be given for convenience of analysis. Supply tends to adjust to demand which is determined by marginal productivity. The demand for factors of production is ultimately derived from the demand for the products of the factors on the part of the consumers. Consumers’ preferences are the ultimate determining forces to which the resources of the community must administer.

It should be remembered that the Theory is only valid under the assumption of perfect competition. In actual life, since competition is not perfect, actual rewards paid to factors of production do not conform to their relative marginal productivities. Moreover, this explanation of how the share of the various factors of production are determined in a capitalistic economy should not be regarded as a justification from the ethical point of view of the system of distribution under such a system.
CHAPTER XXV.

RENT.

1. Introduction. Let us now take each of the factors of production separately and make a detailed study of its peculiar problems. The present chapter will be devoted to the rent of land.

In the ordinary speech the term rent is used in a wide sense to mean a hire charge e.g., rent of a house, a touga or a machine. In Economics rent, or economic rent, as it is called, is used in a special sense. It is the payment for the use of land (i.e., free gifts of nature) which has been brought under ownership. The usual payment that an agriculturist tenant makes to the landlord is not necessarily equal to this economic rent. A part of this payment may consist of interest on capital invested in the land by the owner in the form of buildings, fences, drainage arrangement etc. Some times this rent may include wages of the agriculturist. This is the case in the Punjab in many instances. Land is very scarce relatively to the demand for it on the part of the tenants, who have no other openings for earning a living. In order to secure land, therefore, they are willing to pay more than the true economic rent of the land. How does economic rent arise? More than a century ago David Ricardo supplied an answer.

2. Ricardian Theory of Rent. Ricardo defined rent as follows:

"Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil. It is often, however, confounded with the interest of capital, and, in popular language, the term is applied to whatever is annually paid by a farmer to his landlord."

Economic rent, according to Ricardo, is the true surplus left after the expenses of cultivation as represented by payments to labour, capital and enterprise, have been met.

How this surplus arises may be illustrated by an example. Suppose in a country there are four kinds of land A, B, C, and D. Some pieces of land are more fertile than others; some areas are more advantageously situated as regards centres of population and means of transport etc. But taking all the factors into consideration, let us suppose that we have four categories of land as mentioned above, so that land A is the most superior and B, C and D are 2nd, 3rd and 4th grade lands respectively. Further, suppose that a standard unit of labour and capital, called a "dose" of labour and capital, when applied to these categories of land produce wheat as given in the
table below:

<table>
<thead>
<tr>
<th>Doses of labour &amp; Capital.</th>
<th>Return in maunds of wheat per acre.</th>
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<tr>
<td></td>
<td>A</td>
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<tr>
<td>1st.</td>
<td>... 15</td>
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<td>2nd.</td>
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<td>5th.</td>
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<td>6th.</td>
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</table>

If there is enough land of class A, so that by putting one dose of labour and capital per acre into this land, the whole of the demand for wheat can be met at the prevailing price of wheat, the land will command no rent. It will be like a free gift of nature.

Now suppose the population increases to such an extent that the whole of the A class land is brought under cultivation, and still wheat obtained by putting one unit of labour and capital into this land is not enough to meet the growing demand. More labour and capital will be put into lands of class A, and lands of class B will also be brought under cultivation. This will happen only when the price of wheat will rise so much as to make it worth while putting the second dose of labour and capital into lands A or first dose of labour and capital into lands B. In other words, in our chart above, 14 maunds of wheat must sell for as much as is the cost of a dose of labour and capital. On lands of class A, therefore, two doses of labour and capital will give a return of \(15 + 14 = 29\) maunds of wheat. But only \(14 \times 2 = 28\) maunds of wheat are enough to pay for the two doses. One maund of wheat is the surplus on land A. Cultivators of land can either cultivate B class lands free of rent and get 14 maunds of wheat per dose of labour and capital per acre, or they can pay one maund of wheat (or its equivalent in money at the prevailing price) per acre to the owners of land A as rent and obtain 14 maunds of wheat per dose of labour and capital as their share. If there is perfect competition this rent for A class lands is bound to be established.

As the demand for wheat grows and the price rises this process will continue. More and more units of labour and capital will be applied to the superior lands on the one hand and inferior lands will be brought under cultivation on the other. The available ‘doses’ of labour and capital will be applied in such a way as to get equal returns at the margin of cultivation. For instance if there are 14 doses available 5 will be applied to land A, 4 to land B, 3 to C and 2 to land D. In this way the marginal or the last dose applied to each class of land will give the same return i.e., 11 maunds of wheat. The total production under these conditions will be \(65 + 50 + 36 + 8\) = 174.
maunds of wheat. No other arrangement will give more than this total. These doses will be applied only if the price of wheat is such as to make only 11 maunds of wheat enough to meet the cost of application of a dose of labour and capital.

Under such circumstances rent per acre of the various kinds of land will be as calculated below:

Rent of A grade  \[= (15+14+13+12+11)-(11 \times 5) \]
\[= (\text{total produce})-(\text{total cost}) \]
\[= 65-55=10 \text{ maunds.} \]

Rent of B grade  \[= 50-44=6 \]

Rent of C grade  \[= 36-33=3 \]

Rent of D grade  \[= 23-22=1 \]

We have calculated the rent in terms of the produce. It can be easily converted into its money value at the prevailing price of the produce.

When the marginal produce is 11 maunds all the four types of land in our illustration pay rent. When it is 12 maunds, land D pays no rent. It is then the marginal land or land on the margin of cultivation. This is also called the “no-rent land.” It produces no surplus over cost of production. Its produce is just enough to cover the expenses of production on it. The rent of all superior lands is measured upwards from and with reference to this land.

3. Scarcity Rent. It is, however, possible that marginal land may not exist. The Ricardian Theory, however, assumes that no-rent land does exist either in the same country or in some other country with which the former has trade relations. Some people have elaborated the Ricardian Theory by adding the concept of scarcity rent when all lands in a country pay rent. To refer to our illustration again, when the marginal productivity of labour and capital falls below 12 maunds of wheat, the worst land D also begins to pay rent. This is due to the scarcity of land. If there was a still worst land available in the country that would become the marginal land. As it is, there is no worst land than D grade land. In that case as the price of wheat rises D land is also subjected to intensive cultivation and yields a surplus over cost. This surplus is not a differential compared to no-rent land which does not exist. It is due to scarcity of land as such. Hence it is called scarcity rent.

The rent yielded by lands superior to D lands thus contains two elements: a differential surplus over the worst land and a payment due to scarcity of land as such. For instance in our illustration, if cultivation is carried to a point when D pays 2 maunds of wheat as rent the superior lands will pay a scarcity rent of 2 maunds in addition to the differential rent. Thus A land will pay a total rent of 15 maunds of which 2 maunds will be scarcity rent and 13 maunds differential rent.

4. Criticism of the Ricardian Theory. The Ricardian theory of rent has been widely criticised. Firstly, it has been pointed out that there are no “original and indestructible powers of the soil.” Good lands after being constantly cultivated lose their fertility to a
large extent and get exhausted. To this it may be replied that if after exhaustion good lands are manured equally with the bad the former regain their productive power much more readily than the latter.

Secondly, it is objected that Ricardo uses the term fertility of land in a vague manner. Apart from the factor of situation fertility depends upon the ability of the farmers and the methods of production used. Moreover fertility is relative to crops grown. The theory, however, assumes that the methods of production remain constant. They are standardised into ‘doses’ of labour and capital.

Thirdly, Ricardo’s theory assumes that there exists a no-rent land, which only repays the cost of cultivation. In most cases, it is true, there are lands which pay only a nominal rent. Such lands yield no true economic rent. The concept of scarcity rent can also meet this difficulty. For the substance of the theory, however, it is not necessary that there should exist a no-rent land. Even if all the land is grade A land rent will arise due to the operation of the law of diminishing return. The marginal unit of labour and capital applied must be compensated by the product. The earlier units will give surpluses over their cost which will constitute the rent.

Another criticism was made by Carey and Roscher. They pointed out that it is historically wrong to assume that in a new country the best lands are cultivated first. In fact lands that are first cultivated are not usually the best, since they are the most easily accessible. To this Walker has made a reply that by best land Ricardo meant not the most fertile land but land which is the best both from the point of view of fertility and situation.

Another criticism relates to Ricardo’s corollary that since the marginal land pays no rent and merely meets the cost of production rent does not form part of the price of the produce. We shall come to this point later in this chapter.

The most important criticism of Ricardo, however, comes from those who deny ‘the necessity of explaining rent by a special theory, not applicable to the rewards of other factors of production.’ They explain rent in the same way as wages, interest and profits. They deny its peculiar nature as contended by Ricardo. This point of view is explained below.

5. Modern Theory of Rent. In the Ricardian theory two facts stand out prominently. (a) that rent arises because some lands are superior and others inferior; (b) that rent is measured from the no-rent margin.

Modern writers question both of these contentions. In the first place they assert that it is a matter of indifference to the general principle of rent whether the land is uniformly good, uniformly bad or gradable. The essential factor of rent is the relative scarcity of the products that land can yield. The scarcity of land is in fact derived from the scarcity of its products. If the problem is approached from this point of view the necessity of assuming different grades of land disappears. The ‘differential principle’ only explains why one particular acre of land commands a higher rent than a less fertile one. It does not
explain why rent arises. Fundamentally speaking rent is paid because the produce of the land is scarce in relation to its demand. In the face of this scarcity rent will arise even if all the land in a country is exactly alike. The same is the case with wages, interest and profit. These payments arise because the products of the factors concerned are scarce in relation to the demand for them. Just as a superior labourer gets higher wages and a superior entrepreneur earns higher profits over the inferior ones, superior land will command a higher rent. Fundamentally, all that the Ricardian Theory of rent amounts to is the truism that the better article will always command the higher price. A more fertile acre will be worth more than a less fertile one simply because they are different things. The same truism applies to wages. Wicksell has pointed out that rent and wages are almost parallel cases.

Thus there is no justification for placing rent in a special category. Land commands rent according to its marginal productivity just as labour commands wages or as capital commands interest.

The second point of attack is the idea of the no-rent-margin. This is the starting-point of measuring rent according to the Ricardian theory. It is contended by modern writers that the no-rent-margin may exist in some cases, but it is not fundamental to the emergence of rent. For instance, some lands may be fit only for a specific use like growing corn. If it is not profitable to grow corn on them due to a fall in the price of corn, such lands may go out of cultivation or they may just pay for the cost of the crop grown on them. Such lands may have significance from the point of view of rent, but in a different sense than held by Ricardo. If such lands are cultivated, they tend to increase the supply of corn and thus lower rents and if they go out of cultivation, due to fall in the supply of corn, rents rise. The existence of such marginal lands do not give any ultimate explanation of rent.

But when we do not refer to any particular crop, especially in a fully developed country, there is probably no land that cannot be put to some profitable use. Thus the margin of cultivation may vary according to the use to which a particular land is put.

It is concluded, therefore, that the theory of no-rent-margin and a series of differential rents created upon it, while true in particular cases, is a partial not an ultimate, explanation of the phenomenon of rent. It does not reach the foundation of the problem. The real approach to rent as to other phenomena of value is through the principle of scarcity as propounded in the marginal productivity theory.

6: Rent and Price. The modern theory of rent deviates from the Ricardian theory in an other respect too. Ricardo held that rent does not enter into the cost of production of the produce and hence does not affect its price. Rent rises because of the rise in price not the other way round. This conclusion follows as a corollary from the Ricardian

theory. We have seen that according to this theory rent is a surplus over cost. Price is determined by the cost of production, rent therefore does not enter into price. The marginal dose of labour and capital just pays for itself. Price is equal to the cost of production at the margin of cultivation. The marginal land produces no surplus. In fact the position of the margin, according to the Ricardian theory, is determined by price not price by the position of the margin. Price is thus not a part of rent.

It is true that differential aspect of land is not a cause of price. If land A does more valuable service than land B the extra payment obtained by land A would not affect price of the produce. In fact here we are considering two different things each being paid according to its efficiency or marginal productivity. There can be a similar differential aspect of wages and we can argue that such differential payments do not affect the price of the product of labour.

In another sense also it may be argued that rent does not form a part of price. Land is a free gift of nature. A higher remuneration given for the services of land does not increase its supply. Once all the land has been utilised, its supply is not affected whether rents are higher, lower or non-existent. Since land cannot be reproduced it has no real cost of production in the sense that other factors of production have. No payment is, therefore, necessary to maintain the total supply of land. In this sense rent is not a part of the supply price of land and consequently of the products of land.

But when we are thinking not of all the land of the country but of the land available for particular uses rent does form an element of price. This is clear from the conception of the opportunity cost. Most of the land is capable of being put to alternative uses. If it is put to one use it cannot be available for another use. The cost of putting land to one use is represented by the loss undergone in not putting it to the next best use. To withdraw it from one use for the sake of another, therefore, some payment has to be made. This payment must compensate the loss involved in this transfer. This payment will enter into the price of the product for the sake of which the land has been transferred.

The problem may be approached in another way. Prices are determined by the scarcity of the product in relation to demand. The rent that an entrepreneur pays is a part of his cost of production. If the rent is high the entrepreneur will tend to hire less land and conversely he will use more land if rent is low. If he uses more land the supply of land for other purposes is depleted, if he uses less land the supply available for other purposes is increased. Thus rent by influencing relative scarcity of land for different uses affects the prices of different products.

In the last analysis, however, as Davenport points out, rent neither determines price nor is determined by price. Both price and rent are governed by the relative scarcities of the products of land. They both vary with the changes in this relative scarcity. The same principle applies to wages, interest and profits.
7. Urban Ground Rents. So far we were dealing only with agricultural land. The phenomenon of rent also exists with respect to urban sites. Here also there is a differential aspect of rent and a scarcity aspect. Differential rent arises because of the differences in situations of different sites. Fertility here has little significance. Situational advantages may be of various kinds according to the use to be made of the plot. For instance, nearness to important business centres, fashionable quarters, nearness to main thoroughfares, or a railway station, may give situational advantages. Some sites may be just worth using, yielding no surplus due to advantage of situation. These may be regarded as marginal sites. But marginal sites may also yield a rent due to their scarcity in relation to demand for them or due to the fact that they could be put to some other use like cultivation of crops, for gardening etc. Better situated land will yield both a differential rent and the scarcity rent. The differential rent will be measured upwards from the rent yielded by marginal lands. But here again it may be repeated that differential rent is not the ultimate explanation of the phenomenon of rent as such. High rents in fashionable quarters of a town for instance, are due to an absolute scarcity of land on the one hand, and on the other to the relative scarcity of land with respect to any particular use, because of the competing demands of other uses. For instance suppose there is a site in a fashionable quarter of a town occupied by a large private house. The ground rent of this site is partly an absolute scarcity rent because the demand for such houses is greatly in excess of supply. Partly this rent is due to relative scarcity if this land has other competing demands. For instance competing demands may arise for using this plot for building a shop, hotel or office. A rent equal to the most valuable of these competing uses will represent the payment that must be made to retain the plot for residential purposes.

A site may be built upwards instead of spreading outwards. Here also differential rents may arise for the more conveniently situated accommodation. Higher storeys will involve inconveniences but these inconveniences may be less than those of a new ground site. Such buildings may lower general level of rents in a locality by reducing the scarcity of land.

8. Rent of Mines, Quarries and Fisheries. The same principles of rent apply to mines, quarries and fisheries. But there is one difference. Mines and quarries differ from agricultural land in that they are sooner or later exhausted. The payments made by the lease-holder for mines and quarries, therefore, contain two elements. One is a royalty for exhaustion of the contents and the other rent proper. Here also one may introduce the idea of the marginal mine (or quarry) and conceive of rent of better mines as a differential surplus over the rent of the mine at the margin. The marginal mine yields no surplus over cost of excavation of the mineral. The margin may be conceived of as extensive when applied to different mines or intensive when applied to the same mine just as in the case of agricultural land. Here again differential rent is not the ultimate
explanation. The ultimate explanation of rent is again the principle of scarcity in relation to the demand for the products of mines or quarries.

As regards fisheries if the supply of fish is perennial, the income from them will be of the nature of rent measured upwards from those fisheries which may be regarded as marginal because of their low productivity or because of inaccessibility. If the fish is liable to be exhausted the fisheries will be more analogous to mines. Ultimately in every case rent arises due to the principle of scarcity as explained before.

9. Rent of Buildings. The rent paid for buildings contains two elements. One is the ground rent which is determined according to the principles discussed under our section on urban site rents. The other is the payment for the use of the building erected on the site. These two should be kept distinct.

When the site is bought by the house builder he pays to the original owner the capitalised value of the ground rent i.e., the sum total of the prospective ground rents.

The building rent is determined according to the principles applied to any other durable commodity like machinery. It must cover in the long run the various elements of costs involved. This will include the bank interest on capital invested, payment for risk, compensation for depreciation and a fair remuneration for enterprise. If these costs are not covered the supply of houses will fall off. If the owner sells such a house he will expect to be paid the estimated capitalised value of ground rent plus the building rent.

In the short period, however, the cost of the building may have little influence on rent. In such a case the rent is fixed by the relation of the existing demand to the existing supply. Supply in the short period is practically fixed, since houses are built slowly and deteriorate slowly except in very rare circumstances. Demand or marginal utility is thus the main determining factor once the house has been built. That explains why a house may sell for much more than its cost of production even under competition.

10. Quasi Rent. The concept of Quasi Rent was first introduced into Economics by Marshall. Quasi-Rent according to Marshall is the surplus earned by instruments of production other than land. The basis of distinction between rent and quasi rent is the fact that while the supply of land, as the free gift of nature is fixed, that of the other instruments of production like buildings, machinery, etc. can be increased by man. Take the case of houses. During the recent war the demand for houses in towns increased due to increase in urban population. But supply could not be increased because of the scarcity of building materials. Rent rose in spite of state control. This abnormal increase in the return for capital invested in buildings is quasi-rent. It is not pure rent because the supply of houses can be increased. This surplus is only temporary and will last as long as new houses are not constructed to meet this additional demand.
With the increase in the supply of houses, as building materials become available, this surplus will tend to disappear. A similar surplus may arise in the case of other durable goods like machines, ships etc. Similarly quasi-rent may arise due to a temporary scarcity of a particular kind of skill which can be increased if enough time is given. A doctor’s earnings may contain such an element, so may a musician’s or an actor’s.

It should always be remembered that the distinction between rent and quasi-rent and in fact the returns to any other factor of production is only a matter of degree. They are all scarce in relation to demand. Differential surpluses arise in all of them. But since the supply of land in the absolute sense is limited in a larger degree than that of other factors, land is put in a separate category by economists. Fundamentally speaking there is no justification for this distinction.

**XI. Rent and Economic Progress.** How is rent affected by economic progress. Broadly speaking economic progress may be indicated by (a) technical advances in methods of production (b) improvements in transport and (c) growth of population.

Improved methods of agricultural production may affect all agricultural lands equally, they may affect only the better land or only the marginal lands of Ricardo. If all lands are affected equally the supply of the produce will increase, demand remaining the same its price will fall; marginal lands will go out of cultivation and according to the Ricardian theory rents of superior lands will fall. The same result can be arrived at by say that since the product of land will increase due to agricultural improvements, the reduction of relative scarcity of the products will diminish rent. Lessening of the scarcity of products of land is practically the same thing as lessening of the scarcity of land.

If the improvements only affect the marginal land, according to the Ricardian theory, rents will again fall because the surplus of the superior land over the marginal land will be less. If the improvements only affect the best land their rent will rise since their productivity compared with the marginal land will be higher. But if in this latter case the higher productivity of superior lands depress the prices of the product rents may fall again. Thus ultimately rents will depend up the relation between supply and demand of the product of the land. Agricultural improvements will affect rent not so much by affecting the margin of cultivation as the degree of scarcity of land or its products.

As regards transport improvements according to the Ricardian theory better transport will affect rent by affecting the factor of situation. Distant lands will become nearer the market as it were. Their rents will rise. The rents of more favourably situated lands will fall. This can also be explained in terms of scarcity. If improved transport increases scarcity (by leading to exports from the given region) rents will rise, in the contrary circumstances rents will fall.

As to the growth of population its result is to raise rents. According to the Ricardian theory this will be due to more intensive cul-
tivation of old lands and extension of cultivation to inferior lands, thus leading to a fall of the margin of cultivation. According to the more recent way of putting it, increase in population will increase the relative scarcity of land in relation to the demand for its products and hence raise rents.

12. Rent as Unearned Increment. Though known to earlier economists the concept of the unearned increment became quite popular with the publication of Henry George's "Progress and Poverty" in 1880.

An unearned increment is a surplus of income that arises out of the general progress of society and not the effort of the person to whom it accrues. For instance, with the expansion of a town the values of neighbouring lands may rise enormously without any effort on the part of the owners of such lands. Thinkers like Henry George, Joseph Chamberlain and others, were of the view that surpluses arising in this manner belong to society and not to the individuals concerned and should be highly taxed if not entirely appropriated by the community. Henry George favoured the "single tax" system in which such surplus earnings will be the only incomes that would be taxed, since they are unearned.

It seems quite fair and plausible that incomes due not to the individual efforts of the recipient, but to social forces in general, should be appropriated by the society. But there are practical as well as theoretical difficulties involved. In the first place, it is very difficult to separate the unearned portion from the earned portion. The landlord may have introduced improvements in the land or may have compensated the tenant who has introduced them. It is difficult to say what part of the income is due to labour and capital spent and what part is unearned increment.

Secondly, there are cases of unearned decrements when values of land fall due to migration. Would the state compensate owners of such lands? It is very unlikely that the state will guarantee rents in this way.

Thirdly, land is not the only thing the value of which is affected by social forces. Unearned surpluses do arise in the case of other factors of production also. A specially favourable circumstance may allow a man to earn abnormal wages, profits or interest. Would the state appropriate that too?

Finally, recent economic theory criticises the classical conception of rent as unearned income. An income entailing no expenses in the ordinary sense need not be a costless income. When a landlord uses land for one purpose he foregoes its use for other purpose or purposes. In the position of equilibrium unearned incomes disappear. Incomes like prices then become the result of a balancing of advantages gained and advantages foregone.
CHAPTER XXVI

WAGES.

1. Introduction. Labour is the second factor of production and its remuneration is called wages. The term wages may be used in a wide sense or a narrow sense. In the wide sense it means payments made for the services of labour. By labour is meant the various kinds of personal services. For instance, an employer may be earning wages of management if he is his own manager. An independent worker may be regarded as his own employee and may thus earn wages for his labour.

Some writers use the term wages in a restricted sense. "A wage may be defined" says Benham, "as a sum of money paid under contract by an employer to a worker for services rendered." In this sense, only a small proportion of workers in India are wage earners.

We shall use the term wages in the wide sense as the share of the national dividend which goes to those who work with their hands or brains, whether independently or for an employer. We shall, however, explain the principles that determine wages primarily with reference to wages of the employees. But the explanation of wages in a given occupation will also explain the earnings of independent workers in that occupation. It should be noted, however, that wages of independent workers fluctuate more over time than those of employees of others. This is due to the obvious reason that independent workers themselves have to bear the risks of the business, while the employers bear such risks in the case of the employees.

2. Classification of Wages. Wages may be classified from several points of view:

(1) From the point of view of the class of persons concerned they may be 'salaries', 'pay', 'fees' or just wages. Salaries are paid monthly or yearly and are remunerations earned by highly paid persons like managers, engineers etc. 'Pay' refers to the wages of middle class professional employees and are usually paid by the month. Fees are charged by independent professionals on the basis of service done e.g., fee of a doctor or a lawyer etc. Payment made to ordinary employees, skilled or unskilled is just 'wages'. These may be paid by the month, the week or the day or according to the work done i.e., by the piece. This brings us to the second classification into time wages and piece wages.

(2) From the point of view of the manner of payment wages may be either time wages or piece wages. For instance a professor gets his regular salary on the basis of time i.e., monthly, but his examination fees are on the basis of work done i.e., papers set or answer-books
examined. Usually where work can be standardised and measured easily, payment is made by piece and where this is not possible, by time.

(3) On the basis of the form in which wages are received they may be called nominal or real wages. Nominal wages are wages in terms of money, while real wages are total satisfactions accruing to the worker. The welfare of the worker depends upon his real wages and not merely money wages. More of this presently.

(4) Sometimes wages are referred to as general wages and relative wages. By general wages here we do not mean any general rate of wages. There is in fact no 'general rate' of wages in a country, though when most of the wages rise and fall we may refer to the rise and fall of general wages. General wages refer to the share of the national dividend claimed by labour as such against the factors of production. The theory of general wages explains the principles that govern this share as against the share falling to capital, land and enterprise. As distinguished from general wages we speak of relative wages. Here we refer to wages in relation to different employments and to different persons in the same employment. In the theory of relative wages we explain the causes of differences in earnings of different persons in the same employment and of persons in different employments or occupations.

3. **Methods of Wage Payment.** Wages may be paid according to the work done or according to the period of time the worker has been employed. The former is called 'piece wages', and the latter 'time wages'. Both methods of payment have their respective merits and demerits.

When work can be easily standardised or measured, payment by the piece is preferred by the employer. Similar is the case where the employer desires a large output. The workers on the whole prefer time wages. They complain that the employer tends to reduce the rates if the workers succeed in earning high rates by the piece.

When the work is such that it cannot be easily standardised or are inspected and quality is more important than quantity time wages preferred e.g., payments for managerial and other executive services.

In practice, however, these methods are not exclusive. Under the time wage system a certain production is expected and when wages are paid by the piece some sort of a time limit has to be observed. When a standard amount of work is to be done within a specified time the system is known as task work.

Sometimes a minimum time wage is fixed and it is supplemented by a piece wage according to the amount of goods produced. Other times a premium wage is paid to a group of workers collectively for extra work done. This amount the workers distribute among themselves according to arrangements mutually agreed.

Wages may also be fixed on a sliding scale system, making them vary according to prices of the products, cost of living or profits. Some employers enter into a profit sharing arrangement with their labourers to get their full cooperation and sympathy.
In some cases wages are regulated by law. A minimum wage may be fixed in certain exceptionally low paid employments i.e., (sweated trades). Some people suggest a national minimum wage applying to all industries.

We shall consider these systems at a later stage.

4. **Nominal Versus Real Wages.** Nominal wages, as already explained, are wages paid or received in terms of money. But money wages alone may not give us any real idea of the economic position of a worker. In order to find real wages, which determine the standard of living of a person, the following factors must be taken into consideration:

(a) **The purchasing power of money.** When comparing wages from place to place and time to time the changes in the purchasing power of money must be taken into account. Part of the high wages in England and America may be due to higher prices prevailing in those countries. A hundred rupees in a village may give a much more comfortable life than a similar amount in a town or vice versa according to circumstances and tastes of the persons involved. A hundred rupees in 1938 had much greater purchasing power than in 1946. Even an increase of money wages thus may leave real wages at a lower level in 1946 as compared with 1938.

(b) **Subsidiary Earnings.** In addition to the regular money wage an employee may earn other things in the form of money or goods. For example, board and lodging in the case of domestic servants, as in the case of peons, examination fees in the case of professors etc. Subsidiary earnings may also be due to opportunities of employment available to other members of the worker's family.

(c) **Extra work without extra payment.** If an employee is required to do extra time without any compensation his real wages are decreased to that extent. Bank clerks are paid for their general duty during working hours, but quite often they are required to work late hours just to discover a mistake in accounts. For such extra work they are paid nothing.

(d) **Regularity or Irregularity of the employment.** Regular or more secure employments may give lower money wages, but the real wages may be higher than irregular and insecure employments, which give high money wages e.g., a person whose employment is intermittent while earning Rs. 5 a day may not be so well off as another who earns regularly Rs. 2 a day.

(e) **Conditions of work.** Some occupations are healthier than others, in some hours of work are shorter than in others, work may be more pleasant or less pleasant, the employer may be more agreeable or less, etc. All these things should be taken into account.

5. **The Problems of Wages.** The main problems that we have to study in connection with the determination of wages are:

(1) What are the general principles according to which the share of labour in the national dividend is determined. The various explanations given in this connection are known as theories of wages. The Marginal Productivity Theory of wages is now generally accepted,
But we must examine some of the older theories, which are no longer regarded as adequate explanations of wage determination, but contain important elements of truth which must be brought out. Among these theories we shall consider: (i) The Iron Law or the Subsistence Theory of wages, (ii) The Wage Fund theory of wages. The Marginal productivity Theory will then be explained and discussed.

(2) The second problem of wages is that of relative wages. Here we must explain the causes of differences in wages in relation to different persons in the same employment, different employments, different times, and different localities etc.

6. The Subsistence Theory of Wages. This theory originated from the Physiocratic School of French Economists and was commonly accepted during the 19th century. The German economist Lassalle called it the Iron Law of Wages or the Brazen Law of Wages. Karl Marx made it the basis of his theory of exploitation.

According to this theory wages tend to come to the level just sufficient to maintain the worker and his family at minimum subsistence. If for some reason wages rise above this level workers are encouraged to marry earlier, their numbers increase by higher birth rate until the greater supply of labour brings wages down to the subsistence level. If wages fall below this level, marriages and births are discouraged, undernourishment increases the death rate and ultimately labour supply is decreased, until wages rise again to the subsistence level.

The French economists came to these conclusions by observing the poverty of the French peasantry in the 18th Century. The German Socialists mistakenly thought that Ricardo had come to the same conclusion due to the intense misery of the working classes in England at the beginning of the 19th Century. Actually Ricardo believed that wages could rise beyond the subsistence level.

The theory, however, is applicable to backward countries like India and China, where labourers are extremely poor and are unable to get their due from the better placed capitalist or landlord. In such cases the landlord (or capitalist) is able to appropriate the whole of the surplus over mere necessities of life just enough to let the labourer and his family carry on their work.

The theory does not apply to more advanced countries like England, America and others. The theory evidently is based on the Malthusian Law of Population. It is wrong to say that every increase in wages must inevitably be followed by an increase in birth rate. An increase in wages may be followed by a higher standard of living both in agricultural and industrial countries. In Denmark and Holland for instance, agricultural labourers receive wages above the mere subsistence point. In industrial countries of Europe and America wages have been steadily rising and the working classes are much more prosperous now than they were a century ago. Another criticism of the theory is that the subsistence level is more or less uniform for all working classes with certain exceptions. The theory thus does not explain differences of wages in different employments. Finally
it may be said, that the theory explains wages only with reference to the supply, the demand side is entirely ignored.

7. Wage Fund Theory. This theory is associated with the name of J. S. Mill. "Wages" wrote Mill, "depend upon the demand and supply of labour; or as it is often expressed, on the proportion between population and capital. By population is here meant the number only of the labouring classes, or rather of those who work for hire, and by capital, only circulating capital, and not even the whole of that, but the part which is expended on the direct purchase of labour". According to this theory, therefore, wages depend upon two quantities: (i) the wage fund or the circulating capital set aside for the purchase of labour and (ii) the number of labourers seeking employment. Wages, therefore, cannot rise unless either the wage fund increases or the number of workers decreases. But since the theory takes the wage fund as fixed, wages could only rise by the reduction in the number of workers. Moreover, the wages of one kind of labour can be increased only at the expense of another kind. It would appear, therefore, that according to this theory the efforts of trade unions to raise wages are futile from the point of view of the labouring class as a whole. If they succeed in raising wages in one trade it can only be at the expense of another, since the wage fund is fixed and trade unions have no control over population.

The theory has been widely criticised and stands rejected now. Mill himself recanted it in the second edition of his principles. The main objections are given below:

(1) Mill thought that wages are paid out of circulating capital alone. Now whether the source of wages is capital or the present products has been the subject of acute controversy in the past. English economists from Ricardo to Mill thought that wages are paid out of capital. Later English and American economists of the period from 1880 to 1914 thought that wages were paid out of the present products. Actually neither of these views is entirely correct. In some cases where the process of production is short (e.g., final stages of the productive process) wages are paid out of the present production. On the other hand, when any process of production is long the labourer obviously does not obtain wages from the product of his labour either directly or through exchange. In such cases wages mainly come out of capital.

(2) Mill argued that wages are paid out of a certain fixed proportion of capital set aside for this purpose. This is also not true. There is no fixed wage fund in this sense. The fund, if we can at all call it so, is elastic. Its volume changes according to the prospects of profits. The productivity of labour at a given time is an important factor in determining these prospects.

8. Residual Claimant Theory. This theory has been advanced by the American economist Walker. According to him wages are the residue left over after the other factors of production have been paid. Rent, profit and interest, Walker thinks, are determined, by definite laws. There is no similar law operating as regards wages.
Out of the total production, therefore, after rent, interest and profit have been paid the remainder is wages. If on account of the greater productivity of labour the national dividend is increased wages also will increase. The theory thus allows the possibility of increase in wages through greater efficiency of labour.

This theory also has been rejected by most economists. It has several defects. In the first place it does not explain how trade unions are able to raise wages. Secondly, it ignores the influence of supply of labour on wages and finally one fails to understand why the same law of supply and demand that explains the remuneration of other factors of production should not be applied to wages as well.

9. Marginal Productivity Theory of Wages. The marginal productivity theory takes into consideration both the supply of and demand for labour. According to this theory wages are determined by the equilibrium between the forces of supply and demand. At any particular time supply is more or less given, demand plays the more important part. Over long periods, supply of labour can be increased or decreased and the forces controlling supply also become important, but these also act by influencing marginal productivity. Therefore the theory is called the marginal productivity theory.

Just as there is a demand price for commodities, there is a demand price for labour. The demand for labour under typical circumstances of a modern country comes from the employer who employs labour and other factors of production for making profits out of his business. The demand price of labour, therefore, is the wages that an employer is willing to pay for that particular kind of labour. To simplify matters let us suppose that all labour is of the same grade i.e., one labourer is as good as another. Suppose an employer wants to engage such labour. How much wage will he offer? Let him employ labourers one after the other, just as a consumer consumes units of a commodity one after the other. After a point the law of Diminishing Returns will come into operation, when every additional labourer employed will add to the total net production at a decreasing rate. In other words with the increase in supply the marginal productivity of labour will fall. Up to what point will the employer go on engaging additional units of labour? Obviously upto the point where he thinks worth while to employ the last unit. He will naturally stop employing the additional labourers at the point at which the cost of employing a labourer just equals (in fact it is a little less than) the addition made by him to the value of the total net product. Thus the wages that he will pay to such a labourer (the marginal unit of labour) will be equal the value of this additional product or marginal productivity. But since by our assumption all the labourers are of the same grade, what is paid to the marginal labourer will be paid to all the labourers. In fact for any particular employer working under competition wages are already settled by the market forces. He cannot influence wages appreciably by employing more or less of labour. He is in fact in the same position as an individual consumer purchasing under competition. The indivi-
dual employer like the individual consumer hires as many labourers as will equate their marginal productivity of labour to the prevailing rates of wages. It is the demand of all the employers taken in the aggregate in relation to the given supply that determines the marginal productivity of labour as a whole and the rate of wages in the market.

10. The Influence of Supply. When we explain wages from the side of demand we assume supply to be fixed. Similarly we can assume demand to be fixed and say that when supply of labour increases its marginal productivity falls, and conversely, when supply decreases marginal productivity rises. In the former case wages will fall, in the latter they will rise. When we say that the marginal productivity of labour has fallen we mean that labour is put now to uses in which its net contributions to production at the margin are lower; and conversely in the case of a rise in marginal productivity its net contribution at the margin are higher.

The supply of labour may be influenced by various factors. The supply of labour as a whole depends upon the growth of population the problems of which we have already considered. The supply of labour in a particular employment can be increased at the expense of other employments if the marginal productivity of labour and hence wages in such employments rise. A given supply of labour under conditions of perfect competition gets distributed in various employments in such a way as to make the marginal productivity of labour in all the employments the same. But if labour cannot move from one employment to another freely, marginal productivity will be different in different employments and wages will be different even for the same kind of labour. This is, however, the problem of relative wages which we shall consider later.

The supply of labour may be decreased by labourers refusing to work for a time. This happens when labour is organised into trade unions. The labourers may not accept wages offered by the employer if such wages do not pay for their habitual standard of living. But as we shall see, it is only when higher wages are justified by higher marginal productivity that they will be paid. Thus labourers with low marginal productivity cannot demand high wage merely on the basis of their standard of living. In the long run, however, marginal productivity wages and standard of living tend to adjust with each other.

11. Wages and the Standard of Living. Late in the 19th Century a modified form of subsistence theory was propounded by some writers. They contended that the wages tend to conform not to the level of mere subsistence but to that of the standard of living of the class of workers concerned, to which such workers have become habituated. There is some truth in this modified form of the theory because the standard of living does influence wages in several ways:

Firstly, workers as far as possible will refuse to accept wages below their established standard of living and by withholding the supply of labour will compel the employer to accede to their demand. Secondly, higher
standard of living by increasing efficiency of workers may increase their marginal productivity and hence wages. Thirdly, the standard of living may influence wages by setting limit to the increase of population. If the wages do not cover the established standard of living of the workers they will abstain from marriage or producing children. This will reduce the supply of labour, increase its marginal productivity and raise wages.

It should be noted, however, that standard of living depends as much on wages as wages depend upon standard of living. Mere insisting upon a higher standard of living, however, will not raise wages unless the marginal productivity of labour justifies higher wages.

12. Taussig's Theory of Wages. The American economist Taussig gives a modified version of the Marginal Productivity Theory of Wages. According to him wages stand for the marginal discounted product of labour. He believes that you cannot arrive at a specific marginal product of labour i.e., there is no specific product you may ascribe either to labour or to capital. Production is the result of a joint effort on the part of the various factors of production. Taussig conceives of the marginal product of labour as the joint product of labour, past as well as the present, determined at the margin of cultivation where there is no rent. Capital he regards as past labour and enterprise also as a form of labour. The land at the margin gives no rent. Thus the increase made by labour to total production at the margin of cultivation (labour including past labour as well) is the marginal productivity of labour.

But the labourer cannot get the full amount of the marginal output thus conceived. This is because production involves time and the final product of labour cannot be obtained immediately. But the labourers have to be supported in the mean-time. This is done by the capitalist employer. But the employer does not pay the full amount of the expected marginal product of labour. He deducts a certain percentage from the final out-put to compensate him for the risk he takes by making the advance. This deduction according to Taussig is made at the current rate of interest. Wages thus equal the total product of labour on marginal land minus the amount discounted as explained above.

Two weaknesses of this theory have been recognized by Taussig himself. Firstly it is "a dim and abstract one, remote from the problems of real life". To this he replies, that this weakness is common to all economic generalisations. Secondly, a more serious objection is that the joint product is discounted at the current rate of interest. But according to his own analysis the rate of interest is a result of the process of advance to the labourers, because it depends on the excess of what the labourers produce in the future over what is advanced to them in the present. This would be reasoning in a circle. To meet this difficulty Taussig suggests that we determine the rate of interest independently of marginal productivity by the rate of time preference and with the interest thus deter-
mined discount the marginal product of labour. This however, hardly solves the difficulty, it merely evades it.

Taussig's theory ultimately analysed is a version of the Residual Claimant Theory of wages. He says in fact that wages are what is left after rent, interest and profits are deducted from the total output. As such the theory is open to all the objections considered in connection with the Residual Claimant Theory.

13. Limitations of the Marginal Productivity Theory. We have already studied in detail the various limitations and criticisms of the Marginal Productivity Theory as a general principle of distribution. With reference to its application to wages we may repeat that the theory is true only under certain assumptions, like perfect competition, perfect mobility of labour from employment, to employment, homogeneous character of all labour, constant rates of interest and rent and given prices of the product. It is a static theory. The actual world is dynamic. All the factors assumed to be constant in fact are constantly changing. Competition is never perfect, mobility of labour is restricted for various reasons, all labour is not of the same grade, remuneration to other factors of production do not remain constant and the prices of the products of labour vary. All these changes modify the Theory when applied to actual conditions. The theory however, as an assertion of a tendency is true and is valuable in understanding the basic forces that determine wage rates.

In the actual world, due to the absence of the above assumptions, there is not one rate of wages applicable to all labour. Wages differ from place to place, person to person and employment to employment. The reasons for these differences relate to differences in efficiency natural or acquired and other elements of economic friction which we shall consider under relative wages.

14. Wages and Efficiency. There is a close relation between wages and efficiency. Greater efficiency leads to greater productivity of the labour. This enables him to get higher wages. High wages in their turn enable a labourer to maintain a higher standard of living. Higher standard of living implies better food, clothing and housing, better opportunities for training and recreation etc. All these things in their turn tend to increase productive efficiency of the labourer and his offsprings, and enables them to earn higher wages. Conversely low wages by keeping the standard of living low lead to low productivity and lower earning power. Thus a vicious circle may be created, to get out of which becomes more and more difficult for the people concerned. It is in this way that poor countries tend to become poorer and rich countries richer. The circle of poverty can be broken only by conscious planning on the part of an enlightened state. Merc raising of wages, however, does not automatically raise productive efficiency. It may increase senseless expenditure without raising the standard of living.

When, however, higher wages are paid in response to greater productive efficiency, such high wages are no burden on industry. Thus high wages do not always mean high cost of labour. In fact
low wages may be cheap labour provided higher efficiency more than counterbalance higher wages. For instance if wages in America for a mill hand are four times those in India, while productivity of labour is more than four times, American labour will be cheap and Indian labour dear in spite of higher wages in America compared with India. This is the 'principle of the economy of high wages'. While nominal cost of labour in America will be higher, real cost will be lower than in India.

15. **Wages and Inventions.** How are wages influenced by inventions? The answer will depend upon whether the new inventions result in economising labour or capital. If an invention results in the economy of labour thus reducing demand for it, its marginal productivity will fall and wages will tend to fall. If on the other hand an invention reduces the demand for capital, capital relatively to labour will become superfluous. Its marginal productivity will fall relatively to that of labour. Wages then may not fall and even may rise. In practice, however, few inventions economise either labour or capital alone. But most of them economise more labour than capital. They thus tend to lower wages in the short period but not necessarily in the long period. In the long period wages may be increased due to the increase in the National Dividend brought about by the new inventions. The National Dividend is bound to increase because inventions decrease the quantity of resources required to produce a given output. In this way means of production are released for use in other fields.

Distinction, however, should be made whether the increased share of labour in the National Dividend is relative or absolute. It is quite possible that the new inventions may increase wages only in the absolute sense while relatively to the share of capital the share of labour may go down even in the long run.

16. **Wages and Unemployment.** Inventions affect wages by acting on the demand for labour, the existence of unemployment may affect wages through supply. Since unemployment means reserve supply or potential supply of labour one would expect that existence of unemployment would tend to depress wages. But this is true only under certain qualifications as has been pointed out by Dr. Hicks. Wages may rise in the face of unemployment. This is so because unemployment is of two kinds. The one kind is that was faced by almost all countries of the world during the world depression. Such unemployment undoubtedly lowers wages. But unemployment may exist in the sense of a large number of people who for various reasons physical, mental, or moral do not or cannot offer themselves for work. Such people are unemployable and form quite a fair proportion of the population of almost every country. Their number in India is quite large. Such people do not form a part of the normal supply of labour though some of them may be employed in times of exceptional scarcity of labour. Their existence does not tend to lower wages of normal workers. Such people normally remain unemployed because they are not worth the marginal wage paid by the industry.
17. **Influence of Custom or Standard Rates on Wages.** Custom plays a much smaller part in the fixing of wages now than it used to in older times. In India, however, the influence of custom in the villages is still appreciable. As regards the remuneration of professions custom plays still an important part even in advanced countries. Lawyers and medical doctors' fees are cases in point. But even here competition manages to play its part though it is not fully operative. Lawyers compete with lawyers and doctors with doctors at the standard fees. The competition depends upon differences of efficiency rather than on price cutting, so far as standard rates are effective. Even in industry standard rates do operate to some extent. It is difficult to arrive at the correct marginal productivity of a manager. The rates paid are usually customary or standard rates approximating to efficiency only in a rough way. Even wages though more carefully and accurately determined tend to become standardised and do not reflect accurately the differences in productivity. In practical life it is impossible to calculate as accurately as the theory demands. Adjustments are only rough and grave mistakes may be made even by the most careful employer. Moreover decisions are not made on pure economic grounds. Personal feelings of the manager or the foreman may intervene or the general state of trade may modify economic considerations. In slack times, for instance, a man may be kept on a job on account of philanthropic motives though he does not earn his wages in the economic sense. All these considerations limit the application of the theory to practice.

18. **The Problem of Relative Wages.** So far we were concerned with general wages. We have examined the general principles which decide the share of the National Dividend going to labour as against that going to the other factors of production.

The problem of relative wages is different. Here we have to explain the causes of differences in wages in different employments, or occupations, or grades of employments and also between different persons in the same employment or grade.

While discussing general wages we ignored these differences and talked of labour as such against capital etc. as such and their remuneration. We assumed all labour to be of the same standard. In real life labour is not of the same standard or the same grade. There are different grades into which labour in a country may be classified. In each grade there are different employments. Each employment has its own problem of wages. But the general principle of wage fixation is the same. Wages everywhere tend to approximate the marginal productivity of labour. But the marginal productivity of labour will be different in different employments and grades in accordance with the degree of scarcity of each kind of labour in relation to the demand for it, or ultimately in relation to the demand for the products of each kind of labour. This is so because the demand for labour is a derived demand from the demand for the products of labour.
If there was free mobility of labour over the whole field of employment real wage would tend to be in proportion to the relative efficiency of labour engaged in each kind of work. Real wages (not nominal wages) of workers of the same level of efficiency would tend to be the same. If workers in one employment were getting real wages more than in proportion to their efficiency labour would tend to move to that employment until increased supply would bring down its marginal productivity and wages. An opposite movement would take place if an employment paid lower wages than justified by the relative efficiency of labour.

In the actual world labour cannot move freely from employment to employment especially in different grades. Different grades tend to become "non-competing groups."

19. Non-competing Groups. While discussing general wages we assumed as just noted that all labour belonged to the same grade. In actual fact the working population of a country may conveniently be divided into the following strata or groups. Each group is more or less exclusive.

(a) The lowest group is the unskilled labourers who lack special skill and special training. Most of the heavy manual work is done by these people.

(b) Above them are the semi-skilled workers who possess some skill and bear some responsibility, though they do not need much training.

(c) The third group is constituted by skilled workmen including clerical workers and salesmen. Carpenters, electricians etc. belong to this group.

(d) Then there is the middle class consisting of ordinary businessmen and professionals.

(e) The highest class is constituted by successful professionals and businessmen, entrepreneurs, engineers etc.

There are different employments in each of these grades and different wages may be earned by persons in different employments or even in the same employment. Each grade has a different level of earnings. What are the causes of these differences?

In India, among other reasons, non-competing groups are created by the caste system. In other countries differences of opportunities for education and training available to different classes of people lead to such non-competing groups. Supply under such conditions cannot adjust itself to demand.

20. Causes of Differences in Relative Wages. We may now summarise the causes which create differences in wages in different employments, professions and localities:—

(i) Differences in efficiency. These may be due to different inborn qualities, education, training and conditions under which work is performed.

(ii) Existence of non-competing groups. As explained above, these arise because of the difficulties in the way of mobility of labour from
lower paid to higher paid employment. These difficulties may be
due to geographical reason, or social or economic reasons. Examples
respectively are lack of transport facilities, existence of family ties or
caste barriers and lack of means for better training etc.

(iii) The difficulty of learning a trade. The number of those who
can master difficult trades will be small. Their supply will be less
than demand and their wages will be higher.

(iv) Differences in agreeableness of employment. Disagreeable
employments must pay higher wages to attract labourers. If, however,
disagreeable work can be performed by unskilled workers who cannot
do anything better (due to caste or other incapacities) wages may be
quite low e.g., sweepers in India.

(v) Future prospects. If an occupation gives hopes of future pro-
motion people will accept a lower start in it, as against another occupa-
tion offering higher initial rewards but no chances of rise in the
future.

It should be noted again that all these factors create differences in
wages by affecting the adjustment of supply of labour to demand in
the case of various employments and grades. Wages are in every
case determined by the degree of scarcity in relation to demand
for labour or by the marginal productivity of labour with respect to
each kind of work.

21. Low Wages of Women. In most cases women are paid
lower wages for doing the same kind of work. There are various
reasons for this. In the first place it is due to long habit and custom.
Until comparatively recently woman was regarded as a drudge even
in the advanced countries of today. Even today women tend to crowd
into occupations involving drudgery and depress wages there.

Secondly, since women do not make their work a life career they
do not equip themselves with proper education and training. Their
aim normally is to get married and after marriage most of them cease
to earn independently and depend on their husbands.

Thirdly, for the same reasons, women do not organize them-
selves into trade unions to enforce higher wages for themselves. Their
employment being only a stop gap between school and marriage they
do not give much attention to this matter.

Fourthly, women workers are prepared to accept lower earnings
because they have very limited obligations and responsibilities. In
most cases they do not depend merely on their own earnings, even
when they are in employment. Husband, brother, father, may and do
give them financial support.

Finally, men workers are much more reliable for continuous
efficient work than women workers due to various reasons. Men
are physically strong and can undertake more strenuous work and can
bear much greater nervous strain. Moreover woman on account of
biological reasons is partly or wholly incapacitated for adequate work
during certain periods of her life.
CHAPTER XXII

SOME PROBLEMS OF LABOUR.

1. Introduction. In the previous chapter we were concerned with the general principles that determine the share of labour in the national dividend. But these principles do not always operate freely. Competition is never perfect on both sides. The employer has certain advantages over the employee as we shall see. The employees therefore have to help themselves by organisation and militant action. The balance is also redressed by the action of the state through legislation fixing minimum wages and introducing various schemes of social insurance. In this chapter we propose to study the problems arising out of such self help and state help accruing to the labouring classes. We begin with trade unions, the workers' organs of self help.

2. Trade Unions or Organizations of Labour. "A trade union" in the words of Webbs is a continuous association of wage earners for the purpose of maintaining or improving the conditions of their employment.

Why are trade unions necessary? We have already seen that the wage earner, standing isolated, is in a very weak bargaining position vis a vis his employer. This is due to certain peculiarities of labour. Labour is the most perishable of commodities. It has no reserve power. A days' labour withheld is lost for ever while the labourer whether he earns or not has to be fed and otherwise maintained. The labourer therefore either must work or starve. Moreover there is another reason why an employer is in a better bargaining position. "For it must be remembered" says Marshall "that a man who employs a thousand others is in himself an absolutely rigid combination to the extent of one thousand units among buyers in the labour market". Due to this weakness in bargaining the labourers are likely to get wages much lower than their marginal productivity. Lower wages in this way may have cumulative effect. Lower wages may reduce efficiency and hence the marginal productivity of labour.

It was therefore found by the labouring classes, early in the industrial advancement of the various countries, that unless they improved their bargaining position through forming trade unions, they were in danger of serious exploitation by the employing class.

Trade unions in modern industrial countries are militant organisations fighting for the rights of the workers. Their aim is to ensure adequate wages, better conditions of work and more recently to secure some share in the control of industry. By creating a fund of their own through subscriptions of members, trade unions give financial help to labourers in the form of sickness and accident benefits, support during unemployment and during strikes and lockouts arising out of industrial disputes.
3. Trade Union and Wages. The question of wages has been and still is the main concern of trade unions. The labour leaders always believe that trade unions by improving the bargaining power of labour could raise wages. On the other hand the classical economists argued that wages could be raised only at the expense of profits and a fall in profits by discontinuing industrial activity would reduce demand for labour. Thus either wages must be reduced or unemployment must be faced. Trade unions according to this view could not raise wages permanently.

Trade unions however can raise wages mainly in two ways:

(i) Trade unions can ensure that labour is paid to the full value of its marginal productivity. Under perfect competition no doubt wages tend to equal the marginal productivity of labour. But competition in the actual world is rarely perfect. Hence wages do not come up to the marginal productivity level if the bargaining power of labour is weak. By improving the bargaining power of labour trade unions can thus raise wages up to the marginal productivity level.

(ii) Trade unions can raise wages in another way too. They can improve the marginal productivity of labour. Trade unions can raise the marginal productivity of labour in three ways:

(a) By forcing the inefficient employers to use more up-to-date appliances and organisation. It should be remembered that the marginal productivity of labour, among other things, depends upon the proportion in which labour is combined with capital and other resources. (b) By improving the efficiency of labour itself. This may be done by fostering habits of sobriety, thrift and honesty and by helping the younger generation to acquire better education and training. (c) Trade unions may increase the marginal productivity of particular group of labourers by restricting its supply. But this policy will succeed only under certain conditions. These conditions are: (1) the demand for that group of labour must be inelastic, which means that the demand for the commodity which the group helps to produce must be inelastic, (2) the wages of the said group must form a small proportion of the total cost of production of the commodity concerned, (3) the other factors of production must be "squeezable". In other words, they should not be easily transferable to other uses. In the long run, however, there is a danger that the employers may adopt substitutes in the way of labour saving appliances and demand for labour may fall off, thus bringing down wages.

4. Industrial Disputes. Industrial disputes between labour and capital have become more or less a normal phenomenon of industrial life in capitalist countries. Such disputes either lead to strikes, which means refusal of workers to go to work or to lockouts, which consists in the employers refusing to allow workers to work. Strikes are more common than lockouts, since the aggrieved party, the worker, mostly takes the initiative.

Should the workers have a right to strike? This is a controversial matter, especially in the case of public and quasi-public in-
dustries. Stopping of work in industries like railways, tram services, water and electric supply, causes the paralysis of the life of the community. As regards private industries, especially those that are not basic, the right to strike is usually conceded. Even in public industries, however, if there are to be restrictions in the workers' right to strike, justice demands that the grievances of the workers should be given a proper hearing and their rights properly safeguarded by public authority.

Industrial disputes leading to strikes in any case have serious consequences on the life of the community. The workers, the capitalists and the consumers all have to suffer. The workers lose their wages, the employers their profits and their hold on markets specially foreign markets and the consumer has to go without the service supplied by the industry concerned. It is necessary for all concerned therefore to create conditions which will reduce to the minimum chances of industrial disputes. Further, machinery must be created to tackle disputes when they have occurred. The first involves the investigation of causes of industrial disputes.

Broadly speaking there are three causes which lead to industrial disputes and labour unrest in general.

(i) The desire of the workers for a higher standard of living. This involves the solution of the problem of an adequate wage. To meet this demand various modifications in the wage system have been suggested and tried in some countries, sliding scale system, the various bonus systems and profit sharing schemes and fixing of minimum wages.

(ii) The desire of the workers for greater economic security. This involves the problem of unemployment which will be considered at the end of this chapter.

(iii) The demand of the worker for some participation in the management and control of industry. Several methods are suggested to achieve this end which we shall consider in subsequent sections.

As regards the settlement of industrial disputes, after such disputes have arisen, conciliation and arbitration boards have been tried in several countries with a considerable measure of success.

5. **Premium Bonus System.** The bonus system is devised to meet the defect of the time-rate system and the piece-rate system. When wages are paid according to time the danger is that the worker will not put in his best. On the other hand when wages are paid by the piece the worker is likely to produce work of inferior quality by hurrying it up. "The idea of the premium system" says Chapman, "of which there are many varieties, is that a standard output should be assented to, and that for any additional output lower piece rates, perhaps progressively lower piece rates, should be paid." This prevents the worker from overworking, since extra earnings diminish as time goes on. There is thus less chance of hurried
or scamped work. In this way defects of the piece rate system are removed without sacrificing its advantages.

There are various varieties of the premium bonus system. Sometimes a bonus is paid over and above an agreed time rate if the worker achieves the "efficiency rate" in respect of his output. In other cases the efficiency rate is the minimum and a bonus is paid in respect of any output in excess of this minimum. In the former case bonus is paid because of the time saved, in the latter because of the additional output produced. To give an example of the former there is the Halsy system of the United States. Here the bonus takes the form of a payment equal to half the ordinary time rate per hour for whole of the time saved. Supposing the time allowed for a job is 10 hours and the rate is 10d per hour. A worker who completes the job in 8 hours would receive \((10 \times 8)\) d + a bonus of \((2 \times 5)\) d, a total of 90 d.

6. Sliding Scale. Under the sliding scale schemes wages are made to vary according to changes in the price of the product, the cost of living or the profits earned by the industry. When wages are correlated with prices certain basic prices are taken. If the price of the product rises the wages are made to rise in a given proportion. If prices fall wages are reduced but generally they are not allowed to fall below a certain level. Similar arrangements are made as regards variations in the cost of living and profits.

The sliding scale system according to prices is sometimes criticised on the ground that it exposes the labourer to a shrinkage of wages due to factors which in no way reduce profits. For instance, prices may fall due to improvements in the methods of production, cheapening of cost of carriage, reduction in business risks etc. Reduction in wages under such conditions will not be justified. This merely proves that basic rates should be revised frequently if warranted by changes in business conditions.

As regards the sliding scale according to cost of living, various objections have been raised against it. Among these are the imperfections of the index numbers, the fact that under such a system real wages tend to remain stationary, that only lower paid workers benefit from it.

To these objections the supporters of the system reply that the purpose of the system is merely to keep the purchasing power of money wages constant. To increase real wages labour must press its claims through its organization the trade unions. Sliding scale system at least adjusts money wages to changing prices and leaves the labourers free to force a rise in real wages when necessary. Moreover, the objections can be met by improving the index numbers and by provision of full compensation for changes in the cost of living.

7. Profit Sharing. Under this system the workers are given a certain percentage share in the net profits of the industry in addition to their usual wages. Various methods are adopted, the most

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common being the *cash bonus scheme*. Under it a certain proportion of net profits of the concern are distributed periodically among the workers.

Several advantages are claimed for this system: (i) that it reduces social friction and creates good will between the employers and the workers, (ii) that it binds the worker more closely to the firm, (iii) that it gives the worker incentive for greater output.

On the other hand the system is criticised on various grounds: (i) that most of the benefit of additional output goes to the employer, (ii) that it destroys the worker's solidarity, (iii) that it checks mobility of labour, (iv) that profit sharing should also involve loss sharing. But this cannot be done unless the workers have share in the management and control of the industry.

*Labour Copartnership*. This system resembles profit sharing closely. The only difference is that in profit sharing the workers are excluded from the control of the business, in copartnership the workers are granted a limited share in control. This is done either by encouraging them to buy shares and thus getting the ordinary rights and responsibilities of shareholders or they are allowed to appoint one or more members as their representatives on the Board of Directors. This distinction has tended to disappear in recent years since committees of representatives of workers and employers have been increasingly set up for administering both the profit sharing and copartnership funds. These committees also exercise wide powers in the details of workshop management.

The various merits and demerits pointed out above in the case of profit sharing also apply to copartnership. With the additional defect that the worker is liable to lose both his savings and his employment in case the firm fails.

The profit sharing schemes have not solved the problem of industrial conflicts even in England where they have been given a fair chance. The scheme is however, still in an experimental stage and has been applied only in a narrow field.

8. *Works' Councils*. One method of seeking co-operation of the workers in the control of business is that of workers' councils tried in England. The scheme was first formulated after the report of the famous Whitley Committee in 1917. *Works' committees* are organized in each firm consisting usually of equal representatives of workers and employers. In some cases only workers representatives constitute these committees but they have access to the management for discussing outstanding questions. Apart from these district councils are organized consisting of representatives of trade unions and the employers in the industry concerned.

*Works' Committees* also known as Whitley Committees succeeded to some extent in establishing peace and harmony between workers and employers. They created a greater sense of responsibility among the workers by giving them opportunities of influencing decisions in the conduct of business. Disputes in most cases were settled by voluntary discussion.
9. Minimum Wage. Another method of reducing industrial friction is by ensuring adequate wages through fixing a minimum wage by legislation below which it is an offence to pay a person. A minimum wage may be fixed in certain selected industries usually called "sweated trades" or it may be introduced on a national scale. Let us take the case of the selected industries first. Suppose the state fixes a minimum wage in the "sweated trades". What will be the economic effect of such policy on the worker, the employer, and the consumer? The consequences will be different under different circumstances.

Suppose a minimum wage above the competitive level is fixed in one or a few selected industries by law or by trade union pressure. The state can force the payment of a minimum wage but it cannot force the employers to keep employing all the workers. If this higher wage can be shifted to the consumers the price of the product will rise and no unemployment may result. But it may not be possible to raise the price either because of foreign competition or because of the availability of substitutes. In other words when the demand for the product is elastic higher wages cannot be passed on to the consumers. They will fall on profits. If the employer was earning only normal profits, as we have assumed, the burden cannot fall on profits for long. If profits in such trades are depressed new capital and enterprise will not flow into them though the present capital may be worked at lower profits for a time, if it is specialised and fixed. Ultimately unemployment will surely result either because of contraction of the industry concerned or due to substitution of labour saving machinery or labour saving methods of production. Unemployment, however, may not result if wages form only a small proportion of the total cost of production. Then a slight raising of price may compensate the employer for loss incurred by paying higher wages. Similarly unemployment may not result if the producer is a monopolist of the product concerned and the demand for the product is comparatively inelastic e.g., supply of electricity, water gas and other public utilities.

If the minimum wage fixed is below the competitive level such trades will attract capital and enterprise due to abnormal profits enjoyed by them.

Their demand for labour will increase. The new recruits, however, will avoid such trades. Partly due to reduced supply of labour and partly to increased demand wages will rise to the competitive level.

If the sweated trades were previously giving abnormal profits a fixing of wage at the competitive level will not cause unemployment, it will mean cut in the profits down to the normal level.

10. The National Minimum Wage. The fixing a national minimum wage (i.e. a minimum for all the employments in the country) may have more serious results, especially if the wage is above the competitive level. To avoid its being counterbalanced by
higher prices the national minimum will have to be a real minimum wage not a fixed money wage. Since no worker can be employed below this minimum worker dismissed by one industry cannot find employment in another. Dismissed workers would thus be permanently unemployed unless they improve their efficiency. The burden cannot be shifted to the consumer by higher prices because higher prices must be followed by higher wages to keep the real wages the same. Profits could not be maintained by altering methods of production since the prices of labour saving machinery and other devices would also rise. The result therefore will be widespread unemployment and contraction in all sorts of enterprises. This will check accumulation and investment of capital. Moreover the unemployed will have to be maintained from public funds which will mean higher taxation and a still greater burden on industry and enterprise and still greater unemployment. Thus while productive activity will decrease taxation due to expenditure on the growing unemployed persons will increase. The community will head towards nationwide poverty by living on its past savings. The springs of economic activity will dry up if this policy is persisted in long enough.

11. Settlement of Industrial Disputes. In spite of all these efforts at avoiding occasions and causes of disputes, however, disputes may occur and they do occur. It is therefore necessary to have some machinery for the settlement of disputes after they have arisen. There are usually two methods of meeting such situations: (i) conciliation. (ii) Arbitration.

(i) Conciliation. The essential feature of this method is that the settlement is reached by the representatives of workers and employers themselves, with or without the mediation of an outside person. In England the Conciliation Act of 1896 permitted the registration of any Conciliation or Arbitration Board for the purpose of bringing the parties to the dispute together and thus avoiding strikes and disputes. By another Act in 1911 this scheme was strengthened by instituting joint panels of employers and representatives of labour known as Industrial Councils. These councils have done very useful work. In India the Trade Disputes Act of 1929 empowered the Government to appoint a Conciliation Board to enquire into any dispute on the application of one of the parties. Such arrangements however, do not eliminate all possibilities of strikes since there is usually a feeling of distrust especially on the part of the trade unionists.

When the chairman is absolutely independent and a man of outstanding personality and integrity conciliation boards have done excellent work.

(ii) Arbitration. In the case of arbitration the question at issue is placed before an outside person for settlement. Arbitration may be voluntary as in England or compulsory as in Australia and New Zealand. Under voluntary arbitration the dispute is referred to a Court of Arbitration (constituted in England under the
Industrial Courts Act of 1919) consisting of representatives of employers and workers. The dispute may be referred to the Court either by the consent of both parties or by the Minister of Labour without the consent of either of the parties. The award of the Court though generally accepted is not binding on the parties. The report of the Court is published and the pressure of public opinion in many cases forces the parties to accept the decisions of the Court.

In Australia and New Zealand in the case of industrial disputes the decision of the Court of Arbitration is binding on the parties. Strikes and lockouts are prohibited by law and are punishable by fine or imprisonment. Compulsory arbitration may involve considerable hardships especially in countries where the scope for alternative avenues of employment is limited. In Australia, since agriculture is outside the scope of the Arbitration Act, there is an outlet for capital or labour. "In fundamental industries" says Chapman, "upon the steady activity of which the whole community is dependent—for instance transportation—there is most to be said for the system of compulsory arbitration." 1

12. Unemployment. One of the greatest causes of labour unrest in modern industrial countries is the insecurity of employment. The spectre of unemployment constantly haunts the working classes. It has been described as the "shadow side of progress" and its fear is stronger than the fear of any other disability to which the labourer is subject i.e., sickness, old age or even death. It is necessary, therefore, to find out the basic causes of this malady of the modern economic system in order that adequate remedies may be suggested.

Technically speaking, unemployment is defined as a state of affairs when in a country there are large members of able bodied persons of working age who are willing to do work but cannot find it at the current wage levels. People who are either unfit for work for physical, mental or moral reasons or who do not want to work, are excluded from the category of the unemployed. Those who are unfit may be called unemployables and those who are fit but refuse to work are parasites on society. Both of these categories are quite common in this country. Children, the sick and the very old or otherwise completely disabled are examples of the first. Pirns and faqirs and sadhus, and non-working landlords are examples of the second. Mere engagement in some productive occupation does not necessarily mean absence of unemployment. People who are only partially employed or are doing inferior jobs, while they could do better jobs, are not adequately employed. If this phenomenon is common in any country we call it a state of under-employment which is equally bad for the prosperity of the country. Full employment exists when every able-bodied person is employed in doing that work for which he is best fitted. Full employment is the ideal. It can exist only in a perfectly planned economy like that of Russia. Under capitalism it appears unemployment is inevitable. The best that can be done is to keep the number of the unemployed as low as possible.

(1) Chapman op cit. P. 351.
13. Causes of Unemployment. Chapman distinguishes between subjective and objective causes of unemployment. Subjective causes are due to physical, mental or moral defects of the individual, whether inborn or acquired, curable or incurable. The objective causes spring from the forces over which the individual himself has no control. Such are: (i) trade cycles, (ii) seasonal demand, (iii) seasonal supply, (iv) industrial changes which are neither cyclical nor seasonal, (v) the system of casual labour, and (vi) the social time lag. A few words may be said about each of the objective causes. As regards the subjective causes according to the definition adopted by us, people who are unfit for employment are not counted among the unemployed.

(i) Trade cycles. We shall study trade cycles in a separate chapter. Suffice it to say here that business depressions recur at more or less regular intervals. During times of depressions—business activity is at a low ebb and unemployment increases. Some people are thrown out of employment, others get only partially employed. How much unemployment will be created depends upon the elasticity of wages. If wages can be reduced more people can be kept on employment, but trade unions usually resist wage reductions. Hence those who do not "earn" their wages under the new circumstances have to be dismissed.

(ii) Seasonal demand. Some economic activities are seasonal. Owing to the slack season the demand for labour is considerably reduced and unemployment is the result. Ice factories for instance work only during summer months. Employment in agriculture is seasonal. From three to five months a year our agriculturist has very little to do. He is under-employed between the time of sowing of crops and reaping the harvest.

(iii) Industrial changes. These imply the invention of new methods and processes. But since methods of production usually change only slowly many workers are not thrown out of employment simultaneously. If however such changes are rapid, as it happened when the industrial revolution occurred, large masses are thrown out of employment. This happened to our artisans engaged in indigenous industries when foreign machine made goods began to flood the Indian market during the 19th century. Technical advances, however, if they occur in the same countries ultimately create new forms of employment and absorb the surplus labour. But since labour cannot easily move from place to place and employment to employment considerable distress may be caused during the short period.

(iv) Casual labour. Casual labour is labour employed for short periods for doing odd jobs, such as labour in dock yards and similar places. Usually such people are of low physique, intelligence or industry and get employment only when trade is brisk. They are constantly leaving one job for another. Many people who are prone to slackness like, or drift into, work of the casual kind, and as many who take to it succumb to slackness, irregularity in the provision of work is encouraged.  

(1) Chapman op cit. P. 351.
(v) Social time lag. Social time lag refers to the period, which intervenes between a worker’s leaving one employment and finding another. This period is larger in times of bad trade and shorter when business activity is on the upward grade. It also varies with the character of the labourer and the kind of his economic environment. It is quite possible to have surplus of labour on the one hand and shortage on the other. This is due to the lack of proper contact between those who want workers and those who want jobs.

(vi) High wages. We may add that unemployment may also be caused by trade union action. If trade unions succeed in enforcing a level of wages not justified by the marginal productivity of labour such labour is bound to be dismissed sooner or later. The same will happen if a legal minimum wage is enforced which is above the productivity of the labour concerned.

(vii) Growth of wealth. According to Keynes, unemployment may also result from the growth of wealth in a country. With the increase of their incomes people tend to spend a smaller and smaller proportion of it on immediate consumption. This reduces the demand for consumption goods and hence the profits of the entrepreneurs producing such goods. The entrepreneurs react by cutting down the volume of employment they offer to the factors of production including labour. This tendency can be counteracted if the larger savings lead to larger investment. But in wealthy countries opportunities of new investments are comparatively few. Hence new investments may not counteract the effect of the relative reduction in consumption. The result is that a portion of the labour force will be unable to find employment.

14. Remedies for Unemployment. The best remedy for unemployment is economic planning. Under a planned economy there need be no unemployment. During the great depression (1929-1934) there were over 23½ millions unemployed in the U. Kingdom and over 4 millions in the U. S. A. In the planned economy of Russia there was not a single unemployed person.

Short of socialistic planning, however, various remedies can be adopted to keep unemployment down even in a capitalistic society. Among these are:—

(i) Establishment of Employment Exchange. These are institutions which keep registers for the names of the unemployed persons, their qualifications and needs on the one hand and record of the needs of the employers on the other. Thus they bring people in search of work and those in search of workers together. Apart from this some other advantages also flow from such institutions. They not only reduce the social time lag but also furnish information which may enable the labourer to improve himself. Further such a system can help children and young persons to find employment after leaving school. They can also give advice for continuation of education or training after the school stage. Finally they can be used to minimise casual labour, which can be helped to find more regular employment.

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(1) Keynes' General Theory of Employment, Interest and Money.
(ii) Unemployment due to trade cycles can be tackled in two ways:—(a) by spreading the reduced demand for labour over all the affected trades, and (b) by making public demand for labour compensatory.

As regards the first, demand for labour can be spread by running the industry short time, or by working with short time shifts of labour. "It would seem better" says Chapman, "that all the operatives in an industry should do less and earn less than that some should earn nothing at all, if aggregate wages in the industry were no less, or barely less, in the former case". Some suggest that the employers should pay aggregate wages to the labour unions concerned which should provide regular wages to all the workers.

As regards the second, the demand for labour on the part of public authority should be made to vary inversely with the demand by industry. Thus public works of various kinds (construction of public buildings, railways, roads and canals etc.), should be started in times of depression when the private enterprise is at a low ebb. This will not only give employment to those who are employed in such works but will also stimulate private enterprise by creating demand for goods on the part of those workers. This can start an upward swing in the economic activity. Conversely during times of busy trade the public authorities should, as far as possible, refrain from carrying out public projects. This involves careful planning so that special bodies (e.g., national employment and development boards) should be created to plan out and execute compensatory public expenditure.

(iii) Secasional unemployment can be tackled by dovetailing one seasonal trade with another. Further, stocks of goods may be made during the slack season or advance orders taken and thus employment spread out over the whole years.

As regards the unemployables they can be helped in various ways. Firstly: Arrangements should be made for the reformation of drunks, vagrants and other social parasites. Secondly, provisions should be made for the restoration of those who have become unemployable through physical unfitness which is curable.

Mitigation of distress of the unemployed is another problem. One obvious method is to encourage the habit of saving among the workers so that they may have some reserve to fall back upon during periods of unemployment. Savings may be left to the initiative of individual workers. But this method is not very effective especially where the margin for savings is very narrow. Another way is for the trade unions to create their funds through contributions by the members and thus give them insurance against unemployment. The more recent tendency in advanced countries is for the state to institute unemployment Insurance. The insurance fund for this purpose is composed of contributions by the workers, the employer and the state. This brings us to the broader problem of social insurance which

(1) Chapman op cit P. 358.
covers not only unemployment but other disabilities to which a worker and his family is exposed.

15. Social Insurance. Social Insurance may be defined, in the words of Cohon, as "that part of the total field of insurance in which the risks or hazards covered result from the inability of the workman either to make a wage contract of a kind which will enable him to maintain a satisfactory standard of living for himself and his family or to carry through his part of the contract owing to physical incapacity". The chief of such risks arise out of (a) temporary inability to make a living due to accident, disease, ill-health or unemployment, (b) permanent incapacity due to disablement or old age, and (c) death involving unprovided widowhood and orphanhood.

For the sake of illustration we may take the various forms of social insurance prevailing in Great Britain which has made probably the greatest advance in this connection. These are: (i) Unemployment Insurance. (ii) Health Insurance. (iii) Old Age Pensions Scheme. (iv) Widows and Orphans’ Pensions Scheme. Finally we shall give some account of the latest and the most comprehensive measure of the social security scheme associated with the name of Sir William Beveridge.

(i) Unemployment Insurance. It was in 1911 that by an Act of Parliament the first system of compulsory contributory unemployment insurance was established in certain selected trades in Great Britain. These trades were considered particularly liable to irregularity of employment. The success of the scheme led to its extension so that by 1920 with the exception of persons engaged in agriculture and private domestic service the whole of the industrial population was compulsorily insured. Later due to the slump and the distress it caused the Parliament granted on this scheme a system of “unconvenanted” benefits. This meant giving benefits to workers and their families beyond those stipulated in the original scheme. This meant great burden on the national exchequer. As the result of the findings of a Royal Commission on Unemployment Insurance (Dec. 1930) in the Supplementary Budget of 1931 reduction was made in the benefits and provision was made for increased contributions from employers and workers. “Means test” was also introduced in order to eliminate from benefits those who had some other reasonable means of support. In 1938 there were over 14 million persons insured under the scheme.

Under this scheme an Unemployment Insurance Fund is constituted by compulsory contributions by the workers and the employers together with the amount contributed by the state. Out of this fund unemployment benefits are paid and administrative expenses met.

Benefits are paid to able-bodied persons (between the ages of 14 and 65), who are willing but unable to get employment in their own trade at the current rates of pay.

(ii) Health Insurance. This is another contributory scheme. To a national health insurance fund workers and employers are required
to make contributions. In the case of male workers the contributions of worker and employer are of equal amount, while for female workers the employer pays a little more. The state contributes \( \frac{1}{4} \) in the case of men and \( \frac{1}{6} \) in the case of women.

Normally the benefits provided are: (a) a sickness benefit of a fixed sum of money for not more than 26 weeks in case the worker is incapacitated from engaging in gainful employment, (b) after the 26th week a disablement or invalidity benefit, so long as the worker is incapable of gainful employment, (c) a maternity benefit to the wife of an insured person, which is increased if she herself is an insured person, (d) medical benefits like provision of medicines, treatment etc.

Health insurance is compulsory for all manual workers between the ages of 14 and 65 years, and non-manual workers earning under £250 who have not claimed the right of exemption

(iii) Old Age Pensions. Introduced into Great Britain first by the Act of 1908 the old age pensions scheme provides for payment of pensions to all persons who have reached seventy years of age and are British subjects for at least ten years. The whole of expense of the scheme is met by the state. People earning an income of £50 or more a year are not eligible for the pension. The maximum pension that a person can receive is 10s. per week.

(iv) Widows and Orphans' pensions. This scheme was devised in 1925. Both the employed and employers have to make contributions. The state adds its own quota. The pensions are given to widows, and orphans of men who died on or after 4th Jan. 1926 and were under the age of 70 on that date, when the scheme came into force. The pension is given subject to certain conditions relating to insurance and the number of contributions made.

16. The Beveridge Social Security Scheme. A new and comprehensive social security scheme is proposed for post-war Britain based on the famous report by Sir William Beveridge. "The Plan" in the words of Sir Ronald Davison, "does not propose a sudden or total revolution in British social life. On the contrary it grows naturally out of our experience, particularly our experience of contributory insurance and from the past draws a pattern of the future."

The main features of the scheme are given below:

First of all the Beveridge plan divides the people of the country into six main classes. (i) Employed persons under a contract service normally described as wage or salary earners. There is no upper income limit for insurance nor a fixed age limit. Men and women become pensioners only after retirement from earning. All have to contribute compulsorily a flat rate of insurance contribution varied only according to age and sex. A person earning £5000 a year would contribute in the same 4s 6d per week as another earning £500 a year or less. Then employers would add their share of 3s. 3d per week. All get the same benefits.

(ii) The second class is called by Beveridge "other gainfully employed." This will be constituted by the active employers and persons working on their own account like shop-keepers, farmers, professional men etc. They will be brought into insurance for the first time. They would pay the same contributions as class I but will not be covered for ordinary unemployment, sickness or industrial accident. Their main benefit will be retirement pension.

(iii) Class III will comprise of housewives married and under 60. They will pay no contribution unless they are workers themselves, they being insured on account of their husband’s contributions. They are covered for pensions and maternity grants and get dependent’s benefits whenever their husbands are sick or unemployed.

(iv) The fourth class consists of other persons of working age but not earning. Mostly they are persons of private means like single women engaged in housework and students over 16. They pay the same contribution as class I.

(v) The fifth class is constituted by persons below working age. They will be mainly covered by children’s allowances.

(vi) Finally there are the people who are above the working age. They are covered by pensions and pay no contributions.

Benefits proposed by Beveridge. The benefits proposed in this scheme by Sir William Beveridge are tabulated below. They have not yet been accepted by the Government in their entirety but it is unlikely that the modifications will seriously depart from the recommendations of the report.

(a) Unemployment and Disability (Sickness benefits.) per week
   Single man or woman aged 21 or over ... 245.
   Married man with wife working ... 245.
   Married man with wife not working ... 405.
   Married woman with husband working ... 165.
   (Lower rates for boys and girls under 21)

(b) Retirement Pension (in 1965).
   (Liable to partial reduction for any earnings)
   Man and woman (joint pension) ... 405.
   Single man or woman ... 245.
   Man with wife working or woman
   with husband below 65 ... 245.

(c) Women only: Maternity Benefit.
   (13 weeks) (In addition to maternity grant of £4)
   Married woman wage-earner ... 365.
   Widow’s benefit (13 weeks) ... 365.

(d) Dependent allowances (in addition to above)
   For each child in family ... 85.
   For each dependent above age 16 ... 165.
(e) *Industrial Pension*
For total disability (after 13 weeks sick pay) : \( \frac{2}{3} \) of weekly wage but not more than \( £3 \) plus children's allowance and not less than sick pay plus dependent allowance if any.

(f) *Marriage Dowry* (lump sum)
Grants up to \( £10 \) for women wage-earners.

(g) *Adult funeral grant* (lump sum)
Child under 3 ... ... \( £20 \)

It was estimated that at 1942 prices the total cost of the whole scheme in 1945 would be \( £700,000,000 \) a year. The benefits enjoyed by the people before the scheme should cost in 1945 as much as \( £450,000,000 \). Thus the additional cost of the scheme could be put at \( £250,000,000 \) for the year 1945. By 1965 it was estimated the scheme would cost \( £850,000,000 \) a year of which 60% would come from the exchequer.

Can Britain afford this cost? Yes Britain can for the simple reason that this cost by improving the quality of the people will enormously increase the national dividend. Experience of such services since 1906 shows that they amply justified themselves. In the words of Sir Ronald, "So far they have been a paying proposition for they have vastly improved the quality of our people. Without them for instance, we should have been lamentably worse off in this dread war. We could neither have fought so well nor have produced such mighty armaments. The blitz might have been our undoing".

The cost will be hardly 10% of the national dividend of the country. More than 85% of the contributions will be paid by families of modest means, who will also pay the direct or indirect taxation necessitated by the scheme. Ultimately, therefore, it is a redistribution of consuming power between millions of modest households. It does not mean so much extra consumption. It is not likely to encroach upon the capital accumulation of the nation.
CHAPTER XXVIII.

INTEREST.

1. Introduction. Interest is the price paid for the services of the third factor of production \( i.e. \), Capital. Though capital appears in the money market as ‘loanable funds’ it ultimately consists of tools and equipment used for further production as against consumers’ goods which are utilized for deriving direct satisfaction. Loanable funds used as capital merely help in transferring real resources from producing consumers’ goods to producing capital goods. Interest, however, is normally calculated as a percentage on the money borrowed or lent.

This chapter is confined to the study of the nature and problems of interest. Much of what is called interest is not the price of the service of Capital as such. In other words pure interest is only a small proportion of gross interest as we shall explain. Much of the variations in interest rates are explained by this fact. Pure interest tends to equality in different employments provided competition is free and perfect. But what determines pure interest? There are various theories the most widely accepted one being the marginal productivity theory as already studied with respect to rent and wages. The element of time is as important with respect to this aspect of value as any other. This will also receive our attention when we distinguish between short and long time rates of interest. Then there are some miscellaneous problems to be considered regarding the attitude of the people towards interest from time to time, the influence of progress on interest, the possibility of interest disappearing altogether and so on.

2. Gross and Net Interest. All the borrower pays to the lender is not the price paid for the services of capital. It is thus necessary to analyse the total paid (gross interest) into its component parts. These consist of:

(a) Pure Interest. This is a payment for the services of capital or the money borrowed.

(b) Insurance Against Risk. The lender is exposed to risks when he lends money. A certain amount must be paid to him to cover these risks. These risks are of two kinds: (i) personal risks due to the character of the borrower himself, and (ii) trade risks. Trade risks are due to the varying fortunes of the business in which the money is invested. Thus the lender may fear that either the borrower may refuse to pay back his money or the interest on it, or that he may lose the money in his trade. The greater the risks of this kind the higher will have to be insurance money that the lender will expect before he is willing to lend.

(c) Wages of Management. A part of the payment may be due to wages of management. The lender may have to keep accounts and to arrange for continual new loans for short periods.
Finally there is the return for inconvenience strictly so-called. When a man lends money he loses command over it for a period. He is unable to make use of it himself if he wants to, since his money is locked up. Favourable opportunities of its employment may slip by.

Keeping these facts in mind it will become clear why the village money lender’s rates are high in spite of competition among the lenders: The risk and inconvenience involved is great. Similarly the pawn brokers seemingly charge very high rates when calculated on annual basis. But they have to undergo an immense amount of trouble in their business in keeping small individual accounts etc. This also explains why governments especially those with sound financial traditions can borrow at extremely low rates of interest. Here the risk and inconvenience to the lender is negligible and the interest paid is mainly “pure interest.” The return on British Consols (long-term British Government securities) is a classical example of the pure rate of interest. Among the banks also the sounder the bank the lower the interest it pays to its depositors. Thus beware of banks which promise high rates of interest.

3. **Differences in Interest Rates.** Pure interest tends to be the same if calculated over the same period of time in the same money market. The actual differences that prevail are differences in gross interest. In other words, they are due to differences in the degree of risk involved and inconveniences suffered by the lender. Pure interest, however, may be different in different investments when the market is not the same. This may be due to:

(a) **Differences due to distance.** People are usually more willing to invest their capital nearer home than at a long distance. This may create differences in supply and demand due to comparative immobility of capital.

(b) **Differences due to time.** If people have to part with their money for a longer period, they expect higher rates even though risks and other factors are the same. Of course if money is lent for very short periods and has to be re-lent again and again, the inconvenience of management will increase gross interest. But that will not be net interest.

Differences in gross interest, in addition to the causes already considered, according to some writers arise due to:

(i) **Differences in social esteem.** A person with greater reputation for integrity can borrow at lower rates. This is partly due to the element of lower personal risk already considered.

(ii) **Differences in productivity.** Where capital can earn greater reward for the producer, he will be willing to pay higher interest. But here also usually such trades are more speculative and higher interest can be attributed to higher risks. Moreover under perfect competition, as we shall see, marginal productivity of capital and hence the pure rate of interest tends to equality. Higher rewards in particular employments if not justified by greater risk or inconvenience
tend to disappear through forces of competition. But if competition is imperfect such differences may persist.

Productivity of capital may differ in different countries. In new countries for instance the demand for capital is great while the supply is very limited as compared with old countries. Capital thus has a high marginal productivity, and interest is high. This is due to the immobility of capital over distances as already noted. Partly it is due to greater risk. In the latter case it is gross interest which will be higher not net interest.

Thus ultimately differences in interest rates can be reduced to differences of inconvenience or risks of lending except in cases where we are not dealing with the same market. Pure interest tends to be the same in the same market.

4. Different Forms of Investments. Before we pass on to the determination of pure interest, it will be instructive to take note of the various forms of investment each yielding different rates of (gross) interest according to circumstances. A person who saves money can invest it by acquiring various kinds of assets the most important of which are (i) bonds (ii) shares (iii) bills and (iv) money balances.

(i) Bonds. Bonds are long term fixed interest bearing securities. They give their holder the right to a fixed money income. The most typical example is first class Government bonds also called gilt-edged securities. If a person lends £100 to the British Government he may get the British Government securities bearing 3% interest. This will give him an income of £3 a year as long as he holds such a security. Of course he can sell the security through the stock exchange. The capital value of the security will vary with the rate of interest at which the British Government can borrow. If such a rate of interest for instance rises to 6% the price of the security will be only £50, because by lending £50 a person can earn £3 a year as interest at the 6% rate. If the rate of interest falls to 2% the value of the security bearing a 3% interest will rise to £150, because at the current rate one will have to lend £150 to earn £3 as interest. Thus a rise in the Government rate of interest correspondingly reduces and a fall correspondingly increases the value of fixed interest securities. Conversely a great demand for fixed interest securities will tend to raise their capital value and reduce the long term rate of interest, and a great supply of such securities will reduce their face value and raise the long term rate of interest. The long term rate of interest thus is represented by the rate at which the government of the country can borrow money for long periods. At any time it is measured by the “yield” of long term Government securities expressed as a percentage of their current price.

An example will show how this yield may be calculated. On 23rd of April 1946 the price of 33 1/3% non-terminable bonds of the Government of India (Rs. 100 face value) stood at Rs. 102-14-6. This meant that an investment of Rs. 102-14-6 brought an income of Rs. 33 1/3 in a year. Therefore the yield per cent was:
3.5 \times 100 \over 102^9 = 3.4$

3.4\% was thus the current rate of interest at which the Indian Government could borrow for long periods.

Another form of fixed interest securities are "debentures" issued by various firms. Their yield is higher because of the greater degree of risk involved as compared with Government bonds. The yield of securities varies with the amount of the risk, their market-ability and also with the distance of the rate of their repayment if it is a terminable security.

The advantage of a bond thus is that it yields a fixed income, but the disadvantage is that its market value may fall, or the current long term rate of interest may rise.

(ii) Shares. While a debenture holder is purely a lender a share holder is the owner of the company to the value of his share. The income from shares or rather "ordinary" shares is a fluctuating income. The shareholder shares in the profits of the company and thus bears a much greater degree of risk than the bond holder. While the bond holder may get a safe 3\% the share holder may get 5\% or more or less according to the profits earned by the company.

The profit from the capital invested in a company is the net yield after deducting depreciation charges expressed as a percentage of the current cost of the assets. The original cost has little significance. For instance if a machine was purchased at Rs. 10,000 but its present value is only Rs. 8,000, the profit will be calculated on Rs. 8,000 not Rs. 10,000.

How may the value of fixed capital be reduced? One reason may be its wear and tear or depreciation. But apart from this the value of a brand new machine may be reduced not because it has undergone any wear and tear but because of the invention of more efficient machine doing the same work. The fall in the value of the old machine will be in the ratio of its efficiency as compared with the efficiency of the new machine.

"Let us assume that at any given time the yield of sugar machinery is equal to the market rate of interest; if better machinery came into use whose yield was 50\% greater, the capital value of the old machinery would fall by 50\% though its efficiency remained unimpaired". The profit will be calculated on the reduced value of the machine.

It should be noted that the rate of profit and the rate of interest are not independent of each other. They tend to move together and apart from the differences due to the degrees of risk tend to approximate with each other. If the rate of profit for instance is higher by an amount beyond what is justified by the greater risk, people will buy shares rather than bonds. The price of shares will

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increase and that of bonds decrease. In other words the rate of profit will fall and of interest rise until they are approximately the same.

(iii) Bills. Bills are short term fixed interest securities. Bills may be private bills issued on account of trade or financial transactions by private individuals or corporations or they may be public bills issued by the Government. The latter are called Treasury Bills. Through their sale the Government borrows money for short periods usually three months. For instance, the Government may sell Treasury Bills at Rs. 99-8-0 to be repaid after three months at Rs. 100-o-o. This means a yield of as. 8 on Rs. 99 \(\frac{3}{4}\) in three months or Rs. 2 in a year or 1. 99% per annum.

The yield of short term security is usually lower than of long term security because the risk of loss of capital in the former is much less than in the latter. The longer the time the greater the risk of depreciation of the value of the security. Moreover bills can be easily discounted by a small loss of interest for the period the bill is yet to run. If not discounted the holder gets its full value within a short period of time when the bill matures. The drawback of the bill is that the interest it earns is much lower than that of the bond.

(iv) Cash Balances. Holding one’s resources in the form of cash or cash balances in a bank involves practically no risk of loss but the money earns no income. Lending of money even for short periods involves some risk. Cash in hand is also convenient for carrying on day to day transactions and to meet emergency expenditure. Hence people do hold some of their resources in a “liquid” form. The payment required to induce people to part with “Liquidity” in this sense is usually represented by short term rates. In times of financial panic these rates go up because firms are anxious to borrow money for short period to meet their obligations in order to avoid bankruptcy. This increases their desire for liquidity. More of this later.

5. **Long-term and Short-term Rates of Interest.** We have discussed above the various forms which investment may take i.e., the kinds of assets that a person may hold. Some of these involve lending money for long periods (bonds) and others for short periods (bills). What is the connection between the two?

Generally speaking long term loans yield a higher rate of interest than short term loans. We have already noted the reason for this. The risk of depreciation of the value of long term securities is much greater than of short term securities or bills. Part of the long term interest therefore is compensation for the additional risk. The longer the period the greater the risk of either non-payment or of depreciation in capital value.

It is, however, possible for long term rates to be lower than short term rates in some cases. If the investing public has a high degree of confidence in the stability of future conditions they may be willing to lend at lower rates for longer periods.
Longer loans save the botheration of reinvestment of surplus funds. Such conditions however are not very common in the modern world of uncertainties.

Short term rates fluctuate more violently than long term rates. The reason is that changes in rates usually first occur in the short loan market, and the long term (real not nominal) rates tend to move in sympathy with short term rates. If the short term rates for instance rise sharply investors will tend to sell their long term securities and invest in bills and other short term paper. The pressure of sales will lower the value of securities and correspondingly raise their yield. Thus long term interest rates will be raised. The converse will happen if short term rates fall. People will tend to move their funds from the short term to long term markets and the greater demand for long term securities will raise their capital value. The yield of such securities will be lowered and the long term rate of interest will fall.

6. Productivity Theory of Interest. Some older economists thought that interest is productive of goods in the same sense as land is productive of crops. They held that interest exists because capital leads to greater production than would be the case without its use. Capital no doubt is productive but not in the same sense as a flock of sheep or fertile land is productive. Capital is productive in the sense that labour assisted by capital produces more than without capital. A fisherman with a net can catch more fish than without it. A farm labourer with a tractor can produce more than without a tractor.

The productivity theory no doubt explains why interest can be paid by the borrowers; it does not explain how interest rates are determined. If interest depended merely on productivity (not marginal productivity) interest rates should vary in proportion to the productivity of capital. In actual fact pure rate of interest tends to be the same in the same country. Further if capital helps labour to produce more how much of this extra production is due to capital and how much to labour, since capital without labour produces nothing. Then what about loans for consumption purposes. They are not productive but interest has to be paid on them all the same. As we shall see later these objections can be overcome if we talk in terms of marginal productivity and not mere productivity of capital.

7. Abstinence or Waiting Theory of Interest. The Abstinence Theory tried to explain interest from the side of demand the Abstinence Theory approaches the problem from the side of supply. It was Senior who first pointed out that saving involved a sacrifice or "abstinence" as he put it. Saving was an act of abstaining from consumption. Since to "abstain" was painful it was necessary to reward people for this act. This reward was the interest paid to those who saved rather than consumed their incomes or rather a part of their incomes.

The idea of abstinence was widely criticised on the ground that it suggested positive discomfort while many of the rich people save
without the least inconvenience. Thus it was that Marshall substituted the term “waiting” for “abstinence.” Saving implies waiting. When a person saves, he does not refrain from consumption for all times, he merely postpones present consumption to a future date. Meanwhile he has to wait. But since most people do not like to wait an inducement is necessary to encourage this postponement of consumption. Interest is the inducement.

Waiting is involved in all productive processes. There is a time lag between sowing and reaping, between starting the manufacture and receiving the sale proceeds. Waiting is thus a separate factor of production which is more important in capitalist societies due to the more roundabout methods of production adopted.

Some waiting however may be forthcoming without any inducement in the way of interest payment. Other people will wait even with negative rate of interest. But savings thus undertaken will not be enough to meet the demand for capital. Interest must be paid to induce other people to save in the case of which waiting does involve inconvenience. The rate of interest must be high enough to bring forth the marginal increment of saving or waiting in order to meet the demand for production. The rate of interest will be fixed at a level at which the supply of waiting will be equal to the demand.

This theory has a considerable element of truth in it but it does not clearly analyse the forces acting on the side of demand for capital.

8. The Austrian or Agio Theory of Interest. First advanced by John Rae in 1834, this theory was put in its final shape by Bohm Bawerk of the Austrian School of Economists. It became popular later among some American economists like Fisher, with slight modifications.

The gist of the theory of Bohm Bawerk is that interest arises because men prefer present goods to future goods and therefore there is an ‘agio’ or premium on present goods. In other words future satisfactions when viewed from the present undergo a discount. Interest is this discount which must be paid in order to induce people to lend money or postpone present satisfactions to a future date. Thus Rs. 100 after one year is not valued as equal to Rs. 100 now. To induce a person to part with Rs. 100 now, it is not enough to give him a promise of the return of only Rs. 100 after a year. The borrower must pay more otherwise the lender will feel himself defrauded. Rs. 100 a year from now may seem only equal to Rs. 95 to the lender at present. Thus if Rs. 95 is lent today the lender will expect Rs. 100 after one year.

Why do people prefer present satisfactions to future satisfactions? Bohm Bawerk gave three reasons for this fact: One is the “perspective under-estimate of the future,” in other words by the very nature of things the future is less clearly perceived than the present. In the second place, present wants are felt more keenly than future wants. The result is that the demand for present goods is greater than that for
future goods. Hence present goods are relatively more scarce in relation to demand than future goods and are thus valued more highly. Thirdly, present goods possess "a technical superiority over future goods." This is so because the passage of time allows the use of more roundabout methods of production, which are more productive and thus lead to considerable increase of output in the future as compared with the present. Fisher denies the validity of this third proposition though he agrees with the first two. Fisher contends that this is merely the productivity theory which Bohm Bawerk himself so vehemently criticised.

9. **Fisher's Statement of the Theory.** Fisher emphasizes the fact of "time preference" as the central point in the Theory. Individuals prefer present satisfactions to equally certain future satisfactions. They are thus impatient to spend their incomes now. This degree of impatience depends upon the size of the income, distribution of income over time, the degree of certainty regarding its enjoyment in the future and the temperament and the characteristics of the individual. Thus people with larger incomes are likely to have their present wants more fully satisfied and will thus discount the future at a lower rate than poorer people. As regards distribution of income over time three kinds of situations may be imagined. The income may be uniform throughout one's life, increase with age, or decrease with age. If it is uniform the degree of impatience to spend (i.e., the rate of discounting the future) will be determined by the size of the income and the temperament of the individual. If the income increases with age, it means the future is well-provided for, the tendency will be to discount the future at a higher rate. If the income decreases with age the converse will be true i.e., the future will be discounted at a lower rate. As to the degree of certainty, it is clear that the greater the certainty of future enjoyment of income the smaller the degree of time preference or the rate of discounting the future and vice versa. Finally the characteristics of the individual will influence this time preference. A man of forethought will discount the future at a low rate compared to a spendthrift.

Thus the rates of individual time-preference after having been determined in this way tend to become equal to the rate of interest. An individual with higher rate of time preference compared with the market rate of interest tends to borrow money in order to satisfy his more pressing wants. If his rate of time preference is lower than the market rate of interest he will lend to the market and make a gain thereby. Thus the individual will vary his income-stream by borrowing or lending. This process will tend to equalise the rate of interest with the rate of time preference.

The Agio Theory has been criticised on the ground that though it does recognize the effects of demand for capital on interest it attaches too much importance to the supply side of the problem. This is unjust especially as far as Bohm Bawerk's version of the theory is concerned. His third reason why individuals prefer present goods to

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1. S. E. Thomas: op. cit. p. 313
future goods leads directly to the productivity theory, rather the marginal productivity theory. In fact it was a cardinal feature of Bohm Bawerk’s thought that the “round-about” structure of production i.e., production in specialised stages involving the use of capital and the time element, is more productive than direct production carried on through current resources. Interest arises because of the higher productivity thus obtained. “Fundamentally”, in the words of Briggs and Jordan, “Bohm Bawerk’s theory of interest was a marginal productivity theory,” though this fact has usually been neglected because at different times he places different emphasis on the various strands of his thought.”

10 Lord Keynes’ Theory of Interest. In his epoch-making book, The General Theory of Employment, Interest and Money, the late Lord Keynes gave a new view of interest. According to Keynes “interest is the reward for parting with liquidity for a specified period.”

A man with a given income has to decide first how much he is going to consume and how much to save. The former will depend on what Keynes calls, the propensity to consume. Given this propensity to consume, the individual will save a certain proportion of his given income. He now has to make another decision. Should he hold his resources in the form of money i.e., immediate command over good, and services, or should he part with this immediate command in return for a promise to receive this command over goods and services or general purchasing power, at some future date? How much of his resources he will hold in the form of ready money (cash or non-interest paying bank deposit) and how much he will part with or lend, will depend upon what Keynes calls his “liquidity preference.” The smaller the desire to lend the higher the liquidity preference.

Liquidity preference of a particular individual depends upon several considerations. The question is why people hold their resources liquid or in the form of ready money, when they can get interest by lending such resources? This is due to a variety of reasons. (i) Individuals hold cash in order “to bridge the interval between the receipt of income and its expenditure.” Most of the people receive their incomes by the week or the month while the expenditure goes on day by day. A certain amount of ready money therefore is kept hand to make current payments. This amount will depend upon the size of the individual’s income; the interval at which the income is received and the methods of payments current in the locality.

(ii) The business man and the trader also have to keep a proportion of their resources in ready cash in order to meet current needs of various kinds.

(iii) Cash is also kept in order to meet expenditure due to unexpected contingencies. It may not be possible at such occasions to recall loans, or such a recall may involve a loss e.g., securities may not be sold profitably.

(iv) Finally, cash is held by some people for speculative pur-

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(1) Briggs and Jordan op cit p 462–63
(2) Keynes: General theory of Employment, Interest and Money p. 167
poses. There may be expectation of a future rise in the rate of interest, and the prospective lender may be waiting to take advantage of such a rise.

The holding of money for the first three purposes is affected very little by changes in the rate of interest. The fourth motive is very sensitive to such changes. An expected rise of interest rates will stimulate liquidity preference and an expected fall will have the opposite effect. Generally, however, it may be said that the higher the rate of interest the lower the liquidity preference, and the lower the rate of interest the higher the liquidity preference. Higher rates of interest will increase the loss on idle balances and induce people to lend usually by investing in securities. Conversely lower rates of interest will discourage lending and encourage liquidity by sale of securities. On the other hand higher rates of interest will check business enterprise and thus reduce the level of incomes of people because of the falling off in investment. As a result smaller amounts of money will be required for carrying on transactions. People will hold less money. Conversely lower rates of interest will encourage business enterprise, and raise the level of money incomes. Thus more money will be required to carry on transactions, and people will hold more money.

Thus one may easily draw up a schedule of liquidity preference indicating the amount of money which people will want to hold at different rates of interest. Such amount will fall with a rise in the rate of interest and rise with a fall in the rate of interest. Given such a schedule the rate of interest will be determined by the quantity of money existing at any time. The rate of interest will be such as will equate the demand for money for liquid purposes with the available supply of money. This is so because the amount of money existing at any time must be held by some people or the others. The rate of interest must be such as to induce the individuals to hold all the available supply of money. If the rate of interest is lower than this level, the aggregate amount of money that people will wish to hold at this rate will be more than the aggregate supply and the rate of interest will be pushed up. Conversely, if the rate of interest is higher than this level people will want to hold less money than there is the supply of it. The surplus cash that no one would wish to hold will bring the interest rate down. At the equilibrium position the rate of interest will be just at the level necessary to equate the quantity of money in existence with the aggregate amount wanted by the people to hold.

The same idea may be put in another way. Given the supply of money a higher liquidity preference on the part of the people will lead to their converting securities into cash. The value of securities will fall and hence the rate of interest will rise. Conversely a lower liquidity preference will lead people to purchase securities, the value of securities will rise and the rate of interest will fall. We know that the value of fixed interest securities varies inversely with the rate of interest.
II. Keynes's Criticism of Other Theories. Keynes’s theory led to considerable controversy immediately after the appearance of his book in 1936. In the first place, it should be noted that Keynes’s theory explained interest in terms purely of monetary forces not in terms of real forces as was done by other theories. The other theories explained interest either in terms of marginal productivity or in terms of savings. Some analysts, for example, Keynes, agrees that the marginal net product of capital tends to become equal to the current rate of interest. But the rate of interest is not determined by the marginal net product of capital. The latter depends partly on expectations as regards the future course of business and partly on the cost of producing capital goods. Neither of these influences can determine the rate of interest. As regards savings, according to Keynes, interest is not reward for saving. A man may hoard his savings and earn no interest, in spite of the act of saving. Neither does interest equalize the demand for capital with the supply of savings. No doubt in a country the volume of saving tends to equal the value of investment goods. But this happens not through the influence of the rate of interest but through the level of incomes. If money is saved but not invested in further production the demand for consumers’ goods falls and the incomes of producers of such goods is reduced and hence saving is correspondingly reduced. It is only when savings are invested that new enterprises stimulate further economic activity, increase incomes and increase further savings.

12. Criticism of Keynes’ Theory. One difficulty of the theory arises from what Keynes means by “money”. Money he says is coextensive with bank deposits. In his discussion with Robertson on the other hand he seems to exclude credit from this category.

Secondly, Keynes makes the rate of interest independent of the demand for investment funds. In fact it is not so independent. The cash balances of the businessmen are largely influenced by their demand for capital for purposes of investment. This demand for capital being dependent upon the marginal productivity of capital, the rate of interest is not thus determined independently of the marginal efficiency of capital.

The theory is to some extent analogous with the Agio theory of Bohm Bawerk. What Bohm Bawerk calls “prospective under estimate of the future” and Fisher calls “time preference” Keynes calls “propensity to consume”. Both in effect mean preferring command over present goods as against future goods. One regards interest as a premium on present goods, the other as a reward for parting with liquidity. In substance both mean the same thing.

But while Bohm Bawerk indirectly recognises the importance of productivity of capital as a determining factor, Keynes does not. According to him current investments are too insignificant in relation to total existing capital to be regarded as a determinant of interest. They are rather determined by the interest.
On the whole, therefore, Keynes Theory is inadequate to explain interest. It takes only the monetary phenomenon into consideration and does not clearly bring out the action of real forces (of supply and demand of capital as distinct from loanable funds) behind the monetary phenomenon. Let us examine the forces acting behind supply and demand of capital.

**13. Forces Behind Demand.** No adequate explanation of value in any of its aspects is possible unless we take into account the forces working behind demand and supply. The Marginal Productivity Theory is the most satisfactory explanation of interest as it is of any other phenomenon of value. Marginal Productivity is the expression of the relationship between the degree of scarcity (or supply) on the one hand, and the alternative uses to which a commodity or a service can be put (or demand) on the other. When applied to interest, or the price of the services of capital, it takes into account the supply as well as the demand.

On the side of demand capital is required for various uses, the furtherance of the interests of production being the most dominant use. But even in production there are various avenues of productive employment which require capital. A given supply of capital distributes itself, under conditions of perfect competition, in such a way as to equalise its marginal utility or productivity in the various uses. If the marginal productivity of capital is higher in one particular use, since it earns higher returns there, capital is attracted to that use until the supply of the commodities produced by its help lowers their price and hence the marginal productivity of capital in that use. This process goes on until the returns of capital in this case is the same as in any other case.

Marginal productivity of capital, it may be repeated, is the addition made to the total production by the extra unit invested.

At any particular moment, as already said, the total supply of capital may be assumed as given. This supply is used by those who employ it in such a way as to make the marginal cost of capital and the marginal returns from its use equal. As far as any particular individual producer is concerned, for him the marginal cost is represented by the prevailing rate of interest. He pushes his investment of capital to such a point that the marginal net revenue earned equals the prevailing rate of interest. If the rate of interest falls he employs more capital, if it rises he employs less of it. He does not settle the rate of interest as an individual. But the total demand for capital of all those who borrow it does influence interest. If the demand for capital rises the rate of interest rises and vice versa. A greater demand for capital means higher marginal productivity of a given supply, and a smaller demand, lower marginal productivity.

It is in this sense that marginal productivity determines the rate of interest.
14. The Influence of Supply. But what about supply? So far we took supply as given. In the short period we may assume supply to be given, since it takes some time for new supplies of capital to be available. What are the forces that determine supply of capital?

The supply of capital, as seen in an earlier chapter, depends upon (a) Power to save (b) Will to save. The power to save depends upon (i) total production (ii) minimum necessary for maintaining the given standard of living (iii) developments in the banking system.

The will to save depends upon (i) law and order and banking facilities available in the country (ii) expectations of rates of interest (iii) fore-sight as regards provision for future for self and family.

When the saving is done not by private individuals but by public bodies and corporations the amount saved, among other things, will depend upon their policy.

The connection between the rate of interest and saving may be noted. Some people will save the same amount whether the rate of interest is high or low. They may be miserly people or very rich people. Others will not save whatever the rate of interest. They may be very poor people or spendthrifts. Still others will save more when the rate of interest is lower than when it is higher. Such are the people who want to get a certain fixed income at some future date. If the interest rate is higher a smaller investment will give them their fixed income and if lower a higher investment will be necessary. Finally, there are people who save more when the interest rates are higher and less when they are lower. On the whole, however, one may say that in a country higher rates of interest stimulate savings and lower rates act in the opposite direction. If the rate of interest remains high, for a time long enough to let the forces of supply have their play, savings will be stimulated and the supply of capital will tend to increase, its marginal productivity will fall and the rate of interest will come down.

15. Determination of Interest. Interest is thus determined by the marginal productivity of capital. Marginal productivity is influenced both by supply and demand. To study the influence of demand we assume for the sake of convenience that supply is given. To study the influence of supply we assume that demand is given. In the actual world supply and demand are both in a process of change. It is true, however, that when the period is short supply cannot be adjusted to demand easily and quickly. If the rate of interest remains at a high level supply is stimulated through larger savings. If interest is low for a long-time supply is discouraged through greater consumption. At the point of equilibrium the rate of interest tends to be at a level where supply and demand are equalised.

Suppose we start from a position of equilibrium. Suppose a sudden increase occurs in savings and thus the supply of capital is
increased. This will lower the rate of interest because the marginal productivity of capital will fall i.e., capital will be available for use in employments in which its marginal productivity is low. The rate of interest will stop falling when it has reached a point at which the demand stimulated by its fall is just equal to the supply. The opposite will happen if suddenly there is a fall in the supply of capital. Capital having become relatively scarce will be used only for purposes in which its marginal productivity is higher. The rate of interest will go up, demand and supply will reach a new equilibrium at a higher rate of interest.

The effect of an increase in demand is the same as that of a reduction in supply and of decrease in demand the same as of an increase in supply.

So far, however, as competition is imperfect the adjustment between supply and demand will be prevented. This merely means that we shall have to deal with different markets for capital. For each different market our theory will be truly applicable.

16. Interest and the Scarcity Principle. So far we have been talking in monetary terms. But real capital consists of real resources, goods and services employed not for direct satisfaction but for promoting further production. Money only gives titles to these resources. It is a mechanism with the help of which these resources can be put to alternative uses. Speaking in terms of real resources interest results from the relationship between scarce resources on the one hand and the alternative uses to which they can be put on the other. Marginal productivity of capital in this real sense is derived from the marginal utility of the commodities to the production of which capital (with other factors) lends its services. Resources in a community are limited, but since human wants are unlimited they have to be economised so that more pressing wants are satisfied before the less pressing ones. Given resources therefore are face to face with competing demands. How are they employed to meet these competing demands? They are employed in such a way as to get maximum satisfaction out of them for the community. The marginal utility of the community for the various kinds of goods and services will decide what assortments of them will be produced.

If capital resources are used for the production of one particular assortment of goods and services they have to be withdrawn from another assortment. The price that must be paid in order to withdraw these resources from the next best use represents their real cost. But that ultimately analysed comes to satisfactions that the consumers have to forego in order to obtain the satisfactions that they actually obtain. Ultimately therefore, the marginal utility theory explains not only the values of different commodities but also of services (including the service of capital) utilised for the production of those commodities. Ultimately therefore, the rate of interest merely reflects the degree of scarcity in which capital stands in relation to other factors of production when contributing to the consumers’ competing demands for various assortment of goods and services.
17. Factors Causing Changes in the Rate of Interest.
In the light of the above it is easy to understand why rates of interest change. If there is a relative scarcity of capital there will be a general rise in the rates of interest. Relative scarcity may be caused by demand or by supply. In the short period most probably scarcity will be caused from the side of demand. If businessmen expect trade revival or higher prices and profits, short term rates of interest will rise, due to greater demand for loans. The value of industrial shares will rise while the price of fixed interest securities will fall thus increasing their yield. The same results will follow if new inventions open up new avenues of profitable employment of capital.

Short term rates may also be raised by influences working on the side of supply. Bad harvests for instance may create scarcity of capital, a rise in the income tax may reduce people's capacity to save, a shortening of the working day by reducing production may have the same effect.

The same is the case with influences lowering the rates of interest in the short period. Expectations of a trade depression will discourage new investment, the demand for fixed interest bearing securities will rise their value will go up and yield will fall and interest rates will fall. As regards supply new inventions may economise capital, "Bumper" harvest may also have the same effect of increasing supply of capital and lower short period rates. Similarly a general increase in wages may reduce the share of capital (or rate of interest) in the national dividend.

Short period rates are also influenced by political factors. A general sense of political insecurity will discourage enterprise and demand for funds hence the rate of interest will be lowered. An international crisis in this way will cause rates of interest to fall sharply. But rates of interest may be raised if such a crisis reduces the capital offered in the loan market.

So far the short period rates. What about long period rates. We have already seen that changes in short period rates cause corresponding changes in long period rates, due to movements of funds from short period to long period markets or vice versa. Long period rates, however, are largely affected by long period factors or influences such as changes in the size of the population, changes in the habits of savings of the people, etc. Other things being equal an increase in population tends to raise interest rates and a decrease to lower interest rates in the long run. A higher expectation of life stimulates savings and thus tends to lower interest rates and vice versa. Uncertainty about the future discourages savings and tends to raise interest rates.

18. Can there be a Zero Rate of Interest. It was Mill who visualised the possibility of an extremely low rate of interest due to greater and greater accumulation of capital as civilization advances. Some economists have asserted that interest may fall to zero on account of this tendency.
Theoretically a zero rate of interest can be conceived. As time goes on people's power to save and will to save tends to increase. The former because of the rising productive capacity and the latter because of the greater foresight and the tendency to discount the future at a low rate among the more advanced people. A stage can be imagined in which capital accumulation may outstrip the demand for capital, thus lowering the marginal productivity of capital to zero even making it negative i.e., people may even pay some body to take care of their savings.

It is, however, extremely improbable if not actually impossible, that such a stage will be reached. In the first place the demand for capital will increase with the increase in population and the increase in the variety of people's wants. We have seen that individual wants are satiable but human beings develop new wants when old ones are satisfied. Moreover, with technical progress it is likely that the demand for capital will increase, since more and more round about methods of production will be employed. It is true of course that new inventions may substitute methods which economise capital; this may lead to fall in the rate of interest. But the marginal productivity of capital will still be positive and hence there will always be a positive rate of interest.

Looking from the side of supply also we come to the same conclusion. Some people may save even if the rate of interest is zero or even negative. But most of the savings will be seriously reduced if there was no compensation for postponing consumption, thus creating relative scarcity of capital.

There is thus no possibility of the rate of interest falling to zero.

19. The Necessity of the Rate of Interest. So much for the future of interest. What about the present? Why should interest be paid at all? In the middle ages money was regarded as barren and hence interest, it was thought, was not justified ethically speaking. Some people even now favour the abolition of interest in every form. Without entering into ethical controversies let us look at the matter from the economic point of view. Is payment of interest justified on economic grounds? Since capital is productive we can say that interest can be paid. But should it be paid? What will happen if it is not paid? We have already answered this question. We can enforce a zero rate of interest only if capital loses its character of scarcity. As it is capital is relatively scarce to demand for its services. There are so many alternative uses to which capital can be put. It is the rate of interest which determines to which uses capital should be put. Some uses have to be sacrificed in order to supply capital to more pressing uses. Even in a socialist society interest cannot be abolished even though it may not be paid to private individuals. Even there through its instrumentality priorities regarding the use of scarce capital resources for various possible employments will have to be decided. The order of priorities in a socialist state will probably be different from the one in a capitalist society, but interest will perform
its function all the same. It has the same function as the function of
price i.e., it restricts demand to the supply available. It enables capital
to be apportioned between competing demands of alternative uses.
Through its instrumentality those uses which promise the highest
future returns receive the first consideration. Of course the crite-
ron of the highest future returns will differ in a capitalist society
from a socialist society. In the former, expectations of profits for
private entrepreneurs and in the latter the conception of welfare on
the part of the planning authority, will determine the priorities in
investment. You cannot abolish interest, you can socialise it if you
socialise capital. As long as capital is not socialised interest must be
paid to keep up the stream of capital accumulation.
CHAPTER XXIX

PROFIT

1. Introduction. Profit is the reward of the entrepreneur, rather than the entrepreneurial functions. The study of profits is full of difficulties. The difficulties arise mainly because of two reasons. Firstly, in the case of rent, wages and interest, it is easy to apply the usual law of supply and demand. The owner of each factor is the seller and the entrepreneur, the buyer of their services. Who buys the services of the entrepreneur? This difficulty, however, partly disappears when we realize that, ultimately, the services of all the factors are "purchased" by the community. The only difference is that while the community acts through the entrepreneur in the case of land, labour and capital, in the case of the entrepreneur it is the competition among the entrepreneurs themselves that ultimately decides the rewards going to this particular factor of production. The second difficulty arises from the fact that all that an entrepreneur receives (his gross receipts minus the cost of the hired factors) is not his profit. Even after you have allowed for the return for the factors (land and capital) owned by the entrepreneur himself and arrive at his "net" receipts the difficulty is not over. Some of these net receipts are the return for the entrepreneur's "labour" in a wide sense of the term.

The nature of this difficulty becomes clear when we realize that in the modern world business units vary from the "one-man-business" run on a small scale in which one man is the entrepreneur, capitalist, manager, etc., all rolled in one, to huge establishments run by joint stock companies in which all these functions and many more are split up and are performed by different individuals. "It is difficult to frame a simple theory of profits which would include the small independent trader, the large employer, the small holder and the shareholders of a joint stock company, while excluding responsible managers." 1

2. Analysis of Gross Profits. The best way to understand the true nature of profits is to analyse the gross income of the entrepreneur into its various component parts. From the total receipts of the business, must be taken out what has to be paid to the various factors of production engaged on contract basis. The rent of land, the wages of labour, and interest of capital, has to be deducted. What remains is the gross income or gross profits of the business. These again can be analysed as follows:

(i) The interest on the entrepreneur's own capital invested in the business is often confused with profits. This is not profit because the entrepreneur could earn this interest by lending his capital. We must therefore make a deduction at the current rate of interest.

(1) Briggs and Jordan, op. cit. p. 466.
(ii) Rent of land owned by the entrepreneur also should not be counted as profits. He could earn his rent by giving his land on rent to another business; a deduction must be made at the current rate of the rent of land similarly situated and possessing other advantages.

(iii) The entrepreneur's wages of management or superintendence. This is the return for the work done by the entrepreneur as manager, and could have been done by him on salary basis for another firm. He must be allowed his salary, which is his wages rather than profit.

The above three elements, strictly speaking, are not the reward of the entrepreneur as an entrepreneur; but as capitalist, landlord and manager.

(iv) The reward of the entrepreneur as risk taker. The function as a risk taker must be performed by the entrepreneur himself. Certain risks, however, are insurable e.g., risk of accident, fire, etc. But many risks cannot be insured as we shall see.

(v) Gains arising to the entrepreneur for his special ability as a superior bargainer with labourers, capitalists, landlords, suppliers of raw materials and consumers—all those with whom he has dealings.

(vi) Then there are monopoly gains. These are due to imperfect competition which enables the entrepreneur to charge higher prices or to pay lower rewards to the factors hired by him and thus increase his profits.

(vii) Conjunctural gains are another element. These arise due to favourable circumstances or pure luck e.g., outbreak of a war giving high profits to producers of essentials of war even other producers. During the war recently ended, many entrepreneurs made enormous profits due to war demands and high prices in India and elsewhere.

The difficulty in the conception of profits arises from the fact that different writers do not include identically the same items or do not emphasise them in a uniform manner in their study of profits. For instance some American economists like Walker, employ the term profit only to mean the net gain of the employer employing no capital of his own. On the other hand some English economists like Marshall, include in the term profits, interest on capital owned by the businessman in addition to earnings of risk taking and of management.

The tendency among modern economists is to accept the American view of profit as being the reward of purely entrepreneurial functions which cannot be performed by paid employees. These functions consist of risk taking and bargaining ability supplemented by monopoly and conjunctural gains, if any. The income from risk taking and gains from bargaining are regarded by some economists as "pure profits" of the entrepreneur as against the "gross profits" which include all the items enumerated above.
3. **Pure Profit.** Let us pursue the idea of pure profits a little further. A pure organizer is essentially creative, because through organization additional production is made possible which otherwise would not take place. His success depends upon two groups of conditions: *(i)* the number and quality of the available factors of production, their price and the increase in their productive power when combined, *(ii)* the state of demand for the commodity concerned. Though supply of the factors may be relatively fixed their prices may vary greatly. The demand for commodities is subject to considerable variations. The best organizer is one who can obtain the most efficient combination of the factors, to produce commodities in such quantities as to give him the maximum profit.

This is not an easy task. The demand is not a fixed quantity. The employer does not produce for the present demand but for future demand also. He cannot accurately gauge the amount of future demand which is subject to so many uncertain influences. In some cases demand has to be created. Any serious mistake in calculating future trends in demand may ruin the entrepreneur. Thus arises the element of uncertainty. Such uncertainties have increased in modern times enormously as compared with medieval times. This is mainly due to two factors. Firstly, the process of production has become more roundabout and hence lengthy. Secondly, the market is much wider and is open to a much greater variety of influences.

On the other hand the difficulties of organisation are not so great in practice as they appear in theory, because business methods get standardized. Experience of old hands is a guide to new enterprises. New experiments are made, but due to standardised methods of combining the various factors, the chances of failure are not as large as would appear at first sight. The problem is more of adaptation to new conditions rather than bringing into existence a ready made business. A good and experienced organizer can make such adaptation comparatively easily. Much of the organisational work thus can be delegated to paid employees. But an exceptionally good organizer may be able to introduce a new combination of factors which is much more productive than the old one. He will thus enjoy extra gains until the new combination is adopted by his rivals. If he is fortunately situated as regards demand, or he is alert enough to take advantage of changes in demand, he may earn exceptionally high profits. Such profits are of the nature of rent, because they are a differential gain due to higher ability of an entrepreneur as compared with the one who earns the normal wages of management and no pure profits in this sense. Thus pure profits are a surplus over normal wages of management and is the reward for the superior ability of an entrepreneur for taking risks of future variations in demand, his ability to try successfully new and more profitable combinations of factors of production.

4. **Uncertainty and Profits.** It should be clear from the above that pure profit ultimately analysed is the reward for bearing the risks of uncertainty, whether due to trying new combinations of
factors or due to changes in demand for the commodity in question. Let us understand more fully the nature of this element of uncertainty.

We have already mentioned that pure profits contain the reward for risk taking. Risk, however, can be further analysed. Risks are of two kinds. Some risks can be foreseen or anticipated, and hence provided against, or, technically, they can be insured. Such risks are calculable because they can be measured by the laws of mathematical probability provided the number of instances considered is sufficiently large. For instance, by the study of statistics of past mortality, we can predict almost with certainty the proportion of people that will die during the next year or years in a given age group. In the same way accidents can be predicted and hence insured. The whole insurance business (and banking business) is run on this principle of uniformity when large aggregates are involved. Such risks are assumed by insurance companies and can be easily escaped by the entrepreneur.

But there is a second class of risks that cannot be foreseen and hence cannot be insured. Variations in the demand for a commodity may take place due to hundred and one factors like changes in tastes, fashions, seasons, political factors etc. This makes every business more or less a speculative adventure. The greater the element of speculation the higher must be profits to attract businessmen to undertake such enterprises. Such risks are called "uncertainties". As Prof. Knight has shown, it is uncertainty bearing rather than risk taking, which is the special function of the entrepreneur and leads to pure profit.

5. Monopoly and Profit. So far we assumed that the employer is working under conditions of competition. When competition is either absent or is imperfect, the entrepreneur can make extra gains by restriction of supply of his commodity or demand for the factors, if he has a monopoly as purchaser of such factors. This element is due in a way to the superior bargaining position of the entrepreneur either as the seller of his product or as the buyer of the factors of production or their services. We have seen that pure monopoly is as rare as pure competition or perfect competition. In the actual world the typical cases are of imperfect competition. And, therefore, the element of monopoly gain is not as rare as one would think. In fact such an element will be found almost in all profits.

Competition among the entrepreneurs as employers is imperfect mainly because in the modern world while due to complexities of business the demand for highly efficient entrepreneur, who can assume responsibility in dealing with uncertainties is great, the number of such people available is relatively very small. Hence their relative scarcity to the other factors of production enables them to appropriate a larger share of the national dividend than they would do if they were not so scarce.

(1) Knight: Risk, Uncertainty and Profit.
6. Profits and Wages. The connection between profits and wages can be looked at in two different ways. One view, that of the socialists, is that profits are simply deductions from the produce of the workers’ labour. According to this view profits are not justified because they are earned at the expense of the wage earners. The second view is represented by Prof. Taussig. He regards profits as simply a particular kind of wages.

According to the socialist view of profits as expounded by Karl Marx profits arise because less is paid to the labourer than the value of his work. This is a deduction from Marx’s famous theory of surplus value already considered by us. The argument essentially rests on the acceptance of the labour theory of value, which also we have criticised at another place. Here it may be added that under perfect competition rates of wages for the same type of labour tend to equality in the same industry. The same wages are paid by the employer who earns no profits as by the one who earns high profits. The superior employer earns high profits not because he pays lower wages (this he cannot do under competition) but because on account of his superior organisational ability and uncertainty bearing powers, he can produce at lower cost, than his inferior rival. This greater net return constitutes his profit, the reward of his superior ability.

Now as regards Taussig’s view that profits are merely wages for a special kind of labour. “Profits” says Taussig “are best regarded as simply a form of wages”. The businessman’s income is irregular no doubt because it is a surplus after meeting expenses of production. But this income is not due to mere chance. It is the outcome of the exercise of special ability, a sort of mental labour not much different from the labour of lawyers and judges. Moreover, Taussig continues: “Salaried posts of management have a very wide range—foremen, superintendents, general managers, presidents. A process of transfer is constantly taking place between the salaried ranks and independent business managers. Both are affected by causes of the same sort”. The theory of wages therefore “should consider the remuneration of every sort of labour....of such independent workman as well as......of a hired labourer”.

Our consideration of the nature of profits has shown why this position of Taussig cannot be accepted. There are fundamental differences between wages and profits. Thus:

(i) Assumption of risk and uncertainty is the predominant function of an entrepreneur. Profits are essentially a reward for this function. The labourer does take the risk of losing his job if the industry fails, but his reward or wage is primarily for the labour performed by him not for the risk, which is insignificant as compared with the risk taken by the employer.

(ii) There is much greater element of chance gains in profits than in wages. Wages are fixed and stipulated incomes while

(1) Taussig. Principle svol II.
profits are irregular and uncertain due to the factors of chance and uncertainties involved. Wages thus are "earned incomes" in a much more real sense than profits.

(iii) Part of profits, and in some cases a major part, is due to imperfections of competition. Under imperfect competition, while profits tend to swell wages tend to be depressed, for reasons already noted.

Profits are thus distinct from wages. How earnings of management are distinct from profits becomes clear if we consider the working of a joint stock company. Here profits are arrived at after payments have been made for all management work. Those who earn these profits i.e., the ordinary shareholders, perform no other function but that of risk bearing, rather uncertainty bearing. Their earnings can by no stretch of imagination be regarded as wages.

7. Is Profit a Kind of Rent? Another view of profits makes them analogous to rent. The Rent Theory of Profit as it may be called was first propounded by the American Economist, F. A. Walker. He was the first to introduce distinction between a capitalist and an employer into English economic theory. An entrepreneur need not be a capitalist. He is a person who undertakes a business without using any of his own capital.

Walker regards profit as rent of ability. Just as there are different grades of lands there are different grades of entrepreneurs. The least efficient entrepreneur, who must remain in the field of production to meet the current demand just meets his cost of production. Above him are superior entrepreneurs of varying degrees of ability. Just as rent arises because of the differential advantage enjoyed by superior land over the marginal land, profit also is the reward for differential ability of the entrepreneur over the marginal entrepreneur or the no-profit entrepreneur. Profits are thus like rent and like rent do not enter into price. Wages of management are not a part of profit. The marginal employer only earns the wages of management and no more. A slight unfavourable turn of prices or costs and he would prefer to work as an employee rather than an employer. Wages of management thus must be paid to keep up the given supply of entrepreneurs. Such wages thus enter into price.

The theory possesses the same weaknesses as we considered when criticising Ricardo's theory of rent. The employer who will leave the business with a slight unfavourable turn of events is not necessarily the least efficient. He may be higher up in the scale and may be attracted by more profitable alternative employment. The theory, moreover, does not explain the real nature of profits, it merely provides at best a measure of profits. It is wrong to say, again, that profits do not enter into price. They may not in the short period but they must in the long period. The entrepreneur performs the essential function of risk bearing and unless the price of the commodity is high enough to compensate the employer the supply of employers will decrease until the price rises high enough to pay for the risk bearing
service. Some employers may be earning high profits but others meet with high losses. When the average is taken over a long period the so-called surplus tends to disappear. Finally, the theory even fails to explain the size of the profit. The differential gain is due to scarcity of superior employers but why does this scarcity arise? In the case of land, scarcity is due to the natural limitations. In the case of entrepreneurs there are no such limitations. The theory of profit must explain the causes of such scarcity.

8. Normal Profits. Some writers introduce the concept of normal profits. Surpluses that arise on account of uncertainty and imperfect competition are the phenomena of dynamic or changing conditions. As Professor Knight points out, normal profits belong to the equilibrium state, and to the state in which changes are taking place which can be anticipated and calculated. Of course it is difficult to imagine a world entirely devoid of change. But we can have societies, specially old established societies, in which conditions are relatively static and business methods have become of more or less a routine nature.

In an equilibrium state or a static society resources are more or less fixed and have attained such a distribution between various industries that there is no motive for transferring them from one employment to another. Uncertainty therefore would be at a minimum and competition perfect. Under such conditions pure profits will tend to disappear and the entrepreneurs will only earn wages of superintendence. Normal profits therefore practically come to earnings of management.

In a progressive state also similar results can follow, provided competition is unrestricted and changes can be anticipated. But since changes are not uniform entrepreneurs in some industries may be able to make higher profits than in others.

Surplus profits can arise in a dynamic world even though the factor of uncertainty is absent, provided the period is short. But this will only be a temporary condition. Industries yielding profits higher than the normal will attract entrepreneurial ability and other factors of production. The rate of profits in such industries will tend to fall. In the industries which are being depleted of such factors, profits will rise until the normal level of profits will be established. But normal profits in a dynamic world need not necessarily equal to the wages of a hired manager even though the factor of uncertainty is absent. The very fact that change exists, even though it can be anticipated, means a heavier responsibility on the entrepreneur than in a purely static state. To keep up the supply of entrepreneurs, therefore, inducement must be given to take up such responsibility. But this additional payment over and above the wages of management will be kept within narrow limits by the forces of competition.

In a dynamic world, with element of uncertainty in existence even under competition profits can be kept permanently above the
normal level. Abnormal profits also can permanently arise where
the supply is in the hands of a monopolist and demand is inelastic.
This will be so irrespective of the fact whether uncertainty exists or
not.

It should be noted, however, that uncertainty in its turn is not
something constant. There are degrees of uncertainty. The greater
the degree of uncertainty the higher must be the profits to compensate
the entrepreneurs for bearing its risks.

9. Do Profits Tend to Equality? Here again we cannot give
a uniform answer. It will depend upon the conditions that prevail. In
a state of equilibrium profits in the sense of wages of superintendence
will be equalised. Pure profits will disappear. In a state of society
in which change is present but the factor of uncertainty is absent
profits will tend to equality about the normal level as already ex-
plained. Differences however will not be entirely absent because
of the difference of ability. But these differences will be kept narrow
by the force of competition. On the whole one may say that the
greater the routine character of an industry the greater the tendency
of profits to equality provided the period is fairly long and competition
unrestricted. In the short period, however, inequalities can exist.

But when we are dealing with a changing society in which the
factor of uncertainty is prominent, there is no tendency towards
equality of profits even in the long run. Here profits may show con-
siderable variations. The differential element of profits under such
conditions becomes obvious. But as in the case of land it is a secon-
dary not ultimate phenomenon. The differential element exists
because exceptional talent capable of successful handling of business
under conditions of uncertainty is scarce. This scarcity is due to the
conditions of supply of entrepreneurs as a class. Let us investigate
these conditions.

10. Forces Controlling the Supply of Entrepreneurs. Why
are people attracted to the entrepreneur’s profession? For one, there
is independence which people prefer to working under some one.
Secondly, there is the lure of the possibility of high profits. To
counterbalance these attractions there is the risk of losing your all
and becoming bankrupt. Then the element of responsibility does not
appeal to all men. In most cases, moreover, a knowledge of trade
conditions is essential. Employers are thus largely recruited from a
small class of people who have grown up in the requisite atmosphere.

There are mainly three ways in which a person may become the
head of a business: (i) Advantage of birth and heredity may fit
him for this purpose. He may grow up in an atmosphere of business
and learn the secrets of the profession from the father or a relative.
(ii) An employed manager may deem it worthwhile after learning
the ways of the business to set up as an independent employer. (iii)
Men of exceptional ability sometimes rise from the ranks and become
outstanding leaders of business. But this is a long and tedious process
and very few attain success in this manner. It is quite possible,
however, for small men to become small employers. Mobility from class to class on the whole is much slower than mobility from trade to trade.

Thus efficient employers have always been scarce. Their supply cannot be suddenly increased because their "production" is an extremely slow process. Even if a long time is given the number of men who are able enough and fortunate enough to become employers is very limited. This results in a permanent restriction of the supply of organising ability leading to permanently high profits. Although there are some employers who may be termed marginal, in the sense that they are in doubt whether to remain employers or become paid managers, due to the scarcity of employers as a class profits do not come to the level of wages of management.

Of course the employers differ among themselves in ability and temperament. Some are overcautious, others are overconfident. Some have exceptionally high ability, others are just able to pull along. These extremes tend to balance each other in what may be called the employer of normal ability and character. It is the decisions of these so-called normal employers that reflect the attractiveness or otherwise of a particular line of business. If normal employers show fear the profits are probably falling. If they are confident the industry is doing well. In the former case resources will tend to move out of the industry concerned, in the latter they will be attracted into the industry. The effects will be clearly seen at the margin. When profits are low the least efficient employers will fail first. When they are high the most efficient managers will tend to establish independent business.

Taking the industrial field as a whole, in the long run, normal profits will tend to realise the expectations of normal employers. If long period profits are higher than this normal level the supply of employers will expand, if they are lower the supply will contract. Thus normal level will tend to be maintained. The remuneration obtained by the employers must in the long run cover the expenses of their training. If it does not their supply will fall until their scarcity raises their marginal productivity and brings their remuneration up to the requisite level.

It should be remembered that the concept of the normal employer as that of normal profits must be accepted with qualifications. It assumes a state of minimum uncertainty. Where uncertainty is a dominant factor there can be no normal employer.

II. Profit and Marginal Productivity. Can we apply the marginal productivity theory to profits? In a general way, yes. Marginal productivity, as we have explained so frequently, is the expression of relationship between scarcity and demand. We have explained the reasons why entrepreneurs are scarce and why it is not easy to increase their supply. The demand for entrepreneurs, especially entrepreneurs of exceptional ability, is great in the modern conditions of production. The marginal productivity of entrepre-
neurs is high, therefore profits are high. The greater the factor of uncertainty, the greater the scarcity of employers of ability high enough to make a success of business, the higher the profits.

The only difference in the application of the theory of marginal productivity to entrepreneurs as compared with other factors is that the forces of competition work directly, while in the case of other factors they work through the employer. The ultimate substance same. It is the community's competing demands that have to be satisfied and thus entrepreneurial ability has alternative uses. Forces of competition tend to equalise the profits of employers of equal ability.

The theory, however, cannot be applied in such a clear cut way to profits as it applies to other phenomena of value. This is due to the fact that the employer performs a complex set of functions and the element of uncertainty refuses to be standardised. Moreover employers cannot be increased or decreased in minute doses since they constitute a large unit. Withdrawal of one unit may disorganise the whole business. It is thus difficult to measure the marginal net product of the services of this factor of production.

12. Conclusion Regarding the Determination of Profit. In conclusion about the determination of profits we may say that no one theory is adequate to explain profits. Different views emphasize different aspects of the functions of the entrepreneur. The real difficulty arises from the fact that profit is not a homogeneous income. It is a composite income due to the composite character of the functions of the entrepreneur e.g., he takes risks, bears uncertainty, plans, initiates, makes decision, etc. No one of them can fully explain the true nature of profits. Mere analysis of profit into its component parts according to the various functions for which they are a payment also cannot explain the emergence of profits. The time theory must explain why organising ability is so scarce, because it is this scarcity in the face of demand for exceptional entrepreneurial ability that leads to the emergence of the surplus called pure profit in the modern world of uncertainty and change. Such a theory must explain why the qualities essential for a successful entrepreneur (imagination, organising ability, judgment, courage etc.) are so scarce. How far this limitation is due to natural causes and how far to environmental factors? The theory must explain exceptional profits due to conjunctural gains and the element of monopoly. Moreover monetary factors also cannot be ignored. Nor can we ignore the influence of the present social stratification of society which restricts mobility and opportunity. Due to these complexities no comprehensive theory of profits has yet been expounded. In a general way the marginal productivity theory does apply, but with strict limitations which take away much of its practical value.
CHAPTER XXX

MECHANISM OF EXCHANGE

The Nature and Functions of Money.

1. Introduction. In our chapter on Exchange we discussed the problem of value i.e., the causes which determine the ratio in which things exchange for each other. In that discussion we used the terms “price” and “value” more or less interchangeably. Price is value when expressed in terms of money. For the sake of convenience we took the existence of money for granted while considering the causes that determine prices. Prices of individual commodities no doubt are primarily determined by the relation between their respective supplies and demand. But since price is value expressed in terms of money changes on the money side also affect prices. They may affect different prices differently. But these influences are distinct from the ones affecting the individual commodities as such. We must now proceed to consider the nature of these influences. But first of all we must know something about money. What is money? What work does it perform? Who puts it into circulation, and under what conditions? These are the questions that we proceed to tackle now.

2. What is Money. Money has been defined in various ways by various writers. Some say: “Money is what money does.” In other words anything that performs the functions of money is money. The functions of money we shall consider presently. But what is money? In the widest sense the term money includes all media of exchange gold, silver, copper, paper, cheques, commercial bills of exchange etc. But this definition is too wide. Some writers narrow the definition down to include only the commodity that may serve the purposes of money. This view is too narrow. This excludes bank notes or government currency notes from the category of money. These cannot logically speaking be excluded since they possess all the attributes of good money as we shall see presently. The most commonly accepted view is that, “all media of exchange and payment, whose acceptance the law requires in discharge of debts, may be properly called money.” Thus, according to this view cheques and bills of exchange and similar other instruments of credit are not to be classed as money. To them the term ‘credit instrument’ is applied as we shall see later. The most important characteristic of money is its general acceptability. Cheques and bills of exchange are not generally acceptable, nor can their acceptance be enforced by law, in discharge of obligations. It may be added that the sanction of the law is not absolutely necessary before we can award the status of money to a material, though some writers insist on it. The mere fact of universal acceptance is enough.
3. **How its Necessity arose**: Can a community exist without money? Many primitive societies used no money in early times. Division of labour in a simple form, however, has existed from times immemorial. Division of labour involves the intervention of money. When exchange is done without the intervention of money we call it barter. Barter, however, is possible only under extremely simple conditions of exchange. As social organization became more complex through a more minute division of labour and multiplicity of human wants, it was realised that exchange by barter was not a satisfactory method.

There are three fundamental difficulties of a barter economy:

(i) *Double coincidence of wants.* Barter requires a double coincidence of wants. If A possesses a cow, for instance, and wants to exchange it for cloth, he has to find a person who not only possesses cloth but also wants a cow. Necessity of double coincidence of wants may lead to complicated forms of barter. For instance A with his cow may first have to hunt for a man who wants a cow. Suppose he meets B who wants a cow but can only offer wheat. A may then have to find a man who wants wheat and so on until he can get the commodity by a series of barter, which he can exchange for his desired commodity, cloth: It is clear that this method involves endless inconvenience and risks.

(ii) *Lack of a common measure of value.* The difficulties do not end here. Even if two persons meet together who want each others’ goods, a second difficulty arises: In what proportion the two goods should exchange? In other words under a barter economy there cannot be a satisfactory equilibrium between supply and demand. There is no common measure of values. The ratio will be arbitrarily fixed according to the necessities of the two parties or the intensities of their reciprocal demand. One party is bound to suffer under such conditions where each exchange is an isolated transaction.

(iii) *Indivisibility of certain articles.* Even if agreement is reached regarding proportion in which things should exchange, a third difficulty may arise in many cases in which the commodities concerned are indivisible. For instance, take the case of a man who wants to purchase wheat equal to half the value of his cow. With the other half he wants to purchase cloth in possession of a third person. Many similar situations can be imagined.

Apart from these difficulties of exchange, under a barter economy wealth could not be properly stored, since most commodities deteriorate with time or their value changes even if they remain physically the same.

4. **Evolution of Money**. Soon, therefore, it was discovered that exchanges could be greatly facilitated, and several other advantages obtained, if some one commodity was accepted generally as a medium of exchange in terms of which the value of every other thing could be expressed and the possession of which should entitle a person to purchase any thing that was vendible.
All sorts of commodities have been used in this capacity with varying success. Slaves, cattle, stones, skins, arrows, grain, cowries etc., all have been tried. It depended on the particular stage of economic development of a particular community as to what it would choose as its money. The hunters naturally used skins and arrows, the nomads used cattle and the agriculturists grain etc. Until quite recently grains and cotton were used for making purchases in our villages. Even at present such transactions are not rare.

Ultimately, however, it was discovered that precious metals like gold and silver, for reasons to be given presently, were best fitted for this purpose. At first, gold and silver were used in the form of pieces of bullion. This involved the inconvenience and possible errors of testing their quality and weight every time they changed hands. At a later stage therefore they were coined into currency by government to ensure their quality and weight for the acceptors. More recently paper currency was introduced to circulate side by side with metallic coins into which it was convertible. In many cases coins, at least standard coins, disappeared altogether from circulation leaving paper notes issued by the government or the Central bank as the only currency, though not the only medium of exchange. This was so because in the meantime bank money or credit instruments also entered the field, such as cheques and bills of exchange and similar other paper. So much so that in more advanced countries (e.g., U. K. & U. S. A.) more exchanges take place through cheques than through ordinary currency.

From barter economy to commodity money, from commodity money to paper currency and from paper money to bank money or credit economy, this has been the course of development or trend of evolution of money.

5. The Functions of Money. We have seen that different commodities have been selected as money from time to time, and that precious metals like gold and silver and later paper ultimately proved to be the best. Best for what? Best for performing the work or functions of money.

What functions does money perform? Money performs four very important functions:—

(i) It serves as a medium of exchange.

(ii) It is used as a store of value. In more modern terminology it helps to keep resources liquid.

(iii) It is a standard for measuring values.

(iv) Finally money serves as a standard for deferred payments.

6. Money as Medium of Exchange. We have already referred to the various inconveniences arising out of barter. Money solves all the difficulties of barter. There is no necessity for a double coincidence of wants in a money economy. The man with the cow who wants to purchase cloth need not hunt for a cloth seller who wants a cow. He can sell his cow in the market for money and then pur-
chase, cloth with the money thus obtained. Money thus generalises purchasing power making it possible for a person to spend his resources as he thinks fit. The convenience is very great when the person has to sell his services or goods that are unfinished which no consumer in the narrow sense wants. They can be easily turned into money, the general purchasing power. To producers specially the use of money is very helpful. They can buy goods of various kinds in various combinations for starting and continuing their enterprises. The payment of rewards to the various factors of production is also facilitated, with the use of money. The difficulty of indivisibility of certain articles is also eliminated. Money units are of all denominations and it is easy to make fractional purchases which are not possible under most cases of barter.

Thus with the use of money the consumers and producers both can get maximum returns from their resources. They can equalise their marginal utility or marginal productivity respectively under the various heads of expenditure in accordance with the law of equimarginal returns.

7. **Money as Liquid Assets.** Money serves as a store of value or more correctly it enables a person to keep a portion of his assets liquid. Liquid assets are those which can be used for any purchase at any time one likes. Most persons in the modern world have to keep currency notes in their pockets or at home or they may keep current accounts with the banks withdrawable by cheque. This necessity arises from the fact that the stream of income and that of expenditure do not keep time with each other. Money incomes are being earned and money is being expended. But since the times of the two rarely coincide some money has to be kept for incidental or emergency expenses. If a labourer got his weekly pay on every Friday and paid all his bills of the week also the same day, there would be little necessity for him to keep his resources liquid. But this is rarely the case. Similar is the case of the employer who has to pay wages etc. periodically, even daily, while his income does not come to him in the same periodical intervals.

8. **Money as Standard Measure of Value.** One inconvenience of barter we noted was the lack of common measure of value in terms of which other values could be expressed, added and accounts kept. Money relieves this difficulty too. In a money economy it is easy to compare the respective values of commodities and services. They are in proportion to their respective prices. Expression of values into prices enables us to add them up and thus come to a definite and concrete idea of a person’s or a community’s wealth. A mere list of goods and services fail to give this definite idea. In matters of exchange a common standard of value makes the transaction easy and also fair. Under barter there cannot be a satisfactory equilibrium between supply-and demand. Money makes such an equilibrium easy since the supply and demand schedules can be more accurately conceived and expressed when they are in terms of money units.
9. **Money as Standard of Deferred Payments.** Money also serves as a standard of payments made after a lapse of time. A creditor before he lends resources now must be sure that he will receive the same value in return (along with interest stipulated) when the debt is paid back. Lending and borrowing therefore must take place in terms of a commodity which will reasonably speaking keep its value stable over time. Most commodities deteriorate with the passage of time e.g., living animals, food grains and other perishable articles. Such articles are unsuited for this purpose. Money, whether gold, silver or paper is also likely to change its value (purchasing power) with the passage of time. But if the money material is properly selected and managed its value can be kept more stable than that of other articles.

By serving as standard measure of payments over time, money makes borrowing and lending much less risky. Thus it helps in stimulating all kinds of economic activity which depends on borrowed money or credit.

It should be noted that all these functions of money are not independent of each other. Money is kept as liquid assets, for instance, because it serves as a medium of exchange. It is accepted as a medium of exchange because it has comparative stability of value. For the same reason it serves as a standard for deferred payments and measure of value.

10. **Qualities of Good Money Material.** From the above it should have become clear, that in order to perform its functions most efficiently the money material used must have certain qualities making it most suitable for such a purpose. The qualities are given below:

(a) **General acceptability.** A commodity which is not universally accepted in the country cannot serve as money adequately. People accept a thing either because they are sure that others will accept it from them on the same terms or that they can put them to some alternative uses. Cheques and bills of exchange are not universally accepted, hence they are not money. Wheat will not be universally accepted by people beyond certain quantities. Wheat is a bad money material. Gold and silver are generally accepted because they have alternative uses which give them value apart from being money material. Currency notes are accepted because people are sure they can pay them back in their purchases or in the last resort to the issuing authority in return for values received etc. General acceptability also depends upon stability of the value of the money material as we shall see below.

(b) **Portability.** The material used should be easily portable. In other words it should contain large value in small bulk. Coal for instance, is not a good material for money while gold, silver and paper are.

Modern post offices and banks help greatly in the movement of funds from place to place. You deposit money at one place and withdraw it at another. The actual money deposited rarely moves.
(c) Cognizability is another essential quality. Cognizability implies, the quality of being readily recognised. If you have to carry a special apparatus to test the genuineness of the money material considerable inconvenience will be caused. Circulation in the form of coins and currency notes of recognizable designs meet this difficulty.

(d) Homogeneity. The material should be of uniform quality. If the quality is not uniform it will not contain the same value in the same bulk.

(e) Divisibility. The material should be capable of being divided into smaller parts without losing value. For instance a diamond when cut into two pieces does not have the same value as before division. Cattle cannot be divided at all without ceasing to be cattle. Gold and silver can be thus divided. A tola of gold or silver has the same value in whatever number of parts they may be divided.

(f) Durability. Perishable commodities are not good materials for money. They lose their value after a time. Animals for instance may fall ill, get weak or die. The same applies to perishable goods.

(g) Most of all money should be comparatively stable in value since it has to serve as a standard for measuring other values. Gold and silver again are more stable in value than other commodities. Since they are durable large stocks of these metals are available, though not large enough to make them very cheap. The annual production forms a small proportion of these already existing stocks and thus affect their value very little.

The stability of the purchasing power of paper depends upon the artificial control on its issue. A well managed paper money therefore is the best of all. Among other things it gives a cheap monetary system. But since the issuing authorities are seldom able to exercise fair and complete control the danger of over issue can make paper money the worst of all types as we shall see.

IX. Classification of Money. Money may be classified broadly into (a) metallic money (b) paper money.

Metallic money may be again classified into (i) metallic currency (ii) metallic standard.

Metallic currency or coins may be either full bodied or token coins. Each of these in their turn may be limited legal tender or unlimited legal tender.

Metallic standard may again either be monometallic standard (monometallism) or bimetallic standard (bimetallism).

Paper money can also be classified into paper currency (notes) and paper standard. Paper currency may be convertible or inconvertible.

Apart from money purchasing power also exists in the form of various credit instruments like cheques, drafts and bills of exchange. These are sometimes called Bank Money.
The following is a schematic presentation of this classification:

**Purchasing Power**

- **Money**
  - **Credit Instrument**
    - **Cheques**
    - **Drafts**
    - **Bills of Exchange**
  - **Metallic Money**
    - **Paper Money**
    - **Metallic Standard**
      - **Mono-Metallism**
      - **Bi-metallism**
      - **Inconvertible**
      - **Convertible**
      - **Paper Currency**
        - **Full Bodied**
          - **Limited Legal Tender**
          - **Unlimited Legal Tender**
          - **Limited Legal Tender**
        - **Token**

A few words now may be said about each of these kinds.

**12. Coins and Coinage.** Metallic currency or coins are pieces of metal of particular fineness and weight with both sides stamped with the symbols of the government of the country. The edges of coins of higher values are usually milled to save deterioration, and as a means of detecting any meddlying with the coin. Out silver rupee, prior to the present war, consisted of 180 grains of silver, $11/12$ fine. The word *fineness* is used to indicate the proportion of pure metal to alloy in the coin. Remedy allowances are the limits within which a coin may vary in weight or fineness without ceasing to be legally acceptable.

Coinage may be *gratuitous* or *free*. In the former case no charge is made for coinage by the authority. In the latter, no restrictions are placed upon coinage. Any body can take the metal to the mint and get it coined. Thus India had free coinage of silver before 1893. Any one could take silver to the mint and get it coined into rupees. But free coinage need not be gratuitous. The authority may make a charge for coining. If this charge is equal to the cost of converting
bullion into coin it is called mintage or brassage. If it is higher than this cost, it is know as Seigniorage. Seigniorage may be charged by including an alloy in the coin or by a direct charge.

Seigniorage is defended on the ground that it makes the metallic content of the coin less than its face value and thus there is no inducement for the coin to be melted. It also increases the utility of the metal. Gratuitous coinage is defended on the ground that coinage being the function of the state the cost should fall on the public exchequer. Free coinage is favoured because it provides a check against inflation i.e., over issue of currency. More of this later.

13. Token Coins. Metallic currency may be full bodied coins or token coins. A full bodied coin is one the face value of which is equal to the value of the metal contained in it. A token coin has a face value higher than its value as metal. The Indian rupee is a token coin. Its value as metal is only a fraction of a rupee. Before 1893 the Indian rupee was a full bodied coin. If melted it could be sold for a rupee worth of metal.

Coins are made token coins for two reasons. Firstly, it is cheaper to have token coins in circulation than full bodied coins. Secondly, there is lesser danger of token coins being melted. Sometimes the price of the metal of the coin may rise so much as to make it a full bodied coin. Then it begins to be melted or hoarded. For instance, in 1917 due to the rise in the price of silver the Indian rupee ceased to be a token coin and began to disappear from circulation. The government had considerable trouble in supplying an adequate media of exchange. Similarly in 1940 standard coins of 180 grains 11/12 fine began to disappear from circulation. The government then issued new coins (quarternary coins) with much lower silver content. They contain 1/3 instead of 11/12 silver. The danger of their being hoarded is negligible. The old standard rupee has been demonetized. It can no longer be paid in the discharge of debt.

Token coins are usually subsidiary coins though as in the case of the Indian rupee even the chief coin may also be a token. Subsidiary coins are used for making small payments. For instance pice, annas, two annas, and four anna pieces are subsidiary coins.

14. Limited and Unlimited Legal Tender. Coins may be limited legal tender or unlimited legal tender. A legal tender currency is one in terms of which debts can be legally paid or tendered. It is an offence to refuse to accept payments in legal tender money. Paper money can be as much a legal tender as metallic money.

A currency is unlimited legal tender when debts to any amount can be discharged by its use. It is a limited legal tender when payments only upto given limit can be made in it. For instance rupees and rupee notes are unlimited legal tender in India. And so is the half rupee coin. But coins of lower denominations are only limited legal tender. For instance four-anna pieces and smaller coins are legal tender only upto two rupees.
A government may take away the legal-tender character of a coin. For instance the old rupee coins of 180 grains \(\frac{11}{12}\) fine are no longer legal tender in India. Recently the government has declared currency notes of Rs. 500 and above denominations as no longer legal tender. The usual aim is to bring such currency out of the hoards.

15. **Standard Money.** Standard money is that with reference to which the value of all other forms of money is measured. Usually a metal is selected into which the money unit is made convertible at a fixed rate. Sometimes two metals serve this purpose. When the standard metal is only one the monetary system is known as Monometallism. When there are two standard metals the system is called Bimetallism.

Again, if the metal selected is gold, it is a gold monometallism or Gold Standard. If the metal is silver it is a Silver Standard.

Sometimes a country fixes the value of its currency in terms of the currency of a foreign country. Then we have an Exchange Standard. If the foreign country is on gold standard the currency system of the country concerned will be Gold Exchange Standard. Thus India linked its rupee with the English currency early in the present century. England was on gold standard. India was thus on gold exchange standard. When England left gold in September rupee was still linked with sterling. India was then (and is now) on Sterling Exchange Standard. We shall study these systems in detail later.

16. **Paper Money.** The term paper money applies to bank notes and government notes which pass from hand to hand without difficulty and without question. The term does not generally apply to cheques and bills that have only a limited circulation. The latter are instruments of credit and will receive our attention later.

Paper money is of two types—Convertible and inconvertible. The former is that which can be converted into standard coin (or standard metal) at the option of the holder, the latter is not convertible in this sense.

The convertibility of paper money is necessary both to inspire confidence in the minds of the people and to keep its issue within certain bounds. As we shall see later an increase in the supply of money unaccompanied by a corresponding increase in its demand lowers its value in a similar way as happens in the case of any other commodity. The issue of paper money therefore is normally regulated by the law of the state. One method of such regulation is to make it convertible into coins or standard metal.

The greatest danger of inconvertible paper money is the possibility of its over issue. It is a great temptation to government especially in emergencies like wars to increase their resources by printing more notes and using them as purchasing power. There are many examples of such over issue in the currency history of the world, e.g.
Germany during and after the last war is an extreme example. Excessive note issue has taken place in India too during the last few years. We shall come to the consequences of inflation, which is the technical term used for such over issue, in a later chapter.

17. Bank Money. Bank money consists of the various instruments of credit. Credit means good opinion founded on the "belief in a person's veracity, integrity, ability and virtue." In economics credit means confidence in a person's ability to pay.

Credit instruments or bank money takes various forms. Among these are: cheques, bills of exchange, banker's drafts etc. We shall discuss them in details in a subsequent chapter. Here it may be noted that strictly speaking credit instruments are not money since they are not universally acceptable.

18. Money of Account. Before we end this chapter on the nature of money a term may be explained—money of account. Money of account is the monetary unit in terms of which the accounts of a country are kept and transactions made. The Rupee, for instance, is our money of account. Sterling, Dollar, Franc and Mark are the money of account respectively of Great Britain, the United States, France and Germany.

All these units are also the circulating media in the above countries respectively. But it need not be so. Money of account may be different from the money actually circulating in a country. For instance, on account of inflation the German Mark got heavily-depreciated in 1922-24. People lost faith in it, since no one knew what the value of the Mark would be the next day even the next hour. It was risky to enter into transactions in terms of a currency with so uncertain a value. Mark therefore ceased to be the money of account. People entered into transactions in terms of the American Dollar which was the most stable currency at the time. The payments were made in Marks but the transactions were entered into in terms of Dollars. A fixed amount of dollars was to be made good by paying the necessary amount of Marks. The dollar thus became the money of account in Germany.
CHAPTER XXXI

MONETARY SYSTEMS

1. Introduction. To perform its functions adequately money must be properly organized. We have seen that one of the most important functions of money is to serve as the standard measure of value. It is necessary therefore that the value of the monetary unit itself should not fluctuate too violently. To achieve this end the value of the currency unit is usually fixed in terms of one or two metals, usually gold and silver. Sometimes a country fixes the value of its currency in terms of the currency of another country and artificially maintains it there. Thus result the various monetary systems or monetary standards which have been adopted in practice from time to time. We now proceed to discuss them as under:

(a) Bimetallism, where two metals are standard metals usually gold and silver.

(b) Monometallism, where either gold or silver is the standard metal. When it is silver it is silver standard, and when gold, gold standard. Gold Standard may take the forms of full Gold Standard, Gold Bullion Standard or Gold Exchange Standard.

(c) Paper standard.

2. Bimetallism. Under Bimetallism both gold and silver are standard metals. A ratio is fixed by law between their values which is maintained by authority. Coins of each of the metals are unlimited legal tender. Debts can be paid in either gold or silver at the debtor's option.

Bimetallism was adopted by France in 1803. The ratio between gold and silver was fixed at 15 ½ ozes: of silver for one oz. of gold. France was able to maintain this ratio for about fifty years. Due to discoveries of gold in 1848-50 the supply of gold increased and its market value relative to silver fell. France was then compelled to change its original ratio and give silver a higher value in order to save it from the melting pot under the operation of what is called the Greshams' Law.

This famous law was first stated by Sir Thomas Gresham (Financial Adviser of Queen Elizabeth of England). It may be stated thus:

"Other things being equal, when in a country two (or more) kinds of money circulate at the same time, bad money drives out good money from circulation". An example will make this clear. Suppose a country maintaining a Bimetallic standard fixes the ratio at 15 ½ ozes. of silver for one oz. of gold as France did. If the supply of gold increases to such an extent that in the market only 15 ozes. of silver is enough to buy an ounce of gold it will mean that the ratio fixed by the government is under-valuing silver and over-valuing gold.
Gold here will be bad money and silver good money. People will make their payments in the cheaper metal gold and hoard silver. Moreover they will take their ounce of gold to the mint and exchange it for $15\frac{1}{2}$ ounces of silver, sell 15 ounces of silver for one ounce of gold in the market and thus make a gain of $\frac{1}{2}$ ounce of silver on every transaction. Gold will be used as money and silver will disappear from circulation. Bad money thus drives good money out of circulation. Instead of Bimetallism the country is left with Monometallism. One way of maintaining Bimetallism therefore is to change the mint ratio according to changes in the market ratio between the values of the two metals. France did this by debasing her silver coins, so that a smaller amount of silver was made equal to the same amount of gold.

Another method by which the ratio between the two metals may be maintained is by a large number of countries adopting the Bimetalllic system. Under such conditions if one of the metals say gold becomes cheaper its demand from the Bimetalllic countries increases while the demand for silver correspondingly decreases. This tends to depress the price of silver and raise the price of gold thus bringing them near the ratio established by the countries on Bimetallism. It was with this end in view that France, Belgium, Italy and Switzerland founded a monetary Union in 1865. A few years later Greece, Servia, Rumania and some South American States also joined this Union. But this Union was also unable to maintain Bimetallism and broke down in 1874 when the price of silver fell in terms of gold.

During the last quarter of the 19th century several attempts were made to establish Bimetallism on an international scale. But the plan could not succeed without the cooperation of the United Kingdom. The latter country did not want to change her monetary standard.

Bimetallism was favoured by the United States to safeguard her silver interests. India closed her mints to the free coinage of silver in 1893 thus depressing the price of silver, which was already falling since 1874, due to increase in its production and its demonetization by several countries. In 1897 the Government of India were asked whether they would re-open the Indian mints to the free coinage of silver if France and United States opened theirs to the free coinage of gold as well as silver. The Government of India did not favour this suggestion. Thus the mints of France and U.S.A. remained closed to the free coinage of silver.

Another motive for establishing international Bimetallism was to increase the supply of money in the face of increasing production in the world. When two metals are legal tender naturally more money is available for carrying on transactions. The development of banking and the use of paper money and credit instruments supplied this need and ultimately the idea of an international Bimetallism was given up.

3. Silver Standard. Under a silver standard the value of the monetary unit is fixed and maintained in terms of silver. This is
usually done by the free coinage of silver into coins of a given weight and fineness. India for instance was on a silver standard from 1835 to 1893. The rupee was freely coined and its weight was fixed at 180 grains 11/12 fine. Any one with silver could get it coined from the mint into rupees and rupees on the other hand could be melted in order to obtain silver if necessary.

This system made the expansion and contraction of currency automatic but trouble arose when the gold price of silver began to fall seriously after 1874. This fall was due partly to the greater supply of and contraction in the demand for silver, and partly to the greater demand for gold by various European countries for currency purchases, unaccompanied by increase in the supply of yellow metal.

The consequences of the fall in the value of silver were serious for India. It paid people to purchase silver cheaper and get it coined into rupees from the mint. This led to a general rise in prices due to the increase in the amount of money in circulation. Our import trade suffered, because more silver rupees were required to pay for imports of a given value in sterling which along with gold (since England was on gold standard), appreciated in terms of rupees. The burden of India’s sterling obligations (Home Charges as they are called) also increased for the same reason. Difficulties thus arose in balancing the Indian Budget. Ultimately at the recommendation of a committee (Herschall Committee) of experts the Indian mints were closed to the free coinage of silver. Thus ended the silver standard in India.

The general principles of the working of the silver standard are the same as those of the gold standard discussed below. Gold standard, however, is preferable to silver standard because the yellow metal is far less subject to fluctuations in its value than silver.

4. Full Gold Standard. A country is on a full gold standard when gold serves not only as a standard of value but also circulates as coins. Before 1914 Britain had this kind of gold standard and so had U. S. A., France, Germany and other European countries.

We may illustrate its working from the example of pre-1914 Britain. Gold circulated in the form of sovereigns of a given weight (113 1/3 grs.) of pure gold, plus a little alloy. The actual weight of the sovereign was 123 27/47 grains 11/12 fine. In other words one ounce of gold 11/12 fine could be coined into £3 17s. 10 1/2d. in English money. Actually the Bank only gave £3 17s. 9d. for every ounce of such gold. To purchase an ounce of standard gold from the Bank one had to pay £3 17s. 10 1/2d. per oz. Under this system, therefore, the purchasing power of a British sovereign could not rise appreciably above or fall appreciably below 123 27/47 grains of gold 11/12 fine or 113 1/3 grs. of pure gold.

The system could not be maintained during the World War of 1914-18 and had to be given up. In April 1925 Great Britain adopted Gold Standard but of a different variety i.e., Gold Bullion Standard.
5. **Gold Bullion Standard.** Under this system the value of the currency is fixed in terms of gold by making such currency convertible into gold and vice versa. But gold does not circulate as coins. In the United Kingdom under the Gold Bullion Standard the Bank of England was willing to buy any amount of gold at £3 17s. 9d. per ounce 11/12 fine and to sell it in minimum amounts of 400 ounces, at £3 17s. 10½d. This was the same rate as before 1914. Gold was allowed freely to move into or outside the country. No gold coins circulated. The idea was to make gold available only for foreign payments.

Such a system is regarded superior to the full gold standard because it economises gold. Some economists, however, think that since there is no shortage of gold in the world now, the full gold standard should be preferred, because it is more automatic in its working. In a later chapter we shall study the working, failures and prospects of gold standard in greater details.

6. **Gold Exchange Standard.** This system was adopted by various countries like India, Denmark and Australia. India was on this system when the war of 1914-18 broke out. Under it the internal currency consisted of silver rupees which were token coins and paper notes, but for foreign payments British currency (convertible into gold in London) was sold by the Government in return for rupees at a fixed rate. In London the Secretary of State sold rupees (called Council Bills since they were sold by the authority of the Secretary of State in Council) to those who wanted to make payments in India. The rates for buying and selling of rupees were fixed in such a way as to keep the sterling-rupee ratio at 1s. 4d. or near about.

The system broke down during the war of 1914-18 due to great demand for rupees accompanied by an excessive rise in the price of silver. High price of silver made the rupee a full-bodied coin (instead of being a token coin as it was) leading to its melting and hoarding. More rupees were required to make payment for the excess of Indian exports over imports resulting from the war. The government was unable to supply rupees at the old fixed rate. First the rate was raised but later the attempt to maintain the rupee in terms of the sterling was given up. After the war (during 1920) the gold exchange standard was again tried at 2s. (gold) per rupee, but had to be given up. This time for opposite reasons viz., a fall in the price of silver accompanied by a great demand for sterling due to excess of imports over exports and the necessity of making payments abroad. The government was unable to sell sterling (buy rupees) at 2s. gold or even at 2s. sterling (sterling was not on gold at that time and had depreciated in terms of that metal).

Among the advantages claimed for the gold exchange standard was that it gave all the advantages of the full gold standard without involving the use of gold. Moreover linking the rupee with.

(1) Before the war of 1914 the selling and buying rates of the rupee were 1s 4½d and 1s 3½d respectively, the former in London (Council Bills) and the latter in India (Reverse Councils).
the sterling was said to be of benefit to India, because of her considerable trade relations with Great Britain and the financial status of London in the international field. International payments when made through sterling were considerably facilitated. While the sterling link gave the rupee a high status.

The system was condemned by the Currency Commission of 1926 (Hilton Young Commission) which inquired into its working. The Commission found the system rather complicated for the uninstructed public, cumbersome in its working and far from being automatic or elastic. They recommended a gold bullion standard in its place. One great disadvantage of the gold exchange standard is that it makes the currency policy of the country adopting it subservient to the policy of a foreign country.

All the three systems described above are broadly speaking forms of gold standard. Let us now proceed to examine the advantages and defects of a system of currency in which gold is the ultimate standard of value.

7. Advantages of Gold Standard. Several advantages are claimed for gold standard, especially when it is adopted simultaneously by a number of countries i.e., international gold standards. According to theory gold standard possesses the following advantages.

(1) It is an objective system and is not subject to the changing policies of the Government or the currency authority.

(2) It enables the country to maintain the purchasing power of its currency over long periods. This is so because the currency and credit structure is ultimately based on the gold in possession of the currency authority.

(3) Another important advantage claimed for gold standard is that it preserves and maintains the external value of the currency (rate of exchange) within narrow limits. It, in fact, gives all the advantages of a common international currency. As Marshall pointed out before the Fowler Committee (reported on Indian Currency in 1898) the change to a gold basis is like a movement towards bringing the railway gauge on the side branches of the world’s railway into unison with the main lines. This greatly facilitates foreign trade, because fluctuations in rates of exchange hamper international trade.

(4) It is further claimed that gold standard helps to adjust the balance of payments between countries automatically. How this happens may be illustrated by a simple example. Suppose England and America are both on gold standard and only trade with each other and that a balance of payments is due from England to America. Gold will be exported from England to America. The British

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(2) See chapter on Central Banks, Sec. 6.
(3) See chapter on Foreign Exchanges.
(4) Report Fowler Committee, Para 34.
central bank will lose gold. This will contract currency in England and bring about a fall in the British price level. Price level in America will rise due to larger gold reserves and expansion of currency and credit. England will become a good market to buy from and bad market to sell in. Conversely America will become a good market to sell in and a bad market to buy from. British exports will be encouraged and imports discouraged; American exports will be discouraged and imports encouraged. The balance of payments will tend to move in favour of Britain until the equilibrium is reached. It is in this way that movements of gold by affecting prices and trade keep equilibrium among gold standard countries. More of this later.

8. **Gold Standard in Practice.** These advantages are only theoretical. They can be obtained only if the countries concerned obey the gold standard rules or "play the game" of gold standard. Gold standard on the whole worked quite smoothly upto the 1914-18 war because the countries concerned did play the game of the gold standard. Moreover, then since gold also circulated as coins there was more intimate relationship between the quantity of gold available in central banks and the media of payments. The post-war gold standard (gold bullion standard) gave much more power to central banks to vary the circulating media since the ratio of reserves kept against the credit and currency structure could be varied within wide limits. Gold standard thus ceased to be an automatic system and became "managed" like any managed currency.

9. **Rules of the Gold Standard Game.** For the success of the gold standard certain rules of the game should be observed by the currency authority concerned. These may be noted.

Firstly, there should be a high degree of freedom of trade so that disequilibrium arising out of balances of payment may be adjusted through the movements of goods. Gold should only move to cover small gaps.

Secondly. The economic structure of gold standard countries should be kept fairly elastic so that prices and wages respond readily to gold movements.

Thirdly. Most important of all, the government and central banks should not offset the effects of gold movements. A country losing gold must allow its price level to fall and the one that gains gold must allow the price level to rise.

Since the World War I these conditions have not been satisfied and the countries concerned have not obeyed the rules of the gold standard.

10. **Why Gold Standard Broke down?** The gold standard broke down in country after country soon after its rehabilitation during the post 1914-18 war decade. There were several reasons for this development.

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(1) Report Committee on Finance and Industry, 1913 pp 23-24
Firstly, due to general political unsettlement a habit arose on the part of certain Continental countries to keep their funds for short periods in foreign central banks especially in Great Britain. These funds were liable to be withdrawn at the earliest danger signal. Withdrawal of such funds from Britain on the part of France led to gold standard being suspended in 1931 in the former country. The Bank of England could not afford to lose its gold resources in large quantities at such a short notice.

Secondly, International obligations in the form of Reparations and War Debts arose out of the last World War. Since the creditor countries refused to accept payments in the form of goods and also refused to continue lending to the debtors the debts had to be cleared through gold movements. This led to concentration of 3/4 of the world’s gold in the U.S.A. and France the two chief creditor countries. The gold left with the other countries was not enough to enable them to maintain gold standard successfully.

Thirdly. The gold receiving countries did not “play the game of the gold standard”. They (especially the U.S.A.) did not allow this gold to have any effect on their price levels. The gold was “sterilised” or was made ineffective. Had prices risen in these countries imports would have been encouraged and exports discouraged and an unfavourable balance of trade would have led to the movements of gold in the reverse direction. Since this was not allowed to happen the gold standard failed to work automatically.

Fourthly. Gold Standard failed also because the economic structure of the various countries concerned had become less and less elastic after the World War of 1914-18. This was due to several causes. The enormous growth in the indebtedness of the Governments and local Authorities resulted in a mass of interest payments fixed by contract over a long period of years. The huge expenditure in the forms of payments to the social services could not be easily reduced. The trade unions were now able to offer a much stronger resistance to wage cuts than before 1914. The prices of raw material and finished goods were becoming more and more fixed by partial monopolies, cartel agreements etc. The result was that prices no longer moved in the directions warranted by gold movements and equilibrium failed to be restored as of old.

Fifthly. Another weakness that was discovered in the gold standard in practice was that it was always liable to collapse in a crisis. It has often been called a fair weather standard only. Another objection that was frequently urged against the system was that gold movements caused inconvenient changes in interest rates. Deflation for instance may be made necessary in a time of crisis to prevent a suspension of the standard. But deflation which involves falling wages and prices may prove a cause of serious trouble. Wage cuts are resisted by trade unions, and falling prices increase the burden of Government and other people who have fixed payments to make. Moreover falling prices discourage enterprise and create unemployment.
Thus it was that country after country abandoned this system of currency.

11. The Future of Gold Standard. It is unlikely that after the experiences of the inter-war period gold standard will be established in the conventional sense by any country of the world. Gold standard worked more or less automatically under the pre-1914 conditions of trade and finance. The experience of the inter-war period showed that the gold standard required quite a fair degree of management and still greater degree of co-operation for its smooth working. The rules of the game of the system must be obeyed. But even then the rigidities of the economic system stood in the way of proper adjustments of price levels and costs necessary for its successful working. Moreover gold had got maldistributed among the various countries. America possessing the lion’s share 80% of world’s stock in 1939. It could not be redistributed without the re-establishment of unrestricted movements of goods. All these things required international co-operation of a high degree. If such co-operation was forthcoming a managed system in which gold did not play as prominent a part as under gold standard could be devised. People had lost faith in the capacity of gold to maintain stability either of price levels or of exchange. Gold ceased to enjoy its old prestige. Managed currency on the other hand had been successfully tried in several countries (e.g., U. K.)

On the other hand gold producing countries, like America and South Africa, especially the former with enormous stocks of accumulated gold, could not support a scheme in which gold played no part. Moreover from the long period point of view managed currency without solid foundations of gold did not inspire confidence.

The result has been a compromise in what is known as the Brettonwoods Scheme of the International Monetary Fund. This scheme aims at achieving all the advantages of a gold standard without its disadvantages by international co-operation. Gold will still play a role but not such a dominant role as it did under the gold standard. We shall discuss this scheme in our chapter on Foreign Exchanges.

12. Paper Standard or Managed Paper Currency. Under this system paper money is the standard money. The currency authority of the country does not accept the responsibility to convert the paper money into gold. After the World Economic Depression (starting from 1929) many countries including Great Britain and India were compelled to give up the Gold Standard for reasons to be considered in a subsequent chapter. They were thus led to adopt what may be called the Paper Standard.

As far as India is concerned the system is called the Sterling Exchange Standard. But since sterling is not on gold this system is also a variety of the Paper Standard.

The currency authority in India now is the Reserve Bank of India. This Bank maintains the value of the rupee in terms of
sterling at the ratio 15.6d. by buying and selling sterling at 15:6 7/16d. and 15.5 49/64 per rupee respectively in amount not less than £10,000. The internal currency consists as before, of rupee (token) coins and rupee notes of various denominations.

This is a currency exchange standard since the standard is the currency of a country not on gold. If the country concerned was France it would have been called the Franc Exchange Standard if U. S. A., Dollar Exchange Standard.

Great Britain is also on paper standard these days, though the British pound sterling, as a matter of policy has been kept at a fixed value in terms of dollars.

Though Great Britain has abandoned Gold Standard since Sept. 1931, and sterling is no longer legally convertible into gold, the currency of the country is still regulated with reference to gold reserves in accordance with the Bank Charter Act 1844 as amended later.

To avoid fluctuations in the external value of the sterling an Exchange Equilization Account has been constituted. This Account is under the control of the British Treasury, but is in effect a department of the Bank of England. When foreign funds flow into Great Britain (usually for short period) demand for sterling arises and sterling would normally appreciate in terms of foreign money. Such funds are acquired by the Exchange Equilization Fund and thus abnormal appreciation of sterling is prevented. Conversely when funds move out of England demand for foreign currency would normally depreciate sterling in terms of that currency. The Exchange Equilization Account releases gold for such payments and thus saves sterling from abnormal depreciation.

13. The Best Currency System. The question arises: Which is the best currency system out of those discussed above. The answer is not a simple one. Different systems have worked more or less efficiently under different circumstances. A better way of asking the same question would be: What is the test of a good currency system?

Roughly speaking a currency system must achieve two objects.

(i) It must maintain a reasonable stability of prices in the country. This means its internal value or purchasing power in terms of goods and services in the country concerned must not fluctuate too violently. As we shall see later this involves regulation of the amount of money in circulation to suit the needs of business of all kinds taking place within the country.

(ii) It must maintain stability of the external value of the currency. This means the command over goods and services in foreign countries through its command over a definite amount of foreign currency. This is the problem of foreign exchange which we have yet to tackle.
CHAPTER XXXII

THE VALUE OF MONEY

1. Introduction. In the previous chapter we noted that the best monetary system is one which preserves the stability of the internal and external value of money. The question arises: What do you mean by term ‘value of money’.

The term value of money has been variously used. Thus it may mean:

(i) Its command over a definite weight and fineness of gold or silver as is the case under gold and silver standard respectively.

(ii) The units of foreign currency that it will purchase. For instance, at present the rupee has value in term of sterling of Rs. 6d. This is called the exchange rate or exchange ratio.

(iii) Its command over goods and services within a country. This is usually called the (internal) purchasing power of money.

When we use the term “the value of money” without qualification we mean it in the third sense above.

It should be noted that the value of money, or its purchasing power, has a definite though inverse relation with the general level of prices in a country. When general prices rise the value of money falls; conversely when general prices fall the value of money rises. In this connection the terms appreciation and depreciation are also used. When prices rise there is a depreciation of money, when they fall there is appreciation.

In this chapter we shall discuss the causes of variations in the value of money i.e., its purchasing power over goods and services. In this connection various theories have been advanced from time to time. Among these are:

(i) The Quantity Theory of Money.

(ii) The Cost of Production Theory of Money.

(iii) The Marginal Utility Theory of Money.

(iv) The State Theory of Money.

After discussing these theories we shall give the correct view at the end.

2. The Quantity Theory of Money. Stated in its simplest form, according to the Quantity Theory of Money, the value of money varies inversely as its quantity. “Double the quantity of money, and other things being equal, price will be twice as high as before, and the value of money one half. Halve the quantity of money and other things being equal, prices will be one half of what they were before and the value of money double.”

Now what is meant by the phrase "other things being equal"? This phrase means that there should be no change in the following factors:

1. **Velocity of circulation of money.** Velocity or rapidity of circulation of money means the number of times a money unit changes hands. If, for instance, during a given period a five rupee note changes hands five times then the quantity of money in this case will be Rs. 25 and not Rs. 5. If it changes hands ten times, then it will be Rs. 50 for the purpose of this theory.

2. **The use of credit instruments as money.** If there is an increase (or decrease) in the use of credit instruments, such as cheques, book credits etc., it should be regarded as an increase (or decrease) in the quantity of money in circulation. Similarly as regards the velocity of circulation of credit instruments.

3. **Barter transactions.** If some exchanges are done without the use of money, they should either be excluded altogether, or be regarded as an increase in the quantity of money (supply) or decrease in the quantity of transactions (or demand for money).

4. **The demand for money must remain constant.** This means that the work to be done by money, or the transactions to be performed, must remain the same. Not only the amount of goods exchanged, but the number of times goods change hands (rapidity of circulation of goods) must also remain constant.

3. **Professor Fishers' Equation of Exchange.** Professor Irving Fisher has expressed the relationship between the quantity of money and its value in the form of a formula, which he calls the equation of exchange. This is given below:

\[ P = \frac{MV + M'V'}{T} \]

Here \( P \) = Price level or \( \frac{1}{P} \) = the value of money.

\( T \) = Transactions to be performed by money.

\( M \) = Metallic money. \( M' \) = Credit money.

\( V \) = Velocity of money and \( V' \) = velocity of credit.

This formula equates the supply of money to demand for money. Price level multiplied by the transactions gives total value of transactions which means demand for money (PT). This is equal to the supply of money which consists of cash and credit with their velocities of circulation \( (MV + M'V') \)

Thus \( PT = MV + M'V' \)

\[ P = \frac{MV + M'V'}{T} \]

Professor Fisher contends that in the short period \( T, V, V' \) remain constant. The proportion of \( M' \) to \( M \) also remains constant. Therefore \( P \) varies directly with \( M \). In other words \( \frac{1}{P} \) (value of money) varies inversely with \( M \) or quantity of money in circulation.
Why do "other things" (T, V, V' and proportion of M' to M) remain constant? Professor Fisher holds that:

Transactions or amount of work to be done by money remains constant in the short period, because population does not change, production per head of population does not change, percentage of consumption by producers does not change, percentage of exchange by barter does not change and the rapidity of circulation of goods does not change. Methods of production and habits of the people in this connection are practically fixed. Thus the demand for money remains constant.

As regards the supply side rapidity of circulation of money and credit depends upon custom and business habits of the people. The proportion of M' to M depends upon the policy of the banks. All these do not change appreciably in the short period. Hence the value of money varies inversely with its quantity.

4. Criticism of the Quantity Theory. The Quantity Theory has been widely criticised. With the qualification "other things remaining the same" it is a useless truism. The real trouble is that other things never remain the same. They change not only in the long period but also in a comparatively short period. Population, amount of business transacted per head of the population, velocity of circulation, policy as regards the proportion of credit to cash all are subject to change, and changes in them are constantly occurring. Moreover, these factors are not independent variables as Fisher assumes. For instance, a change in M in itself may cause a change in V, and thus a change in P more in proportion to a change in M. After the last Great War the German mark was depreciating fast. People lost confidence in it, so that no one was willing to hold it. The moment people received any money, they at once turned it into goods. The rapidity of circulation of money (V) increased progressively and out of all proportion to the increase in the note issue (M). Similarly a change in M may cause and does cause frequently change in T, and a change in P may lead to change in M. An increase in the supply of money may raise prices, increase profits and stimulate production beyond the profitable level thus again depressing prices. Moreover higher price level may necessitate the issue of more money to carry on transactions. Thus high price level may be the cause rather than the effect of the increase in the quantity of money.

Some writers object to the concept of the velocity of circulation. "The Quantity Theory" says Marshall, "does not explain the causes which govern rapidity of circulation". Instead of speaking of the increase or decrease in the velocity of circulation some writers speak of a decrease or increase in the demand for money as we shall see later.

Professor Hayek¹ thinks that the Quantity theory has unduly usurped the central place in monetary theory and that the point of

(1) Hayek: Prices and Production, Lecture I.
view from which it springs is a positive hindrance to further progress.
"Not the least harmful effect of this particular theory is the present isolation of the theory of money from the main body of general economic theory."

Lord Keynes's objection to the theory is that it does not treat the problem dynamically. "The fundamental problem of monetary theory is not merely to establish identities or statical equations relating (e.g.,) the turn-over of monetary instruments to the turn over of things traded for money. The real task of such a theory is to treat the problem dynamically, analysing the different elements involved, in such a manner as to exhibit the causal process by which the price level is determined, and the method of transition from one position of equilibrium to another." "The Quantity Theory" in the words of Whittaker, is admirable as an elucidation of the mechanics involved in the price level but as an explanation of causation it has serious shortcomings."

In its crude form therefore the quantity theory is untenable. The value of money does not depend merely on its quantity, it is subject to the same law of supply and demand which determines the values of other commodities. We shall examine the forces behind the supply and demand in this connection, after considering the other theories of money.

5. The Cost of Production Theory of Money. Monetary controversies of the 18th and the 19th centuries spoke of the value of money in terms of its specie value rather than in terms of its commodity value. The idea was to preserve the exchange value of money by keeping it convertible into a definite quantity of specie rather than commodities in general.

The value of the specie in its turn was explained in the same way as of the commodities in general, i.e., in terms of its cost of production. Petty and Cantillon had explained that precious metals exchanged in terms of other commodities in the ratio of their relative costs of production. Ricardo also held the same view and thought that like other commodities gold and silver are valuable only in proportion to the quantity of labour necessary to produce them and bring them to market. J. S. Mill showed that cost of production theory was not incompatible with the Quantity Theory, since cost of production governed the quantity of money in circulation provided coinage and melting down is allowed freely.

The Cost of Production Theory, however, only applies if money consists only of coins which are full bodied. Even then the value of money conforms to its cost in the long run only. The stock annually added to the total stock is too insignificant to influence its value.

"It is not true, "says Taussig," "that the marginal mine governs value.

(1) Keynes: A treatise on Money.
(2) Whittaker op. cit p. 665
as it is the current value which determines what sort of mine shall remain in operation and shall become the marginal mine\(^1\).

In the long run, however, the cost of production of the specie can influence its value. A decrease in the expense of mining renders possible a far greater output\(^2\); writes Seligman, "Since the precious metals, however, are exceedingly durable, this annual increment forms only a small fraction of the entire available supply and will not produce any immediate change in value. Sooner or later however an alteration in the rate of annual increase will make itself felt. A lower cost of production of money may hence be said to raise prices, in so far as it augments the quantity of money. The cost of production theory thus resolves itself into the quantity theory\(^3\)."

As already said the cost of production theory does not apply to paper money, not to speak of credit. It has only an historical importance.

6. The Marginal Utility Theory of Money. The Austrian school of economists applied their general theory of value to money also. The value of all things depends upon their utility to consumers. According to Weiser "the exchange value of money is the anticipated use value of the things which can be obtained for it." Mises took the same position. But this theory has not appealed to the English-speaking countries.

7. The State Theory of Money. This theory is specially associated with German writers. According to Fichte, money represented the state's guarantee that a certain amount of goods will be furnished to the holder. Müller also held that it was not the reserves against paper money but the authority of the state which gives it value.

The most important exposition of this view of money, however, is by the German Economist G. F. Knapp (1842-1926). He has expounded it in his well known book "State Theory of Money." According to Knapp money derives its substance from the authority of the state. Law proceeds from the state; money is accordingly a state institution. "Its validity is independent of the contents of the pieces circulating as coins."

Several objections can be advanced against this theory. Firstly, money can come into existence without its creation by the state. Secondly, notes and deposits of private banks, are independent of state control. Thirdly, the value of money largely depends upon its quantity. The state can control the value of money only by controlling its quantity. The state cannot maintain any value of money it likes as is shown by the history of inflation in various countries during the two great wars and other periods.

The principle of regulation of money by authority, however, has been accepted in recent years, especially after the Depression of the thirties. But this far from justifies the position taken by the state theorists.

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\(^1\) Taussig op. cit. vol I. p. 259.
\(^2\) Seligman : Principles of Economics.
\(^3\) Weiser : Natural Value, p. 47.
8. Supply and Demand Theory of Money. The correct view of the value of money explains it in terms of its supply and demand. The Quantity Theory also speaks of the supply of and demand for money, but fails to present adequately the forces acting behind supply and demand. It takes many of the factors of the situation as constant and lays stress primarily on the quantity of money in circulation. Moreover, the concept of demand for money in the equation is too vague. Let us take the supply and demand separately and study the various forces behind them.

9. The Supply of Money. In a modern community the supply of money may consist of (a) metallic bullion i.e., gold or silver (b) legal tender currency issued by the government or under government regulation (c) various instruments of credit e.g. cheques, drafts, bills of exchange etc.

Each of these sources of supply depend upon various conditions.

(a) Metallic Bullion. The amount of bullion available for currency purposes can increase on account of (i) improvement in mining methods (ii) discovery of new mining deposits or (iii) more gold coming from other non-monetary uses.

(b) The amount of legal tender currency and other subsidiary coins will depend upon (i) the nature of government regulations as regards coinage and keeping of metallic reserves against notes, (ii) the monetary needs of the government and (iii) the volume of retail transactions.

(c) The supply of 'bank money' will depend upon (i) the volume of deposits, (ii) credit policy of banks and (iii) the stage of economic development of the country.

It is clear from the above that in countries where full bodied metallic coins are the only form of money the supply cannot be increased as easily as in countries where token coins are used, or paper notes backed only by a proportion of metal circulate as money. Paper notes, when not legally convertible into metal and when not strictly regulated by law, can be issued according to the whims of the currency authorities. Where bank money is the most common method of making payments the supply of money can be increased almost to any extent. Usually however, a certain proportion of cash (currency notes etc.) is kept as reserve against deposits of banks. But since this proportion is elastic the supply can be increased and decreased within a wide range.

The banks can encourage borrowings by lowering their rates of interest, and discourage them by raising it, usually under the leadership of the Central Bank. They can also, especially the Central Bank, expand purchasing power by purchasing securities and contract it by selling securities. But their ability to expand and contract the supply of money depends on the state of trade. During periods of depression they may not be able to induce entrepreneurs to get advances, since investment is not profitable. Even if they purchase securities in the
market the money thus put into the hands of the people may not be
invested. It may merely result in greater holding of money. Thus
increased supply may be cancelled by increased demand. But what
is demand for money?

10. The Demand for Money. Fisher’s formula makes the
demand for money (PT) equal to the total value of transaction
carried on during a given period. This concept of demand is neither
definite nor scientific. Professor Cannan in this connection says:

“That belief seems to me to be exactly equal to a belief that the
demand for houses comes not from the people who want to live in
houses but from people who buy houses and sell them again forth-
with. The effective demand for houses evidently comes from those who
want to hold houses, even the speculator wants to hold for a time.
Mere “activity in the house market” — a little more changing owner-
ship than usual — only involves an increase in demand in the same
sense as it involves an equal increase of supply which cancels it.
Whatever may be said about the actual use of the terms it is clear
that the demand which is important as affecting the value of the
house is the demand for occupation”.

The demand for money is thus the demand to hold money rather
than consume it. Money may be held by private individuals,
business organizations, or public institutions of various kinds. Why
do people want to hold money? The reasons are various. Ordinary
consumers hold money in order to meet their day to day requirements
for purchasing consumer’s goods. Entrepreneurs may hold it for
their current expenditure on wages and other sundry expenses.
Public bodies also hold money for a similar reason. Sometimes
money is held due to the lack of a more profitable alternative. The
other alternatives to holding money are to spend it on consumer’s
goods or to invest it. Investment may be in goods, securities or mere
balances in the banks. People do not and cannot spend all their
incomes as soon as they arrive. The expenditure has to be spaced
according to requirements. As regards investment it is not always
an attractive alternative especially during short periods. It may be
troublesome or risky. Stocks of goods require looking after and can
deteriorate or depreciate in value. Securities also may fall in value.
The bank interest on savings may not be high enough to attract funds.
Similarly profits may be either low or may be expected to fall.
Under such conditions more money will be held than invested. Thus
people tend to hold more money during a depression than during a
period of brisk trade. The demand for money during a depression is
therefore high and consequently its value high. In other words
general prices during a depression are low. On the other hand
when higher profits are expected, investments increase and the
demand for money falls (i.e., less money is held by the people)
the value of money falls or the general level of price rises. This

(1) Quoted by Stevenson and Branton: Economics of Banking, Trade and
Finance; p. 15.
tendency of people to hold money has been called by Lord Keynes "liquidity preference." Thus there can be increase or decrease in "liquidity preference," meaning thereby that people prefer to hold more or less of their incomes in the form of ready purchasing power.

The demand for money in this sense depends upon various circumstances. An increase in population will necessitate larger amounts of money to be held. Any methods by which currency can be economised (e.g., barter, amalgamation of businesses etc.) will reduce the demand for money. More equal distribution of wealth will tend to increase the demand for money, because poorer sections of the community will be able to hold more money than before. Moreover, psychological causes also may affect the demand for money. As we have already said expectation of fall in prices (rise in the value of money) will cause people to hold money rather than spend it. Conversely, if prices are expected to rise people will tend to hold less money i.e., either it will be spent or invested.

The idea of "velocity of circulation" in the Quantity Theory was criticised by Professor Cannan and others. The concept is vague. Expressed in terms of demand for money the same idea becomes more definite. For instance, during periods of rising prices or depreciating currency the velocity of circulation of money is said to have increased. We can also say that the demand for money has decreased. The moment a person gets hold of some money he tries to get rid of it by spending it. The opposite happens when prices are falling. During a depression instead of saying that the velocity of circulation of money is low, we say that the demand for money is high.

II. Conclusion as Regards the Value of Money. The value of money like the value of every other thing is determined by the interaction of the forces of supply and demand. The supply of money in a modern community consists of gold or silver bullion, legal tender currency, subsidiary coins and the various credit instruments like cheques, bills of exchange, bank loans etc. The supply of monetary bullion depends upon technical efficiency as regards mining, discovery of new mines, and diversion from non-monetary uses including hoards. The supply of legal tender and subsidiary coins depends upon regulations of the government, and the needs of the government for itself. The volume of bank money is determined by the magnitude of deposits and the credit policy of the banks. The stage of the economic development of a community will determine what sort of money is used to what extent.

The demand for money comes from private individuals and various private and public organizations who desire to hold cash. The amount demanded is determined by factors like the size of the population, the methods of payments adopted, the volume of payments to be made, the way the wealth is distributed in the community and finally the general outlook as regards business prospects.
THE VALUE OF MONEY

It is the supply together with the demand that determines the values of money or the general price level. Given the supply, an increase in demand raises the value of money or lowers general prices, as happens during periods of depression. Conversely, given the demand for money an increase in its supply lowers the value of money or raises the general level of prices as happens during periods of brisk trade. The price level tends to be maintained at that point where supply and demand are in equilibrium.
CHAPTER XXXIII

MONEY AND PRICES

1. Introduction. We have seen in the previous chapter that the value of money is inversely related to the general level of prices. When the general level of prices goes up, the value of money goes down and conversely, when the general level of prices goes down the value of money goes up. Thus prices fell all over the world during the period of Depression 1929-1933, the value of money appreciated. During the War the value of money depreciated since prices rose in almost all countries.

A sudden change in the value of money, or the general level of prices is a serious matter, since it disturbs all contracts and results in redistribution of wealth among the various classes of the people. Several problems therefore arise in this connection. Firstly, we want to know what consequences follow from quick changes in general prices. Secondly, is it possible to measure the degree of such changes? If so how? Thirdly, what can be done to control such fluctuations in prices?

2. Inflation, Deflation, Reflation. Before we proceed further a few terms may be explained. These are generally used while talking of abnormal price changes. By inflation is meant an excessive rise in the general level of prices usually on account of an increase in the supply of money, unaccompanied by a corresponding increase in demand. When prices rise due to increased gold supply we speak of gold inflation, when due to currency notes, currency inflation and when it is caused by an over expansion of credit, the term, credit inflation is used. Mere inflation implies an excessive rise in general prices due to some, any, or all of these causes. Inflation can also result if the demand for money falls off, even though the supply remains the same. But such occasions are rare.

Deflation is opposite of inflation. It means an excessive fall in prices due to contraction of currency or due to greater demand for currency.

Reflation is a moderate degree of controlled inflation. When prices have come down abnormally low, so that economic activity ceases to be profitable, the currency authority may adopt measures of putting more money into circulation, with a view to raising prices and encouraging economic enterprise. This is one of the remedies to meet depressions suggested by those who think that money factor is the primary cause of such depressions. More of it in the chapter on Trade Cycles.

It should be noted that high or low prices as such are immaterial. If all prices including prices of services double or are halved over-
night it makes no material change in the economic position of the people concerned. But this never happens. Actually different prices change in different degrees. Some prices may not change at all. Some groups of prices may even have gone down. A general rise of prices merely refers to the average of the prices having gone up.

Changes in prices of individual commodities are usually the result of changes in their respective demands and supplies. But when the prices of most commodities begin to go up and do so relatively quickly the cause is usually on the side of money, an increase in the supply of money. Conversely, when most prices show a quick fall the reason is usually a rise in the demand for money in the sense explained earlier.

3. Consequences of Changing Prices. In his Tract on Monetary Reform, Keynes divides the Community in three classes:—

(i) The investing class, (ii) the business class and (iii) the earning class, and studies how the changes in the value of money affect each. The investing or rentier class consists of people who have parted with their real property permanently "in return either for perpetual annuity fixed in terms of money or for a terminable annuity and the repayment of the principal in money at the end of the term, as typified by mortgages, bonds, debentures and preference shares". A rise in the general level of price hits this class hard. They can purchase fewer goods and services than before with their fixed incomes. The business or the entrepreneur class gains because while the sale prices are rising their cost of production usually lags behind. Wages and salaries, for instance, are fixed by agreements which are not immediately revised, rent and interest charges remain the same. The earning class also stand to lose when prices rise since their wages and salaries do not move up correspondingly.

The downward movements of prices produce opposite results on these classes. The rentier class gains and so does the earning class since their comparatively fixed incomes purchase more in terms of goods and services. The business class on the other hand suffers. In the first place falling prices reduce their gross incomes from business undertakings. Secondly, the various elements of cost, like fixed charges and wages, come down if at all slowly. Their business profits are thus seriously cut down.

On the whole we might say that broadly speaking, all debtors gain from rising prices and lose from falling prices, since their fixed monetary obligations mean more in goods and services when prices fall and less when prices rise. The creditors on the other hand gain when prices fall and lose when they rise.

Taking agriculture and industry as such the variations in prices do not affect each of them to the same degree. As the experience of the recent world depression showed prices of agricultural products tend to decline more quickly and recover more slowly than industrial
products. This is due to differences in conditions of demand and supply. Agricultural operations have a slow rate of turnover since crops must take time to grow and become available in the market. Moreover, control on supply is difficult to exercise because of the scattered nature of agricultural production units. The demand for agricultural goods also is less elastic than for manufactured goods. In the case of industries production can be controlled and output can be restricted, if necessary, much more easily.

Too much fluctuations in either direction are bad for all economic enterprise, since it creates uncertainties regarding the future expectations. Maintenance of comparative stability of prices is, therefore, necessary for orderly economic development. But before any policy can be pursued to this end it is necessary for the guidance of the currency authority to know how the price level is behaving at a particular time. This brings us to the problem of measurement of the changes in the general level of prices, or conversely, in the value of money. This is done by constructing what are called Index Numbers of prices.

4. **Index Numbers of Wholesale Prices.** When general prices rise the value of money falls, when general prices fall the value of money rises. In order to measure the value of money, therefore, an index number of wholesale prices is constructed. Below are given the various steps in the construction of such an index number.

(i) **The choice of the base year.** The first step is to choose a year to serve as the base year i.e., the year with reference to which the price changes in other years are expressed as percentages. Care must be exercised in its selection. It should be an average sort of a year, neither too prosperous nor too depressed from the point of view of economic conditions in general. Sometimes an average (of prices) of a number of years is taken to serve as the base.

(ii) **Selection of commodities.** The second step is to select commodities the prices of which have to be taken to represent the general price level. The commodities should be really representative and should be sufficiently large in number.

(iii) **Price lists are then taken for each commodity.** It is better to have an average of wholesale prices of the same commodity from a number of representative markets. These prices are taken for the base year (or years) and also for the subsequent years, the index number for which we want to construct.

(iv) The next step is to represent the price of each commodity for the base year as 100, and the price of the same commodity for the subsequent years as a percentage of the price for the base year. For instance if the price of wheat for the base year is Rs. 4 per maund and is called 100 and its price for the next year is Rs. 8 per maund, it should be called 200 and so on in the case of all the commodities and all the years.

(v) The final step is to strike the average of the numbers thus obtained with reference to each of the years. The average for the
base year will naturally come to 100. The other averages will be higher or lower than 100 according as the general price level has risen or fallen respectively.

The following statement illustrates how index numbers are constructed.

<table>
<thead>
<tr>
<th>Articles</th>
<th>Prices in base year</th>
<th>Index for base year</th>
<th>Prices in 1945</th>
<th>Index for 1945</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs. per Mds.</td>
<td>Rs. per Mds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>4 0 0</td>
<td>100</td>
<td>10 0 0</td>
<td>250</td>
</tr>
<tr>
<td>Rice</td>
<td>3 8 0</td>
<td>100</td>
<td>14 0 0</td>
<td>400</td>
</tr>
<tr>
<td>Cotton</td>
<td>15 0 0</td>
<td>100</td>
<td>22 8 0</td>
<td>150</td>
</tr>
<tr>
<td>Sugar</td>
<td>8 0 0</td>
<td>100</td>
<td>16 0 0</td>
<td>200</td>
</tr>
<tr>
<td>Ghee</td>
<td>60 0 0</td>
<td>100</td>
<td>150 0 0</td>
<td>250</td>
</tr>
</tbody>
</table>

Average: 100  
\[1250 \div 5 = 250\]

According to the above index number there was a rise of 150 per cent in general price in 1945 as compared with 1939. This means that in 1945 the value of money in India (on the basis of above figures) was \(\frac{2}{3}\) of what it was in 1939, a fall of 60%.

5. Weighted Index Numbers. The type of index number constructed above is called an unweighted index number. Here every commodity is given the same importance. But actually to a consumer a small rise in the price of one commodity may mean a greater disadvantage than a big rise in another commodity which does not hold so much importance in his household expenditure. This fact is specially to be taken into account when we are constructing what is called the cost of living index number i.e., the one measuring changes in the cost of living of a particular class of people.

Suppose the above articles represent goods consumed by a particular class of people, and we want to know how did the war affect their cost of living. All these articles may not be of the same importance to these consumers. To show their relative importance we can assign “weight” to each of the commodity by multiplying its index number by a certain figure indicating the degree of its importance. Such a figure is usually based on the proportion of money spent on particular commodities in typical family budgets.

The following table illustrates how a weighted index number is constructed. The same figures are taken as in the previous illustration.
### Money and Prices

<table>
<thead>
<tr>
<th>Articles</th>
<th>Price in base year 1939</th>
<th>Index 1939</th>
<th>Price in 1945</th>
<th>Index 1945</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs. per mds.</td>
<td>Rs. per mds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>4 0 0</td>
<td>100 \times 3</td>
<td>10 0 0</td>
<td>250 \times 3</td>
</tr>
<tr>
<td>Rice</td>
<td>3 8 0</td>
<td>100 \times 1</td>
<td>14 0 0</td>
<td>400 \times 1</td>
</tr>
<tr>
<td>Cotton</td>
<td>15 0 0</td>
<td>100 \times 1</td>
<td>22 8 0</td>
<td>150 \times 1</td>
</tr>
<tr>
<td>Sugar</td>
<td>8 0 0</td>
<td>100 \times 2</td>
<td>16 0 0</td>
<td>200 \times 2</td>
</tr>
<tr>
<td>Ghee</td>
<td>60 0 0</td>
<td>100 \times 1</td>
<td>150 0 0</td>
<td>250 \times 1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>1950</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>100</td>
<td>243.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thus we have given three times importance to wheat as compared with rice and twice to sugar as compared with ghee etc.

The cost of living on this basis has not risen as much as indicated by the unweighted index number if that was regarded as a cost of living index number. These figures, however, are only by way of illustration. Actually the same index could not be employed to measure changes in the general level of prices and changes in the cost of living. Moreover the commodities taken to measure change in the cost of living of different classes will not be all the same. It will depend upon what commodities are usually purchased by the class concerned.

We have only chosen a few commodities. Actually a large number of commodities is chosen. For instance, the oldest series of index numbers in India is the one constructed by the Commercial Intelligence Department of the Government of India. It includes 28 exported and 11 imported articles. The series is unweighted and takes 1873 as the base year. Three more series are for Bombay (40 articles) Karachi (23 articles) and Calcutta (72 articles).

Weighing can be indirectly introduced by taking prices of more than one variety of a commodity e.g., 3 varieties of wheat, 2 of cotton, 3 of tea, etc.

About 12 different cost of living index numbers are published in India from various important urban centres.

6. **Uses of Index Number.** The method of index numbers can be used for other purposes also. We can measure any quantitative change in addition to changes in the value of money and cost of living. There may be index numbers of wages, imports, exports, industrial activity, employment, changes in areas under cultivation, changes in population etc. etc. These measurements indicate social and economic trends and help in framing policies with respect to them.

For instance an index number of cost of living can guide us in adjustment of wages to changing prices. Index numbers of wholesale
prices can guide the currency authority in stabilizing price levels and exchange.

7. **The Need for Price Stabilization.** Since sudden changes in the value of money or general price level, apart from their social and political consequences, cause uncertainty and dislocation in economic activity, the necessity for price stabilization is more and more realised. Price stabilization does not imply a rigid system of controlling price level. Such an achievement is neither desirable not possible. Short period fluctuations in prices cannot be entirely eliminated whether we refer to individual prices or the general price level. Moreover, changes in prices over very long periods also are not so harmful. But the evils of fluctuations in prices over fairly long periods say twenty years or so, are quite obvious. Such fluctuations should be reduced to the minimum. These are represented by the periodic booms and depressions which we shall discuss in a separate chapter.

Price Stabilization may be attempted in two ways: (i) Stabilization of the prices of important individual commodities by influencing the factors affecting their supply and demand respectively. This is the problem of price control and has already received our attention.

(ii) The second method is to tackle the problem of general level of prices by adjusting the supply of money to its demand. In this connection various ways have been suggested by various authorities. Some would prefer a gold standard system, others would like to have some sort of a managed system of paper currency.

In the modern world no country stands isolated. There are international exchanges taking place between countries. Price levels of various countries are interconnected. The values of their currencies have also relations with each other. Price stabilization, therefore, has more and more achieved the character of an international rather than a national problem.

8. **Difficulties as Regards Control of Price Level.** It is usually assumed that the central bank of a country can control price level by controlling credit. This belief is based on certain assumptions which are not always true. These assumptions are (i) that it is possible to construct accurate indices of prices promptly and to use them as guides. We have already discussed the various limitations on the construction and use of index numbers. Such indices must cover a complete representative range of commodities, should be correctly weighted and be promptly available. This is not usually possible.

(ii) That there is a close and consistent relation between quantity of money and price level. While discussing the quantity theory of money we observed that such a relationship does not exist in actual fact. In a credit economy this is all the more true. Firstly as we shall see bank credit is not the only form of credit. Secondly credit is not used for purchasing commodities only. It may be used for buying and selling of real estate (e.g., land, houses etc.), securities and services. Thus an increase in the volume of bank credit may be
accompanied by a fall in the level of commodity prices, owing to a rise in the prices of securities and real estate. Conversely, a decrease in the volume of credit may merely depress the prices of securities and real estate while leaving commodity prices unaffected or even raising them. In Poland for instance, according to Lewinski, quantity of money in circulation halved between 1913 and 1925 while index of wholesale prices rose by 36%. Again in the U. S. A. during 1923 to 1929 bank credit expanded enormously while commodity prices showed only minor changes. Prices of stock exchange securities and real estate, however, rose tremendously. Further, velocity of circulation may move in the opposite direction and counterbalance the effect of credit expansions or contraction carried out by the bank. The central bank has little control over such velocity. Then there is non-monetary factors which exert influence on commodity prices e.g., climate, political and industrial upheavals, changes in technique of production, changes in fashions, population, changes in people's moods etc. All these may nullify the bank's action.

9. Price Stabilization Not Always Desirable. Apart from all these difficulties, is the point of view that stability of price level as an objective is not always desirable. Price fluctuations have a definite function to perform in an economic system based on the free play of competition. It is through this mechanism that the community's resources are guided to those channels in which they give maximum returns. Prices reflect the relative demands of the community. Price changes give warnings that certain mal-adjustments exist and these enable steps to be taken to correct them. Moreover, as Gregory and Hayek have pointed out, stable prices may bring recurrent dislocations and disharmonics in the economic structure as the experience of U. S. A. during 1923 to 1929 showed. Moreover, even if the average price level is kept stable changes in individual prices of important commodities may bring about serious dislocation in economic life. Finally, even from the point of view of social justice, stable prices are not always the best. They might ensure constant quantities of goods in settlement of debts and credits. But the same quantity of goods may mean less sacrifice in times of plentiful harvest, increased industrial output due to technical inventions. In such times justice demands that prices should be allowed to fall. The same holds true under opposite circumstances.

Similar difficulties are encountered when the objective is conservation of gold reserves, stabilization of exchange or avoidance of business cycles.
CHAPTER XXXIV

BANK MONEY

1. Introduction. While discussing the forms of money we made a brief reference to credit or bank money. We noted then that credit means good opinion founded on the belief in a person’s “veracity, integrity, ability and virtue”. In economics we mean by credit the confidence in a person’s ability to pay.

A very high proportion of business in modern industrial countries is carried on through credit. Credit transactions may be done in two ways:

(i) The most primitive form of credit is merely getting an oral promise to pay. A little more advanced than this is by keeping a book account. This method of credit transaction, however, is only possible among people well known to each other, and living near each other.

(ii) The second and more common method in the modern age is giving written promises to pay on a certain date or within a fixed period of time. Their evolution is marked by four stages which also give the chief forms that they take. Book debts may be included as the first stage of credit development. These stages and forms are:

Book Debts, Promissory Notes, Bills of Exchange, Bank Notes, Cheques and Drafts.

Bank Notes are not, strictly speaking, credit instruments unless they are issued by ordinary banks without the authority of the state behind them. Now as a rule, only one bank, the central bank enjoys the monopoly of note issue. Other instruments of credit are discussed below:

2. Promissory Note. It is the simplest kind of a credit instrument. It contains the buyer’s promise to pay the seller a certain sum of money for value received. The payment is to be made after a specified period of time. The value may be received in the form of money which has been borrowed or in the form of goods that have been purchased. Such a document may be used for personal or commercial transactions. A bill of exchange is used for commercial purposes only.

3. Bill of Exchange. A bill of exchange is an order payable on demand or at a fixed future time addressed by one person (the creditor called “drawer”) to another (the debtor called the “drawee”) instructing the latter to pay a certain sum of money (mentioned on the bill) to the former, or to the bearer, or to a specified third person (called the payee).
Distinguish here between the drawer and the drawee and the acceptor. After having been drawn, the bill is sent to the drawee or his agent for acceptance. This is done by putting a signature (or stamp of the accepting firm or house) on the bill. The bill now becomes negotiable, i.e., it can be discounted or sold for money. A bill is discounted by calculating interest on its face value (the amount finally to be paid) for the period for which the bill has still to run, at the prevailing rate of discount, and deducting this from the face value of the bill. This then is the price at which the bill can be sold by the holder at any time. Thus the higher the discount rate the lower the value of the bill at the time of discounting; and the shorter the period between discounting and maturity of the bill the higher its value. When the bill matures, i.e., becomes payable by the drawee, its value becomes equal to what is written on it. The usual period for which bills of exchange are drawn is three months, though they are also drawn for longer periods.

The form that a bill of exchange usually takes is given below:

£100

Lahore,
January 12, 1946.

Three months after date pay to the order of the Imperial Bank of India Ltd. £100 for value received.

G. Lall.

F. Jones & Sons,
London.

G. Lall from Lahore has exported to F. Jones and Sons of London goods worth £100 in English money. This bill will mature after three months and three days from the 12th January, 1946, i.e., on the 15th April 1946. During this period it can pass from hand to hand by getting discounted. The advantage of this method of payment, among others, is that during the period of three months the importer will have received and sold the goods and would be in a position to meet his obligations.

The area of circulation of the bill obviously depends upon the credit of the acceptor. People get their bills accepted by well known firms (Accepting Houses) who specialise in this business, and thus make their bills circulate easily over extensive areas.

A bill of exchange is of great importance in financing trade especially foreign trade. Moreover it is a very convenient form of investment. Its advantages thus are:

In the first place, it enables businessmen to buy goods without making payments in cash. Before the bill matures the goods can be sold and money is made available for meeting the liability. Thus, business can be carried on without the use of much capital. On the other hand, this method enables the exporter (or seller), if he wants money immediately, to acquire it by discounting the bill.
Secondly, the bill of exchange saves cost of transporting precious metals between the countries. The importer for instance, instead of having to export precious metals can buy a bill of exchange and make his payment. Hence it is a cheaper and more convenient way of making international payments.

Thirdly, the bill of exchange enables every exporter to get value for his exports in his own money.

Fourthly, a bill of exchange is a very convenient way of investing liquid funds. Liquid funds are funds that can be easily converted into cash. A man who has a little spare money can buy a bill of exchange, and keep it with him as long as he does not need the money and, thus, earn interest. If he suddenly needs his money the bill can always be discounted in the market. This method is very commonly used by banks to keep their reserves liquid.

4. Hundi. In India bills of exchange have been in use from very early times. They are known as Hundies. A hundi is an internal bill of exchange. It helps in the finance of internal trade and remittance of money. A bill of exchange serves to finance both internal and international trade.

Hundies are of two kinds.

(i) Darshani Hundi, which is more or less like a cheque and has to be cashed immediately, when it is presented.

(ii) Muddati Hundi, has to be paid after a period of time specified on it. This is more like a bill of exchange.

5. Cheque. We have already said something about the bank note, which strictly speaking, is a currency not a credit instrument. The next important credit instrument is the cheque. A cheque is an order on a bank by its client, who has already deposited (or acquired by loan) money with it, to pay the stated sum to the bearer or to the order of the person in whose favour the cheque is drawn. The former is "bearer cheque" and the latter is "order cheque." Cheques are written on prescribed forms supplied by the bank. Every cheque bears a number. The cheque must bear the signature of the person drawing it. When a cheque is crossed (by drawing two parallel lines across its breadth) it can only be deposited in the account of the person in whose favour it is drawn, in some bank. If lost, such a cheque cannot be cashed directly. A "bearer cheque" is not crossed and can be cashed by anyone who holds it, unless the bank is informed beforehand not to cash it. If it is an "order cheque" the responsibility of payment to the right person is on the bank.

Among the advantages of a cheque is that it economises money. Cheques can be created by all banks while the note issue is restricted to the central bank. Cheques can be drawn to an exact amount, e.g., Rs. 100 10as. 6ps. The use of cheques is facilitated greatly by clearing house arrangements.
6. **Clearing House.** A clearing house is an institution where cheques drawn on various banks are cancelled against one another and only the balance is paid. The working of a clearing house is made clear by the following example. Suppose there are four banks A, B, C, D, whose accounts are cleared in a certain clearing house. Each bank sends its representative with cheques to be cleared.

Suppose one evening the claims of these four banks on one another are as follows:—

<table>
<thead>
<tr>
<th>Bank</th>
<th>Cheques on Bank</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>5,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>C</td>
<td>4,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>D</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank</th>
<th>Cheques on Bank</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>C</td>
<td>5,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>D</td>
<td>1,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>A</td>
<td>4,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>10,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank</th>
<th>Cheques on Bank</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>D</td>
<td>5,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>A</td>
<td>6,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>B</td>
<td>3,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank</th>
<th>Cheques on Bank</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>A</td>
<td>3,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>B</td>
<td>1,000</td>
</tr>
<tr>
<td>&quot;</td>
<td>C</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>9,000</strong></td>
</tr>
</tbody>
</table>

The total sum of all the cheques to be settled is Rs. 44,000. If we look at the credits and debits of each of the banks the position is as given below:

<table>
<thead>
<tr>
<th>Bank</th>
<th>Credit (is owed) Rs.</th>
<th>Debit (owes) Rs.</th>
<th>Balance + in favour against Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11,000</td>
<td>13,000</td>
<td>-2,000</td>
</tr>
<tr>
<td>B</td>
<td>10,000</td>
<td>9,000</td>
<td>+1,000</td>
</tr>
<tr>
<td>C</td>
<td>14,000</td>
<td>14,000</td>
<td>Nil</td>
</tr>
<tr>
<td>D</td>
<td>9,000</td>
<td>8,000</td>
<td>+1,000</td>
</tr>
</tbody>
</table>

Thus if bank A pays Rs. 1000 to B and Rs. 1,000 to D, the whole account is cleared. An account of Rs. 44,000 is cleared just by the payment of Rs. 2,000. Even these payments are not made in cash but by cheques on the central bank. This great advantage is obtained by the use of cheques and the clearing house system.
Cheques, however, can serve only a limited circle of people known to each other or relying upon each other's credit. A cheque is not legal tender.

7. Draft. A draft is a cheque drawn by one bank upon another. For instance, suppose you want to remit Rs. 1,300 to your brother studying in England. You can go to one of the banks in India having a branch or an agency in London. Pay down Rs. 1,300 and at the current rate of exchange obtain a draft on the London branch or the agent of the said bank. This draft will be in English money instructing the branch of the bank concerned to pay the bearer on demand the specified amount. You send this draft to your brother in England and he presents it to the bank on which it is drawn and receives the money.

8. Credit Classified. Two classifications of credit may be noted (i) consumption credit and production credit (ii) commercial credit and bank credit.

The first classification is from the point of view of the ultimate use to which credit is put. Borrowing on credit may take place for immediate consumption, then it is called consumers' credit. Many shopkeepers sell goods to their customers on credit, since they are unable to pay in cash. The system of hire purchase also belongs to this category. Here you buy by instalments. When credit is obtained for the purpose of promoting production it is producer's credit or production credit. Here it is used as capital.

As regards the second classification, when credit is used for financing the manufacture and marketing of goods it is called commercial credit. For instance a wholesale dealer may sell goods to a retailer on the understanding that payment will be made after three months or any other period. This will mean the granting of commercial credit. Hundis and bills of exchange explained above are instruments of commercial credit.

We speak of bank credit when we refer to the creation of credit on the part of banks. For instance, a bank may create credit, in other words lend money, by allowing its customer to draw cheques up to a given amount. Against the liabilities thus undertaken the bank usually keeps only a small proportion in the form of actual cash. This is because the public has confidence in the bank's ability to meet its liabilities on demand. Bank notes issued by ordinary banks are also a form of bank credit.

9. Utility and Functions of Credit. It will be seen from the above study that credit performs many useful functions for the economic prosperity of a country, thus:

(i) It economises the use of metallic currency. Credit instruments serve in the place of metallic coins and thus save so much metal.

(ii) It helps in the finance of industry by making possible huge loans to businessmen.
(iii) It increases the productivity of capital. Idle money through the agency of banks is made available to people who can use it productively.

(iv) By means of credit large sums can be lent by banks against small cash reserves. Thus a bank may be able to lend Rs. 10,000 by keeping only a reserve of Rs. 1,000.

(v) Credit instruments, especially bills of exchange, greatly facilitate payments in international trade. Payments can be made without movements of treasure to any large degree.

10. Credit and Prices. How does credit affect prices? Is the affect the same as ordinary currency? This has been a controversial matter. Mill and some others following him asserted that credit influenced prices exactly in the same way as cash, credit being as good purchasing power as cash. On the other hand, the American economists Walker, Laughlin and others held the view that credit had no influence on prices. They believed that credit no doubt does possess purchasing power, but it has no liquidating power. To complete a sale ultimately a payment has to be made in cash. Once created, they believed, debts can only be cancelled by cash.

Both these views are extreme and hence only partially correct. The truth appears to be midway between the two. If credit instruments were perfect substitutes of cash they would exert exactly the same influence on price level as cash. Actually people have more confidence in cash than in credit instruments. Hence the banks have always to keep a certain proportion of their credit liabilities in the form of cash. When credit expands some cash has to be withdrawn from circulation to serve as reserve. Therefore prices do not rise to the same degree as they would have done if no cash had been withdrawn. But since only a small proportion of the heavily expanded credit is backed by cash, credit can and does lead to inflationary rise in prices if not kept within limits. And this is the danger of credit i.e., its over expansion.
1. Introduction. In modern communities banks play a great part as creators of money and controllers of its supply as well as its demand. A bank in fact is an institution which deals in money. Broadly speaking banks draw surplus money from the people who are not using it at the time and lend to those who are in a position to use it for productive purposes. Thus acting as intermediaries the banks make profits. Not only that, as we shall see, banks can make profits, and they do, by lending money which they do not possess. These institutions have developed, therefore, large number of very useful functions. Their development is an interesting study.

2. Evolution of Banks. Modern banks have developed from very small beginnings. The earlier bankers were goldsmiths. In Europe they were also money changers. These latter were the people who converted one kind of money into another. As they dealt with precious metals they had to arrange for the safety of their treasure. People with surplus money or gold gradually began to deposit their precious metals with such persons. This in a primitive way was the beginning of what is called deposit banking. The goldsmiths would issue receipts for the metal received. As every one believed in their integrity, through experience in course of time, these receipts began to pass from hand to hand in payment of obligations instead of being first converted into gold. These receipts were the earliest bank notes.

The goldsmiths soon realised that only a small proportion of the metal deposited with them was claimed by the depositors within a given period of time. They, therefore, began to make profit by lending a part of these deposits to persons who were in need of money and possessed good security. In this lending it was not always gold that they gave but issued their receipts, which now would pass among the people as if they were gold. Thus the banks issued several times more of such receipts (notes) than the metal deposited with them.

Gradually the banking business passed from individuals to joint stock concerns. It was a long time before the state realised the danger of allowing every bank to issue notes. Gradually the note issue function was taken over from the ordinary banks in one country after another and was entrusted under strict regulation to a special institution called the Central Bank.

The banks in the meantime discovered new methods of creating purchasing power. They allowed their clients to issue cheques against the deposits outstanding to their credit. These deposits were not necessarily the money actually "deposited" by the client. They could be created by the bank allowing what are known as "over-
draft facilities (permission to draw over and above the money actually outstanding to the client's credit) or by advancing loans against securities.

The cheque had great advantages over the bank note both for the bank and for its client. As long as the bank was sure of a safe proportion of cash reserves, it could raise a high superstructure of credit by advancing loans or giving overdraft facilities. To the client the cheques were more convenient and safe to hold and transfer. Moreover they could be drawn for any fractional amounts. No wonder that in more advanced countries like U. S. A. and Britain by far the largest amount of transactions take place in the form of cheques.

It was thus that the various functions of banks were developed.

3. **Kinds of Banks.** Considerable specialization has taken place among banks with regard to various spheres of their activities. The main types of banks are given below:

(i) **Commercial Banks.** These are chiefly engaged in financing internal trade and carry on other ordinary banking functions of holding deposits, advancing loans and discounting bills as we shall presently see.

(ii) **Industrial Banks.** These institutions specialise in the financing of industry. They advance loans for long periods to people who carry on industrial enterprises. They are very common on the Continent of Europe where they are intimately connected with industry. In India such banks are practically non-existent.

(iii) **Agricultural Banks.** Such banks provide long period and short period finance to agriculture. Long period capital is required for acquisition and improvement of land and purchase of equipment. Short period capital is necessary for current expenditure on seed, manures, wages, etc. In India such banks take the form of co-operative societies for short period lending and Land Mortgage Banks for long period loans.

(iv) **Exchange Banks.** The main function of such banks is to buy and sell foreign currencies, rather titles to foreign currencies, in the form of bills of exchange, drafts, telegraphic transfers etc. We shall deal with their activities in our chapter on foreign exchange.

(v) **Saving Banks.** These institutions give facilities to people usually of small means to save money. Post offices in India carry on this function. Of course other banks also accept savings.

(vi) **Central Banks.** A Central Bank is the most important institution in the banking system of a country. It performs functions of great importance. In fact it directly and indirectly controls the activities of all the other banks. We shall study the central banking functions in greater detail later on.

It should be noted that all these banks overlap in many respects in their functions. Their names indicate only the primary func-
tion in which they specialise. General banking functions are common to all in varying degrees.

4. **General Banking Functions.**—Broadly speaking there are three functions that banks (other than central banks) perform:

(a) **Holding Deposits.** (b) **Advancing Loans.** (c) **Discounting Bills.**

(a) **Holding Deposits.** This function is important because banks mainly depend on the funds deposited with them by the public. Such funds are drawn from private individuals, business houses and public institutions. Deposits are of two kinds (i) current deposits (ii) fixed deposits. On current deposits the bank pays no interest. They can be withdrawn in part or in full at any time by issuing a cheque. Fixed deposits are so called because they are left with the bank for a certain fixed period before the expiry of which they cannot be withdrawn except after giving due notice. On such deposits the bank pays interest. Thus all the deposits can be withdrawn with or without notice. In actual fact only a small percentage is withdrawn at any particular time. But since withdrawals can and do take place the bank has to keep a certain proportion of its assets in liquid condition. The rest can be lent for varying periods. This brings us to the second function of banks.

(b) **Advancing loans.** In this respect the banker has to shoulder the greatest responsibility. The bank earns profit by advancing loans, since it charges interest from the borrowers. But the bank deals with other people’s money which can be withdrawn at any moment. Here great judgment has to be exercised in the matter of lending and keeping reserves.

It should be noted that the bank does not only lend funds actually deposited with it by its clients. The bank can itself create deposits and thus make advances considerably in excess of the sums deposited with it. After satisfying itself that the purpose for which the loan is required is economically sound and after taking precautions as regards security, the bank gives its client the right to draw cheques. The loan thus becomes a deposit to the credit of the customer concerned. If the customer by a cheque or a series of cheques withdraws this amount the payment is made to somebody. These cheques in their turn come back either to the same bank or to other banks of the country or locality. They appear as deposits in the credit of the various people whom the payments were made. Thus it is that “loans create deposits”.

But the power of a bank or a whole banking system to create deposits or credits in this way has serious limitations.

“A bank which is actively creating deposits in this way” wrote the British committee on Finance and Industry “will naturally find that a considerable part of the cheques drawn against them will be in favour of other banks. It will thus lose part of its cash reserves to those banks, and must proceed to limit its loan operations if its
normal ratio is to be maintained. In practice, therefore, no one bank can afford to pursue a policy of creating deposits by making loans or investments which is much out of line with the policies of other banks." 

The limitation thus consists in the necessity of keeping a certain proportion of assets of the bank in the form of cash. This cash again has limitations on its volume. It is partly legal tender bank notes and partly balances with the Central Bank. These are under regulation of the state or under control of the Central Bank as we shall see when we discuss central banking functions.

(c) Discounting Bills. Discounting of bills is practically speaking lending for short periods. A trader, for instance, who does not wish to lock up large funds in trade credits, may draw a bill of exchange on his debtor, and after it has been accepted by or on behalf of the debtor may get it discounted by his banker. This gives the trader immediate possession of the money due to him, less a deduction for the loss of interest and for the commission to the bank. These bills are usually for three months and when they mature the bank realises the face value of the bill. Thus the bank earns a profit by this method in addition to facilitating trade. Since these bills mature after short periods if worst happens they can be rediscouted. This is a common way of keeping a part of the assets of the bank in a liquid form.

Apart from the above main functions the bank performs a number of other services for the people. It helps in transfer of funds from one place to another or one person to another through the use of cheques. Some banks accept bills on behalf of their clients and thus make them more easily negotiable. They supply information and advice to their clients in matters of investment. In addition they perform miscellaneous services like taking charge of valuables and securities, acting as agents, trustees and bailees of their customers, purchasing and selling stocks and shares on their behalf, paying subscriptions to clubs and charitable institutions at regular intervals etc.

5. Maintenance of Reserves. The secret of sound banking consists in the maintenance of adequate reserves, while at the same time making profits for the shareholders. A bank, we have seen, deals with other people's money in the sense that it can be withdrawn with or without notice. But by experience the bankers know that only a small proportion of the deposits are actually withdrawn. His aim therefore is to maintain adequate reserves to meet this demand and make profit by lending the rest. This requires a good deal of skill. Too much caution may mean too meagre profits, while reckless lending may endanger the credit of the bank.

Usually the bank keeps its assets in a descending order of liquidity or realisability into cash. Its first line of defence as the term goes, is to maintain a certain amount in actual cash. This cash is kept either in the form of coins or in the form of currency notes or as a balance with the central bank. In all modern countries the issue of

currency notes is given, under strict regulation by the state, as a monopoly to the Central Bank.

The balances with the Central Bank can always be withdrawn in the form of legal tender currency. The banks thus treat such balances as cash. All important banks are legally bound to keep a certain proportion of their liabilities in the form of balances with the Central Bank of the country. It may be incidentally mentioned that the existence of such balances gives the central bank great power over other banks of the country in the matter of controlling the credit expansion of the latter. We shall come to the exercise of this power when we deal with the central banks.

The second line of defence in maintaining reserves is the money lent for very short periods, technically called "money at call and short notice." This is mainly lent to discount houses, bill brokers and petty stock brokers. Such loans can be recalled either on demand or within a few days.

After this comes "bills discounted." These become liquid as they mature. These may be Treasury Bills issued by the Government or commercial bills.

Then come investments. These are mainly government securities. The fixed interest-yielding securities, also called "gilt edged," securities in England, are most popular for this purpose since there is practically no risk in such investments.

Finally come advances to customers. They may take the form of loans or overdrafts and bring highest profits, though the risk also is greatest in their case, since they are the least liquid.

6. **Importance of Liquidity.** The proportion of these various forms in which the assets are kept vary with countries, with banks and with the state of trade. The larger the "liquidity" of the assets the more confidence a bank will inspire but lower will be its profits. Sometimes there is a certain amount of "window dressing." The banks accumulate larger proportion of cash by calling in short loans, at the time of publishing their periodic statement, though normally this proportion is much lower.

The whole banking business runs on the confidence of the people in the ability of the banks to pay their money back on demand. If such confidence is lost for any reason there is a "run" on the bank i.e., every one who has deposits in the bank rushes to withdraw them. No bank can face a run because all the deposits are not in liquid form. Thus it is necessary for a bank not only to keep a certain proportion of its assets liquid, but also give no occasion for peoples' confidence on its soundness to be shaken. Window dressing is one of the methods of giving a sense of security to the public. The best way to inspire confidence, however, is to freely give credits in times of panic. Central banks also come to the help of member banks on such occasions.

To keep the people informed of their financial position the banks are required by law to publish their accounts in the form
what is called a "Balance Sheet." A bank's balance sheet is a statement of its financial position. Usually such a statement is issued every week. The balance sheet consists of two columns. The column on the left hand side gives the Liabilities of the bank and that on the right its Assets. Liabilities are what the bank owes to others, and Assets are what others owe to the bank in addition to what the bank actually possesses in hand.

7. Usefulness of Banks. It should be clear by this time that banks are extremely useful for a modern community. "Bankers are the custodians and distributors of the liquid capital, which is the life blood of our commercial and industrial activities, and upon the prudence of their administration depends the economic well-being of the nation." Thus wrote Stephenson and Branton about the importance of banks. More concretely we may summarise the uses of banks as follows:

(i) They create purchasing power in the form of bank notes, cheques, bills and drafts and thus economise the use of precious metal.

(ii) They make money more mobile, by being lenders and borrowers together, and by helping funds to move from place to place and person to person in a convenient and inexpensive manner, through the use of cheques, bills and drafts.

(iii) They encourage the habit of saving among the people and enable small savings, which otherwise would have been scattered ineffectively, to be accumulated into large funds and thus made available for investments of various kinds.

(iv) By encouraging savings and investment they increase the productivity of the resources of the country and thus contribute to general prosperity and welfare.

In a word without the banks the present level of economic development of the world could never be imagined.

Unfortunately banking facilities in India are extremely meagre and this is one of the causes why our natural and human resources have not been adequately exploited.

There are special functions of very great importance that are performed by the Central Bank of a country to the study of which we must now direct our attention.
CHAPTER XXXVI

CENTRAL BANKS

1. Introduction. A central bank is an institution which is responsible for safeguarding the financial stability of a country. It holds the ultimate reserves of the nation, controls the flow of purchasing power—whether currency or credit—and acts as banker to the state.

In recent years the importance of central banks has enormously increased. This has been due to various causes: The growing interdependence of economic life within and between countries, the greater necessity of management and control of currency systems, the postwar (1914-18) confusion in currency and exchange matters. The Great Depression and the realisation that control over supply of money through central banks could avoid to a large degree cyclical fluctuations. The element of planning and regulation that has been introduced in economic systems of various countries in recent years. All these have increased the importance of an institution which could co-ordinate, control and manage the various complicated and conflicting factors, economic and financial, which affect the economic stability in the national and international fields. England established her central bank (the Bank of England) as far back as 1894. Other important countries like France, Germany had their central banks long before the World War I. The Federal Reserve system of the U. S. A. was established in 1914. The importance of central banks, as already noted, was specially realised during the currency troubles that followed the World War I. It was found necessary to have one bank controlling the policies (usually selfish) of the banks of the country. A Monetary conference was held at Brussels in 1920, which strongly recommended the establishment of central banks in all modern industrial countries. The result is that now practically every country has a central bank. The Reserve Bank of India, which is the Indian central bank, was established in 1935.

The principles on which a central bank is run are quite different from the ordinary banking principles. An ordinary bank is run on business lines. To be able to exist it must earn reasonable profits. An ordinary bank, as long as it keeps adequate reserves, can indulge in any reasonable business of investment that brings profits. A central bank on the other hand is primarily meant to shoulder the responsibility of safeguarding the financial and economic stability of the country. “The guiding principle of a Central Bank” says De Kock, “is that it should act only in the public interest and for the welfare of the country as a whole and without regard to profit as a primary consideration.” Earning of profit for a central bank is thus a secondary consideration. It works under control imposed by the law

(1) De Kock: Central Banking, p. 18.
of the state and is definitely debarred from investing money in risky enterprises.

2. Central Banking Functions. What functions are more characteristically central banking functions, has been a widely discussed question among economists. Hawtrey thinks that it should primarily be the "lender of last resort." Vera Smith stresses the monopoly of note issue and Shaw regards control of credit as "the one true, but at the same time all sufficing function of a central bank." Kisch and Elkins regard "the maintenance of the stability of the monetary standard" as the essential function of a central bank. It is, however, difficult to single out any particular function as the characteristic of a central bank. A recent authority gives the following list of central banking functions:—

"(1) The issue of paper currency in accordance with the requirements of business and the general public, for which purpose it is granted either the sole right of note issue or at least a partial monopoly thereof;
(2) The performance of general banking and agency service for the state;
(3) The custody of cash reserves of the commercial banks.
(4) The custody of the nation's metallic reserves;
(5) The re-discounting of bills of exchange, treasury bills and other suitable paper offered by the commercial banks and dealers and similar financial institutions;
(6) The acceptance of the responsibility of the lender of last resort;
(7) The settlement of clearance balances between the banks; and
(8) The control of credit in accordance with the needs of business and with a view to the maintenance of the monetary standard adopted by the state.

Briefly put a central bank acts in the following capacities:—
(i) As the note issuing agency.
(ii) As the banker to the state.
(iii) As the bankers' bank.
(iv) As the guardian of the money market, through control of credit.

We shall now proceed to consider these functions in detail.

3. The Note Issuing Agency. In early periods of banking development, almost every bank enjoyed the right of issuing notes. This led to frequent troubles. Notes were over issued and the resulting inflation disorganized the currency system and brought other serious economic and financial consequences. The government

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(1) Kish and Elkins: Central Banks, p. 74.
(2) De Kock: op cit p. 15.
therefore had to exercise stricter control over the issuing of notes. Gradually the practice of entrusting this important function to the chief bank of the country, the central bank, became established. Now in almost every country the central bank enjoys either full monopoly or almost a monopoly in this respect. Such a monopoly is of great importance. It gives uniformity to the system of note-issue. Moreover the notes of a central bank have greater prestige and in times of shaky confidence are seldom presented for encashment into coins or metal. Above all, this monopoly gives the central bank control over other banks in the matter of expansion of credit, since the cash reserve forms the ultimate limit of such expansion.

In the issue of notes two conflicting aims have to be reconciled. On the one hand note issue must be elastic. The circulation should expand and contract in accordance with the demands of trade. On the other hand the confidence in the note must be preserved by maintaining its convertibility. The first is the principle of elasticity and the second is that of security. This requires a proper regulation of note issue.

From the point of view of such regulation several systems have been tried. Two of them are the most popular systems i.e., the Currency Principle or the Fixed Fiduciary System and the Banking Principle or the Proportional Reserve System.

The classical example of the Fixed Fiduciary System is the one introduced into great Britain by the Bank Charter Act of 1844 as amended later. Under this system a given quantity of notes can be issued by the central bank without keeping any metallic reserves. This portion need be covered only by government securities. This is called the fiduciary limit. Notes issued in excess of the fiduciary limit must be covered pound for pound by gold. This method was attacked from time to time as lacking in elasticity. It however acted as a break on over expansion of credit. In abnormal circumstances the fiduciary limit could be extended by amending the Act. In 1928 the Treasury was given the power to increase the fiduciary limit beyond that legally fixed. This gave some elasticity to the system. It was however objected that extension of the fiduciary limit was always interpreted as a sign of weakness. Thus it was held that elasticity was imparted at the expense of loss of confidence. In spite of this criticism the system has survived, mainly perhaps with the force of tradition. Japan and Norway, in fact, have introduced the same system.

The Banking Principle is common on the European continent and with modification has been also followed by the Federal Reserve System of the U. S. A. "The essential feature of this method, which has now spread over a large part of the world", says De Kock, "is the provision of a proportional metallic reserve against the note circulation (25, 30, 33 1/3, 40 per cent) the remainder of the notes to be covered by the trade bills and Government securities, with the further
provision, that subject to certain conditions and penalties the reserve ratio may be allowed to drop below the legal minimum."

This system is more elastic than the Currency Principle. If the bank obtains say, Rs. 40 worth of gold, it can issue Rs. 100 worth of notes under the Banking Principle, but only Rs. 40 worth of notes under the Currency Principle, once it has exhausted the fiduciary limit. The element of safety however is less under this method of issuing notes.

Some people think that if the State issues notes, as was done in India until the Reserve Bank of India took over this function, the note issue can be better controlled. But in times of emergencies the notes will be over-issued whether the state does it directly or indirectly through its influence over the central bank. In fact note-issue by a central bank is slightly better from this point of view, since there may be some resistance by the central bank to the proposals of the Government to use the method of printing additional notes for its finance.

As far as India is concerned the Reserve Bank of India has the monopoly of note-issue. For this purpose, the Reserve Bank like some other Central Banks (e.g., the Bank of England) maintains a separate department called the Issue Department. The assets of this department are kept distinct from those of the other department of the bank i.e., the Banking Department.

The assets of the Issue Department consist of gold coin, gold bullion, or sterling securities, provided that the amount of gold coin and gold bullion is not at any time less than Rs. 40 crores in value. With the sanction of the Central Government, the 40 per cent limit can be reduced for limited periods on payment of a specified tax on the deficiency. Thus the system adopted in India is a compromise between the two systems discussed above.

As the experience of the recent war has shown this particular method of regulating note-issue has not been able to save India from inflation. The very provision (keeping of sterling backing) which was meant to act as a brake on over-issue was the cause of the enormous inflation of currency that has taken place. India was paid in sterling for the various war materials purchased in the India market on behalf of His Majesty's Government and the Allies. This sterling was transferred to the Issue Department of the Reserve Bank in London and corresponding amounts of currency notes were issued in India. This led to an enormous expansion of note issue while the letter of the law was fully honoured. The amount of inflation that has taken place will be clear from the fact that notes in circulation increased from Rs. 182 crores on 1st September 1939 to Rs. 1218 crores on 4th January, 1946. Correspondingly sterling securities held in the Issue Department of the Reserve Bank increased from Rs. 59 crores to Rs. 1110 crores over the same period.

4. **Banker of the State.** The second important function of a central bank is to act as banker to the government. All the balances of the government of the country are kept with the central bank. On these balances usually the bank pays no interest. On the other hand the bank performs a number of services to the government. Generally speaking it is the fiscal agent to the government, and advises the latter in matters relating to currency and exchange as well as finance. “Central banks every where operate as bankers to the state not only because it may be more convenient and economical to the state, but also because of the intimate connection between public finance and monetary affairs.” As the various financial activities of the state can interfere with the conditions of the money market, the exchange rates, and credit policy of the central bank, the banking operations of the state can best be centralised in the central bank.

An important function of the central bank with respect to the state is the provision of short term loans. This is usually done through the central bank discounting the Governments Treasury bills either directly or when presented by other banks. This is to enable government to meet its current financial obligations in anticipation of its revenues. During times of crises like war such lendings to the government can lead to serious inflation as happened in the case of France, Germany and elsewhere in Europe during and after the war of 1914-18. “History is full of examples,” says De Kock, “of inflation and currency depreciation resulting from credit creation on behalf of the state. In fact, experience has shown that heavy government borrowing either directly from the central bank or indirectly through rediscounts, is the easiest means, and sometimes the only means, of bringing about substantial inflation.”

When a central bank gives advances to the government against treasury bills or other government securities the money spent by the government is again deposited with commercial banks by those who receive payments. This in fact means an increase in the commercial banks' balances with the central bank which as we have seen are as good as cash. On the basis of this cash the commercial banks are able to increase their loans and advances. Thus inflation begins. It is, therefore, necessary that the central bank should be kept independent of the state so that it may be able to resist the latter's pressure for credit in times of danger. In view of the disastrous consequences of government borrowings in some countries during and after the World War I, some newly established central banks (Chile, Czechoslovakia, South Africa and India) were restricted by law in the matter of granting accommodation to the governments. But such restrictions had to be relaxed in periods of emergency.

The Reserve Bank of India performs several functions as the banker to the state. It accepts money for account of the Secretary of State, the Central Government, the Provincial Governments, and approved States, and makes payments up to the amount standing

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(1) De Kock, op cit. p. 64.
to their credit respectively and carries out their exchange, remittance and other banking operations, including management of the public debt.

As regards advances to the state the Reserve Bank has not been restricted with regard to such advances. But they must be repaid within three months from the date of making the advance. The bank can also buy Government securities of any currency provided the amount of such securities held at any time in its Banking Department is not to exceed the aggregate amount of share capital of the Bank, the reserve fund and three-fifths of the deposit liabilities of the Banking Department, and provided further, that securities maturing after one year or after 10 years shall not exceed certain limits.

5. **The Bankers' Bank.** Broadly speaking the central bank acts as a bankers' bank, in three capacities:—

(i) as the custodian of the cash reserves of the commercial banks;
(ii) as the lender of last resort, and
(iii) as a bank of central clearance, settlement and transfer.

(i) The habit of the commercial banks keeping their cash reserves with the central bank, developed slowly and it has been closely associated with the function of the central bank as the bank of issue and banker to the Government. It was convenient to keep cash reserves with the central bank because its notes commanded greatest confidence and governments' banking transactions took place through this institution. Originally keeping of cash with the central bank was optional; later in most countries it was made a statutory obligation.

This practice has many advantages. Firstly, it economises cash. The nation's cash can be more effectively used when centralised than when scattered in the vaults of numerous banks. Secondly, it enables the commercial banks to increase their reserves merely by discounting bills with the central bank in time of need instead of having to rely upon their own resources. Thirdly, it gives the central bank control over the credit policies of the member banks as we shall presently see.

In India the scheduled banks (so called because their names are included, on basis of their paid up capital and reserve, in the Second Schedule to the Reserve Bank Act) are required to maintain with the Reserve Bank a balance not less than five per cent of their demand and not less than two per cent of their time liabilities.

(ii) The central bank is the lender of last resort to the commercial banks. When the commercial banks have exhausted their own resources and have failed to supplement their funds from the usual outside resources, the central bank is called upon to function as the lender of last resort. It acts in this capacity mainly through its rediscount operations.

In the narrow sense rediscounting is applied only to first class trade and agricultural bills brought to the central bank by commercial
banks and bill dealers or brokers, who are temporarily in need of funds and want to convert some of their short term assets into cash. In the wider sense as now current in most countries, rediscounting is defined as "the conversion directly or indirectly, of commercial bank credit into additional central bank credit". Rediscounting is thus applied also to Treasury bills and to short term collateral loans to banks and other financial institutions made by the central bank, against bills or promissory notes and government securities.

Rediscounting facility enables commercial banks to carry on their day to day business on smaller cash reserves, since they can always rely upon the central bank in times of crises. It gives increased elasticity and liquidity to the assets of the commercial banks. Rediscounting however should not be abused. It should be only resorted to in times of emergencies not in times of normal business activity. The central bank in its turn should be ready to help in times of distress, but should be less liberal in ordinary times. This is necessary to encourage self reliance among commercial banks and to conserve the strength of the central bank for emergencies. The mere fact that they can get help from the central bank in times of emergencies is enough to maintain the confidence of the public in the commercial banks.

(iii) The central clearing function is adopted by all central banks. In some countries it is merely a matter of tradition or convenience, in others it is a duty imposed by law. This is a logical step from the position of the bank as custodian of cash reserves of the commercial banks. Since banks keep cash reserves with the central bank, settlements between them can be easily effected by means of debits and credits on the books of the central bank. In many countries separate clearing houses are set up to cancel mutual obligations between the banks including the central bank. In such countries the balances ultimately to be paid can be paid without cash transfers through mere book entries in the accounts of commercial banks with the central bank. If clearings go heavily against some bank its cash balances with the central bank will fall below the prescribed or traditional limit. In such a case the bank concerned can rediscount with the central bank for a few days until the deficiency in the balances is again made up.

This method of settling accounts apart from being convenient is economical as regards the use of cash. It also strengthens the banking system by reducing withdrawals of cash in times of a crisis. Moreover, it enables the central bank to be well informed about the state of liquidity being maintained by the commercial banks with regard to their assets. This information helps the central bank in its function of controlling the credit expansion in the country.

6. The Controller of Credit—The Objectives. A central bank controls credit with the following objects in view:

(1) De Kock: op cit. p. 106.
(a) To safeguard its gold reserves against internal and external drains.

(b) To maintain stability of internal prices.

(c) To achieve stability of foreign exchanges.

(d) To eliminate fluctuations in production and employment.

The necessity of safeguarding gold reserves arises under a gold standard. In a gold standard country gold can be freely imported and exported and the currency of the country is convertible by law into gold coin or gold bullion. In such a country an over expansion of credit causes inflation. High prices at home firstly lead to withdrawal of more cash from the banks and gold from the central bank to carry on transactions at a higher level. This is called the "internal drain". Secondly, the home price level being higher than the international price level imports are encouraged and exports discouraged. An unfavourable balance of trade is created which has to be met by export of gold. This is called the "external drain". Gold may also move out because the foreign investors have lost confidence in the future of the currency under question and they begin to withdraw their funds. The central bank, therefore, must take steps to contract credit, bring prices down and stop the internal and external drain of gold.

The second object is to maintain stability of internal prices. We have already referred to the various disadvantages of fluctuating prices. Price instability causes disturbances in economic relations, maladjustments and serious social consequences. The central bank by regulating the supply of purchasing power according to the needs of the people can reduce such fluctuations to a large extent.

Instability of foreign exchange (value of foreign money in terms of home money) disturbs international trade.

There has been considerable controversy as to which of the two objects, internal price stability or exchange stability, should the central bank prefer, when both cannot be obtained at the same time. If all the countries concerned are on gold standard stabilization of internal prices by all the countries will automatically keep exchanges stable within narrow limits. Upto the great war of 1914, therefore, the various countries kept stability of exchanges without serious disturbances in the price levels. During periods of convertible paper, however, it was found that price levels in different countries moved in different directions resulting in great disparities. Under such circumstances a country aiming at exchange stability had to let its internal price level fluctuate in response to foreign prices. This seriously upset the whole internal economy of such a country. In recent years, therefore, the central banks have aimed more at the stability of internal prices and let exchange adjust itself as necessitated by circumstances. When other things are equal a country with greater interest in foreign trade (e.g., England) would pay more

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(1) See "Specie Points", p. 393.
attention to stability of exchange and a country with relatively small foreign trade (e.g., India) would concentrate more on internal stability. One of the criticisms of the currency and exchange policy of the Government of India has been that the latter has paid more attention to exchange stability and less to the stability of internal prices.

A more recent view rejects both the aims of exchange stability and internal price stability. This view has come out of the experiences of the great world depression of the thirties. It is held that the central bank should aim at smoothing out of the business cycle, which results not merely from price movements. No doubt steadiness in internal prices and foreign exchange are both desirable, but they should be subservient to maintaining the stability of economic life as a whole. The aim should be to maintain a normal steady growth of business activity, and prevent booms and slumps.

7. Difficulties of Credit Control. Even if one or more of these objectives are desired by the central bank, there are serious difficulties in the way of their achievement. In the first place, there are difficulties in the way of controlling credit itself. Secondly even if the bank is able to control the volume of credit, the objectives concerned may not necessarily be achieved.

Several difficulties in the way of controlling credit may be noted.

Firstly, bank credit is not the only form of credit. There is commercial credit like book credit, bills of exchange and promissory notes (not discounted by banks). On these the central bank has little control. They are as much purchasing power as any other form of credit.

Secondly, even as regards bank credit all banks of the country do not have direct relations with the central bank. In the U. S. A., for instance, one half of the commercial banks, with one-fifth of resources are outside the Federal Reserve System.

Thirdly, even if all banks were 'member banks,' commercial banks may not always cooperate with the central bank and may not follow its lead. Such cooperation, as we shall see, is indispensable for a successful control of credit.

Fourthly, there are non-banking elements in the financial structure of a country. Among these are the various circumstances that affect the temper of the business community. These are beyond the scope of central banking action.

Finally, the central bank cannot control the ultimate use to which credit may be put. Strictly commercial loans, for instance, may be used for speculation purposes.

This, however, does not mean that any attempt to control credit, on the part of the central bank is bound to fail. These are the limitations to which the action of the central bank is subject and they must be kept in mind by the banking authorities.
Even if the bank can control credit, it does not necessarily follow that the objectives of the bank like price stability, exchange stability etc., will automatically follow. There are difficulties in their way too, which have been discussed elsewhere.

Now we proceed to discuss the methods of credit control. These are the following:—(i) Bank rate policy, (ii) open market operations, (iii) credit rationing, (iv) other methods.

Let us take these in turn.

8. **The Bank Rate Policy.** The bank rate is the rate at which the central bank of a country is willing to discount first class bills. It is thus the rate of discount of the central bank, while the market rate is the rate of discount prevailing in the money market among the other lending institutions. Since the central bank is only the lender of the last resort the bank rate is normally higher than the market rate. The term rate of interest is usually applied to the yield of long term investments. Deposit rate is the rate which the commercial banks pay to those who keep deposits with them. The banks’ call rate is the rate at which money is advanced for very short periods to the bill brokers etc. In a perfectly developed money market all these rates bear a more or less constant relationship with each other. Before the World War I, for instance, in England the banks usually fixed their deposit rate 1\% per cent below the bank rate. The call rate was fixed usually ½ per cent above the deposit rate to enable the banks to have a margin of profit between what they charged and what they paid. The banks charged about 1\% above the bank rate on advances to their customers, subject to a minimum of 5 per cent. The relationship between the bank rate and the market rate of discount was determined by the conditions of the money market.

Under such conditions, therefore, if the bank rate was changed all the other rates normally moved in the same direction. Though this did not always happen as we shall see.

In countries where the money market is not so well organised the relationship between the bank rate and the other rates is not so close. To that extent, therefore, the central bank is unable to influence these other rates by changing its own rate of discount.

9. **The Theory of Bank Rate Policy.** According to theory the changes in the bank rate of a central bank are followed by corresponding changes in all the local money rates. If the bank rate is raised the market rate and other lending rates of the money market also go up. Conversely the market rate of discount and the other rates go down when the central bank lowers its bank rate. These changes affect the supply and demand for money. Borrowings are discouraged when the rates go up and encouraged when they go down. In the former case a contraction of credit and in the latter its expansion is the result. The flow of foreign short term capital is also affected. There is an inflow of foreign funds when the rates are high and outflow when they are low. Internal price level tends to fall with the contraction
of credit and it tends to rise with its expansion. Business activity, both commercial and industrial is stimulated when rates of interest are low, and discouraged when they are high. An adverse balance of international trade can be counteracted through lowering of domestic costs and prices by contraction of credit, since this stimulates exports and discourages imports.

10. Bank Rate Policy Under Gold Standard. The theory of this policy is specially adapted to gold standard. It operated most successfully; therefore, in Great Britain before 1914. Under gold standard an adverse balance of trade is indicated by movement of exchange to the gold export point and outflow of gold. This may be due to excessive export of capital or great import of merchandise. Conversely when the balance of payments is favourable there is an inflow of gold.

In the case of the outflow of gold the primary cause may be relatively high domestic cost of production, discouraging exports and encouraging imports, or over investment of capital in foreign countries caused by fear regarding the future of the home currency, or other factors, or speculative influences may be at work.

Under such conditions raising of the bank rate led to contraction of credit. This was followed by greater sale of commodities and securities since their holding became more costly due to higher rates of interest, fall in domestic demand due to fall in the incomes of various groups, decline in new investment and speculation, lowering of prices and wages. The ultimate result was encouragement of imports, inflow of foreign capital, discouragement in the withdrawal of foreign capital etc. In due course equilibrium was restored. The outflow of gold stopped. If the policy was continued long enough there was inflow of gold, thus relieving credit stringency, lowering money rates and reviving business activity.

Conversely, if there was a continued inflow of gold, the central bank would lower the bank rate. This would cheapen money and encouraged expansion of credit, trade, production, investment and speculation. It raised domestic prices and costs, encouraged imports and discouraged exports. Investment in foreign countries was encouraged. If the policy was continued long enough an adverse balance of payment arose and gold inflow was changed into outflow.

11. Limiting Conditions of Bank Rate Policy. For a successful working of such a policy, a little reflection will show, that a number of conditions had to be satisfied.

(i) All the other rates should follow the bank rate in its movement, so that credit should expand and contract as the case may be.

(ii) The economic structure of the country should be elastic so that changes in credit conditions should lead to corresponding changes in wages, rents, production trade etc.

In a well organised money market like that of Great Britain the first condition is satisfied.

(1) For "Balance of Payments:" Chap. XXXIX.
In Great Britain, for instance, as we have seen all the other rates have a more or less constant relationship with the bank rate as a matter of convention. Sometimes, however, when surplus funds are available in the money market the bank rate may fail to be effective and other methods may have to be used. In most other countries this condition is not satisfied to any appreciable degree. Hence the meagre success of the bank rate policy there. As regard the second condition, again conditions in Great Britain were most favourable especially before 1914. The economic structure was appreciably elastic. Wages, rents and production responded within limits to changes in money rates and credit conditions. In subsequent years the British economic structure considerably lost its old elasticity. This was for various reasons among which were the breakdown of the gold standard and coming in of the managed currency and regulation of wages and prices.

As regards other countries, the bank rate policy was always much less successful due to the absence of the above two conditions. In recent years this particular method of credit control has become secondary even in Great Britain. This decline in its relative importance is due to changes in money market conditions and the greater rigidity of the economic system as already noted. As regards the money market several developments may be noted. Domestic trade is financed now more through bank overdrafts and less through bills of exchange which latter played so much part in discounting operations. Foreign bills have also lost a good deal of their importance due to the fact that London no longer enjoys the same financial status as it used to do before the war of 1914-18. This has reduced the volume of foreign bills offered for discount in London. Moreover short term Treasury bills have taken the place of bills of exchange for short term investment. This has increased the influence of the Treasury over the money market. Such changes are not conducive to the smooth working of bank rate policy.

12. Keynes View of Bank Rate Policy. According to Lord Keynes the traditional theories of bank rate concentrated largely on the influence of bank rate as a means of regulating the quantity of bank money and of protecting a country's gold reserves. It had not taken account of the influence of bank rate on the rate of investment relatively to saving, and the influence of changes in the relation between investment and saving on prices, production, employment and wages.

Keynes criticises Hawtrey who had emphasized investment but only one particular kind of investment, namely "investment by dealers and middlemen in liquid goods," "to which" adds Keynes "a degree of sensitiveness to changes in bank rate is attributed which certainly does not exist in fact." According to Keynes economic situation is affected not through the changes in short term rate of interest and in the stocks of working capital goods, but through the long term rates of interest and the volume of fixed capital

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goods. Changes in bank rate lead to changes, not only in short term rates of interest, but also in long term rates, since the last two are interconnected. Changes in long term rates affect the investment market. This investment depends upon prospects of profits and the long term interest. Assuming the prospects of profits to be the same the higher the long term interest the less attractive become investments or replacements of existing capital. When entrepreneurs spend less on fixed capital goods, employment in the capital goods trades declines. This leads to contraction of total money incomes and decrease in expenditure on current consumption. This results in the decline of employment in consumption goods trades. Prices and production fall all round. Conversely, when the rates of interest fall the opposite process is the result.

In his more recent work1, Keynes still emphasizes the importance of equilibrium between saving and investment for general economic stability. He is however of the view, that apart from regulation of quantity of money through open market operations (to be studied presently) such equilibrium should be attained, not by bank rate policy but by the State directly organizing investment and starting public works in periods of depression. Keynes regards bank rate policy as an out of date method of controlling credit.

13. Conclusion Regarding Bank Rate Policy. The bank rate policy, however, has not yet gone completely out of use, though its relative importance has been much reduced. It is still an instrument of correcting wrong trends and restoring equilibrium, through its influence on the supply and demand for money. Whether it acts through affecting short term interest rates and investment in liquid goods as Hawtrey holds, or through long term interest rates affecting investment in capital goods as contended by Keynes, is a matter which is difficult of verification. Interest, moreover, is only one of the elements of cost whether the investment is in liquid goods or capital goods. States of trade and prices are affected by so many factors. It should also be remembered that the explanation of the process given by Hawtrey and Keynes are not mutually exclusive. A change in bank rate may lead to changes in holding of stocks as well as in investments in fixed capital goods. The difference is only of emphasis.

14. Open Market Operations. The Theory. The term Open Market Operations in the wider sense means purchase or sale by a central bank of any kind of paper in which it deals, like government securities or any other public securities or trade bills etc. In practice, however, the term is applied to purchase or sale of government securities, short term as well as long term, at the initiative of the central bank, as a deliberate credit policy. This method of credit control has attained greater importance during the last two or three decades.

The theory of open market operations is this. The sale of securities leads to contraction of credit and purchase to credit expansion.

When the central bank sells securities in the open market it receives payment in the form of a cheque on one of the commercial banks. If the purchaser is a bank the cheque is drawn against the purchasing bank. In both cases the result is the same. The cash balance of the bank in question which it keeps with the central bank is to that extent reduced. With the reduction of its cash the commercial bank has to reduce its lendings. Thus credit contracts. When the central bank purchases securities it pays through cheques drawn on itself. Thus increases the cash balances of the commercial banks and enables them to expand credit.

This method is sometimes adopted to make the bank rate policy effective. If the member banks do not raise their rates following the rise in bank rate, due to surplus funds available with them, the central bank can withdraw such surplus funds by the sale of securities and thus compel the member banks to raise their rates. Scarcity of funds in the market compels the banks directly or indirectly to borrow from the central bank through rediscounting bills. If the bank rate is high the market rate then cannot remain low.

15. **Limitations on the Theory.** It is obvious that the above will be valid only if certain conditions are satisfied. These conditions are:

(i) When the central bank purchases securities the cash reserves of the member banks will be actually increased and conversely the cash reserves will be decreased when the central bank sells securities. This may not happen. The sale of securities may be offset by inflow of gold into the banks or by return of notes from circulation and hoards. The purchase of securities on the other hand may be accompanied by an outflow of gold or withdrawal of notes for increased currency requirements or for hoarding. In both the cases therefore the cash reserves of the member banks may remain unaffected.

(ii) But even if the cash reserves of the member banks are increased or decreased the banks may not expand or contract credit accordingly. The percentage of cash to credit is not rigidly fixed and can vary within quite wide limits. The banks will expand and contract credit according to the prevailing economic and political circumstances, not merely with reference to their cash resources.

(iii) The third condition is that when the commercial banks’ cash resources increase the demand for loans and advances should also increase and conversely. This may not be so. Due to economic or political uncertainty even cheap money rates may not attract borrowers. Conversely, when trade is good and prospects of profits bright, entrepreneurs would borrow even at high rates of interest.

Finally, the circulation of bank credit should have a constant velocity. But the velocity of bank deposits is rarely constant. It increases in periods of rising business activity and decreases in periods of depression. Thus a policy of contracting credit may be neutralised by increased velocity of circulation and vice versa.
In spite of these limitations, however, there is a fair relationship between the sale and purchase of securities by the central bank and contraction and expansion respectively of bank credit.

Since for the success of market operations it is necessary that there should be broad and active market in short and long term government securities and such markets exist only in U. S. A. and Great Britain, this method of credit control has been most effectively used in these two countries.

In Great Britain especially this method has been widely used with the objects of making bank rate effective, counteracting the effect of seasonal movements of funds, offsetting the inflow and outflow of gold and creating and maintaining conditions of cheap money and in the interest of business recovery.

16. Credit Rationing. Credit rationing means restrictions placed by the central bank on demands for accommodation made upon it during times of monetary stringency and declining gold reserves. The credit is rationed by limiting the amount available to each applicant. Further the central bank restricts its discounts to bills maturing after short periods. This method was used by the Bank of England as long ago as the end of the 18th century when the usury laws prohibited raising of discount rate beyond 5 per cent. In recent years, especially after the critical period following the World War I, credit rationing has been adopted as a policy by a number of countries like Russia and Germany.

This method of controlling credit can be justified only as a measure to meet exceptional emergencies because it is open to serious abuses.

17. Other Methods. The other methods of credit control may be noted only briefly. There is what is called direct action. This implies coercive measures like refusal on the part of the central bank to rediscount for banks whose credit policy is not in accordance with the wishes of the central bank or whose borrowings from the central bank are excessive in relation to their capital and reserve. The central bank may on the other hand, request and persuade the member banks to refrain from increasing their loans for speculation or non-essential activities. Law may also authorise the central bank to impose a change in the minimum of cash reserve on the member banks. Changes may also be imposed by law in the margin requirements on security loans. Finally the method of publicity is also used. This means issuing of weekly statistics, periodical reviews about the money market conditions, public finances, trade and industry, the issue of weekly statement of assets and liabilities in the form of balance sheets etc.
CHAPTER XXXVII

THEORY OF INTERNATIONAL TRADE

1. Introduction. So far we have been concerned with the problems arising out of exchange of goods and services within the same country. Now we turn to the study of problems that relate to the exchange of goods and services between persons living in different countries.

It should be noted that the difference between internal trade and international trade is only a difference of degree, not of kind. The fundamental principles in both cases are the same. International trade like the home trade is the result of division of labour. In both cases the exchange of goods takes place between persons, though in the case of international trade the parties live in different countries. Moreover international trade is regulated by very much the same principles as trade within the same country. Just as in the internal trade people specialise in producing goods in which they have the largest comparative advantage, the same happens in international trade. Similarly consumers purchase in the cheapest market both in the home and the international trade. The differences are there, but they are as we have said above, only of degree, not of kind and that justifies our treating international trade and its problems separately.

2. Differences Between Home and Foreign Trades. There are several differences, though of degree, between the home trade and foreign trade. These may be noted:

Firstly.—Within the same country labour and capital are more mobile than they are between different countries. This has great significance as we shall see presently. There are various reasons for this difference. As regards labour, as Adam Smith put it human beings are the most difficult to move. People do not move easily out of their native country even if they can command higher wages elsewhere. Many reasons are responsible for this; differences of language, traditions, religion, customs, social and political life etc; or mere inertia may keep them at home. Capital is more mobile than labour. But even here people prefer to invest their savings in their own country for various reasons. A foreign loan must offer a higher rate than the home loan. The investor has a greater sense of security if his capital is invested in his own country.

The result of this comparatively greater immobility of labour and capital between countries is that competition fails to make costs of production of similar goods equal as it does in the same country. This gives unequal advantage to different countries in the production of different commodities. Thus different countries become non-competing groups.
We do not mean that non-competing groups do not exist within the borders of the same country. They do, but that is not typical. Since labour and capital move easily such groups tend to disappear. This is not the case between countries. There such differences have a greater permanence.

Secondly.—Differences in advantage may arise because of natural causes like geographical and climatic conditions. These lead to territorial division of labour and localization of industries. For instance some countries may have particular mineral resources like coal, iron ore and copper etc. Others may have land or climate fitted for certain crops like jute in Bengal etc. Either these advantages cannot be transferred to other countries or the cost of moving them is economically prohibitive.

Thirdly.—In international trade certain problems arise out of the fact that countries are independent sovereigns and can pursue independent policies with respect to the movement of goods. Several kinds of restrictions may be placed on movement of goods beyond their frontiers by states. For goods may not move due to physical or social barriers. Within the same country such complications do not exist or at least not to the same degree.

All these factors justify us to have a separate theory of international trade.

3. Why International Trade Arises. Why do people purchase goods from foreign countries? In other words, why does international trade take place at all? The obvious answer is, that it is profitable to the parties concerned. This is the same reason as leads to exchange taking place within the same country. There are, however, certain conditions under which international trade becomes profitable. These are given below.

(a) A country may, due to monopoly, enjoy an absolute advantage in the production of a certain commodity. This advantage may be due to presence of certain raw materials, quality of the soil, climatic conditions or any other similar cause. Other countries then must import such a commodity. For instance India has an absolute advantage in the production of jute, South Africa of diamonds, East Indies of rubber etc. Countries which do not possess these advantages obtain these goods through international trade.

(b) Some goods may be produced in the home country but the expense involved may be prohibitive. "By means of glasses, hot beds, and hot walls" wrote Adam Smith, "very good grapes can be raised in Scotland, and very good wine, too can be made from them at about thirty times the expense for which at least equally good wine can be bought from foreign countries." In recent years Germany was able to produce artificial silk, artificial petrol etc. at enormous cost. But the reasons here were political and not economic. Normally this is not done. A country may thus specialize in the production of goods which it can produce more cheaply than other
countries and get by exchange other goods which are more expensive to produce at home.

(c) It may, however, pay a country to import goods from abroad even if she could produce them more cheaply than the foreign country from which such goods are imported. This is due to the fact, that the importing country may find it more profitable to specialise in the production of some other goods in which the degree of advantage over the foreign country is still larger. This is the theory of *comparative cost*, which we shall further explain below. This idea may be made clear by an example. Suppose you can cook your food better than your servant. Still it may be worth your while to employ a servant for cooking, if the time and energy thus saved can be employed by you to more profitable employment in which your advantage over the cook is still greater.

4. **Comparative Advantage or Disadvantage.** According to the classical theory of comparative costs it pays countries to specialise in the production of those goods in which they possess the greatest or the least comparative disadvantage. Before we explain and illustrate this theory it is necessary to understand what exactly is meant by the terms “comparative advantage” or “comparative disadvantage.” In this connection we compare not the cost of production of a commodity in one country with its cost in the other, but the ratio between the costs of production of the two commodities concerned in the one country with the similar ratio in the other.

An example will make this point clear. Suppose there are two countries A and B producing two commodities wheat and cotton. Further suppose that

In A:

- Marginal cost of production of wheat is Rs. 6 per md.
- " " " " cotton is Rs. 8 per md.

In B:

- Marginal cost of production of wheat is Rs. 8 per md.
- " " " " cotton is Rs. 6 per md.

The ratios of cost in the two countries are:

- A: $6:8$ or $1:1\frac{1}{2}$
- B: $8:6$ or $1:5$

Thus country A has a comparative advantage in the production of wheat and B in the production of cotton.

According to the theory of comparative costs if the ratios calculated as above are different in the two countries international trade will be established among them on a permanent basis.

5. **The Classical Theory of Comparative Costs.** The theory of comparative costs was applied to international trade in the first place by Ricardo. Ricardo pointed out that while profits in the same country in different employments, tended to equalise, this was not the case as between countries. The reason was that there was mobility of labour within a country but not between countries. By an arithmetical example he showed that even if Portugal could produce both cloth
and wine cheaper than England, it would pay Portugal to concentrate on the production of wine in which her comparative advantage was greater and import cloth from England. He also recognized that relative or comparative costs set limits in the rate of exchange in international trade. Ricardo thus indicated merely the range or zone within which trade might take place with profit to both sides. It was J. S. Mill, however, who pointed out that between the limits set by the comparative costs the terms of exchange were determined by the relative strength of demand of each country for the goods of the other, provided at the position of equilibrium imports just paid for the exports. This balancing of imports and exports was insured, according to Mill, by the movement of specie which took place when such balance was lacking. Mill, however, failed to notice that imports and exports could balance at more than one rates of exchange.

J. E. Cairnes questioned Ricardo’s assumption that factors of production were mobile within the country and not at all between countries. He pointed out that even within the country labour was much less mobile than capital and that between countries migrations of labour and capital took place on a large scale. On the whole, however, he agreed that even though non-competing groups existed within the same country the mobility of factors of production was sufficient for profits to tend to the same level. This did not happen as between countries. The classical theory was thus completed with Cairnes. It was believed now that while within a country commodities exchanged in the ratio of their cost of production as between countries the reciprocal demand was the determining factor.

6. Recent Modifications of the Theory. Though the classical theory is accepted in its essentials by modern economists, certain modifications have occurred both in matters of emphasis and also as regards its manner of illustration. These modifications are worth noting.

(i) The classical economists measured costs in terms of days of labour. This was due to their belief in the labour theory of value. Since the labour theory stands rejected modern writers do not express costs of production in terms of labour. They state the theory in terms of the marginal cost of production as expressions of the degree of relative scarcities of the factors of production. Thus according to modern terminology a country tends to export those goods which are produced by the relatively more abundant factors, and to import those goods the production of which requires factors that are relatively scarce in that country.

(ii) The Ricardian theory assumed constant returns as production was expanded as a result of greater demand for international trade.

Modern writers have elaborated this simplified version by indicating the influences of the laws of increasing and diminishing returns. Thus if the greater scale of production reduces costs per unit, the comparative advantage will be increased. If on the other hand the
larger output raises cost per unit the comparative advantage may diminish or even disappear. In the latter case international trade in such goods will stop altogether.

(iii) The Ricardian theory did not explain the terms of exchange. Comparative costs decide which articles will enter into international trade, but do not determine the terms of exchange i.e., how many units of the imported product will be commanded by a given number of units of the exported product. Early Ricardians following Adam Smith relied upon the "higgling" of the market, a rather vague term. According to modern analysis the ratio of exchange is determined by the elasticities of the demand of each country for the products of the other. Thus as in our example if profitable trade results between A and B countries, the former specialising in wheat and the latter in cotton, the rate of exchange will be determined by the degree of elasticity of demand of A for cotton and B for wheat. If A's demand for cotton is more elastic than B's demand for wheat, the terms of exchange will be favourable to A or for a given amount of wheat A will receive more cotton and vice versa.


All trade takes place because of the differences in the cost of production. Such differences can be of three types:

(i) Absolute differences in costs.
(ii) Equal differences in costs.
(iii) Comparative differences in costs.

Trade is possible under (i) and (iii) but not under (ii). Let us take examples:

(i) Absolute differences.

In country A \[
\text{Marginal cost of producing wheat is Rs. 5 per md.}
\]
\[
\text{cotton is Rs. 10 per md.}
\]

In country B \[
\text{Marginal cost of producing wheat is Rs. 10 per md.}
\]
\[
\text{cotton is Rs. 5 per md.}
\]

Since price tends to equal the marginal cost of production, in country A one maund of wheat will exchange for \( \frac{1}{2} \) maunds of cotton. In country B one maund of wheat will exchange for 2 maunds of cotton. Thus:

\[
\text{Cost ratio.}
\]

Country \( A : 1 \) wheat = \( \frac{1}{2} \) cotton. \hspace{1cm} 1 : 2

\( B : 1 \) wheat = \( 2 \) cotton. \hspace{1cm} 1 : \frac{1}{2}

Thus A has absolute advantage in wheat and B in cotton. A will specialise in the production of wheat and B in that of cotton. A will gain so long as she can get more than \( \frac{1}{2} \) maunds of cotton for a maund of wheat. B will gain so long as she can get a maund of wheat for less than 2 maunds of cotton. The rate of exchange will be somewhere between \( \frac{1}{2} \) md. and 2 md. of cotton for a maund of wheat. The
actual rate will depend on the relative elasticities of the demands of each party for the product of the other. This we shall see later.

Trade due to absolute advantages usually exists between temperate and tropical countries which lead to absolute advantages on account of climatic and other differences.

(ii) Equal differences. When the comparative advantage is equal no trade arises between the parties.

Thus:

In country A \[
\text{Marginal cost of producing wheat is Rs. 5 per md.}
\]
\[
\text{cotton is Rs. 10 per md.}
\]

In country B \[
\text{Marginal cost of producing wheat is Rs. 4 per md.}
\]
\[
\text{cotton is Rs. 8 per md.}
\]

Thus in country A : 1 Wheat = 1.2 cotton 1 : 2
in country B : 1 Wheat = 1.3 cotton 1 : 2.

Under the above conditions no benefit will accrue to the parties through specialisation. If A specialises in wheat and B in cotton, A can only gain if 1 md. of wheat gives her more than 1.2 maund of cotton. But B will not give more than 1.3 maund of cotton for a maund of wheat, since she can produce that much at home by transferring productive resources from cotton to wheat.

(iii) Comparative differences in costs. When the comparative advantage is different trade will arise.

Thus:

In country A \[
\text{Marginal cost of producing wheat is Rs. 7 a md.}
\]
\[
\text{cotton is Rs. 14 a md.}
\]

In country B \[
\text{Marginal cost of producing wheat is Rs. 5 a md.}
\]
\[
\text{cotton is Rs. 7 a md.}
\]

In this case country B can produce both wheat and cotton cheaper than country A. But the comparative advantage is higher in the production of cotton than in that of wheat. On the other hand A has a comparative disadvantage in the production of both the commodities but the disadvantage is lower for wheat than for cotton.

Thus in:

Country A : 1 md. of wheat = \(\frac{5}{7}\) md. of cotton 1 : 2

B : 1 md. of wheat = \(\frac{5}{7}\) or \(\frac{50}{71}\) md. of cotton 1 : \(\frac{5}{7}\)

It will therefore pay country B to specialise in the production of cotton and A in wheat. B will gain as long as she can get a maund of wheat by parting with less than \(\frac{50}{71}\) md. of cotton. A will gain as long as she can get more than 50 maund of cotton by parting with a maund of wheat. The rate of exchange will lie between

1 md. of wheat = 50 md. of cotton.

1 md. of wheat = \(\frac{50}{71}\) md. of cotton.

The actual rate will depend upon the relative elasticities of demand of each party for the goods of the other.

If the demand of A for cotton is more elastic than the demand of B for wheat, the rate of exchange will be more favourable to A. This
is so because A will be less anxious for cotton than B is for wheat. On the other hand in the opposite case the rate of exchange will be more favourable to B.

When the rate of exchange is favourable to A it is nearer the 1 md. of wheat=71 md. cotton limit. When the rate is favourable to B it is nearer the 1 md. of wheat=50 md. of cotton limit.

The margin of gain in this example is quite narrow. In actual practice trade will arise if the margin is fairly wide to counterbalance any inconveniences involved in such a trade.

Such is the theory of comparative costs. Then where does exactly the difference lie in its application to foreign trade?

We have said in the beginning that all trade arises because of differences in costs. In the case of the same country there is a tendency for differences in comparative costs to disappear on account of the comparative ease with which factors of production move from employments with lower rewards to employments with higher rewards. Commodities thus tend to exchange within the same country according to their respective marginal costs of production. This adjustment does not take place between countries due to obstructions in the mobility of factors of production. Thus arise permanent differences in comparative costs which make international trade profitable as explained above. But such differences in comparative costs may arise between different regions of the same country due to the lack of mobility of factors of production between those regions. Thus "non-competing groups" may exist within the same country. In that case the theory of comparative costs will apply to home trade as well. It is due to this that modern economists deny that international trade requires a special theory to explain its emergence and operation. But since differences in comparative costs are more characteristic of different countries than of the regions in the same country, special notice is taken of this theory while discussing trade between nations.

8. The Gain From International Trade. The gain from all trade, including international trade, arises on account of the advantages of division of labour. Division of labour among different countries arises on account of differences in comparative costs in addition to differences in absolute costs of production. When cost differences are equal no net advantage accrues. We may take the examples discussed in the previous section to show how this gain emerges under (i) and (iii) and does not come about under (ii)

(i) Absolute differences in costs. In country A (as is clear from the cost ratios) a unit of productive resources produces either 1 md. of wheat or ½ maund of cotton. In country B a unit of productive resources produces either 1 md. of wheat or 2 mds. of cotton. If each of these countries invest two units of productive power, without specialization total production will be
In A: 1 md. of wheat + ½ md. of cotton.
In B: 1 md. of wheat + 2 mds. of cotton.
A + B = 2 mds. of wheat + 2 \frac{1}{2} mds. of cotton.

If A produces wheat only and B cotton only the investment of the same productive resources will give:

A : 2 mds. of wheat.
B : 4 mds. of cotton.

\[ A + B = 2 \text{ mds. of wheat} + 4 \text{ mds. of cotton.} \]

Thus by specialisation the same productive resources can be made to yield a surplus of 1 \frac{1}{2} mds. of cotton. This is the gain from trade.

(ii) Equal differences in costs. In the second case total production without specialisation and with specialisation is the same.

Without specialisation:

A = 1 md. of wheat + \frac{1}{2} md. of cotton.
B = 1 md. of wheat + \frac{1}{2} md. of cotton.

\[ A + B = 2 \text{ mds. of wheat} + 1 \text{ md. of cotton.} \]

With specialisation, A producing wheat only and B cotton only:

A = 2 mds. of wheat.
B = 1 md. of cotton.

\[ A + B = 2 \text{ mds. of wheat} + 1 \text{ md. of cotton.} \]

(iii) Comparative differences in costs. In the third case a surplus arises with specialisation.

Without specialisation:

A = 1 md. wheat + .50 md. of cotton.
B = 1 md. of wheat + .71 md. of cotton.

\[ A + B = 2 \text{ mds. of wheat} + 1.21 \text{ mds. of cotton.} \]

With specialisation A producing wheat and B producing cotton only:

A = 2 mds. of wheat.
B = 1.42 mds. of cotton.
A + B = 2 mds. of wheat + 1.42 mds. of cotton.

surplus = .21 mds. of cotton.

This is the gain from trade.

9. Factors Determining the Size of the Gain. It will be clear from the above analysis that the total gain from international trade depends upon the differences in the cost ratios in the two countries. The larger the range between the comparative costs the greater the total gain. In the words of Harrod:

"A country gains by foreign trade if and when the traders find that there exists abroad a ratio of prices very different from that to which they are accustomed at home. They buy what to them seems cheap and sell what to them seems dear. The bigger the gap between what to them seems low points and high points, and more important the articles affected, the greater will the gain from trade be."

As regards the share of this gain accruing to the parties this will depend also upon the terms of trade i.e., the ratio in which wheat ex-

(1) Harrod: International Economics: p. 34.
changes for cotton in our example for instance. This ratio as we
have explained depends upon the elasticities of the demand of one
country for the goods of the other or the intensity of reciprocal
demands. Whoever is more keen to purchase or sell will be the loser
in the bargain.

The gain from international trade will be shared through the
level of money incomes in the countries concerned. These levels
also will indicate which country is getting a better bargain. A
country will have a high level of money incomes if its goods are in
constant demand in the outside world. Greater foreign demand will
tend to raise wages in export industries. The prosperity of such
industries will affect favourably the wages in other industries too.
Competition will compel these other industries to bring their wages
to the level of export industries. Failing this labour will tend to move
to industries offering higher wages. Thus all incomes will tend to
rise. Though domestic money incomes will thus rise, the prices of
foreign goods will be low and people will gain as consumers of
foreign goods. Conversely a country whose demand for foreign goods
is high will tend to have low money incomes but will have to pay
higher prices for foreign products.

10. The Real Nature of Comparative Costs. While dealing
with value we had occasion to explain what is regarded as the real
nature of costs by modern Economics. All costs are transfer or
alternative or opportunity costs, except in the case of those factors
which are specific to one particular use i.e., cannot be put to any alter-
native use. Comparative costs can also be explained in similar terms.

While explaining the theory of comparative costs we referred to
money costs of production. But ultimately speaking money costs merely
reflect the exchange relations between goods that lie behind them.
What are then the real costs. For Ricardo real costs were labour costs.
But he only took account of one particular factor of production,
namely homogeneous labour. Cost of production consists of seve-
ral factors which are of different kinds and grades. Some of these
factors are specific (i.e., can be put only to a single use) others have
alternative uses. All these must be taken into account if a satis-
factory theory is to be evolved.

Costs that determine exchange relations are essentially oppor-
tunity or relative costs. These costs arise because resources in a coun-
try are scarce in relation to the demand for them. If the resources
are used for one purpose they have to be withdrawn from another
purpose or alternative use. If for instance certain resources are
used for the production of wheat they cannot be used also
for the production of cotton assuming the latter to be
the alternative use. Now suppose that in a certain country
to obtain a maund of wheat resources have to be withdrawn
from the production of cotton so that 1½ maunds of cotton
is to be sacrificed. In that country therefore 1 maund of wheat costs
1½ maund of cotton. The ratio 1: 1½ is the ratio of costs between the
two commodities. We can term this as comparative cost ratio.
or opportunity cost or substitution cost ratio because this indicates the rate of substitution of one commodity for another.

These substitution ratios are likely to differ from one country to another. This is because different factors of production are found in different degrees of scarcity in different countries. If factors could move freely from one country to another these degrees of scarcity would have tended to equalise. But since, due to their reasons already noted, factors are not so mobile between countries these differences remain and hence create more or less permanent difference in comparative cost ratios. Thus international trade is made possible. Thus if country A in our example has to sacrifice one maund of wheat in order to produce $1\frac{1}{2}$ maunds of cotton and if it can acquire more than $1\frac{1}{2}$ maunds of cotton from country B where the substitution ratio is different by offering a maund of wheat, it will be profitable for A to produce wheat only and get cotton by exchange. Similar reasoning will apply to country B.

It should be noted that substitution ratios need not necessarily remain constant in any one country. They may change on account of the operation of the laws of increasing or diminishing returns as the output changes.

The argument that we have developed in relation to two commodities and two countries can be extended without contradicting the essential principle to embrace more than two commodities and countries.

**II. Advantages of Foreign Trade.** We may now refer in a general way to the various advantages that accrue to countries engaged in foreign trade.

(i) In the first place is the great advantage we have already considered above. This springs from the principle of division of labour as applied between the various countries. Foreign trade enables countries to specialise in the production of those goods for which they are best fitted or in the production of which they enjoy the greatest advantage. This leads to the production of goods under the most favourable conditions and thus increases the total wealth and welfare of the world.

(ii) From the point of view of the consumers foreign trade enables them not only to enjoy the products of foreign countries which their own country could never produce, but also to get their requirements from the cheapest markets of the world. The very fact that goods are imported from abroad shows that their price is cheaper than a similar home product.

(iii) During times of famines and scarcity foreign trade enables the people of a country to maintain their life and health through importation of food from abroad. In the absence of foreign trade such famines would mean death of millions as happened in 1943 in Bengal when Burma rice could not come due to war conditions.

(iv) The fear of foreign competition keeps the producers at home up-to-date in their methods of production. Moreover, it tends to
prevent monopolies and promotes competition generally. This keeps prices comparatively low for the consumers.

(v) By foreign trade countries which lack essential raw materials can acquire them through imports. This encourages industrial development in lines in which the countries concerned are otherwise well equipped. Moreover, it leads to utilization of raw materials to the best advantage.

12. Disadvantages of Foreign Trade. The above advantages, however, are counterbalanced to some extent by disadvantages.

In the first place, foreign trade may lead to exhaustion of essential materials and minerals of a country which cannot be replaced. For instance, many of the important minerals of India like manganese, mica, etc., have been exported from the country more or less in the original state. India has got very little benefit out of them. If they were conserved they would have brought better returns when India became industrialised at a future date.

Secondly, foreign trade exposes home industries to outside competition and even to dumping of foreign goods. The decay of the Indian handicrafts during the 19th century seriously disturbed the balance of our economy and increased pressure on land. This happened after the country was exposed to foreign competition by the development of means of communication and transport. The same foreign competition seriously obstructed Indian industrial development on modern lines and thus perpetuated the medieval character of our economy.

Thirdly foreign trade may adversely affect the consumption habits of a country through the importation of harmful commodities. China suffered a lot on account of the opium trade during the last century.

Fourthly, through the operation of the law of comparative costs a country tends to specialise in the production of only a few commodities. This seriously curtails the number of occupations available to the people. Such overconcentration is bad for the stability of a country’s economic life.

Finally, foreign trade makes a country’s economy seriously dependent upon other countries. If due to war or any other cause goods cannot move freely in and out of the country its economic life may be paralysed. Moreover, any disequilibrium in the field of finance and industry tends to spread to other countries having trade relations with it. The Great Depression of 1929-32 became universalised because of the economic interdependence of the entire world brought about by international trade relations.

On the whole, however, the advantages of foreign trade more than counterbalance its disadvantages. Paradoxically enough, most of the advantages of foreign trade accrue only when goods are allowed to move without any obstructions between the countries. In other words they are mostly the advantages of free trade. At the same time free trade also gives rise to most of the disadvantages. It is necessary therefore to study more closely the implications of free trade and its opposite policy, protection.
CHAPTER XXXVIII

FREE TRADE VERSUS PROTECTION

1. Introduction. In the previous chapter we were mainly concerned with the theory of international trade i.e., the basic reasons why nations traded with each other. In the present chapter we shall discuss certain matters of policy. Should the goods be allowed to move freely into and out of the country or should certain restrictions be placed on such movements? If restrictions are placed, under what circumstances and in what forms are they justified? Moreover, we shall see how the various countries of the world have actually behaved in this matter.

2. The Theory of Free Trade. A policy of no restrictions on the movement of goods between countries is known as the policy of Free Trade. Restrictions placed with a view to safeguard home industries is the policy of protection. Taking free trade first, in the words of Adam Smith, this term has been used to denote "that system of commercial policy which draws no distinction between domestic and foreign commodities and therefore neither imposes additional burdens on the latter, nor grants any special favours to the former." Free Trade, however, does not require the removal of all duties on commodities. It only insists that they shall be imposed exclusively for revenue, and not at all for protection.

As a practical policy free trade is based on the theory of international trade already examined above. In the words of Cairnes, "if nations only engage in trade when an advantage arises from doing so, any interference with their free action in trading can only have the effect of debarring them from an advantage." Long before that wrote Adam Smith: "If a foreign country can supply us with a commodity cheaper than we ourselves can make, better buy it from them with some part of the produce of our own industry, employed in a way in which we have some advantage." He continued further: "Whether the advantage which one country has over another be natural or acquired is in this respect of no consequence. As long as one country has those advantages and the other wants them, it will always be more advantageous for the latter rather to buy of the former than to make." The only exception that Adam Smith would make was industries necessary for defence. These might be protected since defence is more important than opulence. The doctrine of free trade is the extension of the doctrine of division of labour to the international field. In the words of Adam Smith again "individuals find

(2) Cairnes: Leading Principles of Political Economy, Pt. III, Chap. IV, Sec. 1.
(3) Wealth of Nations, Bk. IV, Chap. II.
it for their interest to employ their industry in a way in which they have some advantage over their neighbours." And he adds, "what is prudence in the conduct of every private family can scarce be folly in that of a great kingdom." In short the free trade theory is that such a policy enables every country to devote itself to those forms of production for which it is best suited on the basis of comparative advantage.

3. England the Champion of Free Trade. The free trade versus protection controversy emerged in England early in the 19th century after the end of Napoleonic Wars. The free trade argument met with success due to several circumstances of the times. Among these were: (i) Industrial Revolution came first in England and gave English industry a start over other countries. The new industrial class wanted cheap raw materials, wage earners cheap food and manufactured products cheap markets. (ii) The Reform Act of 1832 gave the new commercial and industrial classes political power.

Various measures were thus passed for the removal of restrictions on trade. An Anti-Corn-Law League was formed at Manchester in 1838-39 under the leadership of Richard Cobden and John Bright. The Irish Potato Famine helped the League and Corn Laws, which restricted the importation of food grains into England, were repealed and the reforms of tariff in 1853 and 1860 removed protection from the British fiscal system.

England imposed her free trade doctrine in India too with serious consequences on the latter’s handicrafts, which fell victims to the competition of cheap machine made goods from Great Britain. For short periods free trade propaganda was popular in France and Germany but soon reaction appeared.

England was a free trader because it suited her interests. Other countries that entered the industrial field after England could not flourish on the free trade philosophy. Reaction in favour of protection came first from U. S. A., later from Germany and subsequently from other countries. India adopted a policy of discriminating protection from 1924. Even England in the face of newly developed rivals had seriously to modify her free trade position during the last world depression.

4. The Rise of Protectionism. The term protection is used to denote a policy of encouraging the native industries by the use of bounties or by the imposition of high customs duties on foreign products. The object is to build up great national industries even by sacrificing utilities on the part of existing consumers. Political considerations are mixed up with economic ones in the protectionist theory and practice. "The need for maintaining economic independence, the danger of 'invasion' of foreign goods, and the 'tribute' paid to foreign producers from whom goods are purchased—such are well known protectionist pleas which show by their form that they have originated in a time of international conflict." But a still deeper and wider element is the sentiment of nationality. "To the loyal

(1) Pelgrave: op. cit. p. 234.
citizen the promotion of native industry and economic interest seem a duty nearly as imperative as the defence of the national territory against invasion.” The most powerful arguments in favour of protection are thus political and not economic. “The advantages of diversified industry, of husbanding national resources, or of maintaining certain industries that would disappear under free trade are not believed to be mainly economic.”

Probably the earliest statement of the protectionist theory in its modern form is contained in the famous Report on Manufactures (1791) of the American statesman Alexander Hamilton. In it he strongly recommended encouragement of home industries for greater variety of employment, greater enterprise and in the interests of defence and security of the nation. He laid down tests for determining what industries should be assisted: (i) existence of necessary raw materials, (ii) extent of possibility of substituting machinery for labour, (iii) practicability of the policy, (iv) existence of markets at home, and (v) importance for defence. Thus he developed the famous infant industries argument.

Protectionism appeared in the U. S. A. early in the 19th century for various reasons: Revolutionary and Napoleonic wars caused interference in commerce with England which was the main source of manufactures. Again commercial relations were suspended during the war of 1812-15. This gave American industries opportunity to establish themselves, especially in the north eastern part of the country. Some of them suffered from British competition when trade was resumed. It was because of this that protectionist arguments appealed to the people of America after 1815. In the state of Pennsylvania a leading school of protectionists arose under the leadership of Henry Carey. Carey supported protection among others on the ground that it leads to diversification of employment while specialization under free trade compels whole populations to employ themselves in scratching the earth, in the carriage of merchandise or in the work of exchange.” He also advanced the argument that the export of agricultural commodities led to the exhaustion of the soil. S. N. Patten (1852-1922) another American Economist used similar arguments in favour of protection.

In Germany Friedrich List upheld protectionism on similar grounds. Protectionism in Germany was the child of the nationalist philosophy of that country. German national philosophy originated quite early. In 1800 Fichte had developed the idea of a self sufficient nation. Hegel stressed the political end of the state in contrast to the individual’s interest. List was the logical result of this philosophy. List stressed not the wealth of the individual but the good of the state. He criticised Adam Smith on the ground that he was too cosmopolitan, materialistic and individualistic, and that he ignored the nation, which was the vital link between the individual and humanity. List further argued that what was good for England was not necessarily good for other countries, because of the different stages of their

(1) Ibid.
development. He stressed the necessity of diversification of industry. "A nation which only carries on agriculture" he wrote, "is an individual who in his material production lacks an arm." ¹

These ideas passed from the U. S. A. and Germany to other industrially backward countries and contain the main arguments in favour of protection. These now may be stated.


(i) The Infant Industry Argument: J. S. Mill in England accepted only one argument in favour of protection i.e., the infant industry argument. In Mill’s words it ran thus: "A protecting duty, continued for a reasonable time, might sometimes be the least inconvenient mode in which a nation can tax itself for the support of such an experiment (introducing new industries). But it is essential that protection should be confined to cases in which there is good ground of assurance that the industry which it fosters will after a time be able to dispense with it."²

This argument is accepted by most economists. The argument is that if an industry is given a fair period to develop unhindered by foreign competition, it will reach maturity and will then enjoy the various economies of scale, until it will be able to stand on its own legs without protection.

This argument specially applies to countries that enter the industrial field at a later stage. They possess potential advantages which may not become effective unless foreign competition is excluded for a period of time.

The argument, however, has not been universally accepted. It is mainly attacked on two grounds: (a) that once an infant always an infant. Once protection is given vested interests are created and it becomes almost impossible to withdraw it, (b) that all sorts of industries begin to claim protection once this basis is admitted. The result is political corruption.

In spite of these weaknesses the argument has been widely accepted and many countries have industrialised themselves through protection given on the basis of this argument e.g., the U. S. A. and several British Dominions including India.

(ii) Diversification of Industry Argument. This argument was advanced among other writers by Fredeich List in Germany. According to it a nation should have a variety of sources of production and employment. It is necessary for keeping a balanced economy. Depending on one industry or a few industries is dangerous, both politi-

¹ F. List : The National System of Political Economy, p. 130.
cally and economically. Politically it means too much dependence on foreign trade which may be cut off during a war. Economically, a country depending on a few industries is exposed to the danger of serious economic dislocation in case some adverse circumstances affect such an industry. For countries purely depending on agriculture diversification is very essential. Agriculture gives comparatively lower incomes and also keeps a country weaker in defence. Moreover, agricultural countries have much less chances of cultural and social advancement due to the nature of this particular way of earning a living. The argument applies to India with great force.

(iii) The Employment Argument. It is argued that industrial development through protection increases employment in a country. Conversely, if protection is not given to old established industries foreign competition may ruin them and create unemployment in the country. The decay of the Indian handicrafts during the 19th century as a result of foreign competition, and the resultant unemployment and distress among the artisans is a case in point. Free traders meet this argument by saying that protection does not increase total employment, it merely transfers employment to the protected industries at the expense of old industries. Conversely, if through foreign competition old industries have to disappear the people set free can move to export industries for which the country concerned possesses greater comparative advantage or to migrate to other lands. This reasoning, however, assumes that labour and capital can easily move from industry to industry or country to country. In actual fact due to economic friction this happens very slowly.

(iv) Conservation of National Resources. Carey and Patten had argued that free trade resulted in the export of agricultural commodities from America and thus led to the exhaustion of the soil. Jevons in England applied the same argument against the export of coal which exhausted coal fields. The same argument has also been applied in the Union of South Africa regarding gold mining and in India regarding export of manganese and mica.

The argument has force because if a country exports its exhaustible materials in the raw state it not only loses the profits of manufacture but may be seriously handicapped when the materials have been altogether exhausted.

6. Recent Tendencies Towards Economic Nationalism. During the two decades following the World War I protection took a new complexion. Economic Nationalism or Economic Self-sufficiency became the craze. The motive ultimately was partly political and partly economic.

Locke and Adam Smith had based their philosophies on individualism. Hegel and his followers gave importance to the state. In England Bentham and other Utilitarians also accepted the possibility of wider state action to promote the greatest happiness of the greatest number. As time passed on collectivist tendencies grew more and more both as a reaction against the abuses of individualism and
as a logical result of the growing complexities of economic life. In addition the state became more and more an organ of intense nationalism. The national feeling was strengthened by several factors. Among these were:

(1) The scramble for new territories in Africa in the closing decades of the 19th century fanned national rivalries and imperialistic expansion.

(2) The War of 1914-1918 exaggerated nationalist feelings. In the post-war period there was talk of internationalism but nothing came out of it. In fact nationalism was intensified by the frustrations brought about by the war and the peace that followed. In countries like Italy, Germany and Japan, nationalism led to protectionism for defensive and offensive purposes. The War of 1914-1918 stressed the necessity of economic independence for defensive purposes.

(3) Protectionism also received further strength due to industry having received privileged position due to war conditions. Such industries did not want to face world competition. Even England was leaving her old policy of free trade as serious rivals appeared in her international markets.

(4) The Depression of 1929 onwards created unemployment in various countries. This led to a desire for preserving the home market for the native industries as opportunities of foreign trade contracted due to restrictions in foreign countries.

(5) The fear of World War II which later became an actuality also led in the same direction. National self-sufficiency became a condition of national security. This was especially true for those having no colonies. The colonial powers tried to establish self-sufficiency within their Imperial zones.

(6) Even in England conditions had changed. England was no longer in a privileged position which she had hitherto enjoyed due to an earlier start in industrialization. She was meeting with strong world competition. She was no longer free to export to any market or import raw material as before. The commercial and industrial class in England thus no longer favoured free trade. Thus fell the main fortress of free trade.

7. Barriers to Foreign Trade. Obstructions to foreign trade may take various forms. Among these are:

(1) Legislative prohibition of imports or exports.
(2) Exchange control.
(3) Customs duties.
(4) Preferential treatments.
(5) Quotas.
(6) Import license.
(7) Import monopolies.

A few words may be said about each of these.

(1) Legislative Prohibition. Sometimes import or export of certain commodities are prohibited by law or allowed only under defined
conditions. For instance, there are "sanitary regulations." The United States once excluded beef from a certain region in Argentina where foot and mouth disease attacked cattle. Later the embargo was extended to the whole of Argentina. Sometimes countries indirectly curtail imports by refusing to export certain materials until they have been processed at home. "Rumania did not let her oil go out except on the condition that it be first refined at home, while Hungary will not admit Rumanian oil except on the condition that it be refined after it is received."

(2) Exchange Control. Exchange control implies government interference with the buying and selling of foreign exchange. In this way foreign trade is curtailed and driven into new channels. Government may "allot" exchange or ration it out so that importers can buy only a limited amount of goods in foreign countries. Or they may "block" exchange. For instance an American exporting goods to Germany may be required to use the marks exchange thus obtained in purchasing goods in Germany. Another way is known as exchange "clearing". Thus a German buying goods worth $1000 from America may be required to deposit this amount in a German bank, while a German selling goods worth $1000 to an American may draw on this bank for payment. In this way an attempt is made to carry on foreign trade without the use of foreign exchange.

(3) Customs Duties. This is an old method and consists in imposing import or export duties on goods coming into or going out of the country respectively. Import duties are more common than export duties. A duty is said to be specific when it is imposed according to a standard of weight or measurement e.g., one anna per yard of cloth or two rupees per maund of wheat etc. The duty is called ad valorem when it is imposed according to value. e.g., 10 per cent on motor cars or radio sets etc.

Customs duties or tariffs may have either revenue or protection as their purpose. To protect cotton industry an export duty on raw cotton may be imposed to cheapen it for the manufacturer or an import duty on cotton manufactures may be levied. The latter is the usual method. The revenue and protection purposes are in a sense in conflict. A high protective duty by seriously curtailing imports may act adversely to revenue. A low duty may give revenue but may be useless for purposes of protection. A moderately high duty may bring revenue and may also have protective effect.

(4) Preferential Treatment. Sometimes discrimination is observed in the rate of duties with regard to different countries. For instance, India gave preferential treatment to certain British goods under the Ottawa Agreement of 1932. India also received preferential treatment in the British market against non-Empire goods. Such arrangements curtail international trade and lead to the developments of trade blocks. Moreover, countries whose goods pay higher duties may retaliate and impose high duties on the discriminating country in return.

(1) B. W. Knight: Economic Principles in Practice, p. 344.
(5) *Quota Restrictions.* There are two kinds of quotas: "customs quotas" and "import quotas". The first type allows a certain amount of a commodity at a favourable duty, beyond this the normal duty is charged. The limits are settled by agreements. *e.g.*, U. S. A. does this with Canadian cream and some other commodities coming under the reciprocal trade agreements. The "import quota" has more serious effect on trade. Here an arbitrary limit is set beyond which imports during a given period are not allowed.

(6) *Import Licenses.* Under this system the government does not allow importation of certain goods without a license being obtained by the importer. In this way imports can be cut down and certain goods discriminated against.

(7) *Import Monopolies.* The government may make the importation of goods a state monopoly, as Russia does, and thus reduce imports or discriminate.

These barriers were extensively used during the inter-war period in the pursuit of economic nationalism by many countries of the world especially during the Great Depression.
CHAPTER XXXIX

BALANCE OF PAYMENTS

1. Introduction. In the last two chapters we were mainly concerned with the reasons why nations find it worth while to carry on trade with each other; further why and under what conditions they prefer to restrict such trade. One of the motives for restriction of imports is to balance payments. If a country for one reason or another cannot pay for the imports by exporting goods (or services) she must reduce her imports, for the simple reason that international trade ultimately speaking is nothing else but bartering of goods and services for goods and services. In this chapter we shall study how disequilibrium arises in the balance of payments and in what manner such a situation is met by countries. We must, however, distinguish between "balance of payments" and "balance of trade."

2. Balance of Trade and Balance of Payments. Whether international trade is free or restricted, it being a form of barter, it must affect, in the long run, imports and exports of goods and services to the same degree. No country can restrict imports without at the same time restricting exports in the widest sense of the term. Accounts must balance in the long run of countries as of individuals.

Distinction may be made between the invisible and visible items of imports or exports. When goods including treasure are imported or exported they are recorded at the ports in the trade accounts. They are called visible items of trade. Export and import of services are not thus recorded and are thus called invisible items. Balance of trade refers to the value of imports and exports of commodities including treasure or visible items only. Balance of accounts or balance of payments refers to total debts or credits whether due to visible or invisible items. Debts and credits must balance in the long run. Imports and exports of merchandise and treasure need not balance and they seldom do.

When imports are greater than exports (over a year) the balance of trade is said to be adverse, negative, passive or unfavourable to the country; when exports are greater it is positive, active, or favourable. A favourable balance of trade, however, need not be to the advantage of a country. These terms come from the Mercantilist School of the 18th Century England, who regarded greater exports than imports as favourable, because such a balance brought more gold into the country. What really matters is not the balance of trade but balance of payments or accounts. A country must balance its accounts in the long run. A persistently adverse balance of payments means that the country is heading towards bankruptcy.
A favourable balance of trade in the light of the above does not indicate that a country enjoys a favourable position in international transactions or that the country is prosperous. In fact the reverse is more likely. Great Britain, before the recent war, had normally an adverse balance of trade, while India had a favourable balance of trade. Great Britain was much more prosperous than India. India’s favourable balance merely indicated that India had to make more payments in goods to counterbalance the larger payments received in the form of various kinds of services from Great Britain. A favourable trade balance may merely reflect the debtor position of a country. It has nothing to do with wealth or poverty. What really matters is not the balance of trade but kinds of goods imported and exported. Indian exports have mainly consisted of raw materials and imports of manufactured goods. This indicates her backwardness in economic development irrespective of any balance of trade.

3. **Items Entering Balance of Payments.** How is the balance of payments of a country constituted? Let us enumerate the various items that enter into it.

(a) The chief item is the international trade in commodities. A comparison of the value of imports and exports gives us the balance of trade as noted above. The table below gives the main groups of articles imported into and exported (excluding re-exports) from India in 1944-45.

<table>
<thead>
<tr>
<th>Item</th>
<th>Imports</th>
<th>Exports</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Food, Drink and Tobacco</td>
<td>18'8</td>
<td>49'5</td>
<td>+30'7</td>
</tr>
<tr>
<td>2. Raw Materials</td>
<td>117'2</td>
<td>45'3</td>
<td>-71'9</td>
</tr>
<tr>
<td>3. Manufactures</td>
<td>62'4</td>
<td>112'8</td>
<td>+50'4</td>
</tr>
<tr>
<td>4. Living Animals</td>
<td></td>
<td>0'3</td>
<td></td>
</tr>
<tr>
<td>5. Postal articles and Baggage</td>
<td>2'5</td>
<td></td>
<td>+0'8</td>
</tr>
<tr>
<td>not specified.</td>
<td></td>
<td>3'0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>200'9</td>
<td>211'0</td>
<td>+10'1</td>
</tr>
</tbody>
</table>

Some recent figures relating to India are given below:—

**Crores of Rupees.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1942-43</td>
<td>110'4</td>
<td>117'7</td>
<td>200'9</td>
</tr>
<tr>
<td>1943-44</td>
<td>7'0</td>
<td>10'9</td>
<td>16'7</td>
</tr>
<tr>
<td>1944-45</td>
<td>187'9</td>
<td>199'0</td>
<td>227'7</td>
</tr>
<tr>
<td>Total Exports</td>
<td>194'9</td>
<td>210'0</td>
<td>211'0</td>
</tr>
<tr>
<td>Balance of Trade</td>
<td>+83'5</td>
<td>+92'2</td>
<td>+26'7</td>
</tr>
</tbody>
</table>

These figures do not include transactions on Government account which were kept a secret due to war. The term balance of trade refers to merchandise. But the visible balance of trade includes also transactions in treasure. Thus in 1938-39 our total exports (including re-exports) were Rs. 169 crores and total imports Rs. 152 crores giving a positive balance of Rs. 17 crores on merchandise account. We also exported Rs. 12 crores on the net in treasure. This made our visible balance of trade come to Rs. 29 crores. Ten years earlier (1929-30) this figure was Rs. 53 crores even after making
a deduction of Rs. 26 crores on account of the net imports of
treasure. Our favourable balance on merchandise account in
that year was as high as Rs. 79 crores. But this was balanced in its
turn by invisible imports.

(b) This brings us to the payments for services, or invisible imports
or exports, which is the second important item in the balance of pay-
ments. Such services may be of various kinds like transport services,
shipping freights, passenger fares, harbour and canal dues, postal,
telephone and telegraph fees, commercial services (fees and commis-
sions) financial services (broker's fees etc.) and services connected
with the tourist traffic." Care should be taken that none of these ser-
vice is counted twice. Thus if an imported commodity is re-exported
at an enhanced price, the difference even due to services included
in 'invisible exports' will be reflected in the price statistics of imports
and exports. In such a case it should not be counted separately.

The example of invisible imports may be found in the various
payments that India has to make to the United Kingdom on
account of leave and further allowances, pensions and gratuities of
all kinds of Englishmen engaged in Indian services, British
military army in India, British shipping and insurance services
rendered to Indians, expenditure of India tourists and students in
Great Britain etc.

c The balance of trade and balance of services is sometimes
grouped together and contrasted with what is called the balance of
credit. This may consist of interest balance on the one hand and
capital balance on the other.

Interest balance will include fixed interest on Government,
municipal and private loans, variable profits and dividends, rents
etc.

As regards the capital balance, distinction should be made be-
tween long term and short term investments. Long term capital
exports include purchase of shares in foreign undertakings, repurchase
of home securities, repayment of loans contracted abroad. Short
term capital exports include any increase in the volume of bank
balances held abroad, in the holding of foreign bills etc.

Before the War recently ended India had to pay large sums
to Great Britain as interest on capital invested in Indian Railways
and canals. The position has been reversed now. India is now
the creditor and Great Britain the debtor. Sterling balances ap-
proaching Rs. 1500 crores have accumulated in favour of India in
London. Our credit account has thus become positive.

d Finally, there is another set of items which is included in the
balance of payments. Such are Government transactions like
salaries of diplomatic representatives, subsidies, reparations etc. gifts
of money such as remittances sent home by emigrants.

4. Different Meanings of the Term Balance of Payments.

We have given above the main items usually included while striking

(1) Haberler: Theory of International Trade, p. 17.
a balance of payments. The term, however, does not always convey the same meaning.

Thus:

(i) Sometimes it refers to the amounts of foreign currency bought and sold within a given period of time. In this sense the balance of payments is always in equilibrium. This is so because the amount bought is necessarily equal to the amount sold. This concept does not help us much.

(ii) The term may refer to the payments made to and from foreign countries, within a specified period. This is not the same as (i) above. Payments may be made not only by the purchase of foreign money but by the transfer of foreign money already held. Balance of payments in this sense may be passive for a time, though only as long as the money already held is not exhausted. But it must have been active earlier to enable the country to accumulate the foreign money held.

(iii) The term is also used in a more restricted sense when it refers to the balance of payments on income account. This will include interest balance, balance of trade and of services. If the balance in this sense is passive or unfavourable then either the capital balance is active or there is a transfer of gold or foreign currency. Unfavourable balance in this sense therefore indicates the degree of indebtedness or balance of liabilities which must be made by transfer of gold or export of shares etc.

(iv) A step further from the above is the concept in the sense of the balance of "international indebtedness" which extends beyond the liabilities falling due within a given period. It represents the total volume of claims and liabilities outstanding at a given moment.

(v) The greatest significance of the balance of payments arises in connection with its influence on the rate of exchange i.e., the value of the domestic currency in terms of the foreign currency or currencies. From this point of view it is not sufficient to measure the amount of liabilities outstanding at a given moment or falling due within a given period of time. It does not help either to record subsequently all the payments actually made during a given period. Here the best method is to apply the supply and demand analysis. The value of the home currency in terms of the foreign currency may be regarded as its price. For instance the price of a rupee is 1s. 6d. How is this price determined? Obviously by the forces of demand and supply. When payments have to be made to the foreigner there is a supply of home currency (or demand for foreign currency). In the opposite case when payments have to be received from a foreigner there is a demand for home currency (a supply of foreign money) in the exchange market. The items included under balance of payments give rise to either supply of or demand for home currency (or foreign currency) as the case may be. "The term balance of payment is then used" says Haberler, "in the sense of the whole demand
and supply, situation." We shall use the term in this sense when dealing with foreign exchanges.

5. Equilibrium of Balance of Payments. When the balance of payments of a country is in equilibrium the demand for the domestic currency is equal to its supply. The demand and supply situation is thus neither favourable nor unfavourable. If the balance of payments moves against a country adjustments must be made by encouraging exports of goods, services or other forms of exports, or by discouraging imports of all kinds. No country can have a permanently unfavourable balance of payments, though it is possible and is quite common for the countries to have a permanently unfavourable balance of trade. Total liabilities and total assets of nations as of individuals must balance in the long run.

This does not mean that the balance of payments of a country should be in equilibrium individually with every other country with which she has trade relations. This is not necessary nor is it the case in the real world. Trade relations are multilateral. India, for instance, may have an active balance of payments with the United States and passive balance with the United Kingdom and/or other countries. Payments may be made in a triangular form. For instance India may send jute to U.S. A. and be paid by importation of bicycles from the United Kingdom, the United Kingdom in its turn importing raw cotton from the United States. More complicated forms of payments may arise when a large number of countries are involved. But each country in the long run cannot receive more value than she has exported to other countries taken together.

Equilibrium in the balance of payments, therefore, is a sign of the soundness of a country’s economy. But disequilibrium may arise either for short or long periods. A continued disequilibrium indicates that the country is heading towards economic and financial bankruptcy. Every country, therefore, must try to maintain its balance of payments in equilibrium. To know how this can be done involves the study of the causes of disequilibrium.

6. Causes of Disequilibrium. How may disequilibrium arise in a country’s balance of payments? We have already detailed the various items that enter into the balance of payments. Any cause that leads to a persistently one-sided movement in those items may cause a disequilibrium. For instance, certain causes may lead to a falling off in the export of merchandise, imports remaining unaffected or moving in the opposite direction. Similarly as regards the other items, falling off in exports may be due to all sorts of causes. Take the case of merchandise for illustration. Our exports may fall because of decreased production due to seasonal factors or other causes. The demand for our goods in the international market may fall off because of a fall in the purchasing power of consumers of such goods or because of a comparatively high cost of production in India which reduces our competitive strength in the international market. Our exports may become dear to foreigners because of an appreciation of

(1) Haberler: op. cit. p. 19.
our exchange, a rise in the value of the rupee say from 1s. 6d. to 1s. 8d.
If we persist in artificially keeping the value of the rupee at a higher
level than justified by economic forces (which we shall study in the
next chapter) unfavourable balance of trade and of payments will
tend to persist.

In the same way disequilibrium may arise due to excessive imports
of services not balanced by exports, or import of capital etc. Comp-
ulsory exports in the form of reparations or indemnities also cause
international disequilibrium and obstruct the harmonious trade
relations between the countries.

7. How Disequilibrium May Be Corrected. When a
serious disequilibrium arises in a country's balance of payments steps
must be taken to correct it, if the country's economy is to be kept in
a sound condition. Obviously the causes which are responsible for
such a state of affairs must be removed. For instance, if the exports
have fallen off either steps should be taken to encourage exports or to
discourage imports. To encourage exports the level of costs in the
country may have to be brought down. This may involve cutting
down of wages, and interest rates and other incomes and also contrac-
tion of currency to bring prices down. Another method is to depre-
ciate the external value (exchange) of the home currency, thuscheapen-
ing domestic goods for the foreigner. This latter course, however,
has serious limitations because other countries may start doing like-
wise and 'competitive depreciation' of exchange may start, as it
happened during the depression years in the thirties. The method of
deflation, however, is also full of dangers. If prices are forced down
while costs which are proverbially rigid (especially as regards wages in
countries where Trade Unions are well organized) do not follow suit,
the country may face a serious depression and unemployment. Cor-
recting the balance of payments, therefore, once a disequilibrium has
arisen is not an easy matter.

When gold standard was effectively at work in most countries
disequilibriums in international payments were automatically correct-
ed to a fair degree. This was before the war of 1914-18. During
the interwar period (1919-1939), gold standard was introduced
during the earlier portion of this period in a modified form and
broke down during depression for reasons already noted by us
in another chapter. Gold standard ceased to be automatic and
hence ineffective in this connection.

Recently attempts have been made to evolve a new international
machinery for maintaining equilibrium in the balance of inter-
national payments and for correcting disequilibrium when it may
arise. This new scheme we shall discuss in the next chapter after
we have studied the problem of foreign exchanges.
CHAPTER XL

FOREIGN EXCHANGE

1. What is Foreign Exchange? The term "foreign exchange" may refer to—

(a) the rate of exchange, i.e., the amount of money of a foreign country that a unit of the money of the home country will purchase;

(b) the machinery by which foreign payments are made; or

(c) the principles that determine the rate of exchange.

Here we shall use the term in the third sense.

If there were no international trade there would be no foreign exchange. On the other hand, if there was only one common money for the whole world, there would be no problem of foreign exchanges. As it is, countries by their economic relations create mutual obligations which must be met, and the money of the various countries being different, the problem of converting the money of one country into the money of another arises in international trade.

To take a concrete example: Suppose you import books worth Rs. 100 from England. Indian rupees are no good to the English bookseller. You must make payment in money which has purchasing power in England. The English money is pound (£) sterling. You must, therefore, convert your Rs. 100 into pounds sterling (or titles to pounds sterling). You can also send gold if you can get it and think it worthwhile to bear the cost of its transport. Similarly a man in England might have purchased wheat from an Indian exporter. He must convert his pounds sterling into rupees (or titles to rupees) or send gold if possible and economical. At any moment, therefore, in every country there are people who want to make payments in foreign countries and there are others who have to receive payments from foreign countries. The former have imported goods or services and the latter have exported goods or services. It is immaterial whether they have imported or exported on their own behalf or on somebody else's behalf. Normally they are middlemen who import or export for others and make profits out of this business. Obviously exporters from India are entitled to receive payments from importers in England, and importers in India have to make payments to exporters in England, and similarly in the case of any two countries. Indian importers can buy titles to English money from Indian exporters and make payments to English exporters. Similarly English importers can buy titles to Indian money from English exporters and make payments to Indian exporters. Thus in every country there are buyers of foreign money (or titles to it) and sellers of foreign money (or titles to it). In other words there is demand for foreign money and supply of foreign money. It is this demand
and supply that determines the rate at which foreign money can be purchased (or native money sold) or sold (or native money purchased). These buyers and sellers and their agents are collectively known as the foreign exchange market.

This is, however, a very simplified statement of the theory. In the actual world exporters and importers do not directly deal with each other. The banks (exchange banks or other banks who also deal in exchange) serve as middlemen. Importers buy titles to foreign money from banks and exporters sell titles to foreign money to banks. The banks make a profit by acting as intermediaries between the two.

2. **Title to Foreign Money.** We have yet to explain the nature of what we have called "titles to foreign money". These may take the form of (i) Bills of Exchange, (ii) Bankers' Drafts, or (iii) Telegraphic Transfers. We have already explained what is a bill of exchange and we have also noted there its advantages in financing foreign trade. An Indian exporter draws a bill of exchange against the English importer of his goods in terms of pounds sterling. This bill he sells to a bank or technically gets it discounted. He is paid the present value of the bill in rupees. An importer of English goods in India buys such a bill by paying rupees and sends to his exporter in England who gets it discounted from a bank or receives payment from the English importer on the maturity of the bill in terms of pounds sterling.

Drafts as we have already seen, are orders from one bank to its branch, or another bank with which the former may have account, to pay the bearer on demand, a specified sum of money. In short a draft is a cheque drawn by one bank on another in favour of a third person. You can send money to England by purchasing a draft payable in English money. This draft is sent by post to the person whom the payment is to be made and the latter realises the money by presenting it to the bank on whom the draft is drawn.

A telegraphic transfer is an order by telegram to a bank to pay a specified sum of money to the specified person. It may be called a draft sent by wire. By this method payments are made immediately. Telegraphic Transfer (T.T.) rates are, therefore, more unfavourable to the buyer than rates charged for ordinary drafts.

3. **Rates of Exchange.** Determination of the rate of exchange requires more explanation. We have seen that it is the supply of and demand for foreign money that determines the rate of exchange; just as the market price of commodities is determined by the forces of supply and demand. We have also seen how the demand for and supply of foreign money (or conversely supply of and demand for home money) arises. When the supply is equal to demand the exchange is said to be at par. If supply of foreign money is more than demand the value of foreign money falls below (or of home money rises above) the par. And conversely if the demand for foreign money
is more than supply the value of foreign money rises above (or of home money falls below) the par.

Up to what limits the exchange can rise above or fall below the par? These limits are determined differently under different conditions. The par of exchange also has different meanings under different conditions.

4. **Under Gold Standard.** When the two countries concerned are on gold standard as already explained their currency units are either gold coins or are convertible into gold at fixed rates. Moreover gold freely moves between the countries. The par of exchange between such countries is called the “mint par of exchange.” This is arrived at by equating the amount of gold contained in the currency units (or given in exchange for them by currency authorities respectively) of the two countries.

For instance, before the last war England and France were both on gold standard. Their mint par of exchange could be calculated as follows:

One English Sovereign  
=7.98805 grammes of gold 11/12 fine.  
=7.32238 grammes of pure gold.

One French Napoleon 20 Francs  
=6.45161 grammes of gold 9/10 fine.  
=5.80645 grammes of pure gold.

Therefore one sovereign  
\[ \frac{7.32238 \times 20}{5.80645} \] francs.

Thus the mint par between London and Paris was 25.22115 francs to the £. If the exchange is at par under these conditions a French importer would get one £ in London by paying 25.22115 francs in Paris to meet his obligations. An English importer would get 25.2215 francs in Paris by paying one £ in London.

5. **Specie Points.** Now suppose the French people have to make more payments to the English people than the latter have to make to the former. The demand for English money in France will be greater than its supply. The value of the £ will rise in terms of the franc. The French importer will have to pay more than 25.22115 francs in order to get one £ in London. But how much more will he be willing to pay? We have already said that an importer will send gold if he can get it and thinks it cheaper to send it. Gold standard countries always provide gold in exchange for their money and allow it to leave the country. But gold involves cost of transport (shipping, insurance, interest charges, etc.) when it has to be sent. The importer in France will, therefore, only send gold if the exchange is higher than the par to the extent of more than the cost of transporting gold from Paris to London. Suppose cost of transporting 25.22115 francs worth of gold from Paris to London is .3 francs. Then it will be worthwhile sending gold if the exchange rises above 25.5215 francs to the £. If the exchange actually rises above this point gold will
begin to move from France to England. This point is thus called gold export point from the point of view of France and gold import point from that of England. This point is obtained by adding the cost of transport to the mint par of exchange. It is also called the upper gold point or the upper specie point.

In the same way there is a lower specie point, or gold import point for France and gold export point for England. This is obtained by deducting the cost of transport from the mint par. In the above example it will be 24.9215 francs to the £. If the exchange falls below this point English importers will send gold rather than purchase titles to francs.

Thus if gold is available and is allowed to move freely between two countries (gold standard) the rate of exchange will move between the two limits set by the upper and lower gold points, also called "specie points". The following diagram illustrates these two limits within which the fluctuations will be determined by the supply of and demand for foreign money, i.e., bills, drafts, T.T.s, etc.

The above is a case where both he countries concerned are on gold standard. If one is on gold standard and the other on silver standard, or on an inconvertible paper, the par of exchange will be determined by the price of gold in terms of silver or paper money in the country on silver or paper standard, respectively.

6. Purchasing Power Parity. But the most difficult case is that of countries both on inconvertible paper. Suppose England and France were both on paper currency inconvertible into metal. Then how many francs would have to be paid to get a £? Obviously as many as would have the same purchasing power in France as a £ has in England. If a £ in England purchases a collection of x commodities, then a £ will purchase as many francs in France as will buy the same collection of x commodities in France, allowing for the cost of transporting x commodities, from one country to the other.

Let us suppose in England a £ purchases x commodities.

In France x commodities cost 25 francs. Then the rate of exchange will tend to be—

£ = 25 francs.

Now suppose the price levels in the two countries remain the same but somehow exchange moves to

£ = 30 francs.

This means that the purchasing power of the £ in France is more i.e., 30 francs. It will pay people to convert £s into francs at this rate, purchase x commodities in France for 25 francs and sell them in England for one £ again, making a profit of 5 francs per pound worth of transaction. This will create a large demand for
francs in England while supply of francs in England will be less because very few people would export commodities from England to France. The value of the franc in terms of the £ will move up until it will reach £=25 francs. At that point imports from France will not give any abnormal profits. This £=25 francs is called the Purchasing Power Parity between the two countries. According to the Purchasing Power Parity Theory the rate of exchange in the long run "tends to rest at that point which expresses the equality between the respective purchasing powers of the two currencies."

—(Thomas)

In the above example if prices in France got doubled the value of the franc will be exactly halved. The new parity will be £=50 francs. This is because now 50 francs will buy £ commodities in France which 25 francs did before. We suppose that prices in England remain as before. But if prices in both countries get doubled there will be no change in the parity.

Thus:

\[
\begin{align*}
2\£ &= 50 \text{ francs.} \\
\£ &= 25 \text{ francs.}
\end{align*}
\]

In actual practice, however, the parity will be modified by the cost of transporting goods (including duties, etc.) from one country to another.

Thus between countries on inconvertible paper the place of the mint par is taken by the purchasing power parity. The difference is that the former is a fixed par while the latter moves with movements of the price levels in the two countries concerned. Day to day fluctuations around this par will take place as before due to changes in the supply of and demand for the currency in question. The limits to these fluctuations will be set by the cost of transporting goods from one country to another. Hence these limits will not be as definite as were the specie points. The above diagram illustrates these points.

7. Criticism of the Purchasing Power Parity Theory.
This theory was popularised after the World War I by Gustav Cassel, the Swedish Economist. "The rate of exchange between two currencies," wrote Cassel, "must stand essentially on the quotient of the internal-purchasing -powers of these currencies." "This is easily seen if we reflect on the fact that the price paid in a foreign currency is ultimately a price which must stand "n a certain relation to the prices of commodities on the home market."

It should be noted that purchasing power parity compares the general price-levels in the two countries and not merely the price levels of goods actually entering international trade. The prices of
the latter kinds of goods of course are the same in all countries allowing for the cost of transportation, tariffs etc. It is quite easy to verify the theory if we only compare prices of internationally trade goods. But when we try to compare the index numbers of the prices of the whole mass of goods marketed in the countries concerned the rate of exchange will not always conform to the points thus determined. This is so because prices of domestic goods may not move in the same direction, at least not in the short period, as of those entering into international trade. In the long run of course the rate of exchange and price levels will tend to move in the same direction. The theory therefore only holds good in the long period.

Even in the long period the theory will be valid only if the essential conditions of international trade remain unchanged. But such conditions seldom remain unchanged. For instance, the barter terms of trade are constantly in the process of change between countries due to changes in the demand for foreign goods or changes in the conditions of supply of domestic goods. Further, changes may occur in the volume of foreign loans, cost of transport or in any other item of invisible balance of trade. Changes in barter terms, thus, brought about may disturb the relationship between price levels and parities based on such price levels may not correspond to the rate of exchange.

Finally, many items of balance of payments like insurance and banking transactions, capital movements are very little affected by changes in general price levels. But these items do influence exchange rates by acting upon the supply of and demand for foreign currencies. The Purchasing Power Parity Theory ignores these influences altogether.

In conclusion we may say that the Purchasing Power Parity Theory attempts to explain the ultimate rather than the immediate forces determining the rate of exchange. The actual rate at any particular moment may diverge from the equilibrium rate as indicated by the purchasing power parity due to the various factors affecting the terms of trade or the balance of payments for the time being. What are these factors?

8. Fluctuation of the Rate of Exchange. Whether the long term parity is the mint par as under gold standard or purchasing power parity as under inconvertible paper during the short period, there are various causes that may lead to fluctuations in the rate of exchange above or below this equilibrium level.

These influences can be grouped under two heads.

(i) Those affecting demand or supply of foreign currency and (ii) those affecting currency conditions.

(i) As regards the first, the demand and supply of foreign currency arises from three sources:

(a) Trade conditions.
(b) Stock Exchange influences.
(c) Banking influences.
(a) Trade conditions.—These affect exports and imports and hence the supply of and demand for foreign currency respectively. When our exports are greater than imports exchange will tend to move in our favour and in the opposite case it will tend to move against us. Exports and imports here include not only visible but also invisible items.

(b) Stock Exchange influence. These include payments of loans, interests and repayment of loans, purchase and sale of foreign securities etc. When a loan is given by the home country to the foreign country the demand for foreign currency increases and the value of home currency tends to fall. The same is the case when home investors purchase foreign securities or foreign investors sell home securities. The exchange moves in favour of a country when its loans are being repaid or when foreigners buy her securities, because such transactions create demand for the home currency.

(c) Banking influences. Under this category come the purchase or sale of bankers' drafts, travellers' letters of credit, arbitrage operations (i.e., buying and selling of foreign currencies to make profit out of differences in the rates in different centres) etc. The sale of a draft on a foreign centre creates demand for foreign currency and raises its value or lowers the value of home currency. The bank rate also influences exchange rates. A high bank rate attracts funds from foreign centres and thus raises the demand for domestic money and hence its value. In the opposite case its value falls, because funds move out of the country, thus creating demand for foreign money.

(ii) Currency conditions. Actual or expected changes in the volume of currency also affect its exchange rate. If there is an over issue of currency or an over issue is expected, people will not be anxious to invest their funds in such a country. In fact funds will tend to move out. This is called a “flight from the currency”. If people expect a currency to appreciate they will tend to purchase such a currency for speculative gains. In the former case the exchange rate will tend to be unfavourable and in the latter to be favourable.

9. Limits to Exchange of Fluctuations. But these fluctuations take place within certain limits. Under gold standard we have already seen that such limits are indicated by the specie points or gold points.

A country is said to have a favourable exchange rate if the rate is nearer the gold import point and unfavourable if it is nearer the gold export point. The exchange does not rise above the gold import point (supposing it is quoted in foreign currency) because it becomes cheaper to the foreign importer to send gold rather than to purchase our currency. Conversely, the rate of exchange does not fall below the gold export point because it becomes cheaper for the home importers to make payments by sending gold out of the country rather than by purchasing foreign money.

When both the countries are on inconvertible paper the place of the mint par is taken by the purchasing power parity. As already
noted the purchasing power parity is not fixed like the mint par but is a moving par. Here there are no definite limits to the movements of exchange. The fluctuations will be in accordance with changes in the demand and supply of currency and in the currency conditions as already noted.

10. **How Disequilibrium is Corrected Under Gold Standard.** While studying the gold standard we observed as one of its advantages that under it any disturbance in the equilibrium of balance of payments tends to correct itself. Let us see how this happens. A perfectly ideal gold standard can only be theoretically imagined but the British system before 1914 may be taken as nearest to the ideal.

Suppose Great Britain of those days imported more than she exported and that this adverse balance was not covered by invisible exports. This would increase the demand for foreign currency (say that of France which was also on gold standard). Thus depreciating the £ in terms of the franc. This depreciation itself would make British goods cheaper for French men and French goods dearer to the British. Exports thus would be encouraged imports discouraged and the balance of trade would tend to move in favour of Britain thus correcting the original disequilibrium. This would happen even if the exchange moved slightly against Britain.

But suppose the adverse balance was very serious and exchange moved beyond the gold export point from England. Gold would then begin to flow out of England into France. There would be contraction of credit in England (through the action of the central bank to preserve its reserves) and a corresponding expansion of credit in France. Prices and costs would fall in England and rise in France. England would become an attractive market to buy from. The reverse would happen to France. English exports would be encouraged and imports discouraged. Thus the original cause of disequilibrium would be corrected.

For the automatic working of such a system, as we noted in an earlier chapter, certain conditions must be satisfied. i.e., gold should be allowed to move freely and to have effect on the prices and costs in the two countries, raising them in the country receiving it and lowering them in the one losing it. This implies the elastic character of the economic system and the willingness of the central banks to play the game of the gold standard.

These conditions existed to a fair extent before 1914 and did not exist after the World War I. Thus it was that the gold standard ceased to be effective in automatically correcting international disequilibrium.

11. **Correction of Disequilibrium Under Inconvertible Paper.** If the goods are allowed to move freely between countries similar automatic correction can be imagined also under the inconvertible paper system. Instead of gold movements there will be
movements of goods with their effect on the relative price levels in the two countries.

In actual practice, however, relative price changes in countries are much more difficult to realise when the connecting link is a commodity or commodities than when it is gold. For one thing gold is much more universally accepted than commodities the demand for which depends upon a host of factors. Thus the actual rate of exchange may remain divergent from the purchasing power parity and this disequilibrium may not be corrected by changes in the relative price levels. In such a case the usual method of bringing about equilibrium is to let the exchange move to adjust itself to the price level.

Another difference between exchange under gold standard and that under paper standard is that the present value of paper currency is to a large extent influenced by opinions about its probable future value. If it is generally believed that the currency in question is likely to depreciate people will try to get rid of it by converting it into a currency with better prospects. Thus such a currency will depreciate even though nothing has happened to the relative price levels in the countries concerned. A disequilibrium will thus arise through this speculative influence.

Another factor is the influence of the intensities of reciprocal demands of one country for the goods of another. Even if the relative price levels remain undisturbed, if for any reason the demand of a country A for the goods of a country B becomes relatively more intense, the rate of exchange will move against country A and in favour of country B to a greater extent than necessitated by differences in price levels. If the two countries are on gold standard this condition would have resulted in A losing gold to B until the changes in the price levels brought about equilibrium at the mint par of exchange.

Roughly we may say that between countries on gold standard the equilibrium tends to be established through movements of gold and of relative prices and those on inconvertible paper through movements in exchange rates.

12. Exchange Stability versus Price Stability. Thus under gold standard exchanges are relatively more stable and adjustments are made through gold movements with consequent effect on relative price levels. Under inconvertible paper adjustments are made more easily by movements in exchange. But even under inconvertible paper exchange may be artificially controlled and kept stable. Then adjustment will have to be made by a painful movement of relative prices and costs in the countries concerned.

The question arises which policy should be the aim of a country, exchange stability or price stability? No unconditional answer can be given to this question. It will depend upon the economic conditions within the country concerned and on the volume of its foreign trade.
If the country is a large one and foreign trade plays only a minor part in its economy and its price and cost structure is not elastic it will be to its advantage to preserve stability of its price level and make necessary adjustments by moving the exchange rate. On the other hand a small country with a large amount of foreign trade and elastic price and cost structure, will do well to keep its exchange stable and let adjustments be made through movements of internal prices and costs. For instance, a country like India should aim at stable prices and free exchange while for Great Britain stable exchange is the more important objective.

13. Exchange Control. So far we assumed that the exchange is left free to achieve its level through the working of the forces of supply and demand. Since the World War I, however, this assumption has been rarely true. The state has exercised a growing control over the movements of exchange for various reasons. This control has been exercised either by regulating international movements of goods through various devices or by the purchase and sale of foreign currency at specified rates in order to maintain a particular range of exchange fluctuations. The various forms that exchange control has taken are briefly discussed below:—

(i) Exchange "Pegging". This device is usually adopted during war years in order to minimise exchange fluctuations. The internal value of a currency may depreciate due to inflation but the Government may seek to keep its external value at a higher level than that warranted by the purchasing power parity in order to facilitate international transactions. This method was adopted by England in World War I and again in the recent war. Between 1916 and 1919 the sterling was kept artificially pegged at 4.765 dollars a value which was higher than the real value of the sterling. This was done by raising loans in America and through these funds purchasing exchange on London at the above rate.

(ii) Exchange Equalisation Account. After the suspension of the gold standard in 1931 by England there again arose the necessity of preventing violent exchange fluctuations. For this purpose the device of the Exchange Equalisation Account (already explained in a previous chapter) was utilized. Foreign currency was purchased or sold as the necessity arose with the help of this fund and thus exchange was kept within a narrow range in the face of uncertain movements of short term funds into and out of England.

By similar devices the dollar-sterling rate was maintained at £=3.04 dollars during the war recently ended.

(iii) Exchange Control Proper. Strictly speaking the term exchange control is applied to several devices most of which were first introduced in Germany during the Nazi regime. Later other countries also adopted some of them.

Some of these devices we have already considered while discussing restrictions on international trade. Here we shall look at them again from the point of view of foreign exchange rather than
of foreign trade. Such devices are (a) Clearing Agreements (b) Standstill Agreements (c) Transfer Moratoria and (d) Blocked Accounts.

Under a clearing agreement between two countries importers in both pay into an account at their respective central banks the purchase price of all goods imported. This money is then used to pay exporters. The rate between the currencies is usually fixed by the terms of the agreement. The object is to regulate imports according to the wishes of the government, to ensure equilibrium in the balance of payments and to prevent uncertainties of fluctuating exchanges. The system tends to encourage bilateral at the expense of unilateral trade and thus has a restrictive effect on international trade. On the other hand it discourages dumping and currency depreciation. On the whole the system stands condemned except under special circumstances of war or as a temporary measure to tide over a period of disequilibrium in a country’s balance of payments until the basic causes of such a disequilibrium can be removed.

A standstill agreement is a device to prevent the movement of capital through a moratorium on outstanding short term foreign debts of a country to give her time to put her house in order. Either the short term debt is converted into long term debt or provision is made for its gradual repayment. This device was used in Germany after the crisis of 1931.

Transfer moratoria is another device of the same kind. Under this system importers or others pay their foreign debts in their domestic currency to a specified authority. When the moratorium is concluded these funds are remitted abroad. A foreign creditor is sometimes allowed to use his funds in the country imposing the moratorium in a way specified by the government.

Blocked accounts spring from the previously considered two devices of standstill agreement and transfer moratoria. When foreign debts paid in domestic currency to the central bank cannot be remitted abroad without the permission of the government, blocked accounts are said to arise. Since idle funds in the country lead to contraction of credit, the foreign creditors are not altogether prevented from using them. But they have to be used according to the manner permitted by the government. Usually they are allowed to be sold in the open market. In most cases they are sold at a heavy discount.

14. Forward Exchange. The risks of fluctuating exchanges, especially under the inconvertible paper standard, can be avoided also through the device known as ‘Forward Exchange.’ Under it the person who has to make or recover payment in foreign money at some future date enters into a contract with a bank settling the rate of exchange now. Suppose an Indian importer has to pay an English exporter £500 after a period of three months. He cannot be certain how many rupees he will have to pay when the time comes due to the uncertainties of exchange. Without exactly knowing the cost he cannot fix the price of the imported commodity. He can get out of this difficulty by buying forward sterling at a rate agreed now. This
relieves him of the risk of exchange fluctuations. In a similar way an Indian exporter who has to receive sterling in the future can sell it now at an agreed rate to the bank and be sure of the actual rupees that he will get.

The rates of forward exchange are quoted in terms of the current rate or the "spot" rate as it is called. The forward rate is "at" a "premium" if less of foreign money is given for a unit of domestic money. It is "at" a "discount" if more is given for a unit of domestic money.

Under what circumstances forward rate may be at a discount or at a premium respectively. In other words what are the factors that banks take into account when quoting forward rates. Generally three factors are taken into account.

(i) The relative rates of interest at home and abroad. If the rate of interest at the foreign centre is higher than at home it pays the bank to transfer funds to the foreign centre. Thus it can afford to sell forward exchange at cheaper rates. The forward exchange will be quoted at a discount. If the domestic rate of interest is higher there is no inducement to transferring funds abroad. The forward exchange will be quoted at a premium.

(ii) Marrying a Contract.—Instead of transferring funds the bank may offset one transaction with an opposite one. Some merchants want foreign currency in the future, others are in a position to sell foreign currency in the future. The bank comes in as an intermediary by buying from the one and selling to the other with a margin of profit for itself. This is called marrying a contract. If the bank therefore has already bought forward exchange it will sell it at favourable rates to those who want to purchase it from the bank. Forward rates will thus be quoted at a discount since the bank has already covered the risk.

(iii) Currency conditions. If the foreign money is expected to depreciate, the bank will be unwilling to buy it forward, and thus forward rates will be quoted at a premium.

It is easy to understand in the light of the above how forward exchange transactions or dealings in futures as they are called contribute to the reduction of exchange fluctuations. These dealings are carried on not only for genuine trade purposes but also for speculative purposes.

15. Arbitrage Operations. While forward exchanges reduce exchange fluctuations over time, arbitrage operations reduce differences in exchange rates over space. An example will make this point clear. Suppose in the Bombay exchange market the rupee-sterling exchange is quoted at 18 1/2 to the rupee and in London for some reason the rate rises to 19 1/2 per rupee. Obviously there is an opportunity for making profits out of this difference. You can wire your bank in London to buy sterling at the rate of 19d per rupee which you sell through your bank in India at the rate of 18 1/2d per rupee making 1d profit on every rupee. Other people no doubt will also do the same. The demand for sterling in London will rise and the rate will tend to move.
towards 18 d per rupee. On the other hand the supply of sterling in India will increase and its value in terms of rupees will tend to fall. The exchange rate will move towards 19d. This will go on until the rate in India and in London is practically the same. Of course such a high difference that we have assumed is impossible because arbitrage operations keep the differences at the very minimum.

16. The International Monetary Fund. A more recent attempt to prevent exchange fluctuations is made on an international scale through the establishment of an International Monetary Fund. The scheme has not yet started working but has been approved by a large number of countries and it will not be long before it actually is put into operation. The main features of the scheme are given below:

The scheme envisages the establishment of an International Monetary Fund (I. M. F.) which will be constituted by subscriptions from members agreeing to participate in the scheme. This subscription is to be paid according to the quotas allowed to members partly in the form of gold and partly in domestic currency. The resources of the I. M. F. will thus be partly gold and partly currencies of the member countries, the latter being kept in the central banks of the countries concerned.

The purpose of the Fund is to promote exchange stability, to avoid competitive exchange depreciation and to facilitate the expansion of international trade through the conversion of national currencies into one another according to needs. All exchange restrictions and controls, discriminatory currency arrangements and multiple currency practices which are not approved by the Fund will have to be finally eliminated. Some restrictions, however, are allowed during the transitional period.

The chief function of the Fund will be to purchase and sell currencies of member countries for one another. The debtor countries will get accommodation from the Fund to the extent of 75% of their quota plus an addition of 25% each year subject to a maximum of 200% of their quota. These conditions may be relaxed at the discretion of the Fund. Thus a debtor country will be saved from gold exports and consequent deflation (as happened under gold standard) through the help of the Fund.

The creditor countries whose export surplus exceeds 75% of their quota will have their currencies declared scarce. Such currencies will be rationed among countries needing them. The I. M. F., however, can increase the supply of scarce currencies by borrowing or purchase of gold. If even then these currencies are not enough, debtor countries must restrict their imports from creditor countries and thus achieve equilibrium in their balance of payments.

As regards the rates of exchange member countries will be required to fix parities of their currencies with gold. But these parities need not be fixed for all times. An all round uniform change in
them can be brought about by the consent of the member countries contributing individually more than 10% of the aggregate quota. Apart from this the member countries can alter exchange value of their currencies by 10%. Another 10% change can be brought about by the consent of the Fund. Changes beyond this can be brought about, with the consent of the Fund, only to correct fundamental disequilibria.

The Fund is not to interfere in the internal economy of member countries in order to restore equilibrium in their balance of payments.

The members can withdraw from the Fund by a simple notice in writing.

The Fund is to be managed by an Executive Board.

These are then the main features of the scheme as it was evolved at a conference held at Brettonwoods (U.S.A.) in the summer of 1944. The scheme gives great freedom of action to member countries and does not interfere with their internal economies. In fact it is a system analogous to exchange stabilization accounts evolved by individual countries during the depression years. The same principles have been carried to the international plane. It seeks to achieve the purpose of international gold standard without its shortcomings.

17. Comparison with International Gold Standard. The Brettonwoods scheme, as the above plan is popularly known, resembles gold standard in certain respects.

Thus:

(i) Under gold standard every country balances its external accounts with the rest of the world as a whole and not with countries individually.

This is called multilateralism as against bilateralism that became quite popular during the depression of the thirties. Export surplus to one country under multilateralism can be used for paying import surplus from another. In the same way under the I.M.F. scheme currencies will be convertible at parities, fixed at any particular moment, though subject to change under appropriate conditions. Thus multilateral transactions will be encouraged.

(ii) Under gold standard a country with a net deficit on the balance of payments meets it by export of gold or drafts etc. The I. M. F. quota would perform this function under the new scheme.

(iii) Under gold standard there were no restraints such as quotas and direct exchange restrictions which are inconsistent with the principle that trade should be governed by comparative costs. These restrictions directed trade into channels not warranted by this principle. Under the I.M.F. also such restrictions will be removed after the transitional period is over and multi lateral trade will be restored on the basis of freely convertible currencies and reasonably stable exchanges.

All these results will be secured under the Brettonwoods scheme without the disadvantages of gold standard. We have already referred
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to some defects of the gold standard in another connection. We may give here the two most important defects of that system which the new scheme will avoid.

(i) Under gold standard gold reserves in a country were affected in precisely the same way by an import surplus on current account (i.e., unfavourable balance of trade) and by the withdrawal of capital. Gold moved out and contracted credit. This defect was largely overcome by the system of exchange equilization account which prevented the inflow or outflow of short term capital from affecting the basis of domestic credit. The new scheme enables a country to meet her adverse balance by the help of the I. M. F. without unfavourable effects on its credit structure.

(ii) The second and more important defect of the gold standard was that exchange stability was made the first object of policy and it was maintained by deflation of credit in the country losing gold. In theory the country receiving gold was expected to expand credit though this part of the rule of the game was not always observed. This method of maintaining equilibrium in the balance of payments and hence exchange stability worked smoothly only so long as wages (and other costs) were flexible so that deflation of credit lowered prices of exports and restored the original causes of disequilibrium. But since costs became more and more rigid, especially due to trade union pressure for maintaining wages, deflation of credit meant paralysis of economic activity and unemployment in the country with all its consequences.

The new scheme seeks to escape these rigidities of the gold standard. As we have seen though exchange rates are fixed in terms of gold by the member countries, provision is made for change in these rates by members in the case of a fundamental disequilibrium arising. The changes, however, are to be made by the permission of the Fund, but such permission will not be withheld in genuine cases.

Thus the new scheme combines the advantages of gold standard with those of free exchanges. Gold still remains the ultimate standard of value but the rigidities of the gold standard have been avoided. The working of the new scheme, however, requires a high degree of international cooperation. Russia has so far refused to join it. And this is not a good omen.
CHAPTER XXXXI

ECONOMIC PROGRESS AND TRADE CYCLES

1. Introduction. The Industrial Revolution that took place in England towards the latter half of the 19th century gave her a shaking and roused her into unprecedented economic activity. A series of inventions e.g., Watt's steam engine, Kay's flying shuttle, Crompton's mule, Hargreave's Jenny, power loom and discovery of better processes of smelting iron together with improvements in means of transport made by Meadam and Telford placed England on rapid road to economic progress. England became the workshop of the world.

But the world did not sit idle. The lessons of the English Industrial Revolution were bettered and applied in the other countries of Europe and America in the West and by Japan in the East, so that the whole world has moved on the path of progress.

Economic progress has always gone on since man started his economic life. From the hunting and fishing stage he passed into the pastoral stage, and then to the agricultural, handicraft and the industrial stages. Progress has been sometimes slow and it seemed in certain periods of economic history that the progress had come to a standstill. But the progress is always there; it may be imperceptible. At other times the world moves forward rapidly and takes longer strides. The Industrial Revolution was one such period. Slow or rapid economic progress has been continuous.

The momentum given to economic progress by Industrial Revolution has not spent itself. Progress has continued since then, although it may not have been so spectacular. In the years after the last world war rationalisation movement started in the industrial field. This resulted in a new step up in economic progress. Output was increased, costs were lowered and organisation of industry in all its aspects touched a new level of efficiency.

Russians, since the political revolution in 1917, saw a new birth. In their 5-year plans they brought about a revolution in the economic life of their country. There was a revolution especially in agricultural output achieved through mechanisation and other organisational improvements.

2. Some Indicators of Economic Progress. Looking around we can see symptoms of economic progress everywhere. In the field of production, we find that new materials, new processes and new technique are being discovered while the old ones are being improved. Foundation of new industries like the cinematograph films is being laid. Productive capacity has enormously increased. The world output of coal increased from 45 million tons in 1800 to 1300 million tons in 1936 and the output of pig
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Iron increased during the same period from 200,000 tons to 90 million tons. Productions of crude petroleum was only 20 million tons in 1900 but 230 million tons in 1936.¹ These being the basic materials can give a sure indication of the extent of industrial progress.

Mechanisation has gone on sometimes at an alarming speed. Making of a motor car required 1197 hours in 1914 and only 93 hours in 1934.

The size of industrial unit has vastly increased. There are combines which have crossed the international boundaries and command the output and markets of the world. They are more powerful than the powerful governments. The coming in of the joint-stock principle revolutionised the technique of business organisation. The small producer has given place to mammoth concerns. Production is larger in volume and more diversified. The variety of goods turned out is really astonishing. Not only has the quality been improved, quantity increased but the prices also have been brought to a remarkably low level. The rare luxuries of the past form integral part of an ordinary man’s consumption at present.

The standard of living has risen. People are undoubtedly much better fed, better clothed and better housed. If the man of 19th century were to peep into a farmer’s house of today, he will have a very agreeable surprise. The furniture, the clothes, the dinner table, the housing accommodation itself are such that the 17th century man could not dream of. Look at the entertainments available, the cinemas, theatres, public parks, public libraries and what not.

The means of transport have been improved and extended. Time and space have been annihilated. The air conditioned trains, the comfortable buses, and the aeroplanes compare very favourably with the horse coaches of the past. The bullock carts are fast disappearing. Travelling is speedy, cheap and comfortable; and look at the condition of roads itself, so smooth and pleasant.

The standard of literacy has gone up. In the leading countries, it is practically cent per cent.

There have been marked improvements in sanitary and medical arrangements that in the advanced countries expectation of life has increased, many diseases have been banned, death rate has gone down and standard of physical fitness has gone up immeasurably.

3. Economic Progress in India. India too has shared in this economic progress. It is believed that India had at one time attained to a very high standard of economic prosperity and had left the rest of the world far behind. In the words of Edward Thornton, “ere yet the pyramids looked down upon the valley of Nile, when Greece and Italy, these cradles of European civilisation, nursed only the tenants of wilderness, India was the seat of wealth and grandeur.”

(1) Benham—Economics, 1943, p. 331
Egyptian mummies of 2000 B.C. have been found wrapped in Indian muslin.

But some time India had a setback and she lost her pristine glory. She has, however, started afresh and has got into stride again, although her progress is in some respects painfully slow. A few facts may be mentioned. Ratio of death rate per 1000 has gone down from 31 in 1920 to 25 in 1939 and infant mortality from 195 to 179. The net area sown has increased from 195.91 million acres in 1892-93 to 220.99 acres in 1934-35. The number of cooperative societies has increased from 12000 in 1914-15 to 142,000 in 1940-41, the number of members from 5.5 lakhs to 64 lakhs and the working capital from Rs. 5.48 crores to Rs. 109.32 crores. The number of cotton mills was 47 in 1876 but 390 in 1941 and that of jute mills 21 in 1879-80 to 1883-84 (average) and 107 in 1938-39. The number of sugar mills in two years after the granting of protection increased 400% and the output 700% in five years. In 1850 there was one tea estate with an area of 1876 acres but in 1936 there were 6324 estates with an area of 832800 acres. The number of joint-stock companies has increased from 2545 in 1914 to 10657 in 1937-38. The output of pig iron and finished steel was 162,282 tons and 98726 tons respectively in 1914, but in 1939-40 the corresponding figures were 837,636 tons and 804,469 tons respectively.

These few facts selected at random are a sufficient indicator that economic progress has been going on even in the lethargic East. The progress in the West must be truly staggering from our standards. Few can deny that economically the world has advanced far ahead and there are no signs of the slackening of the pace. Another industrial revolution is likely to start when the principles of atomic energy come to be applied to industry.

4. Economic Progress is Inter-related. One noteworthy fact about economic progress is that it is interrelated and inter-dependent. The development in one line stimulates and assists in another, the absence of, or slow development in, one branch of production is bound to retard production in another branch. Improvement in spinning must wait till corresponding improvement has been effected in weaving. Industrial development in India has been held back by the lack of development in the machine-making industry. Diffusion of technical knowledge and instruction stimulates and aids general economic progress.

As large-scale production and division of labour are limited by the extent of the market, economic development must ultimately hinge on the development of means of communication and transportation. Much use could not be made of the weapons of the industrial revolution till the joint-stock principle of business organisation was discovered and applied. Isolated progress in any one aspect of the economic life of a country is impossible. The economic world is one unit and there must be an advance on the entire front. Advance parties in some sectors must wait till other elements of the econo-
mic army are in a position to advance. Inventions and discoveries are like the reconnaissance groups, the sappers and miners, which pave the way for the general advance. All economic progress is inter-related.

5. Factors That Promote Economic Progress. The army of economic progress is sometimes able to register a very speedy progress on account of absence of friction or resistance and at others it is a slow march on account of the unfavourable terrain. But it continues to march nevertheless.

Numerous are the factors that helped economic progress in the past. In the absence of such favourable circumstances it is difficult to see how we could have economically advanced at all. All the factors which have contributed to economic progress can be summed up in one phrase "Progress of scientific knowledge in the various fields of human life."

There have been some striking inventions and discoveries having a direct bearing on industrial production as they placed either a new method or a new process at the disposal of industry. When these inventions and discoveries came to be put into commercial uses, economic progress was at once accelerated. Even apart from these spectacular achievements of science, boundaries of scientific knowledge have been silently and gradually widened always. The scientists of every generation stand on the shoulders of previous generation. One scientist discovers a new principle and another, perhaps of a lesser calibre, deduces a formula for its commercial application. Science has been man's greatest ally in helping him on towards economic progress.

Development of electricity especially hydro-electric current has been a momentous event. Indian coal is of a poor quality and is unevenly distributed and her resources of petroleum have been rendered almost negligible by the separation of Burma. India, therefore, looks for economic progress by the development of her, hydro-electric resources. Full development of these resources may be expected to bring about a revolution in our agricultural methods and supply a very cheap energy to our industries.

Adequate supply of capital is essential for the utilisation of scientific discoveries and inventions. Development of credit and banking mobilised the capital resources, encouraged the habit of thrift and stimulated saving. Large supplies of capital were then placed at the disposal of the industrialist. The development of the cash credit system, the clearing organisation, the forging of the credit instruments like cheques, promissory notes and bills of exchange have all facilitated economic progress. The commercial methods like the hire-purchase system and instalment buying have widened markets.

The perfecting of production technique has also been a patent factor towards economic progress. The specialisation of machinery, division of labour, scientific management, rationalisation of industries
are some of the directions in which mass production has been facilitated.

The accounting control system, including the double entry book keeping, the self-balancing ledger, the cost accounting, has enabled the entrepreneur to exercise a strict control and supervision over his expanded business.

Development of means of communication and transportation, *viz.*, the railways and steam ships, the aeroplanes, the penny postage and the wireless, has obviously helped the business man in ushering a new era of economic prosperity.

Improvements in agricultural technique like scientific rotation, artificial manuring, scientific breeding and feeding, judicious selection of the seed and the introduction of improved varieties and new crops, the new agricultural implements and machinery and the development of artificial means of irrigation like canals and wells, has powerfully assisted in the general economic progress by supplying mankind with better and cheaper food.

Then there are a set of causes which have improved the quality and efficiency of the human factor itself *e.g.*, development of medical science, the wider diffusion of general and technical education.

These are just a few of the important causes that have promoted economic progress. It is impossible to name all, for economic progress is being furthered by so many factors, some of them so minute, that we hardly notice them.

6. Factors that Retard Economic Progress. Economic progress has often been interrupted. The most important retarding factor is the business slump which results in accumulation of stocks, widespread unemployment, enforced idleness of plant and machinery, curtailment of production and considerable reduction in money incomes. Such periods are the periods of stagnation, if not actually going back, for not a few businessmen are ruined affecting directly or indirectly so many others.

Natural calamities like floods, earthquakes, hail storms, locusts etc. are also disturbing factors but they do not appreciably check economic progress unless they happen to affect vast areas of the globe which is very rarely the case.

7. What is The Effect of War on Economic Progress? There is no doubt that nothing stimulates scientific research so much as a war. The whole of the scientific talent of the nation is pooled to win victory in this life and death struggle. All laboratories with the cream of scientific talent are placed at the disposal of the war office. Money is no consideration. All the scientific energies of the nation are bent in the forging of new and dreadful weapons of offence and defence. The World War No. 2 produced the magnetic mine, the flying bomb and pilotless planes and above all the atomic bomb, the most staggering of all. But for the premature closing of Hitler’s laboratories we shudder to imagine what the world might have witnessed.
It is only a next step to switch on the use of these discoveries for peace production. The debt that we owe to war for the increase in technical and scientific knowledge is indeed a deep one. But during the war itself economic progress is at a standstill. The old capital is not maintained intact and new capital goods are not produced. Production of consumers' goods is woefully neglected. All capital of the country, human and material, is devoted to creating means of destruction or of protection against destruction. Standard of living falls. Even the future is mortgaged by heavy loans and the destruction of youth leaving behind only old persons and children. There is a widespread destruction of property, plant, machinery, bridges, railway lines and stations and other buildings, water works, power houses; crops are damaged and the work of cultivation is stopped. The land itself is damaged by the bomb. All these things will have to be re-created. Not only, therefore, during the war but in the entire period of reconstruction further economic progress stops. There cannot be the least doubt, therefore, that war is enemy No. 1 of economic progress.

Darling remarks that "every blessing of nature in India is neutralised by increase in population." Malthus believed that population would outstrip means of subsistence and that efforts to produce food would not keep pace with increasing population. According to him misery was in store for mankind simply because of increase in population. So far as the West is concerned Malthus has proved to be a false prophet, his gloomy forebodings have not come out true. But so far as countries like India and China are concerned, his statements are not beside the mark. There is not the least doubt that if the population of these countries had been less, then the per capita income would have been larger and the standard of material well-being would have been higher. Now the economic resources are thinly spread over the teeming millions. But we cannot dogmatise. In some cases where population is less relatively to the resources e.g. in Australia then the resources are not being properly exploited. There is less scope for the use of specialised labour and machinery and indivisible factors are being only imperfectly employed. Such a country gains by expanding population. We have seen expanding population facilitates adaptability of the economic system by supply of fresh labour for expanding industries. It also supplies ready markets and thus diminishes risk of investments. Increasing population, therefore, has its beneficial side too.

The problem of the population is solved by the concept of optimum i.e. the size of the population which will enable the most efficient use of the productive resources of the community so that per capita income is the highest. Departure from this optimum either in the direction of excess or that of shortage means less economical conditions prevailing in the country.
TRADE CYCLE AND CRISIS

9. Causes of a Trade Cycle. We have seen that the world has registered a remarkable economic progress especially during the last 150 years. But it would be wrong to think that this economic progress has been one steady upward swing and a continuous movement forward. On the other hand, every businessman knows that every ten or twelve years the productive or business machinery receives a rude shock which throws it out of gear for a number of years. The world is familiar with the curious phenomenon viz., that just as there may be ups and downs in a person's luck, similarly there are upward swings and downward swings in business and that periods of business prosperity alternate with periods of adversity. Every boom is followed by a depression or a slump.

Let us briefly trace the course of a trade cycle. We may start our analysis at a point when business is at the lowest ebb and depression is prevailing all around. We are all familiar with such conditions as prevailed in the early thirties throughout the world. The last depression, that the world witnessed, and signal for which was given by the crash in the Wall Street in 1929, was of unprecedented duration and severity and produced the most ruinous effects. Knock-bottom prices prevailed, especially those of primary produce i.e. agricultural products. Unemployment was rife. Most of the factories were working below capacity and some had closed altogether till better days returned. Constructional and allied industries had no orders to execute. Factors of production were in a state of enforced idleness. Retrenchment was the slogan in all government departments. The market price of an M. A. was Rs. 25 per month. The rate of interest had decreased to a vanishing point and the lucky ones who were employed got distressingly low wages. The purchasing power of money was high but the purchasing power of man was low. The general purchasing power of the community being very low, the productive activity both in the production of consumers' goods and producers' goods, especially the latter, was at a very low level.

The critical convulsion or crisis being over the world seemed to have settled at this level of employment and standard of living. The inefficient entrepreneurs were weeded out. The business had effected a new equilibrium at a low level of prices, costs and profits. This is how the world adjusts itself to a depression and, the worst being over, the things somehow get going although the horizon is gloomy. This new adjustment or equilibrium may last for a number of years.

But the things are not going to continue to be in a depressed state for ever. After the depression has lasted for some time, the rays of hope appear on the business horizon. Pessimism gives place to optimism. Business men know that better days will come and they just begin to think some time that it is time for recovery to start. The depression contains in itself the germs of recovery. Wages are low even for efficient workers, sufficient number of whom is now available. Money is cheap and so are the other materials and the
factors of production. Prices may be low but the costs too are low. The costs have fallen so low during depression that they have over-taken the prices and a margin of profits reappears. Several producers have disappeared and the supply has contracted and no further con-traction may be expected. So the prices would not go down further. Such calculations induce an entrepreneur, who may have sufficient financial backing, to take the risk. In order to steal a march over his rivals perhaps, he orders repairs, renewals and replacements and perhaps a new plant so that he may not be found napping when the market revives. His example is followed by others. Constructional and allied industries receive orders and re-employ labour who spend their newly acquired purchasing power on consumers' goods. This stimulates further investment and production in several other indus-tries. Lo! the business has turned the corner. The long dark tunnel is nearly passed and the bright end is just at hand.

The spell of depression may have been broken by the govern-ment starting the construction or extension of some public works like railway, road or a canal or some other constructional programme. As a matter of fact at a time of depression the people expect the govt. to come to their relief by launching public works programme. The amounts paid to the contractors, labour and the firms for the necessary materials gradually infiltrate in the community. The purchasing power is augmented. This helps in lifting the depression a bit. These are some of the factors which pull business out of the mire of depression.

Recovery once started gathers momentum. The slender stream of recovery when it has started flowing is strengthened by numerous tributaries on its way. The revival of investment in one industry leads to revival in another. The wages paid to workers in one industry create demand for goods produced by another. With the general revival of demand prices show an upward trend. The business receipts show a welcome increase. It is well-known that costs usually lag behind the prices. The business man's income takes a forward jump while wages, interest, and other costs still rule at a low level. They are of contractual nature and are not so sensitive to market fluctuations. Profit margins are thus widened. Optimism grows and spreads far and wide. The business man feels that his time has come and he must make hay while the sun shines. New entrepreneurs enter the field. Even laymen are prone to take a hand in business. The banks know that profits are being made and they do not mind extending advances. Credit expands. Business men borrow and go deeper and deeper into business so long as the ex-pected rate of profits exceeds the prevailing rate of interest. Excep-tional business prosperity turns the head and their business men in-dulge in over-trading. The business takes a speculative turn. Every body is feverishly busy in making money. New schemes are launched and far reaching commitments undertaken as if this hay day of business prosperity is going to have no end. This phase of the trade cycle is known as boom and it may, like the depression, last for a number of years.
But just as depression created the conditions for recovery, similarly the boom conditions generate their own checks. All idle factors have been employed and further demand must raise their price but the quality available now is inferior. Less efficient workers have to be taken on higher wages. Rate of interest rises and so also most of the necessary materials. As prices have been rising the factors strove for and obtained increased remuneration. The rise in price slows down, it may be that as the industries have re-equipped themselves the flow of further orders for producers’ goods has ceased. The costs have after all started the upward swing. They overtake prices ultimately and the profit margins are first narrowed and then begin to disappear. Such symptoms unmistakably point to the fact that the momentum of recovery has spent itself and the boom conditions are almost at an end. The bankers feel uneasy over their advances. They are reluctant to grant further accommodation and throw sinister hints that the loans may be recalled. The Government contracts finish. The outlook is no longer optimistic.

Then starts the downward course. Fearing that the era of profits has come to a close, the business men stop ordering further equipment and materials and they are anxious to clear their present commitments. The prudent business man wants to get out altogether and cuts down his establishment ruthlessly. The Governments apply the axe mercilessly. The bankers insist on repayment. The ‘bottle-necks’ appear, stocks accumulate. Desire for liquidity increases all round. This accentuates the depression. Just as the recovery is self-reinforcing the forces of depression are also self-accumulating. Every body is shifting for himself. A scramble for liquidity ensues. The business men forget that they sink or swim together. Many business men find that they had exceeded the limits of prudence and entered into commitments they could not honour. Some of them are forced into bankruptcy. The failure of one firm creates difficulties for those with whom they have business connections. Gloom spreads. There is a general distress for most people cannot meet their obligations. The conditions become acute. This phase of the trade cycle is known as the crisis—a point of critical convulsions. The horizon is the gloomiest at this time.

The crisis is the period of utmost suffering for the business men. But they recover in course of time from the stunning blow. Their commitments are liquidated some how and business enters into the stage what has already been described as depression or slump or a state of stagnation. Lord Overstone describes the course of a trade cycle thus: “state of quiescence—next, improvement—growing confidence—prosperity—excitement—overtrading—convulsion—pressure—distress—ending again in quiescence.”

10. Characteristics of a Trade Cycle. A study of trade cycles has exhibited two important characteristics (1) its cyclical nature i.e., periodicity. (2) its general nature or synchronism.
It has been found that trade cycles occur periodically at fairly regular intervals. The interval is not a precise one but the degree of regularity is sufficient to convince us of the periodicity of the trade cycle. Attempts have been made to compute the time taken by the upward swing, the boom period, the downward swing, the crisis and the depression. But there is no unanimity as to the time exactly taken by each phase. There is a general consensus that the cycle takes seven to ten years nearly to complete itself. Business men are convinced that prosperity does not continue indefinitely nor does a depression last for ever. One must give place to the other and the cycle thus goes on. The intensity and the duration of each phase corresponds to the intensity and the duration of the other. No uniform duration can be expected but the upward and the downward swings are sure to follow each other as day follows night. Chapman compares these trade movements to the disturbed oscillations of a pendulum when a kitten is playing with it. The business men have developed such an uncanny insight that they know when to expect the one or the other, so high is the degree of periodicity exhibited by trade activity in modern times.

The second characteristic is synchronism or its all embraciveness. The business world is one economic unit, one system like a living organism. A pinprick in the foot of a man sends the shock throughout the system. Toning up of the stomach is bound to strengthen the heart and the lungs. A healthy body generally contains a healthy mind. So is business. An attack on one part of the business organism is bound to send a shock to the other parts. If one firm is in grief, those who deal with it cannot remain unaffected and they in turn will affect others with whom they may be in commercial intercourse. If one industry is depressed, then those from whom it buys materials and accessories must suffer from contraction of demand. Further, when it dispenses with the services of some employees, they lose purchasing power and those industries which cater for their requirements are bound to be affected. Thus depression passes from one industry into another. Failure of some firm spells failure of others. Just as optimism is catching and one industry assists in, and stimulates the recovery of others, in the same way is pessimism infectious and a gloom in one industry invariably spreads gloom to other industries in close business proximity to itself and so on. The chain lengthens and the gloom deepens. The time comes that all industries in all districts and all firms in the country are engulfed. Few can escape the deluge.

Not only the general depression is spread over the length and breadth of the entire country but it also spreads abroad. Depression is no respecter of political boundaries. A crash in the Wall Street cannot but affect an Indian farmer living in a remote part of the country. Every country has business dealings with the others. The whole world has become inter-dependent economically. Booms and depressions tend to synchronise all the world over.
11. Erratic Price Movements of Primary Products. It has been observed that there are wider price fluctuations in agricultural products viz. foods and raw materials. Mineral products fluctuate even to a greater extent, whereas price of finished articles moves within a narrow range. To the countries producing agricultural products their wide price fluctuations are a matter of grave concern for they affect adversely their income and the terms of foreign trade. India happens to be in this position and was consequently hit much harder by the depression (1929-33). The cyclical swings of prices may be initiated by changes in technique or economic activity in the industrial states which affect demand for raw materials.

The report of Delegation on Economic Depressions of the League of Nations (Part II) published in 1945 mentions the following causes of the wide fluctuations in the prices of primary products:

(a) *Shifts of supply or demand or of both.* Shifts in demand are slight but supply is subject to fortuitous variations owing to climatic and other causes.

(b) Elasticities of supply and demand are relatively low, so that both consumption and production only react slightly to price changes. Both demand and supply are inelastic. The demand for basic food stuffs being conditioned by physiological needs is inelastic. The demand for raw materials is also inelastic. "The greater the additional value incorporated in the intermediary stages, the smaller will be the price elasticity of demand for the raw material in comparison with that for the final product." Supply is also inelastic owing to the length of the period of production as well as to the fact that the producers are small and scattered, the product standardised and undifferentiated so that concerted action is difficult and no individual producer can by his own action appreciably affect prices. The direct money costs being small, the prices must fall a long way to affect his immediate production plans. As a rule he has no alternative but to go on producing.

(c) *Stock holding Policies.* These products can be safely and conveniently stored without fear of deterioration. Storing is common to ensure regular supply and is influenced by expectations of future price-changes.

We must remember, however, that synchronism is retarded internationally by four main facts: (1) The greater transport costs, tariff barriers and quantitative trade restrictions, (2) greater immobility of labour, (3) autonomous currencies, (4) greater sensitivity of capital.

THEORIES OF TRADE CYCLES

12. Climatic Theory. An attempt has been made to explain the occurrence of a trade cycle especially its periodical nature in geographical terms. It is held that there are climatic cycles. In India it is believed that the monsoon follows a certain cycle of good

2. Ibid. p. 90.
and bad rain. Climate affects harvests which supply raw materials to industry.

Superabundance of raw material or its scarcity is bound to produce corresponding effects on industry. The failure of harvest gives the initial push and the depression spreads inevitably in the parts of interrelated economy. Periods of good harvests alternate with those of bad ones and hence booms and depressions follow one another. When harvests fail in some country the effect is transmitted abroad. Not only is the supply of raw materials affected but also the purchasing power of the growers is diminished which in turn adversely affects the demand for manufactured goods in the same country or abroad. A famine in India produced by a general failure of crops may lead to the closing of some Manchester or Japanese cotton mills. It is, therefore, quite understandable that failure of rain or an unfavourable climate can bring about a depressed state in the world of industry.

The advocates of the climatic theory emphasise that climatic variations occur fairly regularly. They, therefore, wish to explain not merely occurrence of the crisis but also its recurrence. For this the evidence is very scanty. There seems to be no scientific basis for such a theory. It belongs to the realm of conjecture.

One theory advanced in this connection is very well known viz. Jevons Sunspot Theory. Prof. Jevons says that some spots appear on the face of the sun periodically and they affect the emission of heat which in turn affects rain and harvests. Then there is the usual link of harvests with industry and depression spreads generally. Like the other climatic explanations of the crisis, Jevons Sunspot Theory is regarded with scepticism. It is known for its novel explanation rather than for its scientific authenticity.

We can only say that variations in climate do affect industry and trade but we do not find in the geographical factor a complete and satisfactory explanation of the cyclical and general nature of the trade cycle. The world area under cultivation is so vast and the climatic conditions are so diverse that local variations are found to have only localised effects.

13. Psychological Theory. The climatic theory is an attempt to account for the trade cycle objectively or on the basis of external factors. But it is held that these external factors are weak in explaining the rapid spreading of the crisis or feverish overtrading indulged in by the business community. There are those, therefore, who take the aid of psychological factors in explaining the cause of a trade cycle.

It is pointed out that mostly the business is based on intelligent anticipations and the business community is often affected either by the wave of optimism or a wave of pessimism. 'There is self-engendered rhythm of collective error.' We have our moods. Sometimes we feel a little depressed and do not know why. At others we are in a mood of exhilaration without any apparent cause. Despair and hopefulness are both catching. Our moods are soon communicated
to others. It is wrong to think, the advocate of this theory point out, that men’s minds work in an isolated fashion. There is the herd-instinct among men and there is crowd-psychology. It is this crowd psychology which explains the wider ramifications of a trade depression. When one business man is in a buoyant mood he passes this buoyancy on to those with whom he trades and so on.

People are sometimes confident and sanguine and are prepared to take risks and expand business. At other times they are dejected and apprehend failure. When one bank fails more failures are apprehended and a rush on one bank brings about its failure even though the bank may have been a sound one. The Peoples’ Bank which failed in 1907 was such a bank. When a business man loses a bargain, not only does he lose money but he catches a defeatist mentality which has a further depressing effect on his business. When a man gains, he just thinks that business is on the upward swing and many others share this view and make further gains.

That psychological theory has an element of truth in it cannot be doubted. But it does not quite explain how the depression starts or how the recovery begins. These ‘turns’ in business are not satisfactorily explained by the psychological theory though it can explain all right how the upward or downward movement gathers momentum. It is a fact that business often continues good even though the objective causes making for business prosperity have disappeared. Similarly, it continues depressed even though the depressing factors no longer exist. The explanation lies in human psychology.

14. Financial Theory. There are writers who do not believe that the trade cycle depends on climatic factors or the vagaries of human nature. They would place the blame mainly and directly on financial organisation i.e., the banking and the credit system. Their argument is something like this. The volume of trade very largely depends on the availability of media of exchange. Most of the business is done with borrowed money. When business prospects are good, the banks freely extend credit facilities through cash-credit, discounting, overdraft etc. Few requests for accommodation are rejected. Assured of cheap and easy credit facilities, the business men go on expanding their business entering into further and further commitments. A huge superstructure of credit is built up. This superstructure can be maintained by the continuance of cheap money conditions if not their further extension. But a point is reached that a certain bank thinks it has gone a bit too far in the matter of advances. Probably its reserve ratio has fallen dangerously low. In self-defence it applies the brake, curbs further expansion of credit and begins to recall advances. This sudden suspension of credit facilities proves a bombshell to the business community. They have been counting on renewal of overdrafts and cash credit facilities. The bank’s liberal attitude itself has encouraged them in this belief and now, contrary to their expectations, moneys are being called in. They must clear the stocks and repay. There seems to be no other way out. This general desire for liquidity depresses the market for the stocks are being
unloaded. Some firms, weaker links of the chain, fail to meet their obligations and bring to grief those whom they could not pay. Very solvent firms fail simply because they did not receive a timely financial assistance from the bank. The banks lent freely when they should not have done. They not merely helped the genuine trader but the speculator. It is with their help that a speculative boom was superimposed on the genuine productive boom. But when the crisis comes and their help is needed most, they callously refuse to come to the rescue of those whom they had formerly helped to speculate. A helpful attitude in a crisis can save many and prevent a general financial crisis from developing. But as it is, bankruptcies multiply and a commercial crisis is converted into a financial crisis.

Now it cannot be denied that banking institutions play an important part in building up trade activity. Finance is the life-blood of commerce. But it is a bit unkind to say that they cause a crisis. What can be safely said is that they aggravate matters. They prop up a boom by an over-issue of credit and they accentuate depression by its suspension. But neither the boom nor the depression originates with them. Secondly, a world phenomenon like a modern depression cannot be attributed to the isolated action of banks in one country. A trade cycle cannot, therefore, be exclusively attributed to the misbehaviour of money.

15. Competition Theory or Over-production Theory. Another explanation put forward for the occurrence of a trade cycle is the operation of the competitive forces in a capitalist economy. It is argued that competition creates a trade cycle in two ways, (1) it leads to overproduction which Chapman calls the positive aspect, and (2) it raises costs of production—the negative aspect.

Under competitive economy there is normally a tendency towards over-production. There are so many rivals in every trade. Every one of them tries to capture as much business as he can. Each has got an eye on the whole market and is anxious to enlarge his own share of it. Every body, therefore, is trying to increase production while existing firms are expanding output, new entrants jump into the field to benefit themselves by good trade prospects. Such being the case overshooting of the market is inevitable. A time comes when the market is glutted. Augmented supply depresses prices. This is one aspect or consequence of competition.

On the other hand, the cumulative effect of their action is to raise costs. In their efforts to expand output their demand for factors of production is increased. Every body wants more capital, more labour and more of other factors. The combined pressure must drive up the prices of factors. Costs rise. We have seen that their action is leading to a fall in prices. Costs overtake prices and profits begin vanishing. The weaker firms are liquidated till ultimately supply contracts raising the prices. The factors being idle in depression, their prices fall and conditions are ripe for recovery to set in. In the downward sweep competition aggravates matters. Every business
man wants to save himself and this keen desire for liquidity brings failure and, he, as a part of the productive system, cannot escape the injury. Competition thus explains the cyclical nature or periodicity of the crisis. In the words of Chapman, "the positive forces raise the output as the wind raises the waters of the sea, while the negative depress it as gravitation contracts the effect of the wind on the sea; so that in the economic sphere we have waves of good and bad time like the waves of the sea". Socialists say that crisis is the by-product of competitive capitalism and so long as capitalism lasts crisis must recur.

But competition does not explain why crises should occur at regular intervals. It, no doubt, leads to overproduction and the inevitable depression but it does not account for the actual duration of the time taken in the completing of the cycle. Nor does it offer a complete explanation of the generality of synchronism of the boom and depression. We can understand that competition may lead to over-trading, some time in some trades but we are not quite convinced that these phenomena should affect all trades simultaneously. Booms and depressions have their competitive aspects but we cannot find in competition a complete explanation of these phenomena.

16. Over-saving or Under-consumption Theory. The Socialists school of writers has advanced another theory of trade cycles viz., oversaving or under-consumption theory. The theory is associated with the name of J. A. Hobson and has been further developed by Major Douglas. It is argued that there are wide disparities between the incomes of the rich and those of the poor people and the disparity is being accentuated as time passes. The rich people are not able to spend all their income. Saving, therefore, goes on automatically. These savings are usually invested in business and production is augmented as the result. But the wage-earners who constitute the mass of consumers get only a small remuneration as compared with the entrepreneurs whose profits swallow up a larger share of production. Profits are again invested. Thus production is being increased at every stage and the purchasing power of the consumer does not increase to the same extent. Too much saving means too little spending. There is thus a disequilibrium between demand and supply and depression must ensue, until prices fall sufficiently for goods to be carried off the market.

What is necessary to avoid a crisis is that the purchasing power of the consumers must be equal to the total costs of production. What happens is that the total costs incurred do not find their way into the pockets of the final consumer; a part evaporates in the way e.g., a manufacturing company instead of distributing all the profits to the shareholders set aside large amounts in reserve funds. Thus the consumers do not get a purchasing power corresponding to the costs incurred. No doubt rate of interest falls as capital accumulates but the fall is not sufficient to put off the evil day.

The argument has a degree of plausibility. But it is only a partial explanation of a crisis. One fallacy in the argument can be pointed
out. If the purchasing power is not hoarded, it must reach ultimately the consumer. Saving is not hoarding. Saving means investment and as such it simply transfers the purchasing power from some people to others. Also mere increase in the capital cannot bring about a boom. Unless there is a prospect of profit the business men would not take out capital from the banks. Then again accumulation of capital must mean lower rates of interest and thus lower costs and so long as costs are less than prices, depression cannot come. All the same few can deny that under capitalism the saving power of the producers increases much faster than the purchasing power of the general body of consumers. The rich are becoming richer and the poor are becoming poorer. The poor constitute the market for the goods produced by the rich and being poor they cannot buy all that is placed in the market. Hence a crisis.

17. Lord Keynes' View on The Occurrence of a Trade Cycle.—Fluctuations in Investment. Lord Keynes attributes trade depression to a disparity between saving and investment. Total costs of production increased in the making of a thing represent the incomes accrued to the various factors contributing to the making of it. The aggregate cost of production of all commodities and services thus constitute total income accruing to the various members of the community. A portion of these incomes is spent directly on the purchase of goods and services and the rest is saved. But if the saving is invested it, too, directly or indirectly creates a demand for goods. In case, however, it is not invested, but it is hoarded then to that extent the purchasing power of the community becomes inert and immobilised and goods already produced cannot be profitably disposed off. This will bring about a depression. If, on the other hand, investment is greater than savings i.e. investment is stimulated and financed by credit created by the banks, then the over-issue of credit will raise prices and create a boom. It is thus, according to Keynes a disequilibrium between saving and investment which is responsible either for a depression or for a boom.

Extra savings may result when real income increases or cost of living falls; Savings may also be increased if rates of interest rise more than the rates of profit. Benham mentions four sources of investible funds: amortisation quotas, new savings, new money and balances lying previously idle. New money is the banks' creation through loans or selling of securities. This is also called inflation. It results in what has been called forced savings because the consumers are compelled to curtail consumption on account of higher prices. The other type of saving i.e. out of surplus of production over consumption is called voluntary saving.

Increased savings may not be followed by increased investment. They may simply lead to a reduction in the deposits of the traders. The equilibrium has been disturbed and dislocation of trade must ensue. Whenever savings increase, the rate of interest must fall suffi-
ciently to induce investment and thus preserve a balance between savings and investment. Disequilibrium between the two will mean dislocation of business.

But we know that mere fall in the rate of interest cannot increase investment. Rate of interest is not the primary consideration for the entrepreneurs. They are guided more by the state of business. In Benham’s words “entrepreneurs will expand their business, or start new ones, only if they expect the demand for their products to increase, or the costs of making and selling them to diminish sufficiently for them to sell a greater output than before at a profit.” A low rate of interest is an invitation to the entrepreneurs to borrow. But the invitation may not be availed of. “You may take the horse to water; you cannot make him drink.” Prof. Keynes’ theory also does not throw any light on the periodicity aspect of a trade cycle. This is not to deny that fluctuations in investment have an important bearing on alterations of trade conditions.

18. The Concept of the Multiplier. There are two multipliers which have figured in the discussions on trade fluctuations: The Investment Multiplier and the Employment Multiplier.

The Investment Multiplier is Prof. Keynes’ gift to economic theory. Prof. Keynes seeks to define the relation between aggregate or gross investment and the increase in national income. When investment is increased, it adds to productive efficiency and consequently to national dividend. The ratio between the increase in investment and the increase in national income is called the Investment Multiplier. This ratio changes from time to time. It varies with the growth of technique of business and improvement in the efficiency of the factors of production or development of credit banking and of the means of communication and transportation. If this ratio or the Investment Multiplier is called \( K \), then an increase in gross investment will lead to an increase in income which is \( K \) times the increment of investment.

The Employment Multiplier is associated with the name of R. F. Kahn. “The Employment Multiplier measures the ratio of the increment of total employment associated with a given increment of primary employment in the investment industries.”

Now that the war is over Indian industrialists are thinking of extending and modernising their plants. Some of them have visited America and England with a view to securing capital goods—machines etc. Industries producing capital goods will receive stimulus. The amount invested in these industries is called primary investment. This investment creates employment for those who will be engaged in the making of machines. This is known as the primary employment.

1. Investment may be gross or net. The gross investment is the total amount spent on the production and maintenance of producers’ goods. If you deduct from it the amounts spent on mere maintenance of capital intact i.e. repairs, renewals and replacement, the remainder will be net investment.
3. Ibid, p. 287.
But when the machines are ready, and are disposed off, they will be set up for production of consumers' goods. When production starts, more employment will be created. This may not happen at once as soon as primary investment takes place. There is always what is called a time-lag *i.e.*, the interval between the primary employment and the employment in the consumers goods industries. An increase in primary employment leads to increase in the total employment and the ratio between the two is called the Employment Multiplier.

19. Dr. Hayek's Theory. Dr. Hayek puts the whole blame of crisis on the over-issue of credit at an artificially low rate, a rate which is not warranted by the natural and genuine supply of capital coming out of current savings.

When voluntary savings are the only source of capital supply, then borrowing beyond proper limits will not be possible, for the rate of interest will rise sharply to put a brake on credit expansion. A balance between production and consumption will be maintained more or less.

But the equilibrium is rudely shaken in the case of forced savings *i.e.*, by inflation. As the expansion of credit depends on the banks' own sweet will, they can lend at rates lower than what would have been charged if they had to depend on voluntary saving. Cheap money raises prices. The additional supply of money finds its way to the producers' goods industries. Process of production is 'lengthened' out or production becomes more and more round about or capitalistic. This new money ultimately reaches the final consumers through the payments to the factors of production. Prices of consumers' goods too rise. This leads to a diversion of resources from the earlier stages of production to the final stage. The earlier stages can be maintained by further expansion of credit. But the banks, mindful of their own safety and in sheer self-defence, refuse to lend further and there is a crisis. There is thus stagnation in the earlier stages. The crisis could have been avoided if the productive process had been completed by the time increased demand for consumers' goods appears. But this is not possible. Production is still going on when the remuneration paid to the factors has increased their purchasing power.

The theory is based on the fact that the resources of the community are limited. One aim can be realised by the sacrifice of another. One stage of production can be expanded only by the curtailment of another. When the final stage expands in response to increased demand for consumers' goods, then the factors must be withdrawn from the earlier stages. The factors which are specific cannot be moved but they have to remain idle, for the non-specific factors in conjunction with which only they could work have been withdrawn. The earlier stages of production are dislocated and become unre- munerative, for the banks later begin to charge too high rates to put off the borrowers. The whole mischief lies, according to Dr. Hayek, in too facile credit which helps in building up business beyond the limits of prudence.
Dr. Hayek's theory is based on the assumption that saving and investment are in equilibrium and that the equilibrium is upset by the banking policy. This assumption does not hold good. Prof. Keynes theory, we have seen, is based on the fact that there is disequilibrium between saving and investment. It further assumes that the resources are in full employment and creation of credit necessitating a diversion from some phases of production to the others creates dislocation. But factors are seldom fully employed. There is always, even in the busiest periods of business, a margin of unemployment. It follows, therefore, production can expand in any of its stages without necessarily dislocating any other stage. Again, the theory seems to be opposed to common sense when it says, that the increase in demand for consumer's goods does not mean an increased demand for the creation of producers' goods. Finally, the theory seems to imply that creation of credit is always harmful. Over-issue of credit no doubt has sometimes serious repercussions, yet the instrument of credit can be welded sometimes to great advantages of the community. A low rate may stimulate investment when the country has been in the throes of economic stagnation. Dr. Hayek's theory does not explain the cyclical nature of trade depression.

20. Causes of Trade Cycles. We have covered a very controversial ground. Indeed no subject in Economics is subject to so much dispute as the causes of a trade cycle. There is a kernel of truth in each theory but we have seen we cannot rely solely on any of them to explain to us either the cyclical nature of the trade movements or its generality. Trade cycle is a very complex phenomenon. We shall in vain look for a complete explanation of a trade cycle in any one theory. A trade cycle is the resultant of a combination of causes of diverse nature. Climatic causes hinder or help production and provide the objective forces of the trade cycle; psychological factors represent the subjective conditions, and create waves of pessimism or optimism. Monetary causes accentuate the upward and the downward movements, competition and over-saving are responsible for over production and under-consumption. So many factors conspire to bring about a crisis.

S. E. Thomas sums up the causes of trade cycles under the following three heads:

(a) Unforeseen causes affecting the supply of raw materials;  
(b) Imperfect adjustment of demand and supply; and  
(c) variations in the prices due to financial causes.

(a) Causes affecting the supply of raw materials. Supply of raw materials may be adversely affected by such factors as unfavourable climate, too much or too little rain or untimely rain, pests, earthquakes, wars etc. A prolonged and general strike is also a dislocating factor. Shortage of raw material will certainly make capital equipment to be idle. A modern crisis is not merely the outcome of shortage of raw material but also its super-abundance. Starvation
in the midst of plenty was a common phenomenon of the last depression. This was due to the maladjustment between demand and supply.

(b) Imperfect adjustment of demand and supply. Modern production is a very complicated and prolonged process. Thousands of people living in remote parts of the world contribute to the production of a single article of a very ordinary use. Productive activity is, again, directed by the isolated and uncoordinated decisions of countless entrepreneurs. No wonder, therefore, that sometimes there is too much production at one stage and too little at another. For example spinning capacity may expand beyond the weaving capacity of the cotton mill industry. The discrepancy produces a depression in the spinning industry which of course in time spreads forward and backward. If productive machinery is to work smoothly there must be a perfect balance between the two adjacent stages of production. But of this there is no guarantee. Probability, on the other hand, is that there will be a disequilibrium. When production at different stages takes place in different lands, it will be simply a miracle if there is the right balance between production and demand at different stages. Competition is sure to lead to over-production. Psychological factors account for over-trading. Lack of cooperation and understanding between the producers leads to blind action and a catastrophe.

Further, production is undertaken in anticipation of demand. The modern productive processes being too lengthy and round about, the anticipation is based on a long range policy. But so many factors may crop up in the meantime to falsify the entrepreneur’s calculations e.g., change in custom and fashion, appearance of a substitute, the production of a new design by a new type of machinery, or war may intervene. Any of these factors may render capital investment useless. Many Indian business men were deceived when after the war (1914-18) they ordered machinery from England thinking that the government would be able to maintain 2s. ratio. But when the goods arrived the ratio had fallen considerably. So many things can happen to put the productive machinery out of gear.

(c) Variations in the price level. Prices may shoot high when there is inflation either because too much money is being issued by the currency authority or the commercial banks are recklessly expanding credit. A rising price level engenders speculation and then the inevitable crash. Inflation is generally followed by a policy of deflation. The deflationist tendencies after the war (1914-18) produced unparalleled depression. Price level is very sensitive. The end of the war is sure to bring the price level down and every body is expecting the depression to come. We have already seen that the financial factors accentuate both the upward sweep and the downward sweep of a trade cycle, the reckless lending the former and curtailment of the credit the latter.

21. Remedial Measures to Fight an Economic Crisis. Lack of unanimity as to the policy to be followed in a crisis is even more marked than the lack of unanimity about the causes thereof.
For a complicated malady no simple therapy can be suggested. Most of the economists are agreed that under the existing economic order crises are unavoidable; you can only delay or mitigate their severity when they come. We need, therefore, two sets of measures: the preventives and the curatives.

For preventing or avoiding a crisis, the remedy will depend on the diagnosis. The influences of climatic factors on the supply of raw materials cannot be ruled out altogether. In a country like India, where nearly three quarters of the people depend on agriculture, it is necessary that dependence on rains should be removed as far as possible so that agriculture no longer remains a gamble in the rains. A net work of canals, wells, tube wells and reservoirs may be provided to ensure an adequate and regular supply of water. Other external factors like wars, earthquakes and epidemics cannot be provided against. They do not play an important part in a trade cycle. At any rate they do not occur with any degree of regularity.

Imperfect adjustment of demand and supply can be rectified by collecting and disseminating correct and up-to-date statistical information about the condition of crops, quantities of goods produced by the main industries, state of employment, imports and exports, per capita income, price and cost of living index numbers and of company floatations and profits. This will help the businessman to form an intelligent forecast of the probable changes in the demand and supply of certain types of goods. The intelligence bureau may issue directives and warnings from time to time so that undue pessimism or optimism is nipped in the bud. In the boom period the companies may be asked to follow a cautious policy in declaring dividends and building up reserves.

A sound banking system and a sound monetary policy are also essential to act as a stabilising influence on business activity. Manipulation of the bank rate can put a timely brake before the things have gone too far.

But with the best of precautions it may not be possible to avoid a crisis altogether. Where preventives, therefore, will not do, we must be ready to fight depression when it has at last over-taken us. In that case the central and the local governments must launch a bold public works policy of road building, railway extension, a public building programme, even though the work undertaken may not in any sense be productive, it may be what has been called Piramidenbau (building the pyramids), yet it will provide employment, supply some purchasing power and thus keep up the morale. It will remove causes of crisis which are purely due to mental depression.

A more sympathetic policy on the part of the banking system will also be necessary. The banks must come to the aid of parties who are otherwise solvent but find only a temporary difficulty in meeting their obligations. The Central Bank should see that credit facilities
are not seriously curtailed. It may assure the banks of its support in case they find themselves in a difficulty.

These are some of the measures that can be adopted to alleviate suffering. But these are all palliatives. The world has not been able to discover any panacea or sovereign remedy for a commercial crisis. Nothing short of re-organisation of the economic system can provide against the recurrence of crises. These are by-products of capitalism and so long as capitalistic system of production continues such disturbances must take place. A planned economy or some form of socialism may remove such a contingency.

Even a socialist state will commit mistakes about organisation of production. Even it will have to anticipate demand. No human organisation can be infallible, yet planning of the entire economic field will so coordinate the various economic activities that maladjustments will be rare phenomena. Even when dislocations do occur, the vast resources of the state can easily meet such situations. No failure of individual firms or displacement of labour will take place; losses can be easily borne. When the whole world was suffering from acute depression and unemployment during the early thirties no such dark clouds threatened the economic horizon in Russia. Planned economy seems to be the best way of not only preventing a crisis but also of fighting it.
CHAPTER XXXXII
PUBLIC ECONOMICS

1. Necessity for State Intervention in the Economic Sphere. State is a political society. It has been formed for the realisation of some common ends. Its ultimate aim is the promotion of human welfare. As such a state must take notice of the economic activities of its citizens. Of all activities those that are economic in character are most vital to human welfare. No state can effectively and satisfactorily work towards its ultimate end by ignoring, therefore, the economic activities of the individuals.

We cannot agree that the state is an end in itself. Some economists used to say that Economics was the handmaid of politics. But it is more true to say that politics is the handmaid of Economics. The economic aim—the removal of poverty—is the more important aim and the political structure must be so shaped as to subserve this aim. For example we want to remove poverty from India. The Indian constitutional set up must be such which can help us in achieving this aim. If economic planning is essential for the raising of the standard of living of the Indian masses, the constitutional arrangement must make central direction of all phases of economic activity possible.

It is now generally recognised that state control and interference in the economic sphere is essential for promoting general welfare. Economics is concerned with consumption, production, exchange and distribution of wealth. If chaos is bad in the political world, it will be worse in the economic world. It is realised that the state must step in to make economic activity orderly and fruitful. The state must regulate Consumption and Exchange, it must assist Production and ensure equitable distribution of wealth. If we are concerned with the disposal of scarce means for the satisfaction of our multiple wants, the need for state action seems to be obvious in order to make sure that the use of the scarce means is economical and is conducive to maximum satisfaction, of the human beings forming the body politic.

Necessity of state interference is thus obvious for the attainment of economic ends.

2. Different Views about the Extent of State Activity.

It has been well said that "political theory has been conditioned by environment". As the environments have changed, the political views about the proper sphere of state activity also underwent a change. There has been a singular lack of unanimity among political thinkers about the extent and mode of state interference. We can broadly distinguish the following main types of political thought.

The Anarchists. They believe in the negation of the Government. They think that a stage would be reached when man will have been
so much morally lifted, that the Government would become unnecessary; it will 'wither away'. The society will regulate itself. This is just a dream of political visionaries. This is an extreme view.

The Communists. On the other extreme are the communists. Far from being eliminated the state will be a live and powerful instrument for the achievement of economic ends. The communists would subject economic activity of the individuals to minute supervision and regulation. Everything will belong to the state and the government will organise and direct all economic activity. The individual will be a mere pawn in the game. Some would call it economic servitude. This state of affairs is yet beyond practical politics.

Between these two extreme views—views which have not been put into practice—there are two other views which have actually shaped political policies. One of these views is what has been called individualism or economic liberalism.

The Individualists. The individualists regard state as an evil, though a necessary evil. They believe that human welfare is best promoted if economic activity proceeds unhampered and unfettered by any state interference.

In the words of a French Physiocrat Francois Quesnay "the surest guardian of internal and external commerce, the most exact and profitable to the nation and State, lies in the unlimited freedom of competition". Adam Smith in England preached the gospel of economic liberalism. According to this school of thought the government is to perform the bare minimum of functions. It is to be a police state, maintenance of law and order being its sole concern. There is no room for factory legislation and social security schemes. This view obviously ignores the reasonable needs of society. Individualism has been discredited both as a political principle and as a guide for state action. The bases of individualism have been long exploded. No body now seriously believes that every individual understands his self-interest or has the power to realise it. Even J. S. Mill, the staunch advocate of laissez-faire had to recognise certain spheres of state interference.

The Collectivist or the Socialist View. The collectivists and the socialists hold entirely different views. They emphasise the social interests as distinguished from the rights and the privileges of the individuals. Far from considering the state as a necessary evil, they regard state as a very useful and desirable institution and they would heap on it vast and almost unlimited powers. They would justify all interference by the state if it helps to promote social welfare. There is no limit to state interference except the important condition that it must result in addition to human welfare.

3. The Modern View. There is a strong swing towards socialism or collectivism in the modern view about state activity. The statesman of today places no limitation on the authority of the
government to interfere in the economic sphere. The sole criterion is whether state activity directly or indirectly is conducive to the benefit of the society. Léon Duguit says, in his ‘Law in the Modern State’, “whatever is essential to the smooth running of society is a public service”.

For some time financial considerations governed state action. Profit was the touchstone. All state activity hinged on the question ‘Does it pay?’ The following passage excellently sums up this attitude:

“J. M. Keynes has called the nineteenth century an accountants’ nightmare. No work is to be done unless it ‘paid’; every activity was subordinated to financial calculations. We built slums because they paid better than decent houses; we disfigured the country side, wasted our great river basins, razed our forests, partly from ignorance but mostly because it ‘paid’ for the moment. We would not put the unemployed to work on public improvements because it did not pay. We have to remain poor because it does not pay to be rich. We have to live in hovels not because we cannot build palaces but because we cannot ‘afford’ them. This rule of self-destructive financial calculations governed every walk of life.”

This was indeed a tragic handicap but luckily almost removed now. Financial considerations are not altogether irrelevant; but it is now recognised that any public expenditure which seeks to develop natural or human material of the nation is justified and may be considered ‘to pay’.

As times have passed the governments have been forced by the logic of circumstances to assume more and more functions, so that the sphere of State activity has constantly widened and become more and more diversified. The world war (1914-18) made a strong breach in the Laissez faire doctrine. The worldwide and unprecedented economic depression of the thirties called upon the governments everywhere to come out with bold economic policies. The American New Deal touched every phase of economic life. The global war that has just ended has brought the State as a regulator of economic life to the forefront. State control and regulation have been extended to cover every aspect of economic life. It touches us as consumers and producers and not merely as citizens. And there is no going back. “Collectivism” says Chase, “is upon us, horse, foot and guns.” According to him 70% of all Europeans are now living in the shadow of state-controlled enterprise and the question is merely shall business men become rulers or rulers become business men?

The modern economist has little scruples about limits of state activity. The governmental machinery is now being freely utilised in carrying out an economical allocation of the resources of the community and in affecting the distribution of wealth in a variety of ways. Either the Government does these things directly, or indirectly through a stringent control over private enterprise.

We can sum up the modern view in the following words. "It came to be recognised that the State has duties other than the provision of an army, a navy, and police, and that defence of quite a different kind was necessary. The community as a whole must unite to enforce right against might; to protect the economically weak against the economically strong, to prevent the exploitation of the poor by the rich, and to fight the evils of poverty and disease with their destructive effects upon the social and political order."\(^1\)

4. Functions of a Modern State. Different writers have offered different classifications of the functions of state. Adam Smith gave threefold classification (a) "the protection of society from the violence and invasion of other independent societies", (b) "the protection, as far as possible, of every other member of it, or the duty of establishing an exact administration of justice," (c) "the duty of erecting and maintaining those public institutions and those public works which, though they may be in the highest degree advantageous to society are, however, of such a nature that the profit could never repay the expense to any individual or small number of individuals".

J.S. Mill gave twofold classification (a) necessary functions providing security and justice and (b) optional including all the other functions.

The following classification of the main functions of the modern state may be considered as fairly acceptable:-

(i) Protective functions. These functions include provision of security from external aggression and maintenance of law and order within the country. This is the primary function of any state.

By some writers this has been called unproductive activity. But this is not quite a correct view. No doubt this form of activity does not yield any material or tangible return in the narrow economic sense, yet in a broad sense and indirectly the activity relating to defence may be called productive. Unless a country is properly protected, no productive activity can be carried on. This activity is, therefore, essential to the carrying out of other activities of the state which are called productive.

(ii) Administrative functions. Besides the military and police force whose duty is the defence of the country, both internal and external, every government engages and maintains a host of administrative officials and agencies whose duty is to administer the various departments and subjects. The administrative functions relate to the carrying out the routine work of the government.

(iii) Social functions. Under this head are generally included functions like the provision of relief for the poor, the sick and the unemployed. Social insurance including health and unemployment insurance and the granting of old-age pensions is now considered a very essential function of all civilized governments. Very comprehensive and ambitious schemes of social security, which aim at

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\(^1\) Thomas, S. E.—Elements of Economics, 1936, p. 599.
banning want and fear from among the masses, are on the anvil in most of the leading countries of the world. Besides these, the governments of today provide museums, public parks, libraries, education, medical aid and undertake the responsibility of providing decent housing facilities.

These functions do not pay in the narrow sense of the word but are considered highly fruitful and productive from a broader point of view. They develop the natural and the human resources of the nation.

(iv) Economic and Commercial Functions. In Economics we are mostly concerned with these functions. They concern all government activity in connection with trade and industry.

They include "The facilitating, encouragement, regulation and control of business".  

Let us study in greater detail where the government intervention in business is essential and what forms it takes.

5. According to S. E. Thomas state intervention in economic affairs is justified in the following cases.  

(i) When the business is of a monopolistic nature. Whenever there is a monopoly there is a strong presumption of exploitation by the monopolist of the general body of the consumers. It becomes the duty of the government to prevent this exploitation and the abuse of monopoly power. The government may have to exercise close supervision over the working of a monopoly and may have to go even to the length of fixing the price of the monopolised product. The consumers are in a helpless state before a monopolist and the government, as the guardian of the general interests, must intervene to protect them.

(ii) Where private enterprise would not be attracted. This generally happens when no return can be expected on investment. e.g., schools, hospitals and roads. Such enterprises cannot yield handsome dividends and must, therefore, be undertaken by the community collectively. The government must also step in where private enterprise is deterred for no return may be expected in the present generation e.g., in schemes of afforestation, anti-erosion schemes etc.

(iii) Where the economically weak require protection. The factory workers are in an extremely vulnerable position and must be protected by suitable legislation against the all-powerful employers. This is especially the case in sweatied trades.

(iv) Social monopolies or Public Utility Services. Railways, posts and telegraph service, water supply and supply of electricity or gas are generally put under the category of public utilities. In such cases it is obviously uneconomical and undesirable that there should be competing concerns supplying the service. Municipal or government control over these services is essential to ensure a regular and cheap service. This is, therefore, a fit sphere for government intervention.

2. Ibid, p. 605.
(v) Where the consumer's interest may be prejudiced. An average consumer is not considered competent to form a correct judgment about the quality or the purity of the commodity supplied to him. He is, therefore, not in a position to safeguard his interests. The government must come to his aid. We, therefore, find that laws against adulteration are on the statute book in all countries. The government intervention is considered essential for the protection of the consumers against the fraudulent practices of the producers.

(vi) Where state management and control are dictated by political or social as well as economic considerations. The obvious examples are the supply of currency and the manufacture of armaments. It is now recognised that the issue of currency notes by private agencies is fraught with serious risks to the whole community. State control and regulation of currency are absolutely essential if the economic machine is not to be thrown out of gear. Similarly, manufacture and sale of armaments cannot be entrusted to private enterprise without being a menace to peace and tranquillity in the country. Research on atomic energy is being kept a closely guarded state secret.

6. Forms of State Intervention in Business. Let us now see how the government activity is directed towards the assistance of trade and industry in the country. We may distinguish, broadly, the following chief methods of government assistance or intervention in business.

(i) Facilitating. The government provides innumerable facilities for business men without which it will be almost impossible for them to carry on. Among the important facilities may be mentioned the provision of currency, means of communication and transport, fixing of weights and measures, passing of commercial laws etc. All these facilities provide the necessary framework for the carrying on of trade and industry. We in India, are not very well equipped in this respect. Means of communication and transport are inadequate considering the area and the size of the population of the country. Banking and credit, too, are not well developed. This lack is in no small measure responsible for our economic backwardness.

(ii) Encouraging. Provision of facilities mentioned above is hardly considered adequate in modern times. Such a passive attitude on the part of the state cannot ensure a measure of prosperity to which a country can attain. It is, therefore, felt that a government must actively encourage business or economic activity in the country. The encouragement may take a variety of forms.

A suitable fiscal policy can go a long way to bring about an industrial prosperity in the country. The domestic industries may be protected against foreign competition by the levy of import duties, or foreign imports may be regulated by means of a quota system which may limit the scope of foreign competition. The Government may directly encourage an industry by granting bounties or subsidies.

Bilateral or multi-lateral trade agreements may be negotiated for the benefit of the country's commerce. In recent years we entered into a series of agreements with U. K. and Japan although expert
opinion in India was not convinced that these agreements were wholly beneficial to India.

There are several other aids to industry which government can supply e.g., provision of industrial education and research, industrial intelligence and statistics, financial aid either by loans or subscription to share capital or the purchase of debentures or guaranteeing a minimum return on capital. The government can assure its own custom and undertake to make all store purchases from the home manufacturers. The Government can help the industrialists in purchasing suitable factory sites at concession rates. These are some of the ways in which Government can encourage trade and industry. It is needless to say that a policy of active state encouragement and sympathy can bring about an industrial revolution within a generation.

(iii) Regulating. State intervention is also essential to regulate business activity in the country to curb the undesirable and unsocial propensities of the entrepreneurs. Unregulated and unrestricted competition resulted in the past in serious social evils which were enough to shock the social conscience. The greed and the selfishness of the factory owners in the early stages of the Industrial Revolution led to the most callous treatment of the workers. The statesmen were awakened to the dire necessity of state regulation of economic activities of private individuals. Factory Acts were passed. There are provisions in the law for the safety of workers in railways and ships. Compensation is granted for accidents and schemes of social insurance are in force in all leading countries. Minimum wages are fixed. The interests of the consumers are protected by the strict regulation of public utility services.

(iv) Control. In some spheres the states do not content themselves merely with facilitating, encouraging and regulating business. They go further and institute a strict control over the economic life of the citizens. In the Fascists states of Germany and Italy state controls reached their farthest limit in peace time. There was strict regimentation of both production and consumption. The people have now become fairly familiar with the system of economic controls during the war that has just finished. Although the war has finished the controls continue. There is exchange control, import and export control, control on prices and control on capital issues. The economic activity of the community has been muzzled. Such controls become essential when the nation is passing through a crisis.

(v) State Ownership. The most drastic form that state intervention takes is the abolition of private ownership of industry. Bank of England and the British coal industry are going to be nationalised. In some cases it is considered that the interests of the nation at large will be served best if private enterprise is eliminated. The society works to appropriate the profits in certain lines of economic activity so that these profits, instead of going to enrich private individuals may be spent for the benefit of the society in general. There is a strong trend nowadays towards collectivism or nationalisation. The superstructure of unfettered capitalism may be seen crumbling in the citadel of private enterprise itself.
CHAPTER XXXXIII

PUBLIC FINANCE

1. Importance of Public Finance. 'Money makes the mare go' is a very common saying. Every body realises the importance or the necessity of money in all he does. A consumer is handicapped in the satisfaction of wants by the lack of sufficient income. An entrepreneur cannot carry on production in the absence of adequate funds.

If the importance of money is great to an individual it is greater still to the government. In the previous chapter we have seen the many functions which we expect a modern government to perform. It is quite obvious that for the performance of these functions money is needed. The strength of a nation is reflected by its budget. The extent of state activity and its efficiency are primarily dependent upon the length of its purse.

We often complain that educationally India is very backward, that the system of medical relief is utterly inadequate and that agriculture and industry in India are now on the most primitive lines. Why is it so? There is only one answer. No money. The amounts spent on beneficent services in India are ludicrously low as compared with civilised standard. With the meagre resources placed at the disposal of the nation-building departments, no spectacular progress can be expected. 'The revenue of the State,' it has been said, 'is the State.' Everything depends upon it. Kautilya the earliest of Indian economists writing more than 2000 years ago, said, "The beginning of every undertaking is finance".

Apart from this, the system of public finance in a country affects the entire economic field. It is no longer considered as a mere means of raising State revenues. To use Colbert's words, it is no longer considered simply 'the art of so plucking the goose as to secure the least amount of squealing'. On the other hand, public finance is now regarded as a powerful instrument of social justice. It is employed by modern governments to bridge, as far as possible, a gap between the rich and the poor. An equitable system of finance would tax the rich and spend the proceeds in the supply of such services which are calculated to benefit the poor primarily. These ulterior motives of public finance have today assumed very great importance.

According to Dalton the most fundamental principle of public finance is what he calls the Principle of Maximum Social Advantage. Through the operations of public finance are effected a series of transfers of purchasing power. The tax transfers the purchasing power to the Government which is then transferred to individuals.

whom the Government makes the payments such as Government contractors and Government servants. The one aim underlying all these transfers is the attainment of Maximum Social Advantage. The tests of Social Advantage according to Dalton lie in the preservation of the community and the improvement of both Consumption and Production.

To an economist who is primarily concerned with the promotion of human welfare, the importance of the study of public finance is indeed very great.

2. What is Public Finance? But what do we exactly mean by the science of Public Finance and what is its scope or subject matter? In Public Finance we study how Governments raise their revenues and how they spend them. In the words of Armitage Smith, "The investigation into the nature and principles of State expenditure and State revenue is called Public Finance."\(^1\)

But the science of Public Finance, as it is understood to mean these days, is not merely concerned with public expenditure and public revenues as such. Its scope is much wider. It includes the study also of the system of financial administration i.e., budgeting, auditing etc. A definition which is nearer the truth is that "Public Finance deals with the provision, custody and disbursement of the resources needed for the conduct of public or governmental functions."\(^2\)

In the words of Bastable, "Public Finance deals with expenditure and income of public authorities of the state, and their mutual relation as also with the financial administration and control ".

Broadly speaking, therefore, the study of the science of Public Finance may be split up into the following main divisions:

(a) The classification of and the principles underlying, public expenditure;

(b) The methods of raising public revenues and the principles of taxation;

(c) Financial administration including the preparation and sanctioning of the budget, auditing etc.; and

(d) Public Debt—a study of the principles and methods of public borrowing.

3. Distinction between Public Finance and Private Finance.\(^3\) Before we launch on the study of Public Finance it may not be without interest to note some differences between the government finance and that of an individual. It will help us to understand the difference in the method of approach of a government as well in the aim of a public authority as distinguished from that of an individual.

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3. For a fuller discussion see Findlay Shirras—Principles of Public Finance, 1936, Vol. I, Ch. IV.
1. Adjustment of income and expenditure. To an individual we preach "cut your coat according to your cloth". But the government first settles the dimensions of the coat and then proceeds to arrange for the cloth required. In other words, the individual must live within his income i.e., he must adjust his expenditure to his income. On the other hand, the government first prepares an estimate of expenditure and then devises ways and means to raise that sum i.e., the government, unlike the individual, adjusts its income to expenditure settled beforehand.

This, however, is not always true. The individual, too, sometimes first takes a note of his obligations and commitments and then tries to work up his income to the requisite figure. He may have to work harder, work over-time and do his best to raise his income to his expenditure. A doctor may sit longer at his place of business, a lawyer longer at his desk and a teacher may take up private tuition work. Thus each tries to make his both ends meet. An individual must also try to balance his budget. Thus it is not always correct to say that an individual cuts his coat according to his cloth. He also sometimes knows the size of the coat and must some how find the cloth.

In the same manner, the governments also, sometimes, act like the individuals in adjusting their expenditure to income. When the government realises a surplus, it may decide to increase expenditure in certain desirable directions. The Punjab Government has had a series of surpluses and it became more generous to its employees and granted liberal dearness allowances, revised the scales of pay, and also created new special funds like Peasants' Welfare Fund, Special Development Fund etc. Also, when the public revenues shrink, then the government tries to bring about a corresponding reduction in its expenditure through a policy of retrenchment.

But, on the whole, we can say that there is a real difference in the approach towards the problem of finance between an individual and the government. The individual ordinarily knows his income and he must arrange his scheme of expenditure accordingly. The government, on the other hand, first calls for an estimate of expenditure from the various departments, settles the total expenditure and then levies the taxes accordingly.

2. Period of time. For the public authorities, the unit of time for the budget is one year. But the individual attaches no special sanctity to the period in which the earth revolves round the sun. He need not balance his budget by a particular date or during a given period. He goes on earning and goes on spending and few householders keep their accounts by the year. Sometimes they go on having surplus from year to year and at other times for years go on living on past savings. No doubt the governments, too, sometimes realise surpluses for years and keep them for future use, and sometimes they have to make up by borrowing for a series of deficit budgets. But this cannot go on. Abnormal times apart, the governments
must try to balance their yearly budgets. They work by the year which the individual generally ignores in his financial arrangements.

3. No Internal Borrowing for an Individual. In their resources, too, the governments and the individuals differ. When hard pressed the government can borrow both at home and abroad i.e., it can raise either an internal loan or an external loan. But the individual can only borrow from others and not from himself. The only way open to him is external loan but no internal loan. True, if he keeps two separate bank accounts for two purposes, he may temporarily draw upon a different bank account. But by no stretch of imagination can we call it a loan.

4. Inflation, a peculiar privilege of the Government. There is another source of income open to a government. It can have resort to the printing press. All belligerent governments, more or less, printed currency notes to meet the huge war expenditure. The government of India did it more than the governments of U. K. and U. S. A. During the war (1914-18) Germany almost ruined itself by the reckless issue of currency. When the government feels that the taxable capacity of the nation is over-stretched and public debt has been shaken a bit, it can use this ‘hidden hand’, wave the magic wand and create money. Can the individual do it? Not unless he is prepared to go behind the bars.

5. Equalising Marginal Utilities. We have seen that according to Law of Equi-Marginal Utility, every individual so tends to arrange his expenditure that he gets the same marginal utility from every unit of money that he spends. For this purpose he consciously weighs the utility of buying a commodity and the utility of parting with the money. But when the government, an impersonal entity, spends money such conscious weighing is not possible, for utility is subjective. But this does not mean that public expenditure is indiscriminate. Here also we may say that the Finance Minister does roughly try to get the same marginal utility from public expenditure for the community as a whole. As a custodian of public interests he may spend public funds on works of greater utility than those of less utility. But the subjective element is less prominent in public finance than in individual finance.

6. Deliberate and Big Changes in Public Finance are Easier. For an individual big and deliberate changes either in income or in expenditure are not so easy. Everybody likes to supplement or double his income. But how many can do it? In the same manner departure from the set expenditure is difficult. A man gets used to a certain standard of living which does not admit of easy alteration and adjustments. Any consideration of curtailment of expenditure is painful. But the governments are in a much better position to make big and fundamental changes in the scheme of public income and public expenditure. If a socialist party comes into power, it will surely make revolutionary changes both in the state income and state expenditure. The individual finance lacks this plasticity or adaptability.
7. Provision for the Future. In the matter of providing for the future the government is much more liberal and far-sighted. The statesman is a trustee for the future generations. The governments spend large amounts of money on schemes of afforestation, public works or social security schemes on which either there may be no monetary return or the return may be delayed for generations. The Mandi-Hydro Electric Works have been running at a loss. The individuals, on the other hand, are anxious to reap quick returns. Human life is so uncertain that some individuals discount the future at a very heavy rate. They cannot look beyond their noses sometimes. Few can take much interest in their descendants beyond a certain line, endowment insurance policies are more popular than life policies. But the community outlasts the individual. It exists in perpetuity. Hence the states are bound to make a solid provision for the future.

8. Surplus budgeting is a virtue for an individual but not for the state. A prudent individual must earn more than he spends. He must have a surplus budget and save. For an individual this is considered a necessity and a virtue. But for a state it is not so. Deficit budgets are bad and indicate unstable finance. Surplus budgeting, however, is not necessarily a virtue. It may mean that the level of taxation is kept unnecessarily high and public expenditure is kept unduly low. Certain departments, the beneficent and nation-building departments, may be starved. The Punjab has enjoyed a series of handsome surpluses. The times were abnormal. The revenue side swelled in some cases to an unexpected extent. Care seems to have been taken to keep the expenditure within reasonable limits. This husbanding of the resources has been a wise procedure. It would have been certainly unwise to launch on certain ambitious schemes of public expenditure when the times were so uncertain. This is all right. But the point is that to make a surplus budgeting a normal feature is not good finance. We should not make a fetish of a surplus. If big surplus recur from year to year, it is better either to give relief to the tax payer or to increase the scale of social expenditure.

9. Individual finance is shrouded in mystery. Secrecy surrounds individual finance. Every man of money must avoid the unwelcome gaze of others. Individual credit is supposed to depend not on what a man has but on what he is supposed to have. He must keep the people guessing and try to give them some vague and exaggerated idea about his financial position. But publicity, on the other hand, is the essence of public finance. Budgets are published and widest publicity is given to them. Publicity is intended to strengthen, rather than weaken, public credit.

These are some of the features which distinguish public finance from individual finance.
PUBLIC EXPENDITURE

4. **Introduction.** Of the two important aspects of Public Finance viz. Public Revenues and Public Expenditure, let us study first Public Expenditure.

This department of public finance received scant attention at the hands of the writers on public finance throughout the XIX century. Attention was almost exclusively focussed on public revenues. It is only in the present century that it came to be realised that public expenditure is far more important in its implications and bearing on public welfare. These days, therefore, an attempt is made, in discussions on public finance, to study the nature of public expenditure and the principles underlying it, and its effects are carefully analysed.

For this early neglect of the subject of public expenditure, the main reason seems to be that the amount of public expenditure was very small, as the field of governmental activity was very narrow. The theory of individualism held a complete sway of the statesman’s mind and he was prepared to entrust to the government only a bare minimum of the functions. Naturally, therefore, the discussion on public expenditure did not loom large. Now that the public expenditure has reached astronomical figures on account of ever-widening sphere of governmental activity, this department of public finance has come to receive due attention on the part of the economists.

5. **Causes of Increase in Public Expenditure.** Let us study the various factors which have contributed to this astounding increase in public expenditure during the present century.

(i) **Increase in Area and Population.** In the first place, the increase in public expenditure is due to the fact that the physical boundaries of the states have been widened. ‘No-man’s lands’ have been brought under organised government. Also, if area has not increased, the population figures have considerably gone up. The governments have, therefore, to cater to the needs of millions of more people scattered perhaps over a much wider area. The increase in public expenditure, in these circumstances, is inevitable. It is said that the government business obeys the Law of Diminishing Return or Increasing Cost per person served. The larger the number of persons served, the greater is the cost per capita.

(ii) **The Higher Price Level.** Another reason which accounts for the mounting public expenditure is the higher price level. Persons who have seen ‘good old days’ in India or have heard about them tell us that there was a time when ghee was selling at 4 seers per rupee, whereas now it sells at Rs. 5½ per seer. There has been a similar rise in prices of other commodities. The governments, like individuals, therefore, have to find larger amounts of money to pay for the commodities and the services they have to purchase. Public expenditure must go up.
(iii) Increase in National Wealth and the Higher Standard of Living. There has been almost a continuous improvement in agriculture, trade and industry in every country, though in some countries like India it has been painfully slow. There has been a steady increase in the per capita income and consequently an improvement in the standard of living. There has also been a corresponding improvement in public revenues and public expenditure. Rich people, rich state.

(iv) War and Prevention of War. We know it to our cost now how costly a modern war is. England was spending £15 millions daily in this war. The ingenuity of the scientists is being exercised to the utmost to devise the specter and more powerful weapons of destruction which also happen to be more costly. One atomic bomb costs a huge amount of money. All nations are now feverishly carrying on research in atomic energy. Even when the war is not on, large amounts are spent in preparing for it and adopting means to prevent it. The possibility of a third war is being mentioned and it must be vastly more costly. War has been one of the main factors responsible for increasing public expenditure.

(v) Incidence of Democracy. In a democratic state there are several political parties and each party is anxious to enlist the support of the people. The supporters clamour constantly for concessions and benefits, at the expense of public funds. From every corner of the country and from every section comes the call for more and more amenities—more education, more medical aid, more roads and so on. Ministers are asked by the people to open a college in their home districts. The governments have thus been pressed by the democratic forces to take upon themselves more and more functions. The government functions have, therefore, increased both intensively and extensively. The old functions are being performed more thoroughly and many new functions are being undertaken. “Expenditure depends on policy” remarked Disraeli in 1862. In a similar vein, Lowe says “Finance is the hand-maid of public policy.” The public policy in modern times is to extend the sphere of government activity.

Wagner has propounded a Law of Increasing State Activity. In the case of many services the public agency is considered more efficient and dependable and inspires greater confidence than private agency. Governments have come to provide more and more of what are called indivisible benefits, schemes of public health, education, effective maintenance of law and order, public libraries, museums, art galleries, public parks etc. All this is bound to increase public expenditure.

(vi) Defective Financial and Civil Administration. Not a small increase in public expenditure is due to defective financial and civil administration. Duplication and unnecessary multiplication of governmental agencies is not uncommon. Wrong allocation of resources and functions also leads to extravagance. A lax control over public expenditure swells it to an unnecessary figure.
The above are the chief factors which account for the fact of constantly mounting up of the public expenditure.

6. Canons of Public Expenditure. Just as there are well-known canons of taxation, similarly it is possible to formulate some canons or principles to which a prudent government expenditure should conform.

(i) The Canon of Benefit. It is absolutely necessary that all public expenditure must satisfy one fundamental test viz. of Maximum Social Advantage. Every rupee spent by the government must have as its aim the promoting of the maximum advantage of the society as a whole. Care has to be taken that public funds are not utilised for the benefit of a particular group or section of society. It should not discriminate as between different sections of the community. The aim is the General welfare. The government exists for the benefit of the governed and the justification of the government expenditure is, therefore, to be sought in the benefit of the community as a whole.

(ii) The Canon of Economy. Although the aim of public expenditure is to maximise the social benefit, yet it does not exonerate the government from exercising utmost economy in its expenditure. Economy does not mean niggardliness. It only means that extravagance and waste of all types should be avoided. Public expenditure has great potentiality for public good but it may also prove injurious and wasteful. In the words of Coleridge, “The sun may draw up the moisture from the river, the morass, and the ocean to be given back in genial showers to the garden, the pasture and the cornfield; but it may likewise force away the moisture from the fields of tillage, to drop it on the stagnant pool, the saturated swamp, or the unprofitable sand waste.” Thus if revenue collected from the tax payer is heedlessly spent, it would be obviously uneconomical. Economy does not merely imply that scrutiny and control are to be exercised on the expenditure side only. Utmost care has also to be taken to develop the revenues of the state. For if the departmental receipts are increased, the department may be given a smaller grant. This will mean economy in expenditure.

To satisfy the canon of economy it will be necessary to avoid all duplication of expenditure and overlapping of authorities. Also, public expenditure is not intended to replace private expenditure, otherwise it will be transgressing the bounds of economy. Further, public expenditure should not adversely affect saving; it should not compel the people also to spend more or impair their capacity to save. In case government activity damaged the individual’s will or power to save, it would be repugnant to the canon of economy.

(iii) Canon of Sanction. Another important principle of public expenditure is that before it is actually incurred, it should be sanctioned by a competent authority. Unauthorised spending is bound

to lead to extravagance and over-spending. Financial procedure in every country lays down that an amount must be sanctioned before it is spent. It also means that the amount must be spent on that particular purpose for which it was sanctioned. The amount is sanctioned not in the name of a particular official or department but for a particular purpose and it can be spent for no other purpose. The same applies to loans. The Provincial governments in India had no independent powers of borrowing in the days of pre-Montford Reforms. The sanction may be accorded in the annual budget which is passed by the Legislature of the country or a sanction may have to be obtained from the immediate officer. But sanction is invariably necessary. This ensures automatic scrutiny and supervision over all items of public expenditure. Allied to the canon of sanction, there is another viz. auditing. Not only is a previous sanction of public expenditure essential but a postmortem examination is equally imperative. All the public accounts at the end of year should be properly audited to see that the amounts have not been misspent or misappropriated and that the various authorities have not exceeded their powers.

(iv) The Canon of Surplus. It remains a sound system of public finance, as of private finance, that an attempt must be made to balance the budget and to make both ends meet. It is not necessary to realise big surpluses from year to year. That will not be good budgeting either. But what is wanted is to avoid ever-recurring deficits. A country whose budgets show a state of chronic deficits will find that its credit in the money market is gone. It will experience difficulties in raising loans and may have to offer exorbitant rates of interest. It is considered a sign of financial weakness. If a country is to maintain its financial credit and stability unimpaired, it must keep its budgets properly balanced. The financial credit of the Punjab Government stands very high indeed. The recent Punjab budgets provide unmistakable signs of financial prosperity and strength.

(v) The Canon of Elasticity. Another sane principle of public expenditure is that it should be fairly elastic. It should be possible for public authorities to vary the expenditure according to the need of circumstances. A rigid level of expenditure may prove a source of trouble and embarrassment in bad times. Alteration in the upward direction is not difficult. It is easy, rather tempting, to increase the scale of expenditure. But elasticity is needed most in the downward direction. It is not so easy to cut down expenditure. When the economy-axe is plied; it is a very painful process. Retrenchment of widespread character creates serious social discontent. It is very necessary, therefore, that when scale of public expenditure has to be increased, it should be increased gradually. A short spell of prosperity should not involve public authorities in long term commitments. Public authorities should not saddle themselves with permanent obligations of a character that they may not be able to meet. Perfect elasticity is out of the question. But a fair degree of elasticity is
essential if financial breakdown is to be avoided at the time of shrin-
king revenue.

(vi) No Adverse Influence on Production or Distribution. It is also
necessary to see that public expenditure should exercise a healthy
influence both on Production and Distribution of wealth in the
community. It should stimulate productive activity so that the volume
of production in the country increases and it may be possible to raise
the standard of living. But this object of raising of the standard of
living of the masses will be served only if wealth is fairly or evenly
distributed. If the newly created wealth goes to enrich the already
rich, the purpose is not served. Public expenditure should aim at
toning down the inequalities of wealth distribution. We shall study
presently the effects of public expenditure on production and distri-
bution of wealth.

7. Public Expenditure in India. Public expenditure in India
follows the usual financial procedure. The budgets are carefully
prepared and formally passed. All expenses have to be sanctioned
before they can be incurred. The accounts are also properly audited.
There is the Public Accounts Committee of the Indian Legislature
which makes sure that the amounts are faithfully spent in accordance
with the appropriations. The financial credit of India also stands
very high as Indian budgets are normally balanced budgets and
India has never defaulted in its obligations. There are also few
glaring instances of extravagance. We may dispute the propriety of
certain expenditure but the amounts sanctioned are carefully
spent. We may, therefore, say that financial organisation in India is
well-laid and the necessary formalities are meticulously gone through.

But we cannot give an all round good chit to our public authorities
in the matter of public expenditure. The canon of economy is in-
fringed in as much as the poorest country in the world maintains
the costliest civil service. Our per capita income is Rs. 65 but we
vie with others and excel them in paying high salaries to our officials.
Japan whose per capita income is at least twice as high, pays equiva-
ient to Rs. 662 per month to the Prime Minister; President of
U.S.A. gets equivalent of Rs. 17,062, British Prime Minister Rs. 11,000
nearly. But the Governor General of India receives Rs. 21,000 nearly.

Our defence expenditure even a few years before the War (1939-
45) broke out was the highest in the world. Normally the defence
services in India absorb 25% of our total revenue. The Indian
Statutory Commission pointed out that India's defence expenditure
was between two to three times as great as that of the whole of the
rest of the British Empire outside Great Britain.

The net result of high military expenditure and top heavy adminis-
tration is that the bulk of our revenues are consumed merely in
running the Governmental machinery and not much is left for bene-
icent activities. It has been estimated that only 12% is spent on
nation-building departments and 88% in running the Government.

\[1^1\] See our Indian Economics, 1945, p. 562.
Our expenditure on education in 1934-35 came to 9 annas per head as against Rs. 19 in the U. K. and Rs. 55 in U. S. A.

When so great a proportion of our revenues is absorbed by the elementary functions of the state, we cannot say that the public expenditure in India promotes the maximum social welfare of our people. We are not making the best of our meagre resources. Thus the most fundamental canon of public expenditure viz., that of Maximum Social Benefit is violated.

8. Classification of Public Expenditure. There are several bases on which public expenditure can be classified. We give below some well-known classifications.

I. We can have one classification on the basis of territorial operations of public authorities. On this basis the public expenditure will be classified as under:

(i) Central or National expenditure concerning the Central Government e.g., The expenditure of the Government of India,
(ii) Local expenditure. The expenditure of local bodies like Corporations, Municipalities and District Boards, and
(iii) Semi-national expenditure. Under this head will fall the expenditure of the Provincial Governments.

II. Productive and unproductive. Public expenditure is called productive when it creates revenue yielding assets like canals and railways. The expenditure incurred in war is generally styled unproductive.

III. Mill’s Classification.—Necessary and Optional. Expenditure on defence and maintenance of law and order is necessary expenditure whereas amounts spent on social services like education, public health etc., are considered optional. This is an old view. The sphere of necessary expenditure has been considerably widened now.

IV. Plehn’s Classification: According to Benefit. Certain public expenditure confers a common benefit or what is called indivisible benefit e.g., measures to combat contagious diseases. Expenditure on communications and means of transport, education, police and judiciary and other administrative expenditure also falls under this category. But a certain public expenditure is intended to benefit certain individuals e.g., workmen’s compensation, social insurance schemes, old-age pensions, public charities, bounties etc.

V. Nicholson classifies public expenditure according to the amount of revenue received by the state for the service that it renders.

(i) Expenditure which brings no return e.g., poor relief, workmen’s compensation, old-age pensions.
(ii) No direct return but the expenditure indirectly beneficial e.g., education...
(iii) Partial return e.g., educational fees.

I. For a fuller discussion see Findlay Shirras—Principles of Public Finance, 1936, Vol. I, Ch. V.
(iv) Full return e.g., public utility services and commercial enterprises.

VI. **Dalton’s Classification** of public expenditure is—grants and purchase price. In case of grants, the Government gets no tangible return e.g., old-age pensions, poor relief etc. In case of purchase price there is a direct *quid pro quo* e.g., salaries-paid to government servants.

VII. Adams gives a functional classification of public expenditure as follows:—

(i) **Protective Expenditure** e.g., on army, police etc.
(ii) **Commercial Expenditure** incurred in facilitating, encouraging, regulating and controlling businesses or in direct commercial enterprises by the State.
(iii) **Developmental Expenditure** e.g., on education, housing, public health, public works, collection of statistics etc.

VIII. **Transfer or non-transfer Expenditure.** This classification is of recent importance. ‘Transfer’ expenditure merely transfers the purchasing power or redistributes the tax proceeds e.g., payments of interest on public loans, old-age pensions, unemployment benefits etc.

The ‘non-transfer’ expenditure does not merely redistribute the purchasing power. It is consumption expenditure. Pigou calls it exhaustive or real expenditure. The examples of such expenditure are civil administration, defence and payments to the foreign bond holder. In all these cases the Government appropriates to itself a part of the community’s resources, for they are actually used up by the Government. This does not happen in the case of transfer expenditure which does not in any way touch the community’s resources.

IX. **Primary and Secondary.** This is quite a popular classification and logical too. Under the primary expenditure we shall place Defence, Law and Order, Civil Administration, Debt Services etc. The secondary expenditure will include that on social services and developmental functions.

9. **Effects of Public Expenditure on Production.** An idea prevails in some minds that public expenditure makes no contribution to national production. It is a negation of it. It is believed that money spent on public expenditure is a *subtraction* from the national income which is a source of all productive power in the community. This is an erroneous belief. The fallacy lies in this that it is believed that money taken away by the Government for public expenditure just vanishes from the community, whereas that is not so. The money is there, only instead of being spent by the owners of it, it is spent by the Government and if it is wisely spent it has immense potentialities to increase the productive power of the community as we shall see presently.
But there is another type of public expenditure which some people say is certainly unproductive and they feel themselves on surer grounds. This expenditure is on the war or the preparedness of war—money spent on armed forces, military equipment and armaments. The soldiers and the sailors are withdrawn from productive employment. The materials like coal, oil, rubber et c, which should have been employed productively are just destroyed in war. There is thus a semblance of truth in the belief that war is destructive rather than productive.

This belief however is not entirely correct. Military expenditure, if not over-done, does indirectly assist production by securing to the community an ordered economic life. Actually it is over-done and a great deal of military expenditure may be regarded as unproductive. Also, we have to admit that a short and successful war may bring to the nation much economic gain, by securing some economic privileges. In the same manner by preventing an invasion of the country, the armed forces may enable the community to avoid an economic loss. Thus the military expenditure may be considered indirectly or broadly productive.

Most of the public expenditure is productive directly or indirectly. The Governments, in every country, are running commercial enterprises which are directly productive. The Indian Government has created solid and lucrative assets in the form of canals and railways. The state industries make a direct contribution to production in the community. In the same manner schemes of reclamation and reforestation are also directly productive.

A great deal of public expenditure is, however, only indirectly productive. In this connection we may consider the effects of public expenditure on

(a) Power to work and save;
(b) Will to work and save; and
(c) Diversion of resources as between employments and localities.

As for (a) i.e., power to work and save, it may be pointed that much of the socially desirable public expenditure incurred by modern government undoubtedly increases the community’s productive power and consequently, also the power to save. Such expenditure includes provision of means of communication and transport, education, public health, scientific and industrial research, controlling of human, animal and plant diseases and expenditure on social insurance, like health insurance, unemployment insurance and old-age pensions.

As for the will to work and save much depends on the character of public expenditure and the policy governing it. By giving the people expectations of future benefits from public expenditure, it may blunt the edge of the desire to work and save. The granting of old-age pensions, insurance against sickness and unemployment and provision of education at state expense must make the people indifferent towards the future and make them neglect saving. This is bound to affect
adversely exertions in the present. People will work less. But if such expenditure is kept within proper limits and if it helps the really helpless, the check to work and saving may be mitigated.

Regarding the diversion of resources as between employments and localities the public expenditure may have distinctly a beneficial effect on production. Through the system of bounties and subsidies, the government may succeed in diverting resources to hitherto neglected channels and thus create new industries. In the same manner by spending money on the development of backward areas government may add to the total production in the country. A wisely conducted policy of public borrowing stimulates saving and the habits of investment in the community which is certainly beneficial to production. It also diverts resources into channels which may add considerably to the wealth of the community.

We may thus safely conclude that public expenditure exerts a very wholesome influence on production. It assists production indirectly by adding to the power to work and save, and by a healthy diversion of resources. This is besides taking up directly the work of production through state enterprises.

We must, however, give a warning that public expenditure too, is subject to the Law of Diminishing Returns. If it is carried beyond certain limits, it may add little or nothing to the productive power of community or the social benefits desired.

10. Effect of Public Expenditure on Distribution. Public expenditure has a very wholesome influence on the distribution of wealth in the community. It can even out the steep inequalities of incomes. It is an admitted fact that the benefit to the poor from state organisation is greater than to the rich. A rich man can protect himself. He can arrange for his own education and medical relief. But a poor man is helpless. It is, therefore, the poor man who benefits most from the state activity. To this extent the state expenditure seeks to bridge the gap between the rich and poor.

There is a certain expenditure which benefits the poor exclusively and primarily e.g., poor relief, old-age pensions and unemployment and sickness benefits. The benefits derived from such social services rendered by the State for the benefit of the poor may be regarded as a net addition to their income. And when we remember the revenue is obtained by taxing the rich, the conclusion is inescapable that inequalities of wealth distribution have been reduced to some extent.

But much depends, here again, on the character of public expenditure and the policy underlying it. Just as there are proportional, progressive and regressive taxes, in the same manner the government grants may also be proportional, progressive and regressive. If public expenditure is really to make the distribution of wealth more even and fair, it must be progressive. It must be according to 'ability to receive' (corresponding to 'ability to pay' in taxation). Corresponding
to the principle of minimum sacrifice in taxation, there is the principle of maximum benefit in public expenditure. Public expenditure must be so arranged as to confer a maximum benefit on the community as a whole. This is the guiding principle. Judged in this light we can see that expenditure on debt services is regressive because it gives more income to the already rich. Granting of old-age pensions and benefits of social insurance are progressive. If the government subsidises the production of commodities largely consumed by the poor, is it progressive otherwise regressive.

We have also to consider the reaction of public expenditure on individual income. If a government grant reduces the desire to work and save, it may lead to reduction of incomes of the beneficiaries. In this case the inequalities of wealth distribution are not reduced.

On the whole, public expenditure in modern times tends to make the distribution of wealth in the community more equitable.
CHAPTER XXXXIV
PUBLIC FINANCE (Contd.)
PUBLIC REVENUE

1. Introduction. In the last chapter we discussed the principles of public expenditure. We have seen that public expenditure has enormously increased in recent times, among other reasons, because the functions of government have increased both intensively and extensively. For the performance of these functions government must have an adequate income.

*Has the State needs of its own?* No, the state has no needs which it can call its own apart from those of the individuals. The modern political scientist has long discarded the Hegelian conception of the state which regarded state as possessing a personality distinct from the personalities of the citizens forming it. The state is composed of individuals and the state exists only for fulfilling the common purposes of the individuals. It exists for them and it is to their needs that state must administer. If, therefore, state needs funds, it is for the performance of the functions or for rendering the services which its citizens need.

Let us, therefore, proceed to study the sources of public income and the principles on which a good tax system rests.

2. Classification of Public Revenue. Different classifications of public revenue have been offered from time to time. Adam Smith divided public revenue into two parts (i) derived from the property of the sovereign and (2) from incomes or properties of the people. This classification is obviously out-of-date, for a complete separation has been effected between the sovereign and the state. The sovereign has to be content with a moderate Civil List. He may have purely personal income which does not come into the coffers of the state. A modern state derives the bulk of its income from taxation.

Adams classifies public revenues as follows:-

(i) *Direct Revenue.* Government's own income *i.e.* from public domains, public industries, gratuities, gifts, confiscation and indemnities.

(ii) *Derivative Revenue.* This is income derived from the people's incomes. This revenue is derived from taxes, fees, assessment, fines, penalties.

(iii) *Anticipatory Revenue.* This consists in taking into account the future income. It consists of loans and the proceeds of treasury bills.

But it should be remembered that income from loans is not generally considered a part of public revenue. As commonly understood
the public revenue consists of state income from state domain, industries etc., and taxes.

Seligman's classification of public revenue is:

(i) Gratuitous e.g., gifts
(ii) Contractual :—derived from state property and industries.
(iii) Compulsory e.g., taxes, fees, assessments etc.

There is still another classification popular on the continent viz.,

Ordinary Revenues and Extraordinary Revenues or, what is the same thing, Regular and Irregular Revenues.

In the first category we shall put revenue from state property, state industries and taxes of all kinds; and to the second group will belong income from loans, fines, indemnities, gifts etc.

A classification which has received much attention in recent times is as follows:

(i) Tax Revenue :—i.e., revenue derived from various forms of taxes, taxes on income, taxes on property, taxes on production, consumption, sales tax, etc.

(ii) Non-tax Revenue : derived from state property and state industries, fees, contributions, special assessments, tributes, loans etc.

The most important source of public revenue in modern times is taxation. In India nearly two thirds of the ordinary revenue of India are derived from taxation and a little over 30% from Government undertakings.¹

We must remember that attempts at classification have purely academic interest with little or no practical value. In India, the sources of revenue are classified as Central including income-tax, customs, central excise duties, opium, salt, post and telegraphs, railways and corporation tax; Provincial including land revenue, forests, registration, stamps, excise and a portion of income tax; and Local including Octroi duties, taxes on vehicles, trades, professions, water rate, housetax etc. for Municipalities and provincial rates and grants for District Boards.

3. Different Sources of Public Revenue Distinguished.

We have seen that the most important source of public revenue is taxation. But taxation revenue takes several forms. It consists of taxes, fees, price, special assessments, rates etc. Let us distinguish between all these.

Tax. Plehn defines taxes thus:—"Taxes are general compulsory contributions of wealth levied upon persons, natural or corporate, to defray the expenses incurred in conferring a common benefit upon the residents of the state."² This definition brings out

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² Plehn-Introduction to Public Finance, 1921, p. 59.
the true nature of a tax. The essence of a tax is (a) that it is a compulsory levy under certain conditions, and (b) it is meant for the general purposes of the state. The individual cannot expect that the state should render him a specific service in return for the tax paid by him. If I pay income tax, I cannot claim in return that the state should post a police-man at my gate during night to protect my property which is a source of income to me. This does not mean that state undertakes to do nothing for the taxes that it receives from the people. The state carries on the general administration and confers a lot of benefit on the community. But these are common benefits meant for all and not any special benefit meant for the particular tax-payer. There is no direct Quid Pro Quo. The taxes are intended to meet the general expenses of the government which are meant to confer a common benefit without any reference at all to special benefits.

In the words of Taussig, the essence of a tax as distinguished from other charges by government is the absence of any direct quid pro quo, between the tax payer and the public authority.¹

Fee. It is also a compulsory payment made by those who obtain a definite service in return. The fee is intended to cover a part generally of the cost of the service rendered. It is never more than the cost of service. Also, some public purpose is prominent in the service rendered. The obvious example is of the educational fees. In the words of Plehn, “a fee may be defined as a compulsory contribution of wealth made by a person, natural or corporate, under the authority of public power to defray a part or all of the expenses involved in some action of the Government which while creating a common benefit also confers a special benefit, or one that is arbitrarily so regarded”. In short, a fee is charged for a special service which is rendered primarily in public interest. A licence fee, however, is much more than the cost of service and there is not much of a positive service in return.

Price. Prices are also paid for special services rendered by the state. But the difference between a fee and price is that in a fee a public interest is prominent, whereas price is a payment of a service of business character e.g., charges for travelling on state railways. You can escape the price by not purchasing a service. Price also differs from a tax. A tax is paid for a common benefit, whereas both fee and prices are for special benefits. When public authority sells a commodity or renders a service, the charge made on the consumer, who avails of the service or buys a commodity, is called a price.

Special Assessment as defined by professor Seligman is “a compulsory contribution, levied in proportion to the special benefit derived, to defray the cost of a specific improvement to property undertaken in the public interest. Suppose the government builds a road or makes suitable drainage arrangements, all the property in the neighbourhood will appreciate in value. The state has a right

¹ Taussig-Principles of Economics, Ch. LXVI, I.
to appropriate a part of this unearned increment. The tax imposed for the purpose is called a special assessment. These assessments are intended to cover a part of the extraordinary expenditure incurred by the public authority in this connection. They are levied on property proportionately to the benefit conferred. Seligman analyses the essence of a special assessment thus:—(a) There is the element of special purpose; (b) The special benefit is measurable; (c) These assessments are not progressive but proportional to the benefit received; (d) They are for specific local improvements, and (e) They provide for the capital account to increase, as it were, the permanent plant of the community. Unlike a fee there is an element of coercion in special assessment.

Rates. They are levied by local bodies, Municipalities and District Boards for local purposes. They are generally levied on immovable property of the residents but not necessarily for any special improvements effected or special benefits conferred. The rates generally vary from locality to locality.

4. Classification of Taxes. Taxes have been variously classified and some classifications are given below:—

I. Taxes may be proportional, progressive, regressive and degressive.

Proportional Tax. A proportional tax is one in which, whatever the size of income, same rate or same percentage is charged. If all the tax-payers have to pay 1% of their income as tax or pay 5 pies in the rupee, then it is a case of proportional taxation.

Progressive Tax. If, on the other hand, the rate of the tax rises, as the taxable income increases, the tax will be called a progressive tax. The principle of a progressive tax is ‘higher the income, higher the rate.’ In the case of Indian income tax, of the taxable income nothing is charged on the first Rs. 1500, on the next Rs. 3500 the rate is 9 ps. in the rupee and the next Rs. 5000, it is one anna and 3 ps. in the rupee and so on. This is a progressive tax.

It is worth noting that even under a proportional tax the rich man pays more. For example if the rate is 1% on the monthly salary, a man who is getting Rs. 200 p.m. pays Rs. 24 per year and the man who is getting Rs. 500 p.m. will pay Rs. 60 per year. Thus the man with the higher income pays more even under the proportional taxation. But under progressive taxation he will pay much more, because as income increases, the rate of tax must also increase. The man with Rs. 500 monthly salary may have to pay 2% instead of 1%. He will pay therefore Rs. 120 instead of Rs. 60 per year. Every country has adopted progressive system of taxation, as it is considered more equitable. We shall consider the pros and cons of progressive taxation in a subsequent section.

Regressive Tax. A tax is said to be regressive when its burden falls more heavily on the poor than on the rich. It is opposite of a progressive tax. No civilised government imposes a tax in which,
as income increases the rate of tax is lowered. That would be palpably unjust. But there are several taxes on commodities whose burden rests mainly on the poor. The Indian salt tax is regarded as a regressive tax, as it presses more heavily on the poor than the rich. As a matter of fact the rich man does not feel it at all.

**Degressive Tax.** The tax is called regressive when the higher incomes do not make a due sacrifice or when the burden imposed on them is relatively less. This will happen when a tax is only widely progressive *i.e.,* when the rate of progression is not sufficiently steep. A tax may be progressive up to a limit beyond which the same rate is charged. In that case there may be lower relative sacrifice on the larger incomes than on smaller incomes.

II. Taxes may be classified as **Direct Taxes or Indirect Taxes.** In the case of a direct tax the man who pays it is also intended to bear it. But an indirect tax is expected to be shifted to other persons. If I pay income tax I have to bear it; I cannot pass it on to any body else. It is a **Direct Tax.** But if a tax is imposed on sugar, the dealer who first pays it charges it from the next purchaser till ultimately it is borne by the consumer of sugar. The tax has been shifted. It is called an **Indirect Tax.**

We shall discuss the merits and demerits of direct and indirect taxes in the next chapter.

III. *A tax on Capital and a tax on income.* If a tax is levied according to the capital value of the property it is called a tax on capital but if it is levied according to its annual value *i.e.,* the income it yields annually, it is called a tax on income. This distinction is, however, quite different from the distinction between, taxes *paid out of income* and those *out of capital.* The inheritance tax is a tax on capital but it may be paid out of income and not out of capital *i.e.,* by selling a part of the property.

IV. **Taxes on property and taxes on commodities.** The test of the distinction lies in durability. Land is durable, hence a property. Cloth is not durable, therefore a tax on cloth is a tax on commodity. On property the tax is imposed periodically but a commodity is taxed once for all.

V. **Specific and *ad valorem* taxes.** Specific is according to weight of the commodity. *Ad valorem* is according to its value. If imposed on coarser or cheaper articles, the specific duties mean a heavier burden and are considered regressive in character. But they are simple to administer. For the administration of *ad valorem* duties elaborate administrative machinery is needed. The invoice has to be checked and a host of appraisers are needed for evaluating the goods.

VI. **Taxes on persons and taxes on things.** A poll tax or an income tax is a tax on a person. But sugar excise duty is a tax on a commodity. But the distinction is erroneous, for all taxes are paid by persons and not by things. The sugar tax is paid by the consumers of sugar.
We wish to add that all this discussion about classification is arid and serves no practical purpose.

5. **Canons or Principles of Taxation.** Adam Smith’s contribution to this part of economic theory is still regarded as classic. His statement of the canons of taxation has hardly been surpassed in clarity and simplicity. Modern writers on Public Finance have not either succeeded in improving on them materially or displacing. They still constitute the foundation of all discussions on the principles of taxation. We give below Adam Smith’s four celebrated canons of taxation.

1. *The Canon of Equality.* “The subjects of every state ought to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities, that is, in proportion to the revenue which they respectively enjoy under the protection of the state”.

This canon embodies the principle of equity or justice. This is the most important canon of taxation. It lays the moral foundation of the tax system. The canon of equality does not mean that every tax-payer should pay the same sum. That would be manifestly unjust. Nor does it mean that they should pay at the same rate which means proportional taxation, for a proportional tax is also not a very just tax. What this canon really means is *the equality of sacrifice.* The amount of the tax paid is to be in proportion to the respective abilities of the tax-payer. This clearly points to progressive taxation. Adam Smith makes it clear in a subsequent portion of his book ‘Wealth of Nations’. He says, “It is not very unreasonable that the rich should contribute to the public expense not only in proportion to their revenue but something more than that proportion”. Only then the tax will be in proportion to the ability to pay.

2. *The Canon of Certainty.* “The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid ought all to be clear and plain to the contributor and to every other person. Where it is otherwise, every person subject to the tax is put, more or less in the power of the tax-gatherer, who can either aggravate the tax upon any obnoxious contributor, or extort, by the terror of such aggravation, some present or perquisite to himself.”

Uncertainty in taxation, according to Adam Smith, encourages insolence or corruption. He regards this canon as very important, for in his view “very considerable degree of inequality......is not near so great an evil as a very small degree of uncertainty”. Hadley also regards it as the most fundamental canon, for according to him, all attempts at equality will prove illusory without the taxes being certain. The canon of certainty demands that there, should be no element of arbitrariness in a tax. It is not to be left to the caprice or the sweet will of the income tax department. The tax-payer-

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should be able to see for himself why he is called upon to pay a particular sum. That is why a wide publicity is given to the budget proposals and discussions thereon. The passing of the budget is a guarantee of certainty.

An old tax is no tax, is a maxim of taxation which issues out of this canon of certainty. An old tax is well-known, its reactions are certain and the people are supposed to have made the necessary adjustments. The tax is not felt. It causes the least disturbance in the economic arrangements of the tax-payer. There is little inconvenience from an old tax.

Certainty is needed not only from the point of view of the tax-payer but also from that of the state. The government should be able to estimate roughly the proceeds of the various taxes proposed to be levied and the time they are expected to flow in. Only then the government can follow its financial programme.

3. The Canon of Convenience. "Every tax ought to be levied at the time or in the manner, in which it is most likely to be convenient for the contributor to pay it."

The canon of certainty says that the time and the manner of payment should be certain. But the canon of convenience says that the time of payment and the manner of payment should be convenient. If a tax on land or house is collected at a time when rent is expected to be paid it satisfies the canon of convenience. If the tax can be paid by cheque, the manner is convenient but not so if it is to be paid personally to the taxing authority. In the latter case there will be lot of inconvenience and harassment. Taxes on consumers are very convenient. The consumer pays them when he buys things little by little and at a time when he can afford to pay. It is especially so in case of a luxury. The purchaser chooses his own time for purchasing it. The manner is also very convenient for he has to make no special arrangement for paying a tax. He pays it when he buys the commodity. The tax is wrapped up in the price of the commodity. The Indian land revenue conforms to the canon of convenience, because it is paid in instalments and it is to be paid after the harvest time. Income tax, on the other hand, infringes the canon of convenience. The assessee has to take his account books to the income tax office and satisfy the income tax officer. This necessitates a series of personal interviews with a consequent loss of time. It also involves a lot of vexation, trouble and oppression. The canon of convenience is justified on the grounds of good administration and production.

4. The Canon of Economy. "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the state."

One implication of the canon of economy is very obvious. The tax will be economical if the cost of collecting it is very small.
If on the other hand, the salaries of the officers engaged in collecting the tax eat up a big portion of the tax revenue, the tax is certainly uneconomical. As far as possible, as much should come into state treasury as is taken out of people’s pockets. Nothing should evaporate in the way. If there is corruption or oppression involved in the frequent visits to the income tax office and the odious examination by the taxing officer, the canon of economy is not satisfied.

But the tax should be economical in another, perhaps broader, sense. It would infringe the canon of economy if it retards the development of trade and industry in any manner. If incomes are subjected to a very heavy tax, saving may be discouraged, capital will not accumulate and the productive capacity of the community will be seriously impaired. This would be obviously uneconomical. In order to be economical a tax must not obstruct in any manner the ultimate prosperity of the country. It is in conformity with the canon of economy that the Central Government budget for 1946-47 grants an allowance for expenditure on scientific research and buildings erected and machinery installed.

Taxes on harmful drugs and intoxicants are regarded as economical, because they not only bring income to the state, but also discourage unproductive expenditure. But taxes on raw materials are uneconomical, because they raise the price of the manufactured article and weaken the competitive power of the industry. Also, every middle-man goes on adding something to the tax that he has paid.

The first canon of Adam Smith is ethical and the other three are administrative in character.

**OTHER CANONS OF TAXATION**

Since Adam Smith wrote, the science of Public Finance has continued to make progress. Subsequent writers have added canons of their own to these four well-known canons. The following are some of the canons which have been recently added.

5. *Fiscal Adequacy or productiveness.* The state must live on the revenue raised from the people by means of taxes. The government should be free from financial embarrassments. It will be necessary, therefore, that the tax proceeds should be adequate for the purpose and the government does not run into a deficit. But the government should not err on the side of excess. In their zeal to raise more revenue they should not cripple in any manner the productive capacity of the community or impair the economic resources of the community.

The canon of productivity would indicate that one tax bringing a large income is better than many, each bringing a very small revenue. Too great a multiplicity of taxes is to be avoided because each tax is likely to cause some vexation to the citizens. But here again we must warn that the principle of concentration should not be carried to excess, otherwise it may become either uneconomical or inequitable.
6. Elasticity. The canon of elasticity is closely connected with that of fiscal adequacy. As the state needs increase, the state revenue should also increase, otherwise they will not be adequate. To meet an emergency or a period of strain the government should be in a position to augment its financial resources. Some of the taxes should be capable of yielding more if need be. Income tax is a very good example of an elastic tax. By raising the rate a bit or by levying a surcharge, the yield can be considerably increased. When the war broke, the first financial measure was a surcharge on income tax. Railway and postal rates also are fairly elastic.

7. Flexibility. The canon of flexibility looks like that of elasticity but the difference between the two is quite clear. Flexibility means that there should be no rigidity and that the tax system can be quickly adjusted. Elasticity means that the revenues can be increased. Unless the system is flexible, the revenue cannot be increased, for alteration will not be possible. Thus presence of flexibility is a condition of elasticity. If a tax system cannot be altered without bringing about a revolution, it lacks flexibility. Permanent settlement of Bengal (1793) is an example of rigidity or lack of flexibility in a tax. Under this arrangement the government bound itself to collect the same sum from the landowners in perpetuity. This lack of flexibility is, in so small measure, the cause of financial troubles of Bengal.

8. Simplicity. In the words of Armitage Smith, "a system of taxation should be simple, plain and intelligible to the common understanding." This canon is essential if corruption or oppression is to be avoided. If a tax is complicated so that the tax payer cannot understand how much he is to pay and why he is to pay it, a great power will pass into the hands of the tax gatherer. The door will be widely opened to corruption and oppression.

9. Diversity. Another important principle is that of diversity. A single tax or only a few taxes will not do. There should be a variety in taxation, and a large number of them so that all the citizens who can afford to contribute to the state revenue should be made to contribute. They should be approached in a variety of ways. There should be a wise admixture of direct and indirect taxes. In this manner the canons of fiscal adequacy and equity may be better satisfied. But too great a multiplicity will be bad and uneconomical.

There are several other considerations put forward. It is recommended that a tax should fall on revenue and not on capital. It should not cut down the minimum subsistence of the tax payer.

It must be said that in no country does each tax satisfy each of these canons. It is not possible to make each and every tax conform to all these principles. We have to look to the tax system as a whole rather than to each individual tax. Some taxes are bound to infringe some canons. But the tax system as a whole should satisfy most of these principles of taxation.
6. Characteristics of a Good Tax System. A good tax system should be composed of taxes which conform to the canons of taxation discussed above. The tax system as a whole should be equitable. Its burden should fall on the broadest shoulder. It should also be economical so that the work of collection is as cheaply done as possible. It should not hamper the development of trade and industry. It should, on the other hand, assist the economic development of the country. The government should be certain of its revenue. The tax system should be based on a comprehensive and up-to-date statistical information so that accurate forecasting is made possible. The tax system should not be a mere leap in the dark. Its effects should be calculable with a reasonable precision. The taxes as a whole should be convenient i.e. felt as little as possible. An ingenious formula has been suggested that 'the rich should pay more taxation than they think, while the poor should think they pay more than they do. This double illusion, it is argued, will keep the rich contented and the poor virtuous'. The formula is, however, hardly practical.

The tax system should be simple, financially adequate and elastic so that it can respond to the new needs. It should not be rigid like our land revenue which is fixed for 30 or 40 years. The adoption of the sliding scale system of land revenue recently in the Punjab makes up for this defect to some extent.

The ideal of simplicity may lead us to advocate a single tax. But the single tax will expose the tax system to other serious objections. It is, therefore, agreed that the tax system should be as much broad based as possible. There should be diversity in the tax system. But we do not want too great a multiplicity. We don't agree therefore, with Arthur Young when he says, "If I were to define a good system of taxation, it should be that of bearing lightly on an infinite number of points, heavily on none ".

Further, the tax system should be efficient from administrative point of view. It should be simple to administer. There should be little scope for evasion or accumulation of arrears. It should be fool proof and knave proof. Chances of corruption should be minimised.

Another important characteristic of a good tax system is that it should be a harmonious whole. It should be truly a system and not a mere collection of isolated taxes. Every tax should fit in properly in the system as a whole so that it is a part of a connected system. Each tax should occupy a definite and due place in the financial structure. They should not pull in different directions. For example imposition of a protective duty and a countervailing excise duty do not go well together.

7. The Indian Tax System. Administratively the Indian tax system is fairly efficient. There is little smuggling and not many leakages. Evasion is not common. The cost of collection is not
disproportionately high. It is fairly simple. There is hardly any doubt on the ground of fiscal adequacy or sufficiency. The tax system is quite productive. It is also fairly broad based. Even the poorest in the country pays, e.g., salt tax. The system is fairly diversified. The Indian tax system is also not particularly inconvenient as compared with the tax systems of other countries. The land revenue is paid in instalments and paid after the harvest. The taxes on commodities occupy an important place. On the grounds of flexibility or elasticity we have no cause of complaint. Our tax system has stood the strain of the costliest war fought so far in a magnificent manner.

But we cannot say that ours is an ideal tax system. Duties have been imposed in India without any regard for the needs of Indian trade and industry. The customs duties were levied exclusively for revenue purposes. The tariff schedule not infrequently hampered the development of Indian industries. Meagre depreciation allowances were granted so that the industry felt a real difficulty in the renewal or replacement of plants. We have already mentioned that the budget for 1946-47 makes up for this defect to some extent. Our tax system, therefore, has not fully satisfied the canon of economy.

The biggest breach is in the canon of equity. The Indian tax system discriminates against the poor and in favour of the rich. Income tax is the only tax which is paid by the rich and even here progression is not as steep as it ought to be. Land Revenue, Salt, Customs, Excise and even railway fares are in the aggregate contributed more by the poor than by the rich. Absence of Succession Duty and a tax on agricultural incomes accentuates the regressive character of our tax system. In the words of Prof. K. T. Shah, “Richer classes escape relatively with much lower burden, even though their ability to bear or evade such burden is much greater, while the poor classes, who cannot escape from such burdens, have to bear the lion’s share of the burden with less than lamb’s capacity to shoulder them.” The Indian income tax does not make allowance for the number of dependants and is, therefore, not in accordance with ability to pay.

There is an element of uncertainty. Monsoons are a disturbing factor. The Indian budget has been called a gamble in the Monsoons.

There are several other defects in the Indian tax system. It is haphazard and has not been scientifically planned. It has been moulded by the exigencies of time, the main concern being to balance the budget. Little attention has been paid to incidence of taxes and their effect on production and distribution. Here it has not been truly a system. Sir Walter Layton calls the Indian budgets ‘tightfit’ with little provision for unexpected and unforeseen expenditure.

Legislative control over finance is strictly limited about 80% of the budget being non-votable. It thus lacks democratic sanction.

1. See our Indian Economics, 1945, p. 561.
The tax system is also very conservative. Salt tax, excise revenue, and land revenue in the existing form, continue even though they have been universally condemned.

Unlike other advanced countries, the direct taxes in India play a secondary role, although the system has been improved in this respect on account of the financial measures adopted in the war (1939-45). In 1938-39 the proportion of taxes on income to total revenue was 22.6% but it was 62.3% in 1945-46.

Till recently our tax system did not distinguish between earned and unearned incomes and thus treated the actual worker and the idle rich alike. In 1945-46 10% earned relief came be granted.

Allocation between Central, Provincial and Local Finance is also defective. Income tax being a direct tax should be wholly Provincial and many Provincial taxes like entertainment tax and sales tax should belong to the local bodies. A part of the land revenue should also go to the local boards.

We cannot say, therefore, that the Indian tax system is perfectly satisfactory. There is much room for improvement.

8. The Problem of Justice in Taxation. We have discussed the various canons of taxation and the most important of these canons seems to be the canon of equality or equity. The most fundamental problem in taxation is the problem of justice. Everybody expects the minister of finance so to arrange his taxation proposals as to ensure that the burden of taxation falls on those who can fully bear it. "It is equitable that people in the same economic position should be treated in the same way for purposes of taxation." But how to measure economic positions?

In order to achieve the ideal of justice in taxation several theories have been put forward from time to time. We examine some of these theories below:

1. 'The Cost of Service Principle.' However equitable it may appear to be 'the cost of service principle' cannot be applied in actual practice. The cost of services of the armed forces, police etc., the services which are rendered out of tax proceeds, cannot be exactly determined. We have to calculate how much it costs to render a service to the particular tax payer. We know that in case of taxes there is no direct quid pro quo to the tax payer. Hence the question of the ascertainment of the cost of service to an individual tax payer does not arise. Only in those cases where the services are rendered out of prices e.g., supply of electricity, railway or postal service, a near approach can be made to charging according to the cost of service. Even here the exact cost cannot be ascertained and for fixing the charges we have to fall back on the principle 'charging what the service will bear'. The cost of service principle, therefore, must be rejected as being impracticable.

2. Benefit or Quid Pro Quo Theory. On grounds similar to those mentioned above the benefit theory also breaks down when an attempt
is made to give it a practical shape. Most of the public expenditure is incurred for common or indivisible benefits. It is impossible to calculate how much benefit accrues to a particular individual. There are few cases only where the benefit to the individual is ascertainable e.g., old-age pensions. Applied to this case, the theory would demand a refund of the pension itself. None would seriously put forward such a proposal. It is, therefore, impossible to ask the people to contribute according to the benefits received by them. Several other objections can be advanced against the Benefit Theory. It is against the basic principle of a tax. A tax is paid for the general purposes of the State and not in return for a specific service. The Benefit Theory can have meaning only if we think of the benefit to the community as a whole. But this is obviously useless for the purpose of taxing the individual. If you want to make some exceptions, you will be in a difficulty. On what basis will you make the exceptions?

Moreover, it is commonly believed that the poor benefit more from the State organisation than the rich. If that is so, then to apply the Benefit Theory would mean making those people pay who can afford to pay the least and letting off those who can and who should. This would be absurd.

In the words of Plehn "the common benefits are the peaceful enjoyment of life, liberty and property". So far as life and liberty are concerned the benefit of State protection is the same for all. This would indicate a uniform tax, say a poll tax. But poll tax has been long discarded on account of relatively small yield and greater cost and friction of collection. If we take protection of property as the basis then it should be a proportional tax, proportionate to the capital value or the income yielding capacity of the property. But proportional taxation has also been rejected in modern times as being less than just. We cannot, therefore, take benefit as a criterion of justice.

The Benefit theory has, however, a place in all modern tax systems. The idea of benefit stands out prominently in the case of fees, licences, special assessments and local rating.

3. 'Ability to pay' or Faculty Theory. The most popular and plausible theory of justice is that every tax-payer should be made to contribute according to his ability or faculty to pay. It is to be based on his taxable capacity. Nothing would appear to be more just. But the accepting of the principle does not mean the end of our difficulties; rather the difficulties begin. The question which then faces us is 'what is the measure of a man's ability to pay?' In the search for a proper criterion of a person's faculty to contribute to state expenditure we can proceed on two lines, subjective and objective. If we examine the position of the tax-payer in its subjective aspect we shall consider the inconvenience, the pinch or the sacrifice involved. On this point three distinct views have been advanced (a) the Principle of Equal Sacrifice. (b) The Principle of Proportional Sacrifice. (c) the Principle of Minimum Sacrifice.
In the words of J. S. Mill, "Equality of taxation, as a maxim of politics, means equality of sacrifice. It means the apportioning the contribution of each person towards the expenses of Government, so that he shall feel neither more nor less inconvenience from his share of the payment than every other person experiences from his". According to this principle the money burden of taxation is to be so distributed as to impose equal real burden on the individual tax-payers. This would mean proportional taxation.

According to the principle of proportional sacrifice the real burden on the individual tax-payers is to be not equal but proportional either to their income or the economic welfare they derive. This would be more just than if the sacrifice involved were equal. Those who can make a greater sacrifice should be asked to do so. This would mean progressive taxation.

The minimum sacrifice principle considers the body of tax-payers in the aggregate and not individually. According to this principle the total real burden on the community should be as small as possible. In the words of Edgeworth, the chief exponent of the theory of minimum aggregate sacrifice, "the minimum sacrifice......is the sovereign principle of taxation." This principle would involve a high level of minimum exemption and a very steep progression as incomes increase. The less the aggregate sacrifice, the better the distribution of the tax burden in the community. The State exists to maximise humanwelfare. This it will be able to do by minimising the sacrifices involved.

The sacrifice principles have only an academic interest. This hair-splitting has little practical value. Sacrifice is something subjective, it is internal to the tax-payer and we have no means of measuring it. A great sacrifice does not always mean a great injury. A tax on wine means a great inconvenience to the consumer of wine but a small real injury to him. Sacrifice as a test of ability must be abandoned.

We must, therefore, take our second line of approach to measure a man's faculty to pay that is, proceed objectively. Here we are on surer grounds. But here again, we find that several criteria have been mentioned. A man's faculty to pay may be measured according to (a) consumption; (b) property; or (c) income. Consumption is not a sound criterion, because consumption or utilisation of the services of the State by the poor is considered to be out of all proportion to their means and as such it cannot be taken as a practical principle of taxation. Property also cannot be a fair basis of taxation, for a property of the same size and description may not yield the same income; and some persons having no property to show may have large incomes, whereas men of property may be getting small incomes. To tax according to property will not be taxation according to ability. Income, however, remains the single best test of a man's ability to pay. But even in the case of income, the tax will be in proportion to faculty if there is a minimum exemption to allow for a reasonable subsistence, if there is an allowance made for the
number of dependants and finally if the principle of progression is applied by taxing the rich at a higher rate:

Besides, we have to consider, 'the ability to pay' not merely of the individual tax-payer but of the community as a whole. In this light it is necessary that the tax system as a whole is not oppressive, that it does not discourage saving or retard accumulation of capital and that it does not in any manner impair the productive capacity of the community by hampering the development of trade and industry in the country. This is the solution of problem of justice in taxation. The ends of justice are not served by applying the cost of service principle or by taxing according to benefit, but according to faculty or ability to pay. The ability to pay cannot be judged subjectively by the amount of sacrifice involved, but objectively according to the man's income and not according to his consumption or property. Each proposal to achieve justice leads to some sort of progression in taxation. What is intended is that tax system as a whole should be equitable. Each individual tax may not be absolutely just or equitable. But the iniquity of one tax should be neutralised by the equity of another. "There may be iniquity in the parts but equity in the whole".

Equity is a matter of opinion. Some time, some people happen to think that a certain tax is equitable. There is no generally accepted definition of equity. It is in the words of Dalton, "an elusive mistress, whom perhaps it is only worth the while of philosophers to pursue ardently and of politicians to watch warily".

9. Some Other Theories of Taxation. We propose here to make only a passing reference to some other theories or principles of taxation put forward by some writers on Public Finance.

Leave-as-you-found-them principle. According to this principle the existing distribution of wealth is not to be disturbed. The inequalities of wealth distribution are to be neither increased nor decreased. The advocates of this principle want to adopt a non-committal attitude on the question of the existing distribution of wealth. This principle states that "taxes should be so imposed that when all have paid them, each will be left in the same position relative to his fellows, as he was before the payment". This principle is not accepted in modern times. The state must reduce inequalities of wealth distribution and not leave them as they are.

The Political or Ethical Principle. This refers to equality, equity or justice in taxation, a theory which we have discussed above. If the circumstances and economic condition of the tax-payers were the same, to achieve justice would have been a simple affair. But in view of the varying circumstances of individual tax-payers the attempt at justice must cause some headache to the minister of finance. Several ways have been suggested which we have already examined.

The Financial Principle. This is summed up in the cynical suggestion of Colbert, "Pluck the goose with as little squealing as possible". The only guide for the tax gatherer according to this principle, is the
maximum of revenue with the minimum of protest. No consideration of justice is to enter his mind. He is to follow the line of least resistance and the finance ministers do follow this line actually, although they will not admit it. This is shown by the fact that they are more inclined towards indirect taxation than direct taxation. According to this view productivity and expediency are more important than equity.

*Socialistic or Compensatory Theory.* According to the advocates of this theory of taxation, it is the function of the state to equalise the distribution of wealth in the community. It can be done by taxing the more rich more, the aim is to bridge the gulf between the poor and the rich. If this aim is to be completely achieved it would necessitate taxing the rich to such an extent as may discourage saving and drive capital abroad, which would no doubt cripple the productive power of the community. The inequalities of wealth distribution can be reduced not merely by taxation but also by wise public expenditure.

*‘Every one ought to pay something.’* The idea is to make every citizen feel a sense of responsibility in state matters so that he may take more active and intelligent interest in the civic affairs. It will make the citizens conscious of their position and importance in the State. But for the poor it will be too dearly bought. It will be more equitable if the poor are exempt from the tax burdens altogether.

*Taxation should make net satisfactions equal.* This means that we should consider the entire legal system and not merely tax laws. All laws, not merely tax laws, affect the people and affect their economic welfare. Net satisfactions of the individuals, after considering the entire body of laws, must be made equal. This principle seems to be better than the principle of equality of sacrifice.

*Taxation for Regulating Consumption.* According to this theory the primary aim of taxation is to regulate the consumption of harmful commodities like intoxicants. This is obviously a one-sided view.

**10. Proportional vs. Progressive Taxation.** In our discussion of the various theories of a fair distribution of tax burden, we have almost invariably been led to the conclusion that there must be some degree of progression wherever possible in a tax, because only then it can be called equitable. The principle of progression has been accepted everywhere now. But it was not always so.

There have been advocates of proportional *taxation*. McCulloch’s well-known remark is typical of the attitude of the nineteenth century. He said, "When you abandon the plain principle (of proportion) you are at sea without rudder and compass and there is no amount of injustice you may not commit." J. S. Mill was even more emphatic. He said, "A graduated income tax was an entirely unjust mode of taxation, and in fact, a graduated robbery." According to him progressive taxation was a step towards confiscation.
If we assume that the relation between income and economic welfare is the same for all tax-payers then the only justification for a proportional tax is, according to the principle of equality of sacrifice, on the assumption that as income increases marginal utility of the income diminishes very slowly, and, according to proportional sacrifice principle, the marginal utility does not at all decrease. These assumptions, at least the latter, have been questioned. Money income alone cannot be taken as a guide. We must take into consideration other relevant circumstances of the tax-payer while fixing the amount of the tax. Proportional taxation will entail equal sacrifice, whereas sacrifice itself should be proportional to the tax-payer’s capacity. Proportional taxation is, therefore, not equitable. It is also not sufficiently productive and the element of arbitrariness even in proportional taxation is not altogether absent. The theory of proportional taxation has, therefore, been abandoned definitely so far as direct taxation is concerned. In other words, wherever possible, the principle of progressive taxation has been applied.

The principle of progressive taxation is based on certain assumptions. It is assumed that the same income means the same utility to different individuals. This is a very weak assumption. It is also assumed that as income increases, the utility of each addition to the income decreases. It is further assumed that as income increases the expenditure on luxuries tends to increase, whereas necessities are more important than luxuries from the point of view of economic welfare. It follows, therefore, that by taxing the rich more, we compel them to cut down luxuries, which does not mean so much sacrifice as the benefit to the poor for whom the tax proceeds may be spent.

Progressive taxation yields much greater revenue and hence it is more productive. It is very difficult to see how modern Governments would have balanced their budgets today in the absence of the principle of progression.

Progressive taxation is more economical. The cost of collection of the taxes does not increase when the rate increases. About the equity of progressive taxation there can be no question. It calls forth a proportional sacrifice from the tax-payers. It places the heaviest loads on the broadest backs.

The principle of progression gives to the tax system much needed quality of elasticity or flexibility. Just a little raising of the rates is needed when an emergency arises.

The opponents of the progressive principle have raised several objections against the system. We examine below some of these objections:

(i) It is said that it is all arbitrary. The degree of progression is settled by the finance minister on no definite and scientific basis. It is purely his personal opinion. The tax proposals are bound to be coloured by his own whims. Clearly the objection is not to the principle but the degree of progression. Although it cannot be scientifically
fixed yet for practical purposes small differences do not matter. The members of the legislature are there to set right the angularities of the Chancellor of Exchequer.

(ii) It is pointed out that the principle of progression cannot be advocated on the ground of promoting welfare, because welfare is subjective and cannot be measured. There is no scientific apparatus to test that welfare has increased consequent on reduction of inequalities of incomes. The rich are perhaps vexed more than the comforting of the poor.

We may concede the strength of the objection. We cannot measure the increase in welfare. But few can deny that it is socially desirable that the rich should contribute more, for they can do so.

(iii) Progression will discourage saving, drive out capital and thus hamper trade and industry. It will, in short, be uneconomical.

But such dire consequences will follow only if progression exceeds limits of reason and expediency. This has seldom been done. Capital is not so sensitive as it is supposed.

(iv) Progression breaks on scientific grounds. Its fundamental assumption that the same income measures the same satisfaction is not at all valid. Further, the Law of Diminishing Utility may not hold good in case of money. "Money, they say, does not represent one good, but goods in general, and since human wants in general are unlimited, it may be questioned whether the wealthy person does require the additional pounds less and less. It may even be that his desire for additional income increases as his income increases. Such may be the case where an increase in income caused the possessor to move into a higher social circle, and so brought about an extension in his necessary wants ".

On scientific grounds the argument is unanswerable but progression can be advocated equally strongly on ethical and political grounds.

(v) It is said that progression will lead to evasion. But the possibility of evasion in proportional taxation is also present. It all depends on the social conscience.

Thus progressive taxation is ethically sound, socially desirable and also conforms to canons of economy, productivity and elasticity, whether it can be scientifically justified or not.

**II. Concept of Taxable Capacity.** The concept of taxable capacity has racked the brains of not a few economists and publicists. Dalton calls it "a dim and confused conception". He says, "absolute taxable capacity is a myth and should be banished from all serious discussions on Public Finance". To the question whether taxable capacity can be measured he thinks Cannan's 'No how' is the best answer. Findlay Shirras, on the other hand, thinks that it is of great practical importance. "It is always wise and useful," he says, "for a government to know even roughly the limit that the country

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1. Thomas, S. E.—Elements of Economics, 1936, p. 332,
can contribute by way of taxation both in the ordinary and extra-
ordinary circumstances”. He goes on “The necessity in post-war
finance especially of balancing budgets heavily laden with public
debt of short maturity has made the question of absolute taxable
capacity a real and an abiding problem of taxation”.¹

What is taxable capacity? The term taxable capacity can be used
in two senses (1) in the absolute sense and (2) in the relative sense.
The absolute taxable capacity has been variously defined. It
means how much a particular community can pay in the form of
taxes without producing unpleasant effects. Relative taxable
capacity, on the other hand, means the respective contribution which
the two communities should make towards a common expenditure
e.g., Provincial contributions to Central expenditure. Dalton says
the former is a myth and the latter a reality. The relative limit may
be reached without reaching the absolute limit. That is, we may
have reached the limit of how much a particular community should
contribute without reaching the limit beyond which it possibly
cannot contribute.

There are two extreme views about absolute taxable capacity,
(a) the capacity to pay without suffering; and (b) the capacity to
pay regardless of suffering. In the former sense the taxable capacity
is practically nil for every tax must entail some suffering. In the
latter case there is practically no limit to taxable capacity except
the one imposed by the extent of the resources of the community.

Sir Josiah Stamp defines taxable capacity as “the margin of total
production over total consumption, or the amount required to main-
tain the population at subsistence level.” This means the utmost that
a community can pay “without having a really unhappy and down-
trodden existence and without dislocating the organisation too much.”
Findlay Shirras defines absolute taxable capacity as “the maximum
amount which the citizens of a country can contribute towards the
expenses of the public authorities, without having to undergo an
unbearable strain. Briefly, taxable capacity is the limit of squeeza-
bility:...It is the taxability of a nation, the maximum amount of
taxation that can be raised and spent to produce the maximum
economic welfare in that community”.

These definitions lack scientific precision and have an element of
vagueness. Stamp’s level of subsistence,” and “unhappy down-trodden
existence” and Shirras“unbearable strain and maximum economic
welfare” cannot be scientifically defined and laid down in exact
terms. But this does not detract from the practical importance and
the utility of the concept of taxable capacity. The meaning conveyed
by the definitions given above is fairly clear, although we must
admit that any attempt to measure precisely the taxable capacity
is foredoomed to failure. Cannan’s ‘no how’ is really the correct
answer.

When is the limit of taxable capacity exceeded? Views also differ as to what are the symptoms to show that taxable capacity has been exceeded. Stamp mentions two limits to taxable capacity (a) the check to total production, and (b) the check to total revenue yield. But the check may be due to causes other than excessive taxation. Tax is not the only factor that affects production. Ellinger thinks that "the limit would be reached when so much is taken out of the tax-payer's pockets that the incentive to produce is reduced, and when insufficient remains to provide the necessary capital to make up for wastage and to set to work new workers in an increasing population." He obviously ignores the beneficent effect of public expenditure on production. The fact is that the taxable capacity is not rigidly fixed. It is a moving point. It is relative to so many factors any change in which is bound to change our idea about the taxable capacity of a nation.

Factors on which taxable capacity depends. Findlay Shirras gives the following factors which determine the taxable capacity of a nation.

1. The Number of Inhabitants. It is quite obvious that the larger the number the greater is the taxable capacity of the community to contribute towards the expenses of the Government. From this point of view India is well placed. Its taxable capacity will infinitely increase when the proper economic development of the country is brought about.

2. The Distribution of Wealth in the Country. If wealth is more equally distributed, the taxable capacity will be correspondingly less. But if there are large accumulations of wealth in fewer hands, the Government can raise more money by taxing the rich.

3. The Method of Taxation. A scientifically constructed tax system with a wise admixture of various types of taxes, direct and indirect, is sure to bring a larger yield. Our tax system is not so much diversified: we have no taxes on large agricultural incomes and none on inheritance. This certainly reduces the taxable capacity.

4. The Purpose of Taxation. If the purpose of taxation is to promote welfare of the people, they will be more willing to tax themselves. For a popular cause, the people will be willing to stretch their capacity to the utmost. If the government proceeds to raise money for fighting famine, disease or spread of education, there will be a surprising expansion in the yield of taxes. But if the bulk of public funds is to be spent on the maintenance of foreign armed forces and for the upkeep of a costly civil service in which foreign element is quite prominent, as is the case in India, the taxable capacity must correspondingly shrink.

5. The Psychology of the Tax-payers. Much depends on the people's attitude towards a government. A popular Government can galvanise the spirit of the people and prepare them for the greatest sacrifice.

An appeal to patriotism is often the cause of a success of a financial measure. This is what makes war loans successful. Psychology of the people is an important factor and unless they are approached properly, they may be unwilling to tax themselves.

(6) Stability of Income. If the income of the citizens is precarious there will be not much scope for further taxation. The vagaries of the monsoons in India account for a lower taxable capacity. It is only on stable incomes that long-term financial arrangements can be based.

(7) Inflation. It lowers the purchasing power of the people and it cripples many; it has got an adverse effect on taxable capacity.

All these factors must be taken into account before you can have an idea about the taxable capacity of a nation. It may be that on account of multiplicity of factors influencing taxable capacity, you cannot measure at all this capacity. But this does not mean that the attempt is useless. The interest lies in the journey itself rather than the destination. In the words of Shirras: “A road leading to an important centre has often many crossings, signposts, danger signals, but this does not lessen its value to the cautious sojourner.”

12. Dream of a Single Tax. Attracted by its simplicity, many writers have advocated the imposition of only one tax. It has a long history behind it.1 It has also been advocated in different forms.

The Physicrats like Quesney and Turgot advocated a single tax on land. According to them land was the only source of wealth. It only yielded a net return (produit net) They advocated a single tax (impot unique) on this net return.

Henry George of San Francisco advocated a single tax on unearned increment in land values. He was socialistically inclined and he believed the monopolisation of land by a few was the cause of the poverty of the masses. Rent, according to him, was an unearned increment and he advocated the appropriation of entire rent by the state through taxation. He said that no other tax would then be necessary.

His thesis has not been accepted and his proposal is objected on several grounds:—

(a) That the tax revenue will not be sufficient to meet the large expenditure of a modern government.

(b) That it would penalise the holders of one type of property leaving the others scot-free. Not only is it unfair but it will also lead to evasion as the landlords would try to acquire some other property instead. It would not fairly distribute the tax burden.

(c) It is not easy to calculate how much is exactly unearned and how much of the increment is due to the foresight, personal effort or improvements by the land owners.

(d) Compensation will have to be paid by the state in cases where the land values went down. The government would become unnecessarily involved in fluctuations of land values.

(e) There will be several administrative difficulties.

(f) The modern socialist advocates a single tax on income. Every income should be taxed. It is said that it can be made to steer clear of the two major difficulties facing a single tax on land. By taxing all incomes and higher incomes sufficiently steeply adequate funds can be raised. Also, through devices like graduation and differentiation, the tax burden can be fairly distributed. But even this proposal is not free from objections.

(a) It will be vexatious, as everybody will be put to inconvenience.

(b) The cost of collection of tax from numerous small incomes will be almost prohibitive. This can be overcome by administrative improvements.

(c) When there is only one tax to rely upon evasion will be a much more serious matter. Attempts to stop the loopholes will make the tax system even more vexatious.

(d) There will be administrative difficulties.

(e) The inheritors of wealth, very fit cases of taxation, will escape if only incomes have to be taxed. This can be overcome by treating inheritance as taxable income.

(f) It will check saving and hence accumulation of capital. This would retard the development of trade and industry. This objection can be met by exempting savings. But this would mean taxing not the personal income but personal expenditure. But this again would present administrative difficulties and leave large loopholes.

The single tax on income too, on the whole, is beyond practical finance.

Another variety of a single tax is on the capital value of the property. But we have already said that taxation of income is a better index of a man's ability to pay than the amount of property that a man holds.

Besides objections advanced against particular forms of a single tax, two arguments of a general nature applicable to all forms of a single tax can be advanced:

(a) It is bound to create anomalies as between persons which can be rectified by a multiple tax system.

(b) Evasion is much easier in case of a single tax whereas there are counter-checks in a multiple system.

Single tax was a dream of theorists. It has few advocates among practical statesmen. The discussion has a purely academic interest, for a single tax is definitely beyond the sphere of practical finance. Every country has adopted a mixed or multiple system of taxation.
CHAPTER XXXXV

INCIDENCE OF TAXATION

1. What is Incidence? The problem of the incidence of taxation is the problem of who pays it. Taxes are not always borne by the people who pay them in the first instance. They are sometimes shifted on to other people. The incidence means the final resting place of the tax. The incidence is on the man who ultimately bears the money burden of the tax. We had to see out of whose pocket the money payment of the tax has come or in whose pocket the money would have remained had the tax not been imposed.

We may distinguish between impact and incidence. The impact of the tax is on the person who pays it in the first instance and incidence is on one who finally bears it. If an excise duty is imposed on sugar, it is paid in the first instance by the sugar manufacturer, the impact is on him. But the duty will be added to the price of the sugar sold, which through a series of transfers will ultimately fall on the consumer of sugar. The incidence is, therefore, on the final consumer.

Incidence is not shifting.—Shifting means the process of transfer i.e., the passing of the tax from the one who first pays it to the one who finally bears it. It is through this process of shifting that the incidence of a tax comes finally to rest some where. The process of shifting may be slow or may be partially effective so that the burden of a tax may not fall entirely on the person who is intended to bear it. Shifting is also known as repercussion. The tax may be shifted forward from the producer to the consumer or backward from the latter to the former.

Shifting is quite different from evasion. Evasion is to avoid the tax payment. I may give up the consumption of a taxed commodity and evade the tax. This evasion is quite legal. But there is also illegal or fraudulent evasion e.g., when I submit a false return of my income or conceal my real income. In evasion there is no question of shifting the tax to some body else.

The term incidence should also be distinguished from the effects of taxation. The effect of a tax refers to incidental results of tax. There are several consequences of the imposition of a tax which are quite distinct from the problem of incidence or who really pays. The imposition of an excise duty on sugar, we have seen, is shifted ultimately to the consumer of sugar. The incidence is on the consumer. It is a simple question and a narrow one. But the effects of this duty may be far-reaching; a heavy excise duty may cripple the industry. The manufacturer’s profits will be reduced. Labour and capital may have to leave the industry. Wages may be reduced. Thousands of middlemen engaged in the distribution of sugar may find their earnings
INCIDENCE OF TAXATION

Reduced. Reshuffling of their family budgets may affect the demand for certain other goods. The consumption of sugar may decrease and that of substitutes may increase. These are all effects of the tax, a much wider problem as distinguished from the incidence which is a narrow and special problem of finding who bears the money burden of the tax.

We may also distinguish between the money burden of the tax and the real burden of a tax. The money burden of a tax is represented by the total amount of money received by the treasury. If a consumer has to spend Rs. 5 more per month on the sugar consumed by him on account of the levy of a duty on sugar, it is the money burden that he has to bear. But he may have reduced the consumption of sugar which may mean a reduction of his economic welfare. He may have to pinch in the consumption of other commodities. This pinching, inconvenience, sacrifice or, in short, loss of economic welfare is the real burden of the tax. In incidence we are concerned with the money burden and not the real burden. We may also add that the question of incidence is really a question of price. The burden of the tax is shifted by the raising of the price of the commodity or the service that the tax-payer supplies. It is through the price that the other people are touched. If the price is not affected others will not be affected. Therefore the question of incidence really comes to this. How is the price affected by the tax? It is thus a part of the wider problem of value. But it is not so simple to trace the relation between the price and the tax, for price is affected by many factors and the tax is only one of such factors.

2. Importance of the Study of Incidence. We have seen that the theorists on Public Finance have rejected in modern times what is called the financial principle of taxation. It is not merely aimed to raise a certain amount of revenue, but the aim is to raise it from those sections of the people who can best bear the tax. The aim, in short, is to secure a just distribution of the tax burden. This obviously cannot be done unless an effort is made to trace the incidence of each tax levied by the state; we must know who pays it ultimately to know whether it is just to ask him to pay it or whether the burden imposed on him is according to the ability of the tax-payer.

If the tax system is to conform to Adam Smith’s first canon of taxation viz., the canon of equality, it becomes imperative for us to make a careful study of the reactions and repercussions of each tax and find out its final resting place. Unless we know who really pays the tax we cannot say that the tax is equitable or that it is borne by the people who can afford to bear its burden.

There are certain taxes called the direct taxes which are borne by the people who pay them first. The incidence in such cases is apparent. But the tax system of a country is not merely composed of direct taxes alone. There are also the indirect taxes whose reactions are a complicated affair. These taxes are intended to be shifted. But in actual practice on account of economic friction, the shifting
may not take place at all or it may be partial or it may be shifted on to quite a different class of people from those intended to bear. The shifting process has to be left to the free working of the economic forces. A rough and ready calculation must be made by the finance department as to the probable course that shifting will take and as to who will ultimately bear the tax.

In a modern democracy, where the government is run by a particular political party the government is pledged to a particular programme. It wants to serve a certain class of people and tax a certain class of people. The late Sir Chhotu Ram, the Development Minister of the Punjab Government, used to declare openly that he wanted to raise a certain amount of revenue exclusively from the urban trading classes. It is clear that the government cannot carry out such a policy without visualising the final resting place of the tax.

If Public Finance is to serve as an instrument of social justice, the question of incidence at once assumes a great importance. The rich have to be taxed and the proceeds have to be spent for the benefit of the poor. If you have to tax the rich, the incidence must be on the rich otherwise the object is not served. We must, therefore, follow each tax and make sure that it finds a rich home to rest in.

3. Direct and Indirect Taxes. We have said above that the question of incidence is very simple in case of a direct tax, when the impact and the incidence are on the same person. But in the case of an indirect tax the impact of the tax is on one and the incidence is on the other. A direct tax is not intended to be shifted, whereas an indirect tax is intended to be shifted. The question of incidence, therefore, really arises in case of indirect taxes. Before we trace the incidence of individual taxes we would like to make the distinction between direct and indirect taxes a little more clear and study their relative merits and demerits.

Taxes on commodities are generally called indirect taxes for they are shifted completely or partially on to the consumers, whereas they are first collected from the dealers or producers. But we should remember that the mere fact that it is a commodity tax does not make it an indirect tax. Before it can be called an indirect tax, its burden must be shifted. It is very possible that the commodity may be taxed, yet its price may remain unaffected. In this case the consumer is not touched and the tax will be direct and not indirect. A lump sum tax imposed on a monopolist or as a percentage of monopoly net revenue is not shifted, whereas a monopoly tax in proportion to the output tends to be shifted. In the former case it will be a direct tax whereas in the latter case it will be indirect. The inheritance tax is commonly considered a direct tax. It falls on the successor and it tends to stay there. But the predecessor, while he was alive, may have taken an insurance policy to cover the amount of the tax. In this case it imposes an indirect money burden on him. Income tax, again, is a direct tax but in exceptional cases a part of it may be shifted. To that extent it will become an indirect tax. We
may thus conclude by saying that we cannot draw hard lines between
taxes which are direct and those which are indirect. The distinction
between the two types is settled by the question whether the tax can
be shifted or no. If it is shifted, it is indirect otherwise direct.

4. Relative Merits and Demerits of Direct and Indirect
Taxes. We compare these two forms of taxes not with the object of
choosing whether we should have the one or the other. No country
relies exclusively on one type. Both direct and indirect taxes are
needed to make up an equitable and adequate tax system. "I can
never think," said Great Scotman, "of direct and indirect-taxation
except as I should think of two attractive sisters who have, been in-
troduced into the gay world of London, each with an ample fortune,
both having the same percentage—for the parents of both I believe to
be Necessity and Invention—differing only as sisters may differ....."
However, direct taxes are better in some respects and indirect in some
other respects.

In favour of direct taxes we can say: (a) they are more equitable as
progression can be applied to them. The rate of the tax is varied to
make the tax conform to the ability to pay.

(b) They are economical as the cost of collection is small, and,
there being no intermediary between the tax-payer and the State,
no part of the tax evaporates in transit.

(c) Their yield can be calculated with a fair degree of precision.
The tax-payer is also certain of the amount that he has to pay.

(d) They have a high degree of elasticity. Income tax in this war
very satisfactorily responded to the enormously enhanced needs of
the State.

(e) They create a civic consciousness among the tax-payers. A
man who pays a direct tax feels that he is contributing towards the
State expenditure. He is expected to take keener interest in civic
affairs.

On the other hand, direct taxes have some drawbacks too. (a) They are
very inconvenient to pay. Every tax-payer feels the pinch. Hence
they are not popular. The tax has to be paid in lump sum, the-filing
of return is a complicated affair and there is lot of harassment.

(f) They can be easily evaded and the State defrauded of its
due. A direct tax is a tax on honesty.

The Merits of Indirect Taxation are as under. (a) It is convenient.
The man pays a tax when he buys a commodity and at a time when
he can afford it. It is paid in small trickles rather han in lump sum;
many people prefer to be 'taxed in the dark'. The tax-payer does
not feel that he is paying it. The tax is wrapped in the price of the
commodity he buys.

(b) It is very difficult to evade an indirect tax.

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(c) Indirect taxes can also be made more equitable by being imposed on articles generally consumed by the rich. Luxuries are generally taxed at a higher rate.

(d) When imposed on necessaries of life or articles for which the demand is inelastic, indirect taxes are also fairly elastic.

(e) They have a beneficial social effect as by means of such taxes the consumption of harmful drugs and intoxicants can be discouraged.

The demerits of indirect taxes are as follows:—

(a) They are uncertain. It is not always possible to anticipate the various repercussions of a tax imposed on a commodity. The finance minister cannot precisely calculate the estimated yield of a tax.

(b) They are regressive. Every consumer of the taxed commodity, rich or poor, pays the tax at the same rate. Therefore the real burden on the poor is greater than on the rich. If the tax is imposed on the necessaries of the life, its regressive character is accentuated. According to Engel's Law of Consumption, the bulk of a poor man's income is spent on necessaries of life. The poor man pays the tax, therefore, on almost all his income, whereas the rich man pays it on a relatively smaller portion of income spent on necessaries of life.

(c) They do not develop any civic consciousness in the taxpayer.

(d) Although the shop-keeper is considered an unpaid tax collector, yet it is thought that the cost of collection of certain indirect taxes is very heavy. In case of customs duties, a highly paid staff of custom officials, appraisers, raiding parties to prevent smuggling have to be engaged. These taxes are uneconomical in another way. The taxed commodity passes through a number of middlemen and each adds something to the tax, so that the final consumer pays much more than the state receives.

The distinction between direct taxes and indirect taxes is not of much practical importance. We cannot assume that entire burden of direct taxation falls on the rich and that of indirect taxation on the poor. Indirect taxes like taxes on luxuries fall on the rich and not on the poor. It is, however, generally true that indirect taxes like inheritance tax and income and super tax fall exclusively on the rich. In a good tax system we must have a proper balance between direct and indirect taxation. One corrects the other. Indirect taxation relieves exclusive pressure on the rich and makes the system of taxation broad based.

5. The Diffusion or Absorption Theory of Taxation.
The advocates of the diffusion theory say that a tax gets automatically diffused in the community very widely so that each individual tax-payer bears only a small proportion of the tax, a proportion which he can and ought to bear. It is intended to convey that the tax burden is automatically equitably distributed among the various sections of the community. The conclusion follows that it is useless to bother about
Incidence and it is impossible in this world of complicated exchanges to trace the shifting of a tax which settles the question of ultimate incidence. In other words, the taxing authority may comfortably rest in the belief that every thing is all right with their tax policy. Even if a tax contains an initial element of injustice, adjustments are sure to be made and the inequity will be either eliminated or not felt at all. Towards the end of the eighteenth century Lord Mansfield said, "I hold it to be true that a tax laid in any place is like a pebble falling into and making circles in a lake, till one circle produces and gives motion to another, and the whole circumference is agitated from the centre".1 This is how a tax gets diffused or spread throughout the community. The diffusion takes place through the exchanging process. If a tax is imposed on a commodity, little by little it is shifted on to the consumers concealed in the price of the commodity. A tax on profits will enter the cost of the commodity. A tax forms a part of the cost of production of a commodity or of the cost of rendering a service and as such it moves from person to person along with the commodity and comes to rest where it ought to. It does not affect any particular part of the community adversely. Canard compares taxation with the operation of cupping. "After taking the blood from the vein," he says, "it is no more bloodless than any of the other veins owing to the circulation of the blood through the body".2

It cannot be denied that some diffusion of taxation does take place. But it is trying to prove too much to say that through this diffusion process the burden of taxation is automatically adjusted according to the tax-payer's faculty to bear the tax. If it had been so sure and automatic, the finance ministers would not have been at pains to work at the probable effects of a tax and find out its ultimate resting place. If the taxes were to be diffused according to some unknown law they would not have tried to devise some taxes for the taxation of some particular class of people. No body seriously believes that the taxes are spread throughout the community otherwise how are we to explain the hue and cry raised whenever a tax is imposed? The tax does stick to certain persons. It is not like the cupping operation but like the cutting of a branch of a tree or a limb of the body.

There are certain taxes like the poll tax, inheritance tax or income tax in which there is no shifting at all. There is not the least diffusion. The theory has only a limited application. It applies to indirect taxes and even in their cases there is no diffusion throughout the community.

The diffusion theory assumes free and perfect competition which but rarely exists. There is a good deal of economic friction which obstructs the shifting of a tax.

2. Ibid., p. 347.
To sum up the diffusion theory is unsound in principle, contrary to actual experience and belief and that it has got only a limited application. Its only redeeming feature is that it emphasises the fact that the taxes do not stay where they are first imposed. But we cannot rely on a theory like this to distribute the tax burden in the community fairly and completely.

Let us now consider the incidence of some important taxes.

6. **Commodity Tax.** A tax on a commodity tends to be shifted forward from the producer to the consumer and from the consumer backward to the producer. A tax on production of a commodity tends to raise its price and will, therefore, be normally borne by the consumer. But a tax on consumption is likely to check consumption and tends to be shifted backward to the producer. But to what extent the tax will actually be shifted will depend upon the factors governing demand for and supply of that commodity. If demand is inelastic which is the case with the necessaries of life, the people must buy the commodity. The producer will be in a stronger position and the entire burden of the tax will be shifted on to the consumer. But in case of elastic demand the people will buy less. In that case the price will not rise by the full amount of the tax. The tax will, therefore, be borne partly by the buyers and partly by the sellers. How much exactly will depend on the degree of elasticity. In the same manner if the supply is inelastic, as in the case of a perishable commodity, the seller cannot withdraw the supply. His position is weak. The tax will stick to him. In case of an elastic supply he can shift the burden on to the consumers. “As a rule the consumer bears a smaller part of the tax when the demand is more elastic than the supply than he does when the supply is more elastic than the demand”.

It is possible that the price may not rise at all. This will happen when the consumers have been able to discover an untaxed supply of the commodity or satisfactory untaxed substitute. In this case the entire burden of the tax falls on the producer or seller.

On the supply side, the laws of return will also exert their influence. The taxing of a commodity tends to check its demand which in its turn will check production. Now if the industry is subject to Law of Increasing Returns, the reduced production will be obtained at a higher cost and in case of the Law of Diminishing Returns at a lower cost. In the former case the price will be higher than in the latter case with a corresponding burden on the consumer.

Much also depends on the amount and the method of taxation. A small tax no body bothers about. No producer would like to annoy his customers for a paltry sum. He would cheerfully bear it himself. Only when it is heavy, the shifting will take place. A tax on marginal output will raise the price and not one on the surplus output.
The nature of the commodity also will make a difference. A tax on a commodity like sugar gets rapidly adjusted and shifted. But a tax on a house cannot be so readily shifted for rent is fixed for a period and during the currency of the lease nothing can be done.

Other factors which govern the course of shifting of a commodity tax are whether competition is perfect and whether labour and capital are freely mobile. Only in case of free and unfettered competition can the tax be passed on to the consumer otherwise it will stick to the producer. If labour and capital are freely mobile, it will add to the ability of the producer to shift the burden to the consumer. If, on the other hand, large fixed capital is locked up in the industry, the position of the producer is correspondingly weakened and the probability will be that the tax burden will be borne by him. He cannot withdraw his capital. He must continue in the field even when he is losing for a time.

Thus incidence is a very complicated affair. It is a part of a larger problem of price determination. There are various conflicting influences on price. We say that a tax on commodity tends to be borne by the consumer. But this tendency may or may not be actually realised. Unless the price is affected, the consumer is not touched and he is touched only to the extent that price is raised by the imposition of a tax.

7. Tax on Monopoly. We have said that the question of incidence is a part of a larger question of the theory of value. As value determination differs in the case of a monopoly from the value determination under competitive conditions, in the same manner the incidence of a tax on monopoly also works out differently.

The monopoly tax may be (a) independent of the output of the monopolised product or it may vary with the output i.e., increase or decrease with the output.

When the tax is independent of the quantity it may either be a lump sum tax on the monopolist or a percentage of the monopoly net revenue (profit). In both these cases—the lump sum or % on the monopoly net profit—it will fall on the monopolist. He cannot shift it to the consumer. This could be done by raising the price. But he is already supposed to have fixed a price which yielded him the maximum monopoly net revenue. A price higher or lower than this must have meant a less monopoly net profit. If it had been possible for him to raise the price consistent with the policy of maximising his profit, he would have done it already. Any alteration in the price, thus, would be at the expense of his profit. That being the case he must now pay the tax out of his own profit. He will get the greatest profit now after paying the tax by leaving the selling price unchanged and the consumer unaffected.

It is possible that instead of re-calculating how he would maximise his profit after paying the tax he may simply put up the price shifting the tax to the consumer. But by so doing he may have re-
duced his monopoly profit. "He may prefer this to a rather greater profit at the expense of a greater effort."

In case, however, he has been charging less out of consideration for consumers' welfare than what he could charge for maximizing profit, he will, when the tax is imposed, take in the 'slack' and to this extent the burden of the tax has been shifted to the consumers.

Now let us see what happens when the tax varies directly or inversely with the quantity of the commodity produced. In this case, as discussed in previous section, elasticities of demand and supply and the influence of the laws of returns will have to be taken into account. The tax will enter the cost of production. It will mean an addition to the cost of each unit produced. Taxing of the commodity, therefore, raises the price which will tend to reduce the demand. If, however, the demand is inelastic, it cannot be appreciably reduced and the tax will be shifted to the consumers. If the demand is elastic, the consumers can make adjustments and buy less of the taxed commodity in which case the tax will partly be borne by the monopolist, for instead of facing a decline in demand he may reduce the price and decide to bear the tax himself. If the supply is more elastic, then the producer is in a stronger position. Thus if the demand is more elastic than the supply, the consumer will bear less burden of the tax; and if supply is more elastic than the demand, then the producer will bear less. If the production of the commodity obeys the Law of Increasing Returns the reduction in production consequent upon the imposition of a tax will raise the price more than if it were subject to the Law of Diminishing Returns. The burden on the consumer in the former case will be greater than in the latter case.

If the amount of the tax increases with the increase of output then the monopolist will be tempted to produce more and keep the price low. The burden of the tax will entirely be on the monopolist who will, in fact, be transferring a part of his monopoly profit to the consumers.

8. Taxes on Imports and Exports. Import duties are generally and almost exclusively, borne by the home consumer. The duty paid by the importer is added to the price that he charges from the next purchaser and so on. The duty is ultimately shifted to the consumer. Only in very rare cases the burden of such duties can be shifted to the foreign producer. If our demand for the imported product is elastic so that we may or may not buy it and the supply is not elastic and the foreign producer has no alternative market, then in such a case the burden can be shifted to the producer. But these conditions are rarely present and the duty must be borne by the home consumer.

Export duty is, similarly borne by the exporter. It goes out of his profits. The price in the world markets is fixed so far as he is concerned. No individual exporter is in a position to influence the world price. But here again we can imagine a situation in which the
exporter is in an exceptionally strong position so that the duty can be shifted to the foreign purchaser. For example we may have a monopoly of the supply of a commodity and the demand of the foreigners for our product is inelastic, whereas so many other alternative markets are open to us. In such circumstances we can certainly make the foreigner pay the export duty by raising the price of the commodity by the amount of the duty. But such conditions are very rare and unless they are present the export duty must be borne by the exporter. Dalton lays down this rule: "Taxes on imports and exports may, then, be regarded as obstacles to exchange and in accordance with the preceding theory, the direct money burden of any such obstacle is divided between the two parties to the exchange in inverse proportion to the elasticities of their respective demands. In other words it is divided in direct proportion to the urgencies of their respective needs, which are satisfied by the exchange".

9. Taxation of Land. The value of land depends on two sets of factors (a) natural factors like the fertility of the soil, the situation of the land and some other natural conditions, and (b) investment of capital in drainage schemes, anti-erosion measurers, irrigation facilities and other measures necessary to increase and sustain productivity. The tax depending on the first set of factors is a tax on economic rent and has a tendency to fall on the owner. He cannot shift it to the tenant for economic rent is determined by factors independent of a land tax. The owner is supposed already to be charging rent fully measuring the superiority of his land over the marginal land. But in case through ignorance, indifference or indulgence he has not been charging full economic rent, he will, when the tax is imposed, sharply look round and take in the "slack". To this extent the tax is shifted to the tenant.

The tax of this nature i.e., the tax on economic rent cannot be passed on to the consumer for the consumer can only be reached through the price. We know rent does not enter into price. The raising or lowering of the rent does not affect price. The fact that the tax is paid by the occupier makes no difference. If he pays it in the first instance he can deduct it when he pays the rent to the owner.

Tax on economic rent, is thus borne by the owner of the land and not by the tenant or the consumer of the product.

But where the owner can vary his investment in land, he will reduce this investment when the tax is imposed. This will affect the yield and hence the price of the commodity. In this case i.e., in the case of improvements, it is shifted to the consumer.

Tax on building sites also tends to be thrown on the owners of these sites who enjoy surplus income on account of more favourable situation of their sites.

Can the land tax be shifted to a prospective purchaser of the land? No, the tendency is that it will be borne by the present owner. The purchaser while purchasing land, will bear in mind that he will have

to pay the tax. He will, consequently, offer less price. The tax is thus, capitalised or absorbed, in the lower price that the land will command. This will happen to the extent that future tax payments can be accurately forecast. But there is also a neutralising tendency. Future increases in land values may also be anticipated and more price offered.

10. Tax on Buildings. There are two parties in immediate contact with each other so far as housing is concerned viz. the owner and the occupier. If the tax is imposed on the owner, he will try to raise the house rent and thus shift it to the occupier or tenant. But he cannot do anything during the currency of the lease. Further, there may be a rent law controlling rents and forbidding the landlord from raising the rents. Even if he can raise the rent, the tenant may shift preferring less accommodation to higher rent. In such cases, therefore, the incidence will be on the landlord, at any rate for some time. But the effect will be that building a house for letting it out may not remain a paying proposition. A heavy tax will check building activity and the remuneration of the builder and of other people engaged in the trade may fall. The demand for building sites may decrease. If they try to sell off, the new purchaser will bear in mind the tax and offer correspondingly less. But in course of time the supply of houses will fall off and the rents must rise thus shifting the burden, to some extent, to the tenants. Thus the tax may fall partly on the owner, partly on the builder and partly on the occupier.

If, on the other hand, the tax is imposed on the occupier, it will tend to stick to him. It is not easy to find a new house nor so convenient to shift. One likes to stay on where he is. The demand for a house is inelastic. We must have a house. The landlord, therefore, is in a much stronger position. The tax will thus stay where its first impact was. But if the occupier is a shopkeeper, then he may be able to shift the tax to his customers in the neighbourhood especially if they are poor by raising a bit the price of the commodities he sells. The poor customers must buy from the neighbouring shop. We must remember, however, that the development of means of communication and transport brings the travelling salesman at our door and weaken the grip of the neighbouring store.

We may thus conclude that the tax on buildings will fall generally on the occupier but under certain circumstances may be shifted to the owner, the builder or the customer.

11. The Incidence of Rates. Rates are imposed by the local bodies on immovable property in proportion either of the annual value or the capital value of the property. Their incidence is just like incidence of building taxes discussed above. They will be borne by the owners, occupiers or customers (in case the property is used for business purposes) and the respective burden on each will depend on the economic friction and the relative bargaining strength of parties, or, what comes to the same thing, on the relative elasticities of demand for and supply of the property taxed.
As a general rule the tax on the site value will ultimately be borne by the owner and that on building value, or what may be called the beneficial rate, by the occupier or customers in case of business premises. Much will depend on the willingness or the ability of the occupier to shift to another site. The more he is willing or able to shift, the greater will the tendency of the rate falling on the owner. In the short period, the mode of collection is also important. Whichever its impact is whether on the owner or the occupier, in the short period it will tend to stick there.

12. Taxes on Personal Property. In case there is a general tax on all sorts of personal property, it will be a tax on wealth. It will generally be borne by the owners of wealth. But if the tax is very heavy its incidence may be more widely spread. It may discourage saving, check the accumulation of capital or drive it abroad and the whole community will suffer by the diminution of production.

But some particular form of personal property may be selected for taxation e.g., car, radio set or jewellery. In this case the incidence will be shared according to the relative elasticities of demand and supply. Demand for the articles mentioned above is elastic. The imposition of the tax will check the demand; and if there is a keen competition among the producers, they will have to reduce the price, or what comes to the same thing, offer to pay the tax. The tax in this case is shifted to the producer or seller.

If the property is being used for business purposes such as doctors' equipment then, a heavy tax will have a tendency to be shifted to the customers, especially if the position of the businessman relative to his customers happens to be strong.

13. Tax on Inheritance or Succession Duty. In other advanced countries a tax is imposed on the property when it is going to pass to a successor after the death of the present owner. Such a duty is being proposed in India. Who pays it? Is the incidence on the deceased or the beneficiary i.e., the successor? The owner is dead and it is said that death pays all debts. He can be taxed no more. No further burden can be placed on him. If, however, he insured against such a tax then he certainly bore it when he paid the insurance premia. In the absence of any such anticipation by the owner of the property when he was alive, the tax will obviously fall on the beneficiary because he inherits so much less of the property. He is poor by the tax levied on the property of the deceased.

14. Incidence of Taxes on Income. Income-tax, super tax, excess profit tax are all direct taxes and as such are borne by the people who pay them in the first instance. They cannot ordinarily be shifted. But a businessman, who is in exceptionally a strong position relative to the persons he deals with, may be able to shift a part of the tax to his customers. May be that he is the seller of a very popular brand, may be that he is a very popular doctor on whom his patients have implicit faith. In such cases the customers will be willing to pay a bit more. But these conditions are rarely present and the
income-tax-payers must rest content with the burden of the tax. In the short run, it is definite that the tax on the businessman has no influence on price which is determined by demand and supply. Profit depends on price and not vice versa. A tax on profit, therefore, cannot be passed on to the consumer by raising the price. In the long run, however, a heavy tax may check enterprise by reducing the anticipated profits. But it will depend on elasticity of supply and alternative channels of investment available. It is very difficult to say what will happen in the long run. The probability is that a moderate tax will have no undesirable repercussions.

If, however, the income tax is extremely heavy, it may discourage saving, check accumulation of capital or drive it abroad. The productive capacity of the community will be impaired and there will be wide-spread repercussions of such a heavy tax. But the tax is seldom so heavy. Ordinarily, therefore, it rests on those on whom it is imposed.

15. **Tax on Interest.** Interest, as a source of income, is generally taxed under income tax. But a separate tax may be imposed on income from interest. Such a tax will ordinarily be borne by the capitalist especially if the supply of capital is very large and the demand for capital is less. But in case the demand is more urgent and insistent and the supply of capital is meagre, as is the case in rural parts of India, the tax on interest will be shifted to the borrower. Much depends on the degree of mobility of capital. If capital can be moved to some other channels of investment, the supply of capital for lending purposes will contract which will lead to the raising of the interest rates. This means the incidence is on the borrower. Actually, however, capital is seldom so mobile and a part of the tax at least will be borne by the owners of capital. In case the tax is very heavy, it will discourage the accumulation of capital to the detriment of trade and industry in the country. In that case the incidence will be more widely spread among the consuming public.

16. **Tax on Profits.** The problem of incidence on profits is complicated by the fact that there is difference of opinion among the economists about the definition of profits and the elements that compose it. Some economists like Professor Walker, regard profits as analogous to rent. In this sense profit is a surplus earned by the entrepreneur who is superior to the marginal entrepreneur. The price in the market is determined by the marginal producer. Hence just as rent does not enter into price, similarly profit also does not enter into price. It cannot, therefore, be shifted to the consumer. It will be borne by the businessman who pays it. But we do not subscribe to this theory. Even the marginal entrepreneur must have some profit in the long run. Normal profit is, therefore, not a surplus but a part of the necessary cost. This however does not lead us to the conclusion that a tax on profit will be shifted to the consumer unless the entrepreneur is able to influence the price which he rarely can. For an ordinary individual entrepreneur price in the market is fixed.
That being so a tax on his profits must come out of his own pocket. A general tax on profits, as a rule, is not shifted, unless the prices are rising rapidly and the consumers are anxious to buy. This, however, is very rare.

But if the tax is a special tax on profits from a particular trade and industry then there will be a tendency for the entrepreneurs to withdraw themselves from such lines. If this happens the incidence will ultimately be shifted to the consumers of the commodity or the users of the service supplied by these entrepreneurs. A great deal depends upon the elasticity of demand and the mobility of capital.

A tax on profits may take the form of a licence duty. Even in this case it will be borne by the producer. In order to re-imburse himself the producer may increase his output. The consumer benefits but the incidence of licence duty will fall on the producer. It is generally too small to make the producer try to shift it.

**17. Tax on Quasi-rent.** Quasi-rent represents the return on a factor of production (usually a durable goods) whose supply is temporarily fixed. If a tax is imposed on this return, it will tend to stick at the point of its first impact. In this it is like economic rent. The supply of the factor is inelastic over a short period and the owner cannot shift the tax by withdrawing its supply to the consumer of the product. But over a long period a tax on quasi-rent is like a tax on interest. It will tend to check investment in that direction. The supply of the commodity will contract and its price will rise so that the tax is shifted to the consumer. Thus the incidence of a tax on quasi-rent tends to fall on the producer in the long run and on the consumer in the short period.

**18. Tax on Wages.** Wages are not taxed directly in modern times. But the contributions by the workers to the schemes of social insurance may be regarded as taxes on wages. If the tax is a general tax applying to all workers, the workers may not be able to shift it to the employers if the demand for labour is elastic and the supply is inelastic. It is well-known that the relative bargaining strength of the wage-earners is weak. If a tax is imposed on them, it is not in their power to get an increase of wages and unless they can get it, the tax must be borne by them. Workers do not always emerge victorious in a labour dispute. The greater the elasticity of demand for labour, the greater will be the incidence on them of a wage tax and vice versa. The tax falls on the workers if it lowers their standard of living. But if it lowered efficiency, the production costs will increase and the price of the product will go up as the result. In this case the tax will be shifted to the consumers. Workers, however, being themselves consumers will have to bear their share of the tax even when it is so shifted.

But a tax on special types of labour may be shifted. They may shift to other trades or start an independent trade. There will be a
Greater element of elasticity in the supply of labour in this case and the demand may not be so elastic. If, therefore, the supply of labour is elastic but the demand is inelastic, the wage tax is surely shifted to the employers.

19. **Taxation of Surplus.** There is certain minimum remuneration which must be assured to a factor of production before its supply will be forthcoming. There is a minimum wage, a minimum rate of interest and a reasonable and normal rate of profit which each agent must respectively get. Their incomes constitute the necessary costs. These necessary costs cannot be taxed. If a tax is imposed it will be shifted. For example if a tax cuts down the normal profit, it will discourage enterprise. Production may be cut down and the tax shifted to the workers or consumers. If the minimum wage is taxed, it will either lower efficiency or reduce the supply of labour. This will mean a shifting of the tax either to the consumer or the employer. The taxing of the necessary costs will threaten the withdrawal of the factor concerned. Thus it is said that all taxes have a tendency to be shifted to a surplus *i.e.*, an income over and above the minimum necessary to ensure the regular supply of a factor. If it is the monopolist who is enjoying a surplus, he will bear the tax himself. If surplus arises from the manufacture of a necessary of life, then the demand being inelastic the tax will be wholly shifted to the consumers. If the commodity is a luxury the incidence will be borne partly by the producer, middleman and the consumer.

20. **Incidence of Sales Tax.** The tax is levied on the turnover, profits or no profits. Its incidence is a complicated affair, because it covers commodities of widely divergent nature. If the demand for a commodity is inelastic, its price can be raised and the tax will be then shifted to the consumer to that extent. But if the demand is elastic, it may be shifted partly to the consumer and may remain partly on the seller. The sales tax may make heavy inroads into profits which may lead to retrenchment in staff and management, restrict enterprise, leaving some business premises unoccupied. Thus its incidence may fall upon the employees, management and landlords. Sales tax indeed hits a large number of people of different types.

21. **Profession Tax or Haisyat Tax.** It is a tax on profession or employment. Its incidence is like the incidence of income tax. It lies where it is levied and cannot be shifted if it is a general tax. In case it is a tax on certain professions and is heavy then it may discourage entry into the profession. Those who use the service will then have to pay more and bear the incidence.

22. **Terminal Taxes or Octroi Duties.** They are taxes on commodities and the rules of incidence are the same as we have discussed in section 5.

23. **Tax Differentiation.** Whenever a tax is imposed, we have seen while discussing incidence, it is bound to affect some people, some favourably and others adversely. It may favour persons living
at a certain place and penalise those living at another place. It may favour some businessmen at the expense of others. In other words taxes differentiate in favour of some and against others. This is tax differentiation. In Benham's words, 'taxes alter the objective inducement to do some thing rather than others; they differentiate against certain activities.'

A few examples will make it clear. Income tax which grants a relief on earned incomes differentiates in favour of personal exertion and against mere investment income. A succession duty again has a similar effect. It favours those who create property themselves as against those who merely get by inheritance. The sales tax as levied by the Punjab Government differentiates against businessmen in the Punjab and may induce them to migrate to other provinces. Heavy local taxation in Bombay drove the cotton textile industry into Ahmedabad, Sholapur and Hyderabad State. A poll tax differentiates against the inhabitants of a certain country. A tax on certain professions differentiates in favour of persons engaged in the non-taxed professions and penalises those following that particular profession. A tax on tea will differentiate in favour of coffee. Examples can be multiplied. The meaning of differentiation is very clear. It means the tracing of the effects of taxes to see what adverse effects it is likely to have or whether it unduly favours some sections of society.

Government has to use Public Finance as an instrument of social justice. For that purpose it has to favour some classes at the expense of others. Again it has to encourage certain industries or develop them in certain areas. For all these purposes a study of tax differentiation is very essential.
CHAPTER XXXXVI

PUBLIC DEBT

1. The Beginnings and Growth of Public Credit. Borrowing by public authority is of a recent growth. It was not known till the eighteenth century. Whenever there was an emergency, usually a war, the monarch relied on his hoarded wealth or borrowed on his own personal credit. Books on history abound in instances of fabulous hoards and accounts of loots and sacks of hoarded wealth either from King’s treasuries or from the temples and churches. Mahmud Ghaznavi’s seventeen raids on India are well-known and so are the predatory raids of Shivaji. Shivaji is supposed to have taken away from the first sack of Surat Rs. 10,000,000. Athenian hoards were believed to be enormous. The private treasure of a ruler of an important Indian state is considered to be more than the equivalent of £10,000,000 and his jewels, when valued at the time of his accession were found to be equal to £150,000,000. It was on treasures like these that monarchs in every country relied for financing a war or a programme of public works like that of Sher Shah or Feroz Shah Tughlak.

But this method of finance is out of harmony with modern conditions. It would be out-of-date, inadequate and uneconomical. In the nineteenth century public credit replaced private credit and once started the growth was phenomenal. Development of trade and industry since the introduction of the limited liability principle, growth of banking and insurance companies, perfecting of fiscal arrangements and the evolution of a well-ordered system of finance e.g., meeting recurring expenditure out of current revenues, establishment of a sound system of administration and justice are some of the factors that are responsible for the rapid growth of the system of public credit. An average citizen today has a sense of security and confidence and his willingness and ability to lend have increased. These constitute a solid foundation of a system of public credit.

The system of public credit making it easy for the states to borrow has led to tremendous increase in the indebtedness of modern states. The public debt of 27 countries in 1900 was £6,079,000,000; in 1913 it increased to £8,566,000,000, and in 1933 to £22,000,000,000. Almost the sole responsibility for the phenomenal increase lies on war. The net cost of the war (1914-18) was estimated at £42,000,000,000. The war of (1939-45) has been infinitely more costly and when final estimate of its cost comes to be written down, the figure will no doubt be staggering.

2. The Benefits and the Dangers of Public Credit. The system of public credit offers many advantages. In the first place, although credit does not increase capital yet it certainly makes capital more productive. This leads to increased production, increased national wealth and consequently the raising of the standard of living. Secondly, but for public credit huge public works like roads, railways and canals would have been simply out of the question and let us imagine what our condition would have been without these. Thirdly, public credit is sometimes the only means of restoring a country to its normal condition when it has been attacked by a natural calamity like floods, earth-quakes etc. It may be beyond the ordinary revenue strength of the nation to cope with the damage and destruction wrought by such calamities. Fourthly, a modern war can never be fought without having a resort to public borrowing. A belligerent nation which comes to the end of its financial tether earlier is bound to go under. Public credit thus safeguards the very existence and liberty of a nation.

Fifthly, it is through public borrowing that backward countries full of natural resources are enabled to develop themselves and exploit their protential natural wealth.

Sixthly, for the lending nations, too, public credit proves to be of immense advantage. For the citizens of the lending country safe and remunerative channels of investment are opened out. International lending has a favourable reaction on balance of trade and steadying influence on foreign exchange. Finally, a system of international loans has many non-economic advantages. The lending countries become interested in the material advancement of the debtor country. It broadens the outlook of its citizens. The mutual intercourse between the nationals of different countries leads to mutual understanding and as such may go a long way in preserving international peace.

But public credit has not proved to be an unmixed blessing. It has its dangers too. The following are some of the disadvantages of public borrowing:

(i) The most obvious danger of public borrowing arises from the dangerous facility with which governments can borrow. It leads to overborrowing i.e., borrowing beyond the taxable capacity of the people. The result is that the State is either forced into bankruptcy or default or repudiation of debt.

(ii) Reckless borrowing especially by young and undeveloped countries, has led to extravagance. Expensive schemes are launched without carefully calculating their probable yield and with no reference to the country's capacity to bear the burden of such schemes. This saddles the posterity with interest payments without any corresponding return. There is a lot of waste.

(iii) Many countries have lost their political independence. Egypt is one such country. The revenues of the country have some-
times to be mortgaged to the foreign bondholder to safeguard whose interest the foreign government steps in.

(iv) Foreign loans lead to a constant drain of wealth out of the country. If the money has been borrowed for unproductive purposes, the interest payments represent a dead weight which posterity has to carry. It is a drain, pure and simple.

(v) Public borrowing leads to international complications and instead of promoting peace, it may endanger peace. Vested interests are created. Public loans can well be a source of constant friction between the lending and the borrowing nations.

On the whole, the advantages of public credit far outweigh its disadvantages. There are few things in the world which present only one side, the brighter side. Public borrowing has; the darker side, but its brighter side is more prominently displayed. It has conferred numerous and lasting benefits on all concerned, lenders and borrowers.

3. How the Governments Raise Funds for Emergencies. The following six methods are known to public financiers for raising of funds when an emergency arises:—

(i) The utilisation of hoarded wealth.
(ii) The sale of Government property.
(iii) The imposition of new taxes and raising of the rates of old taxes.
(iv) The floatation of temporary loans.
(v) The floatation of permanent loans.
(vi) The issue of inconvertible paper money.

Few modern Governments have any hoarded wealth although jewellery or other hoarded wealth may be the personal property of the ruler. As for the second source viz., the sale of public property, it is not an important source in old countries where public lands are supposed to have been disposed off long ago. A modern government would like to acquire more property rather than sell off that which it already possesses. We are really, therefore, left with the last four and we shall say a word about each of them.

4. Imposition of New Taxes, and Enhancing the Rates of the Old. Whenever an emergency, like the war, comes the first means of raising public funds that the government looks to is to raise the rates of some of the old taxes like the income tax, excise duties, railway and postal rates etc. In addition some new taxes are also imposed. New excise duties may be levied and tariff list may be enlarged.

But there is a limit beyond which it is not safe for the government to proceed in the direction of taxation without courting unpopularity. The taxable capacity is after all limited. There is a point beyond which people are unable to pay taxes or unwilling to tax
themselves. If taxation is excessive it may also impair the productive capacity of the nation besides over-straining the loyalty of its citizens. The governments, therefore, follow the line of least resistance and do not overwork their tax system. Taxes are no doubt increased but they soon have a resort to other methods of raising revenues. To finance a modern war by means of taxation will be height of folly and is sure to lead to a revolution. The home front will crack before long. Much reliance, therefore, cannot be placed on this source.

5. **Temporary Vs. Permanent Loans.** Temporary Loans are usually raised by the sale of treasury bills or by ways-and-means advances from the Central Bank. As a rule they are raised internally. The following are some of the considerations which either favour or necessitate short-term borrowing:

(a) When the prevailing rates of interest in the money market are abnormally high, it will be unwise for the government to saddle itself with heavy interest payments for a long time. It will be prudent in such cases to raise a temporary loan till the rates come down and time for a permanent loan is more opportune.

(b) When the government has to tide over a temporary difficulty, it will be unnecessary to raise a permanent loan. The cases in point are covering a budgetary deficit or simply bridging the gap between immediate expenditure and expected income, e.g., the new tax revenue may not start flowing in till June or July and there may be a temporary shortage of funds in April and May. Temporary borrowing is the only proper course in such a case. If the purpose is temporary, the loan cannot be permanent.

(c) Temporary borrowing has the merit of enabling the government to carry on its activities unhindered and avoid the inconvenience of raising a permanent loan.

(d) The issue of temporary loans is welcome to the money market. Treasury bills are the safest and the most profitable investment for the banks, and they constitute an ideal outlet for their surplus funds.

But as against this, temporary loans have some drawbacks:

(a) When the government enters the money market for raising temporary loans, the funds of the banks are diverted from trade and industry to the government treasury. Trade and industry are consequently starved. Even the bank deposits decline. This competition from the government in the money market beyond a limit, may have very adverse economic effects.

(b) Existence of a large floating debt may prove to be a source of embarrassment to the government. It may shake public confidence in the financial stability of the state and may produce unhealthy repercussions. When a big temporary loan matures, the government finances may be subjected to severe and unbearable strain.

(c) It is generally seen that when one temporary loan matures, another is issued to repay the first. Temporary loan, therefore, in fact
becomes a permanent one. The funds of the money market are indefinitely locked up to the detriment of commerce and industry.

(d) The existence of a large floating debt has dangerous potentialities for the future when a real emergency arises. For example when war breaks out, the government will at once need large funds but if it is already indebted and has raised loans to the very hilt, the prospects of raising new funds will be gloomy indeed.

(e) Another danger inherent in temporary loans is that it generally leads to inflation. When the loan matures, the government may just print notes to repay the debt. The dangers of inflation are only too well-known to the present generation in India. We shall discuss these dangers presently.

(f) There is no legislative control over temporary borrowing and little publicity. It is carried through by purely executive action. The danger of over-borrowing, therefore, is a real danger. Over-borrowing may lead to extravagance.

Permanent borrowing has merits and demerits of its own. In favour of a permanent loan we can say that:

(a) It is profitable when the interest rates prevailing are low. Such conditions are really favourable for the launching of some public works programme for the capital charges will be low.

(b) A long-period loan does not embarrass the government. Timely arrangements can be made for its repayment.

(c) Government bonds are a very good investment. They provide a remunerative outlet for the trust funds, funds of the banks and of insurance companies. There is no doubt that saving is stimulated and the nation is enabled to accumulate large capital.

(d) It also satisfies our sense of equity to think that the future generation which is certainly going to benefit by public works like irrigation and railways and may also benefit from the spoils of the war, must also be made to bear a due burden. This can only be done if these ventures are financed by means of long-term loans.

(e) Long-term loans are a veritable necessity for the prosecuting of a modern war or for repairing the destruction wrought by it. To restore the ruined areas to their normal condition must require funds too large to be raised by taxes. Such a huge burden cannot be placed on the finances of a few years. It must be spread over a long period to make it bearable. This can only be done by resorting to a long-term loan.

(f) Loans taken for productive purposes create national wealth out of which both the principal and interest can be met and still the sources of wealth like canals and railways remain in the country and augment national wealth in the future. Long-term loans are thus very profitable.

(g) Finally, long-term loans give the citizens a permanent interest in the state. They arouse civic consciousness and nurture the senti-
ment of patriotism, for a very direct relation is established between the citizen and the state through public borrowing.

Long-term or permanent borrowing is, however, not free from objections. Some of which are as under:

(a) It is undesirable to raise a long-term loan when the rates of interest ruling are high. To issue a long-term loan at such a time will certainly be objectionable from the public point of view.

(b) It is also not quite fair that we make posterity suffer for our mistakes. Why should the future generations of Germany be punished for the blunders that Hitler committed. In the same manner, through miscalculation a big public works programme may be miscarried and posterity may be saddled with a losing concern.

(c) As compared with taxes, it is so easy for the Government to get money by raising loans. Taxation is not popular. People will not let the Government easily tax them and waste public money. But the Government can further an unpopular cause or prosecute a doubtful venture by loans. This is a dangerous weapon in the hands of the Government and it has an undemocratic flavour. Wars would come to an end if they come to be financed by taxes alone.

(d) A large public debt acts without doubt as a drag on trade and industry. Large interest payments necessitate heavier taxation. Excessive taxation must hamper economic progress. Industry will be subjected to a great strain.

In spite of these objections there seems to be no escape from borrowing. Every Government borrows and must borrow. Political exigencies are such.

Long-dated loans can be internal or external i.e., they may be raised from the inhabitants of the country or taken from a foreign Government. In the case of an external loan, the interest payment means a regular drain of wealth out of the country. It may have very undesirable consequences e.g., loss of political independence. On the posterity it means a real burden if the loan was taken not for productive purposes but for prosecuting a war.

6. Can a Nation Borrow Without a Limit? Obviously not. It is just like the case of an individual. Debts after all have to be repaid. A state, therefore, cannot borrow without any regard for its paying capacity. The state can borrow in different forms and in each case there is a limit beyond which it cannot go consistent with its own safety. Let us consider these forms of borrowing and the limit in each case:

(a) Issue of Paper Money. It is called a forced loan. Now, it is admitted that inflation is a very dangerous weapon; we are soon caught in a spiral of rising prices. If carried to an excessive limit, the paper money will become worthless and the entire economic life in the country will be paralysed. This is what happened in Germany in the War (1914-18). There is a limit beyond which notes cannot be printed, the limit will be indicated by the rising prices.
(b) External Loan. In this case borrowing depends on financial stability and credit of the country. Few countries have unlimited national credit. The budget of each country can give some idea beyond which no nation can expect to borrow from abroad. The foreign government will be guided by the tax-bearing capacity of the citizens of the borrowing State and the per capita income in the country. No foreign Government will lend without a limit.

(c) Internal Borrowing. Here again there is a limit beyond which borrowing is not possible. The maximum limit is indicated by the physical saving possible. Theoretically it may be said that the government can borrow all what the people can save. Actually this would seldom happen unless, of course, the state is passing through a life-and-death struggle, that is when it is fighting for its very existence. But if government borrows all what the people save nothing is left for the finance of trade and industry. A continuous flow of new capital is needed not merely to maintain the existing capital intact but to create new capital, not merely to run the industry efficiently but progressively. If the government stops this flow or reduces it to a mere trickle, trade and industry will undoubtedly be hampered. We can, therefore, say that normally a state can borrow only the surplus funds i.e., funds over and above those normally required by trade and industry.

We thus come to the conclusion that whether a state borrows from abroad or from inside the country or merely issues paper money, in each case there is a limit and that limit cannot be crossed either without endangering the safety of the state or impairing the productive capacity of the nation.

7. Inflation as a Means of Raising Public Funds. A modern war has become so costly that it has become impossible for a country to wage it without having a resort to the printing press. Loans and taxes do not prove adequate. In the later stages of the War (1914—18), Germany almost exclusively relied on this source and it proved her undoing. In this War again, all belligerent countries had to tap this source, some more and others less. Even in England and America there was a considerable increase in note-issue. In India it had assumed dangerous dimensions and evoked spirited protest from twenty top Indian economists. Between September 1939 and March 1943 the note issue in India increased 80%. Thus note issue as a means of raising funds for emergencies has come to occupy a definite place in public finance.

But it is admittedly the worst means and one that is fraught with serious danger. This is not the place to discuss the adverse economic effects of the over-issue of paper currency. But we may emphasise that inflation or over-issue of notes has got an unsettling effect on internal trade; it disturbs international trade by upsetting foreign exchanges. It engenders speculation and imports an element of uncertainty into business relations. Thus it cuts the
very root of healthy trading which is based on the possibility of
making reasonable forecasts. In the words of Dalton, "doped by
artificial prosperity, they (businessmen) become first light-hearted
and then light-headed, miscalculate prospects, misdirect resources,
and launch enterprises which are economically unsound. The mere
cessation, sometimes even mere slackening in the rate of inflation
is enough, without any positive deflation, to break the illusion,
to destroy business confidence, to disappoint anticipation of demand,
and to put out of action sometimes for considerable periods, a large
part of the productive power which these businessmen control."
The steep rise in prices which follows in the wake of over-expansion of
currency causes incalculable hardship to some members of the
community. It hits hardest the poor consumer, the fixed inco-
mist and the wage-earner. The debtor-creditor relations are also
upset. The net result of inflation is to bring undue gains to some
and undeserved losses to many. "It is a paradise for speculators and
profiteers who are enriched through no effort of their own, partly at
the expense of wage-earners (prices go up by the lift but wages by
the stairs) but still more at the expense of those with fixed incomes."

The people’s confidence in the stability of the State is rudely
shaken. There is a flight from currency and this may ultimately
have dire consequences. The government is caught in a vicious
circle to come out of which is no easy task. Every extra issue of notes
raises prices; the government must find more money, therefore, to
make its purchases. This leads to more issue of notes and so on. It
is a very slippery road and government inflating its currency is heading
for an economic and political disaster.

But apart from these dangerous reactions of inflation, the fin-
ancial pundits have denounced it violently as being opposed to sound
canons of finance. It has been called a forced loan and also free of
interest, for the government by issuing notes equips itself with purchas-
ing power at the same time diminishing the purchasing power of the
people. If I have Rs. 1000-note and the government doubles the note
issue, the prices, according to the orthodox theory, will double and
my Rs. 1000-note will be able to buy goods worth Rs. 500 only.
There is no diminution in the amount of money that I have but its
purchasing power has gone down and money has no other use except
to help to buy goods and services. It simply comes to this that the
people are forced to place at the disposal of the government goods
and services which they could have purchased and this without
their knowing it. It is not only forced loan but a concealed loan.
It is the waving of the magic wand. Prof. C. N. Vakil calls it robbery.

The most fundamental objection to this mode of raising money is
that it violates the canon of equity or equality. When prices rise all
rich and poor pay high prices and they all buy at the same price.
If the price of sugar rises from 4 as. a seer to 8 as. a seer, the poor man
pays double the price along with the rich. But the rich can afford, the

\[1\] Thomas, S. E.—Elements of Economics, 1936, p. 671.
poor cannot. Inflation may be compared to proportional taxation. It pays little heed to capacity to bear. In its effects, therefore, it is regressive. The poorer sections of the community are compelled to make a larger contribution to state finances and they are the people who can afford to pay the least. This is sheer injustice. Wealth is redistributed in favour of the already rich.

Thus inflation is politically dangerous, economically disastrous and morally indefensible. Had it not been for the dire need in which the states sometimes find themselves in, this method of raising funds perhaps would never have been resorted to. It accentuates inequalities of wealth distribution; it paralyses the machinery of wealth production and even as a source of revenue it soon gets dried up.

3. Classification of Public Debt. According to Findlay Shirras public debt may be classified as under:—

(1) According to the period or duration of the loan. On this basis the debt may be permanent or irredeemable and redeemable debt, or short-term and long-term debt. In this connection a distinction is usually made between funded debt, unfunded debt and floating debt.

Funded debt. It is a debt which is payable at some distant date after due notice and in accordance with the terms announced at the time of floating the loan. The term is usually applied in the sense of permanent debt i.e., when the lender has no claim for repayment of the principal.

Unfunded debt. It consists of loans which are repayable on a definite date.

But as the time for repayment draws near the long-term loan becomes a short-term one and as Dalton puts it, "like a boat which securely beached on the shore, it is sooner or later floated off on the rising tide of the time."

Floating debt. It is the term usually applied to loans payable within a year such as Treasury Bills and Ways and Means Advances from the Central Bank.

(2) According to the method of floatation.

On this basis the loans may be voluntary or compulsory. In modern times all loans are voluntary. There are no forced or compulsory loans.

(3) According to the place of floatation. The loan may be internal when it is subscribed to by persons and individuals living under the government raising the loan. Or the loan may be an external loan when it is subscribed to by persons and individuals living abroad. The external loan may be changed into an internal loan when nationals buy the external loan in the open market. During this War (1939-45) government of India has been able to wipe off its external debt by means of repatriation schemes. The net result has been that the government has increased her internal indebtedness.
and with the money so raised external loans have been paid off. This is really the changing of external loan into an internal one.

The effect of an internal loan is merely to redistribute wealth within the community at the time of raising the loan and the repayment of the principal and interest. But when an external loan is raised the wealth is first transferred from the lending to the borrowing country, and at the time of repayment it is transferred from the borrowing to the lending country.

(4) **According to the purpose for which a loan is contracted.** The debt is productive if it is taken to finance some productive schemes like railways and irrigation. It is unproductive or dead-weight debt when it is not covered by any assets yielding revenue. A war debt may be called unproductive or dead-weight debt.

9. **Debt Redemption or Repayment.** Modern governments make it a point of honour to repay their debts. Debt repayment maintains and strengthens the national credit, so that if a national emergency arises later it will be easy to raise funds; the state finances will not be down pressed under a heavy debt service. It will also release funds for trade and industry. A civilised state must honour its obligations. Hence all states make adequate arrangements for the repayment of interest and the principal.

The following are some of the methods adopted:—

(1) **The utilisation of surplus revenue.** This is an old method but badly out of tune with modern conditions. Budget surplus is not a common phenomenon. Even when there is a surplus it is so insignificant that it cannot be used for making any material reduction in public debt.

(2) **Purchases of government stock in the market.** The government may buy its own stock in the market thus wiping off its obligation to that extent. It may be done by the application of surplus revenues or by borrowing at low rates if the conditions are favourable.

(3) **Terminable annuities.** When it is intended completely to wipe off a permanent debt, it may be arranged to pay the creditors a certain fixed amount for a number of years. These annual payments are called annuities. It will appear that during the time these annuities are being paid there will be much greater strain on the government finances than when only interest had to be paid.

(4) **Conversion.** This is a method for reducing the burden of the debt. A government may have borrowed when the rate of interest was high. Now if the rate of interest falls it can convert a high-rated loan into a low-rated one in this manner. The government gives notice to the creditors that they should either agree to reduce the interest rate for future payments or it will exercise its option of repaying the loan. In case the bondholders do not accept the lower rate, then the government will raise a new loan at lower rate of interest and with the proceeds pay off the old debt. The effect is to convert a high-
rated loan into a low-rated one. The financial burden is consequently reduced.

(5) *Sinking Fund.* This is the most important method. A fund is created for the repayment of every loan, by setting aside a certain amount every year out of the current revenue. The sum to be set aside is so calculated that over a certain period, the total sum accumulated together with interest thereon is enough to pay off the loan.

Apart from these normal methods of debt reduction, some unorthodox or revolutionary schemes for debt reduction have also been put forward. They include:

(a) *Debt Repudiation.* A government may refuse to recognise obligations incurred by a former government. Unless the government comes into power as the outcome of a revolution, such a revolutionary proposal will not be seriously put forward by any sane politician. It is usual for the governments to honour the commitments of the predecessors.

(b) *Compulsory Reduction of Interest.* This looks less offensive especially if the conditions have so changed as to make the high rates onerous. But it does not look nice for a civilised government to violate the sanctity of the contract. A democratic government will not lightly do it.

(c) *Steep Taxation of Higher Incomes.* We have already said that excessive taxation may have very adverse effects on trade and industry. It may dry up savings—a source of new capital. Industrial plant has to be renovated and reconditioned. Timely repairs and replacements are essential if it is to be kept in proper trim. Unless this is done progress of industry is sure to be hampered. It is very necessary, therefore, in the interest of the business prosperity of the community, that no financial measure should be taken which is calculated to check the flow of capital and business ability. Already the level of taxation has reached a high pitch. To make it still more steep will be to encroach upon the supply of capital essential for the maintenance and progress of trade and industry.

(d) *Capital Levy.* The advocates of the levy propose that there should be a special debt redemption levy called capital levy for the purpose of reducing the war debt. A law would be passed by which, "every man and woman of a suitable degree of wealth would be deemed to die and to come to life again next morning as the fortunate heir to his or her own property on payment of an appropriate ransom." Such a proposal found much favour just when the war (1914-18) was over. The psychological conditions favourable to the levy were present. But as the war receded, the enthusiasm of the advocates of this proposal was considerably damped. Administratively the levy is quite practicable but it cannot be carried through without general assent. The opinion of the Colwyn Committee on National Debt and Taxation appointed in 1923 came to the conclusion that, "even
if there were a prospect of a capital levy being well received the relief from debt which it offers would be insufficient to justify an experiment so large, difficult, and full of hazard."1

Several objections have been advanced against the proposal of a capital levy:—

In the first place, it is pointed out that it will damage both capital and credit. Trade and industry must inevitably suffer. This sort of confiscation is bound to shake public morality and check the flow of capital into industry.

In the second place, it proposes to penalise the thrifty. Those who have been extravagant cannot be touched by the state. They go scot free. The shadow of the levy must frighten away capital and discourage saving. "It would be a case of burning your house to roast your pig."

Thirdly, the capital levy is bound to depress trade, bring down prices and wages and cripple the borrowing powers of the businessmen.

Finally, there are bound to be administrative difficulties involved in a measure of such a nature.

In favour of the capital levy it was pointed out (a) that by relieving the exchequer of heavy burden of the debt charges, funds would be released for social services. The conditions of the masses can be vastly improved. This is not now possible for a big slice of the tax revenue is eaten up by the stock holder.

(b) That it would equalise the sacrifices made in the war by the rich and the poor. During a war, the rich remain at home whereas the poor join the army and suffer untold privations at the front.

(c) That it would be in conformity with the canon of equity. Those who are able to pay, will be made to pay.

(d) That it is much better to cut short the agony and pay off the debt at one stroke rather than go on paying for 200 years.

(e) That a capital levy is no more unjust than high taxation. Both belong to the same category. Both can be condemned as immoral and confiscatory. There is nothing immoral in the levy. Morality is only a relative term.

In face of such conflicting arguments, it is not so easy to give a verdict. Opinion is bound to remain divided on an issue like this. Our own opinion is that a capital levy is beyond the sphere of practical finance; there are really no short cuts to debt redemption.

10. Burden of Public Debt. In order to assess the burden of public debt we shall have to consider the nature and the purpose of the public debt. If the debt is taken for productive purposes e.g., for irrigation and railways, it will have no burden but confer a benefit provided the scheme has been successfully executed. But if the debt is unproductive it will impose both a money burden and real burden.

on the community and the measure of the burden will depend on whether the debt is internal or external.

The internal debt involves a series of transfer of wealth within the community. For example when the loan is raised, money is transferred from the lenders to the government, and the government then makes payments to contractors, government servants or to those people from whom it buys goods and services. Money is thus transferred from some sections of the community to other sections. In this case there is obviously no direct money burden of the debt.

But there will be a direct real burden (i.e., sacrifice, hardship or loss of economic welfare) on the community depending on the nature of these transfers of wealth. If by these transfers wealth comes to be more evenly distributed i.e., wealth is transferred from the rich to the poor, then instead of being burdensome the public debt will be considered beneficial. If, on the other hand, the public debt enriches the rich at the expense of the poor, it imposes a real burden.

Let us analyse carefully the nature of the transfer. In order to repay the interest and the principal of the debt, the government must levy taxes. The tax-payers pay and the bondholders receive. The bondholders are without exception rich people. But the tax burden does not exclusively fall on the rich unless it is very sharply progressive which is seldom the case. The tax burden falls on the rich and the poor both and in case of indirect taxes it may be more on the poor than on the rich. The net result is that the wealth is transferred from the poor to the rich. This means a net loss of economic welfare.

This burden is accentuated by the fact that the transfer is from the young to the old (the bondholders, the creditors of the government are generally advanced in age) and from the active to the passive members of the community. "Here," says Dr. Dalton, "if nowhere else in the sphere of public finance, the voice of equity rings loud and clear. There is also a general presumption, on grounds of production (besides on grounds of distribution) against the enrichment of the passive at the expense of the active, whereby work and productive risk-taking are penalised for the benefit of accumulated wealth." Thus internal debt has adverse repercussions both on production and distribution of wealth. This is its direct real burden.

Its indirect real burden will lie in the check it imposes on production. The production is likely to be checked if the desire and ability to work and to save are reduced. If the repayment of debt involves very heavy taxation, it is likely to reduce the ability and the willingness to work and to save.

What about the burden of an external debt? The external debt also involves a series of transfers of wealth but not within the same community like the internal debt. This makes all the difference. When the loan is raised, wealth is transferred from the lending to the borrowing country, and when it is repaid the transfer is in

the opposite direction. The amount of money paid by the debtor country towards interest and the principal is the measure of the direct money burden on the community. But if we want to know the direct real burden (i.e., loss of economic welfare) we shall have to consider the proportions in which the rich and the poor contribute in order to make these payments. The government will raise the required money by taxes. If the taxes fall largely on the rich, then the direct real burden will be less than it would be if the incidence is largely on the poor. The payments that we make to the foreign creditor gives him a control over our goods and services. He does not take away our money; it is of no use to him. He buys with that money goods in our country. An external loan thus sets up a drain of goods from our country. In the absence of debt payments these goods would have been enjoyed by ourselves. This means a diminution of an economic welfare and hence a direct real burden.

The indirect burden of the foreign debt lies in the check to production of wealth in the country. Taxes imposed in order to raise funds for debt payments may reduce willingness and ability to work and to save. The debt payments made by the government will reduce public expenditure in the directions which would have stimulated productions. Hence production may be checked.

It is sometimes said that debt payments to foreign countries stimulate production and create more employment. International payments can be made only by exporting goods. For this purpose a country must produce more. Thus production is stimulated but only in certain directions. There is no general increase in production and employment. Factors of production are limited. If they are needed in the export industries, they will have to be withdrawn from other industries which must consequently shrink. Thus there is only a diversion of resources and no net increase in production and employment.

**II. Indian Public Debt.** India occupies quite a happy position so far as her public debt is concerned. The bulk of her debt is invested in solid and lucrative assets like railways and irrigation works or is lent out to Indian Provinces and States.

Indian public debt has also been on the increase. In 1792 it was only £7 millions. The wars waged by the East India Company made additions to it and on the eve of Mutiny of 1857 it stood at £60 millions. On account of the Mutiny it rose to £100 millions in 1860. Since then there has been a steady increase in our productive debt. In 1900 our total debt was £200 millions of which £50 millions was unproductive. By 1914 the unproductive debt was reduced to a small figure of Rs. 3 crores. But the Great War (1914-18) meant a great increase in unproductive debt which in 1924 rose to Rs. 258 crores and the productive debt at this time was Rs. 700 crores.¹

¹ See our Indian Economics, 1945, p. 543.
Till 1939 a very large portion of our public debt was external. We know that external debt is a dead weight on the country whereas internal debt involves merely a re-distribution of wealth within the community. This is a less commendable aspect of our public debt. The extent of our foreign obligations was estimated in 1934 at £612 millions. It was estimated that Rs. 15 crores went out of the country every year in interest payments.

But it is very gratifying to note that our sterling obligations have now been wiped out on account of the financial transaction with His Majesty's Government during this War (1939-1945). The following figures show the change:

<table>
<thead>
<tr>
<th>March 31, 1938</th>
<th>March 31, 1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterling Loans and Railway Annuities Rs. 445 crores</td>
<td>Rs. 39 crores</td>
</tr>
<tr>
<td>Rupee Loans and Treasury Bills Rs. 484</td>
<td>1571</td>
</tr>
<tr>
<td>Unfunded Debt (Cash Certificates, Provident Funds, Savings' Bank Deposits) Rs. 229</td>
<td>320</td>
</tr>
<tr>
<td><strong>Rs. 1158</strong></td>
<td><strong>1930</strong></td>
</tr>
</tbody>
</table>

During the war India had a markedly favourable balance of trade. She had to recover a portion of her defence expenditure from His Majesty's Government. She had to incur a lot of expenditure on behalf of the Allies. The net result of all this was that a huge amount of sterling accumulated in England to her credit. A part of the accumulation was utilised for redemption and repatriation of Indian public debt. Our sterling balances on March 31, 1946 stood at £1330.

About 90% of Indian debt is funded or permanent. The floating debt largely consists of the Treasury Bills issued by the government which in 1940-41 amounted to Rs. 39.30 crores.

Till recently the Finance Department had no deliberate and systematic plan of debt redemption. The credit of having introduced the first systematic scheme of debt redemption belongs to Sir Basil Blackett who was Finance Member in Viceroy's Executive Council in 1924. He proposed to set aside every year Rs. 4 crores plus 180th of the excess of the debt outstanding at the end of each year over that outstanding on 21st March, 1923. The scheme had, however, to be suspended in 1933-34 when owing to loss of income due to depression and road competition, the railways ceased making any contribution to the general revenue. The provision for debt redemption was made for the payment of postal savings and postal cash certificates. Before, reliance was placed on the inflow of funds from these very sources for meeting these obligations. But regular provision has been made now since 1930. We see that our debt redemption arrangements are far from being scientific.

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12. War Finance. How should the war be financed? No dogmatic and simple answer can be given to such a question. Much depends on the total cost of the war, the duration of the war, the conditions in the money market and above all the psychological or political conditions. A course dictated under one set of conditions may have to be deviated from under another.

We may refer here to an old controversy: should war be financed by taxes or loans?

There are economists who have advocated the all-tax method and others who have advocated the all-loan method. Ricardo was an uncompromising exponent of the all-tax method. He was opposed to borrowing for war purposes, for it created a permanent deficit and made a heavy inroad into capital. The all-tax method is also advocated to bring home to the present generation what a war means so that its bellicose propensity receives a wholesome check. "The expenses of a war," said Gladstone "are the moral checks which it has pleased the Almighty to impose upon the ambition and the lust of conquest that are inherent in so many nations."1

The all-tax method is advocated on the ground that it would keep the war expenditure at the minimum level. The duration of the war, too, would be cut down to the minimum. It would rule out the possibility of inflation which is a necessary accompaniment of a modern war and which creates a host of problems causing a severe headache in the post-war era. This method will enforce vigorous economy in private consumption and this is what ought to be. It will make war an affair of the present generation and make it rightly suffer for its own mistakes.

But as against this view it is pointed out that no tax system can bear the tremendous strain of a modern war. Heavy taxation would reduce capital and adversely affect production. Heavy taxation may over-strain the loyalty of the influential upper classes. It may encourage the fifth column activities. The home front would thus crack. This the statesmen are anxious to avoid at all cost.

Loans, on the other hand, are more popular. The government can avoid unpopularity and damping of the enthusiasm of the people. No odium attaches to borrowing as it does to a tax proposal. The subscriber to a loan knows that he will receive more in interest than he shall have to pay in the form of taxation as his contribution towards interest payment. He may even stint himself of the necessities of life and work very hard and earn more in order to buy war bonds. This is bound to stimulate the war effort. Heavy taxation may impede production by encroaching on capital required by trade and industry. But the loans may stimulate production. The lenders will lend only the surplus over and above their own needs. Thus the industry does not suffer. The proceeds of the loan will be spent by the government in buying goods and services. This will give a fillip to trade and industry.

So here are two views: (1) Finance war by borrowing; (2) Finance it by taxation. Both these views are extreme and one-sided. The correct view is that we must use both sources viz., loans and taxes. Adam Smith said, "The want of parsimony in time of peace, imposes the necessity of contracting debt in time of war". Our view is that no amount of parsimony in time of peace will be enough to finance a modern war when it comes. Borrowing is essential. Borrowing becomes essential in another way. When war breaks out the government needs funds immediately; but the tax revenue will take time to begin flowing in; money must be borrowed to fill the gap. The right motto for the war financier is "tax to the hilt and borrow the rest."

There is a third source of war finance viz. created money or issue of paper money. It is a very dangerous weapon. It is used by all belligerent nations in a modern war. But it must be used sparingly and with utmost care. We have already discussed its evils (see section 7).

We thus arrive at three sources of war finance (1) Taxation, (2) Borrowing, (3) Issue of paper money.

13. Who bears the burden of the War, Posterity or the Present Generation? The cost or burden of the war may be the money cost or real cost. The money burden or the money cost of war means the total amount of war expenditure incurred. It is borne by those who contribute towards the war expenditure viz., the tax-payers (the present generation), the subscribers to the war loans (the present generation) and those who pay interest and principal (the tax-payers in the future generation). The real cost of the war on the other hand, means terror, anxiety, privation, bereavement, hatred and moral degradation.

Whether the burden of the war is on the present generation or on the future generation will depend on the methods adopted to finance the war and their economic consequences. So far as war is financed by the issue of paper money, the burden seems to rest on the present generation. The evil effects of inflation are likely to work themselves out in the course of one generation and it is not likely to leave any seeds which may sprout in the future.

It is commonly believed that taxation places the burden of the war on the present generation and the loans on the future generation. This is not necessarily so.

There is some reason to believe that taxation hits the present generation most. The tax-payers have to curtail their present consumption. The adverse effect of heavy taxation on industry may prevent its expansion and create a serious shortage of goods. But are we so sure that the adverse effects on production will not cast their shadow on the future generation? The productive capacity of the industry may be crippled to such an extent that production in the future will diminish. Heavy taxation may not leave any reserve for the replace-
ment and renovation of industrial equipment so that the future generation may be saddled with obsolete and inefficient plant. A check to saving and accumulation of capital in the present generation, which heavy taxation always involves, is bound to affect production in the future adversely. Thus the stock argument of those who advocate the financing of war by taxes so that only the present generation may be penalised does not contain the whole truth.

In the same manner, it is not necessary that borrowing should shift the burden of war on the future generation. When people in the present generation subscribe to the war loan, they have to curtail their present consumption and hence suffer. The war loans, too, draw off capital from trade and industry and to the extent, that the present productive capacity suffers thereby, the burden is on the present generation.

But there is no doubt that the floating of loans does render some relief to the present generation which would have to bear the brunt of heavy taxation otherwise.

In order to see to what extent the loan shifts the burden to the future generation we shall have to consider whether the loan is a short-term loan or a long-term one and also whether it is an internal loan or external loan.

If the duration of the loan is 20-30 years then it is extinguished in the present generation. Future generation is not at all touched. Only in the case of a very long-term loan, the future generation may be supposed to bear the burden of interest payments.

In the case of an internal loan it is very doubtful if the burden is on the future generation as a whole. No doubt interest and principal will have to be paid in the future and the people will have to be taxed. The tax-payers of the future have to bear the burden. But who receive the interest payments? The sons of the present stock-holders. It simply means that wealth is transferred from some sections in the future generation (i.e., the tax-payers) to some other sections in the future generation (i.e., the bond-holders). If the future generation pays, the future generation also receives. How can we say that the future generation bears the burden of a loan? It is certainly not the case if the loan is an internal one.

But if the loan is an external one, the future generation does bear the burden of interest payments and the repayment of the principal. Wealth is transferred from the debtor country to the creditor country. There is a positive drain of wealth at the expense of posterity. This burden is light during the war and in the immediate post-war years when business is brisk, prices are high and there is no unemployment. But when the inevitable depression comes the burden is increased manifold.

We may thus sum up: To the extent the war is financed by the issue of paper money the burden is on the present generation. In
so far as it is financed by taxation, the present generation suffers principally but the future generation may not escape the adverse effects of heavy taxation. Similarly, though loans have a tendency to shift the burden on the future generation, the present generation may also be affected by the Government borrowing. If the loan is a short-term one, the future generation is not touched. But even in the case of a long-term internal loan, posterity pays posterity and posterity does not suffer as a whole. Only in the case of an external loan the burden of the war is shifted to posterity. It is only in this way that we can make posterity pay for the war that we perhaps provoked and fought.
CHAPTER XXXVII

ECONOMIC RECONSTRUCTION

The Existing Economic System—Capitalism.

1. Outstanding Features of Capitalism. Before we can think of any alternative plan of reconstructing the economic order, it is essential that we thoroughly understand the implications and the working of the existing economic system which is known as Capitalistic economy, capitalism or capitalistic system.

The distinguishing features of capitalism as we have already seen, are (1) private ownership of the instruments of production; (2) their management exclusively for personal gain; (3) freedom of enterprise and contract; (4) class-conflict: Labour Vs. Capital; and (5) control going with risk.

Under the prevailing system nearly all farms, factories and other means of production are the property of private individuals and firms, and their unfettered freedom to use them or not to use them with a view to their own profit is recognised. The desire for profit is the sole consideration with the property owners when they deal with their property in any manner. Every body is free to take up any line of production he likes and he is free to enter into contracts with other fellow citizens for his profit. Although all modern States do impose certain restrictions in the interest of general welfare, yet even these restrictions leave a very wide latitude for the propertied classes to use their property in any manner they like, to start any business that they think most profitable to themselves and to enter into all contracts they think necessary to advance their interests. Webbs' definition of capitalism brings out the necessary implications of the system. They define it thus: "By the term capitalism or the capitalistic system or as we prefer the capitalist civilisation, we mean the particular stage in the development of industry and legal institutions in which the bulk of the workers find themselves divorced from the ownership of the instruments of production in such a way as to pass into the position of wage-earners whose subsistence, security and personal freedom seem dependent on the will of a relatively small proportion of the nation; namely those who own and through their legal ownership, control the organisation of the land, the machinery and the labour force of the community and do so with the object of making for themselves individual and private gains."

2. How Capitalism Functions. The capitalist economy is known as a government by price. It is the pricing process or price-mechanism which makes the functioning of the capitalistic system look almost automatic. The quality and the quantity of production is determined by price. When a certain commodity or service happens to be in greater demand its price will rise indicating to the
entrepreneurs a profitable field for their productive activity. The entrepreneurs rush in to supply that commodity or service in order to take advantage of the high profits made possible by the rise in prices. Labour and capital are diverted to the production of this commodity. Increased supply will then lower the price, which will then warn off the prospective entrepreneurs. Thus the nature and volume of production is indicated by the price.

Price also rations out the available supply of commodities among the various uses. If the supply is less than the demand, price rises and puts off the consumers whose demand is less urgent. In-case the supply is abundant the price will fall so that the entire supply is carried off the market. Price thus brings about an equilibrium between the demand for and supply of a commodity.

It is through the pricing process, again, that the available productive resources of the community are diverted into the most remunerative channels. The price of labour is the wage, that of capital is interest and that of land rent. Wherever the wages, interest and rent are high, the factors will have a tendency to move there. Without price mechanism it is difficult to see how the limited resources of the community could be put to maximum advantage. Price is the universal and an automatic indicator. "No far off economic Czar could wield any more impersonal or ruthless control over what shall be produced than does the price system."

The prices are ultimately paid by the consumer. The consumer is, therefore, the final authority. It is his judgment that decides what should be produced, where it should be produced and at what price should it be sold. It seems that the productive resources of the community are being used according to the isolated and un-coordinated decisions of the numerous body of entrepreneurs. But the fact is that these decisions are really governed by the scales of preference of an unorganised and even more numerous body of consumers. Every entrepreneur seeks to give the consumer maximum satisfaction for only in that way he can gain maximum profit for himself. "Profitability and productivity are identical ". Under the existing system there is no centralised control or conscious or deliberate direction of economic activity. The working is planless but the consumers' preferences when translated into effective demand by price somehow make everything fit in with the other properly. "Considering the fickleness of the public, the rapid vogue of styles and fashions and their even quicker oblivion afterwards, we may well marvel at the smoothness with which natural resources are worked up and made available for human use ".

3. Achievements of Capitalism. The supporters of capitalism point to the rich variety and abundant supply of goods and ser-

vices. The lure of profit compels the entrepreneurs to take risks, to conquer new fields and supply something which the consumer would like most. Standard of living has risen, comforts of life have increased and the life has become richer and fuller. This is the service of capitalism to society.

Secondly, the limited resources of the community are put to most economical uses with as little waste as possible for the person responsible for the waste receives prompt punishment for his miscalculation in the form of losses and bankruptcy.

- Thirdly, the richest reward under capitalism goes to the ablest, the most daring as well as prudent entrepreneur. A man who takes the initiative and shows an extraordinary resourcefulness and responsibility makes the highest profits. Nothing seems to be more just than that the rewards should be apportioned according to merit.

Fourthly, the consumers' control gives the system a democratic tinge. No body likes that his consumption should be dictated by some superior authority. In the capitalist economy an attempt is made to adjust production according to the consumers' wishes and not that the consumers have to consume what is supplied to them.

Fifthly, under capitalism control goes with risk. The capitalists whose stake is the largest, control the industry themselves. Nothing can be fairer than that.

Finally, if survival of the fittest is any criterion of the soundness of a system, then capitalism is indeed sound and strong. So many crises have overtaken the system, but it somehow emerges, a bit crippled no doubt, but victorious. Its adaptability to the changing economic conditions is indeed surprising. What greater proof do we need of its toughness and resiliency that the system has stood the strain of a war like the recent one tolerably well?

4. Criticism of Capitalism. Firstly, competition which is the cardinal feature of capitalist economy is a sheer waste. Colossal expenditure is incurred in advertisement and salesmanship simply to beat a rival. Resources employed by those who are defeated in the race go to waste. Cut-throat competition does not confer any corresponding social benefit.

Secondly, mobility of the factors which is essential to rectify most adjustments in the economic system is based on the efficiency of competition. But existence of friction legal, social and economic hampers free competition with the result that the factors of production often lie idle and the consumers do not get proper satisfaction although the entrepreneurs are enriching themselves.

Thirdly, the supposed harmony between the interests of the consumers i.e., the society and those of the producers does not actually exist. Lack of free competition, deliberate deceit practised by unscrupulous producers and the ignorance and the impotence of the individual consumer turn the consumer into an abject slave, victim of exploitation.
Fourthly, the recurrence of the trade cycles due to over-competition and over-saving leading to overproduction must be considered one of the bitterest fruits of capitalism. When production is unplanned and is being augmented by ever-increasing accumulation of capital, whereas the bulk of the consumers are being impoverished more and more, it will be a miracle if there can be a proper balance between production and consumption.

Fifthly, the workers who constitute the bulk of the nation have to live under a perpetual dread of dismissal. They have no sense of security.

Sixthly, capitalism lays undue emphasis on property rights as against human rights. Man, the first of God’s creation is treated like an ordinary chattel.

Seventhly, capitalism has sown the seeds of eternal social unrest by dividing the society into two hostile camps, labour and capital, who look sullenly at each other and are ever on the lookout out of an opportunity of a fight.

Eighthly, the extreme inequality of wealth distribution, and the inequality which is being accentuated as time goes on, is the most galling outcome of capitalism. As G. D. H. Cole remarks “There is a world of difference in terms of happiness between the high priest and the slaves in the temple of industry”.

Finally, capitalism is full of most mortifying anomalies, the few indulging in all conceivable luxuries and the majority living under semi-starving conditions; the crops rotting while human beings are starving; inside the factories machines are lying idle or are under-manned, whereas unemployment is raging in all its fury outside. These few points constitute a sufficient indictment of the present system. Ruthless exploitation of women and children, callous disregard of the aged, the sick and the unemployed and mercenary motives mainly governing human relations have all pricked the social conscience, and people are furiously looking round for alternatives to capitalism.

As an escape from intolerable conditions prevalent under capitalism, the chief alternatives suggested are: Planned capitalism, Socialism including the Communist plan and Fascism. We turn now to consider these alternatives.

5. Planned Economy. Since the last economic depression in which the world witnessed an unequally and unusual spectacle of starvation in the midst of plenty, the world has increasingly become planning-minded. It is no longer considered safe to let the economic system function automatically according to demand and supply. The danger of chronic maladjustment is inherent in the present system. Few people now expect that left to themselves the economic forces would bring about an optimum distribution

of the economic resources of the country to the maximum social advantage. As Sir William Beveridge remarks, "it is no more likely that the individualistic growth of many small separate businesses will produce an industry laid out on the lines of maximum over-all efficiency, than it is likely that the disorderly, uncontrolled activities of innumerable small property owners and builders will produce a planned town without needless corners, duplicate streets and traffic congestions". Planning is especially advocated for preventing the recurring maladjustments which generate a trade cycle under the present economic system.

But what is planning? There is a lot of confused thinking on the point. As Robbins says, "Strictly speaking all economic life involves planning....To plan is to act with a purpose, to choose, and choice is the essence of economic activity." But this is not the sense in which the term planning is generally used. Nor does planning mean rationalisation of industry or re-organisation of agriculture. In India the various departments of the Central, Provincial and State governments are preparing schemes for post-war developments. This is also planning in a sense, planning ahead. But such schemes do not convey quite accurately the essential idea underlying economic planning. Planning as understood by economists, implies centralised control and conscious and deliberate layout of the national resources with a definite end in view, all the economic aspects being definitely integrated and coordinated so that all duplication and senseless competition may be eliminated. Lewis Lorwin defines planned economy as a scheme of economic organisation in which individual and separate plants, enterprises and industries are treated as coordinate units of one single system for the purpose of utilising all available resources to achieve the maximum satisfaction of the peoples' needs within a given time." Or as Dickenson puts it, "Economic planning is the making of major economic decisions—what and how much is to be produced, and to whom it is to be allocated by the conscious decision of a determinate authority, on the basis of a comprehensive survey of the economic system as a whole".

The essentials of planning which emerge from this conception are:

(a) That it is to be conscious and deliberate with a definite aim.

(b) That there must be one single undivided authority which is responsible for planning and coordinating the various economic activities; delegation of functions is not ruled out.

(c) Planning must be of the entire economic field and not merely piecemeal planning.

(d) That the available resources are to be scientifically distributed with the sole object of general welfare.

Planning has crossed the realm of merely academic discussion and has become an essential plank of practical policy. The N. I. R.A. (National Industrial Recovery Act) of June 1933 gave the U. S. government a sweeping control over the various aspects of production. No body doubts the success of this measure. Planning has been even a more splendid success in Russia which has given her a first place in Europe and a second place in the world in industrial production. In Germany, too, where there was no state-ownership of capital planning removed unemployment, raised wages and developed agriculture. Without planning Germany would not have shown such a wonderful recovery.

6. Economic Planning in India. Several plans were put forward in India. The first, the most comprehensive and carefully thought out is what has been popularly called the Bombay Plan produced by eight top Indian industrialists. The plan aims at trebling the present per capita income in 15 years which, making an allowance for the increase in population in the meantime, will only mean the doubling of the per capita income. It has fixed targets to hit so far as production is concerned viz., increasing industrial production 500%, agricultural production 150%, income from services 200%. It aims at providing every Indian a balanced diet, 30 yards of cloth per head, a reasonable housing accommodation and fairly adequate educational and medical facilities.

Then, there is the 'Peoples' Plan' or the Royist Plan. It is more liberal in granting the necessaries of life but it is doubtful whether the various details have been carefully and scientifically worked out.

A plan known as the Gandhian Plan prepared by Principal Aggarwal seeks to translate into practice Mahatma Gandhi’s views about production and standard of living. It is based mainly on the development of village industries and excludes mechanisation.

The Government of India and the Provincial Governments have prepared their own plans. Not only do we need a good plan but a proper atmosphere for its successful execution and also an honest and efficient execution. A suitable change in the political structure in India seems to be called for so that cordial cooperation of the people is available.

It seems necessary to emphasise that the main aim of planning should be the raising of the standard of living of the masses. Therefore planning should not merely concentrate on efficient production but also equitable distribution. A comprehensive economic plan for India should cover reorganisation of agriculture, development of industries, means of communication and transportation, stabilisation of banking, marketing, foreign and internal trade, integration of agriculture and industry etc. To bring about a rational distribution of wealth reforms in the system of taxation will also be necessary. Social legislation providing social amenities to the poor will have to be passed.
Planned Economy can co-exist in any form of economy. Even under capitalism, planning is possible. All the paraphernalia of capitalism, viz. private property, individual initiative and enterprise may be permitted but a much greater state control will be necessary. All entrepreneurs will have to work under the plan. From the very nature of things, planning under capitalism can have only a limited success. It is also possible that there may be socialist economy without any pre-conceived and conscious plan. Economic policy may be one of drift. But planning if it is to be on a sure and stable footing, involves some form of socialism.

7. **Socialism.** Socialism, as an alternative to capitalism, has the widest appeal. A Swedish king remarked to his minister, "If one is not a socialist up to the age of twenty-five, it shows that he has no heart; but if he continues to be a socialist after the age of 25, he has no head." Socialism seems to have caught the imagination of youth all the world over.

But there is no complete agreement as to what socialism exactly is. It seems there are as many types of socialism as there are socialists. Socialism has been compared to a hat which has lost its shape because everybody wears it. An acquaintance with different schools of socialists will be helpful in understanding the essentials of the socialists' plan.

8. **Marxian Socialism or Scientific Socialism.** Karl Marx, who wrote his book Das Capital in 1867, the bible of socialism, is considered to be the father of scientific socialism, as he tried to put the theory of socialism on a scientific basis. The chief points in his theory are:

1. **Materialistic conception of history.** He seeks to explain every event of history on economic grounds. He gives an economic interpretation of history. All wars, riots and political movements have their origin in the economic factors. An appropriate political organisation corresponds to an economic stage. A capitalist economy, for example, will evolve a system of government which perpetuates and supports property rights.

He goes on to explain how capitalism will generate conditions which will replace it by socialism. The capitalists will grow in wealth as time passes, but will become fewer and fewer, the bigger whale swallowing the smaller one. Monopolies will be created, production will expand necessitating scramble for markets abroad. This will lead to an imperialist war, and one war will be followed by another more terrible than the preceding one till capitalism perishes in the conflict and the dictatorship of the proletariat will be established.

2. **Theory of surplus value.** Karl Marx says that the manufacturer gets for his commodity more than he has spent on labour and other costs. The excess of market value over the costs is the surplus value. This surplus is the creation of labour. It is created because labour is paid much less than is due to it. He characterises the appropriation
of the surplus value by the capitalist as robbery and exploitation. A commodity is simply crystallised labour or congealed labour.

9. Collectivism or State Socialism. The collectivists or the state socialists believe in parliamentary democracy and nationalisation of the means of production. They want to strengthen the political machinery, capture it and use it for the realisation of the socialists' aims and ideals. The powerful state engine will be utilised in production of wealth and its equitable distribution. State is to be all-in-all, and as soon as the socialists have captured it, they have reached the goal. The state will do for them all they want. Private enterprise will be put an end to. All production will be carried on by salaried state officials and profits will go to the state coffers and utilised for the uplift of the masses. The only difference between capitalism and state socialism is that under the latter means of production are owned and managed by the state instead of the private entrepreneur, otherwise the exchange mechanism of capitalism e.g. pricing, marketing etc. is retained.

10. Guild Socialism. The guild socialists start with a distrust in the state. They do not consider, as the collectivists do, that the state can efficiently run the productive machinery. According to the guild socialists the capitalists are to be expropriated. But the farms, factories and other instruments of production are to be handed over to the worker's guilds who are competent to organise and manage production efficiently. In other words there is to be self-government in industry. The state will simply supervise and act as the representative of the general body of consumers in fixing the price and looking after the quality of the goods produced.

The essential idea is that the ownership of the means of production is to be vested in the state but their actual operation is to be entrusted to the workers themselves. The state is simply to see that the consumer is not exploited or defrauded. They seek to do away with the evils of too much centralisation and the inefficiency of the bureaucracy in business. They claim that the decentralised system they propose to set up will ensure both real democracy and efficiency.

11. Syndicalism. Like the guild socialists, the syndicalists, too, do not believe in the efficiency of the state as an instrument for the realisation of the socialists' ideals. The state official, whatever the class to which he belongs, has a typical bourgeois mentality. He can never understand what the worker wants. He is in the habit of bossing over others. The syndicalists, therefore, are opposed to the strengthening of the state inasmuch as it will create so many petty tyrants. They propose to build up social, political and economic structure on a net-work of trade unions.

They do not believe that they can realise their aims through constitutional means. The state officials are too powerful. They believe in direct and violent action. Strike is their chief weapon. Even if the strike fails, it teaches the workers much useful lesson in the economic warfare. It builds up workers' solidarity and sharpens
their hatred for the capitalists. This hatred must not be allowed to cool. They advocate strike after strike and then at the end, a general and prolonged strike till the political machinery is paralysed and they are able to capture power. The syndicalists lay stress on the destruction of the existing structure and keep deliberately vague the post-revolutionary structure of society which they want to create. Their methods are destructive rather than constructive.

12. Communism. The present day communism, as is clear from the communist manifesto of 1845, refers more to the theory of the method for realising their ends rather than the society they wish to create. The communists lay stress on the formation of a net-work of communist organisations all over the country and the world, capture the key posts in other organisations and carry on their work silently adding to the number of adherents. When the party has become sufficiently strong then it will throw out the capitalists, capture governmental machinery and lay the foundation of the proletariat state. The state machinery will be utilised to crush all opposition and to expropriate the capitalists. The aim will be to create a classless society where there is no distinction of high or low, rich and poor. Having achieved its objective the state will become unnecessary. It will 'wither away'.

As for the type of structure of society which the communists envisage some idea can be gathered from Plato's Republic or Well's New Worlds for Old. The communists propose to abolish all forms of private property, not merely in the instruments of production but also in the consumers' goods. People will work according to capacity and get a reward according to need. Every body is assigned a definite job. He cannot choose his own occupation. No body will have a house of his own or a bank account. Every one will be a government employee; he will not be paid cash but he will get his meals in the State kitchens and live in State quarters. He will be provided commodities and services for consumption by the State not of his choice but what the State chooses to give according to production at the time. The bringing up of the children, their education and fixing up will be State concern. The pricing system will disappear. The State will control production, assign jobs, fix remuneration and prices of goods and services without profit motive. A very alluring dream indeed! In a communist society there cannot be a commercial crisis, unemployment, no distinction between rich and poor and no strife between labour and capital. The idea is obviously Utopian. The Russians in the early stages of their Revolution tried to put these ideas into practice, abolished money and exchange. But the system failed. Money economy had to be restored and price-mechanism revived. Different wages were paid to encourage and reward efficiency.

13. Anarchism. The communists' ultimate aim is to bring about a structure of society in which State has ceased to exist. It has 'withered away'. By anarchy in ordinary language we mean misrule, disorder, etc. But according to socialist nomenclature it
means negation of government because it is unnecessary. The communists hope that when the world has been purged of capitalism, greed, selfishness, aggressiveness, deceit etc., will disappear and in their stead self-sacrifice, service of others, virtue, sympathy, an attitude of give rather than take will come to prevail. Man will have been so much uplifted by then that police will be unnecessary. Courts of law will be superfluous. Is it surprising? Fabien reported about ancient India that there were no thefts and robberies and people did not lock their houses. So anarchists dream may be realised after all.

The social and economic life will be organised in autonomous bodies or associations and they will, through voluntary agreements, regulate their affairs. Each will respect the rights of the other and hence there will be no difficulty. The Government is to be like the policeman on traffic duty. When for certain hours during the day, the policeman is away the traffic regulates itself. Exactly in the same way the society will function. Another sweet dream! we owe this to Prince Kroptokin. According to anarchists, State is only needed to protect property or unjust gains of the capitalists or their ill-begotten wealth and plunder. When this goes the State goes with it.

14. **Fabian Socialists.** These socialists are men of literature like Bernard Shaw and so many others in England who sincerely believe that socialism is a question of conviction. If the people can only be convinced of the virtues of socialism, no power on earth can prevent its coming about. Through literary propaganda—novels, dramas, short stories—they carry on incessant struggle against capitalism and bring out the merits and the necessity of socialism. It is hoped that in course of time the world will come to believe in socialism and socialism will then without much difficulty come to prevail. They may not be far wrong. The English people have come to believe in socialism. They have placed the Labour Party in a strong position to carry out their socialist programme. The weakness of the ministry itself may stand in the way, otherwise the country has given them a clear mandate to go ahead. There will, of course, be squealing from the vested interests but the majority of nation apparently wished them god speed.

15. **Evolutionary and Revolutionary Socialists.** This is a division on the question of the method. The revolutionary socialists believe in a revolution. The path of evolution, they say, is long and uncertain. Who can wait so long? The revolutionary socialists think that no permanent achievements can be made by revolution. During the revolution such people manage to capture power who are ruthless, aggressive, unscrupulous, selfish and fond of power. Revolution throws everything in the melting pot and you do not know what will come out of it. The results are always disappoining and the clock of progress set back. French Revolution did not produce ‘liberty, equality and fraternity’ but a reign of terror.

16. **Socialists of the Chair.** These persons are socialists by conviction. They are generally professors of Economics and Political
Science, rather doctrinaire than practical. They have unparalleled opportunities of propagating socialist ideas.

17. The Essentials of a Socialist Scheme. We have made a very rapid survey of the various shades of opinions among the socialists. In spite of these divergences of opinion, in some cases very acute, it is possible to visualise a scheme to which the majority of the socialists would pledge their support. They all believe in abolition of private property in the instruments of production. Land, factories, railways, mines and every other means of production must be nationalised. Their ownership and control are to be vested in the State. So that the State provides work for every body. There is to be no private enterprise. Production is to be initiated and conducted by the State which will pay wages and other costs and appropriate profits. Interest and rent as payments to capitalists and the landlords will disappear. For the State is the capitalist, the landlord and the entrepreneur. All socialists, except the communists, are prepared to allow private property in the form of a house, furniture, household equipment and other consumers’ goods.

Living on unearned income is to be discouraged. Remuneration for work is to be according to the nature of work and is not equal. It will vary according to ability. A limited operation of the law of demand and supply in this connection is envisaged. There is thus no basis for the belief that under socialism all would be equal economically. No economic equality is guaranteed. What can be assured is equality of opportunity for all irrespective of rank. The State is to help a man to choose an occupation and make him fit for it.

The State is the authority in charge both of production and distribution. The allocation of the productive resources of the community will be determined according to the direction of central authority. The profits of production, instead of going into the pockets of a few private individuals go to the coffers of the State and are supposed to be spent in ameliorating the lot of the poor man by providing him, his family and children adequate medical and fuller and free education and ampler means of recreation and entertainment. Freedom from want is guaranteed and fear born of insecurity is to be banned. Every body is to be free to select his occupation and free to spend his income in any manner he likes. There is no regimentation. This, in short is the socialist plan.

For a long time definition of socialism as given by Webbs was accepted by the majority of the socialists. Their definition runs thus: “A socialised industry is one in which the national instruments of production are owned by public authority or voluntary association and operated not with a view to profit by sale to other people, but for the direct service of those whom the authority or association represents.” This definition does not correspond to the present notion of socialism, because it does not imply any idea of planning. The definition given by Dickens, therefore, seems to be better. According to him Socialism is an economic organisation of society
in which the material means of production are owned by the whole community and operated by organs representative of and responsible to the community according to a general plan, all members of the community being entitled to benefits from the results of such socialised planned production on the basis of equal rights.¹

18. Case against Socialism. The critics of socialism claim to pick numerous holes in the socialist fabric. Apart from some silly objections, which have been exploded since long e.g., socialism would ban religion, abolish marriage and family, dangling of Malthusian bogey to frighten the simple and ignorant minds, earnest efforts have been made to understand socialism and to point out some real dangers and difficulties.

The most important set of arguments advanced against socialism is the one against bureaucratic running of the economic machinery. Bureaucracy is considered to be inefficient in running a business. The civil servant does not feel the same keen self-interest as the employee of a private corporation whose tenure is not so secure. The civil servant knows he will get promotion according to seniority; no amount of alertness or extra work is going to push him up in the graded list. His main concern is to let the things go on somehow without a positive break-down. One thing he wants to avoid is public criticism. He will, therefore, take no bold risks and will be content with a moderate measure of success being guided by rule and precedent merely. Initiative and resourcefulness are at a discount. The business policy will be timid and unenterprising. There is routine and red-tape, a place for safe man of mediocre calibre and no room for extraordinary and dashing spirit. No first-rate work can be done by second-rate men. Such men are not fitted to achieve any remarkable success in business. A government department cannot claim to score success in business where rapid decisions have to be taken and bold policies are called for. The government personnel is not such which can conquer fields anew. The government can, and does, attract able men but conditions in government service are not congenial for the show of an extraordinary ability. The reward is not considered worth the trouble. All the defects of company management are magnified considerably. Bureaucracy will further mean bossism and loss of individual liberty, gestapo etc.

It is also urged that government cannot secure the huge amounts of capital which will be necessary for the efficient running and expanding of all industries and trades.

Under socialism there will be no automatic indicator for the most economical allocation of the resources of the community among different industries. Under capitalism there are consumers' preferences which through price-mechanism bring about an optimum distribution of these resources. Therefore under socialism it will be all groping in the dark. Some commodities will be

¹ Dickenson, H. D.,—Economics of Socialism, 1939, p. 11.
produced in excess and wasted and there may be a shortage of others resulting in unsatisfied demand. A chronic maladjustment in demand and supply is feared. The task of organising production, of allocating every acre of land to its proper use, to set every worker on the right job and to invest every rupee in the direction of maximum efficiency is too big to be performed by any single authority.

Under capitalism the consumer enjoys sovereignty. Of course this sovereignty is limited by his income, existence of monopoly etc. yet the domain is wide enough for him to pick and choose. But under socialism he will lose this sovereignty altogether. Consumption will have to adjust itself to production. This loss to the consumer is a real loss. He will not be able to maximise his satisfaction. Socialism always, therefore, means hardship, sacrifice and privation for the consumer. The State will no doubt fix the prices but it will be all arbitrary. The price fixation will be rigid and will lack the resiliency of market mechanism, which is sensitive to even the slightest change in the consumers’ preferences.

It is also feared that incentive to hard work and stimulus to self-improvement will disappear altogether when personal gain or self-interest is eliminated. People will not give their best. Inventive ability, enterprising spirit and the go-ahead attitude will languish, and creative work will become impossible. It is remarked that “a government could print a good edition of Shakespeare’s works, but it could not get them written.”

Another charge against socialism is that with the freedom of enterprise disappears even the free choice of occupation. Workers may be assigned certain jobs and they cannot change without the consent of the planning authority. Otherwise the plan may be upset. Every worker is dovetailed in the scheme and he must keep there. This loss of freedom may be really galling.

Some people have been disappointed in socialism, because in Russia where it has been in operation, it has failed to bring about an economic equality. The difference between the rich and the poor is still there. The dream of a classless society is far from being realised. The workers under capitalism e.g., in America and England are not so worse off. They enjoy a higher standard of living. People are not convinced that under capitalism poor go on becoming poorer. The rich are no doubt getting richer but the lot of the poor is also undoubtedly improving. So some degree of scepticism in the efficacy of socialism as a panacea of all social ills has grown and damped the ardour of some enthusiastic socialists.

That under socialism there is no unemployment is conceded but the critics retort there is also no unemployment in a jail. They regard a socialist state as one big prison house and do not think employment is any compensation for loss of liberty.

1. Pigou—Capitalism and Socialism, p. 80.
It may also be pointed out in the end that Marxian socialism is not so scientific after all. Labour is not the only cause of value and has not the sole right to its appropriation. Few are convinced of the accuracy of Marx's materialistic interpretation of history. Economic motives are no doubt the strongest but they are not the only ones to sway human sentiments.

19. Answer to Critics of Socialism. This looks a formidable array of arguments against socialism but not so formidable as it seems. The strength of socialism lies in the proved evils of capitalism. The world is periodically plunged into depressions causing so much dislocation, unemployment and suffering. Capitalism has not been able to ensure stable trade conditions. National resources have been exploited for personal profit. Human beings especially women and children have been used as so many machines simply to enrich the capitalists. Who can help hearing the 'Cry of the Children?—

Will you stand, to move the world, on a child's heart,—
Stifle down with a mailed heel its palpitation,
And tread onward to your throne amid the mart
Our blood splashes upward, O gold heaper,
And your purple shows your path! (Elizabeth Barret Browning)

The social conscience feels outraged at the sight of a poor family working the hardest, not getting sometimes two square meals a day, dressed in rags, living in dirty cells and children dying because they cannot buy medical aid or milk. On the other hand, the rich are rolling in luxuries, their horses and dogs are better fed and housed than their fellow human beings. They perhaps think the poor man is not after all a human being; he is some other specie. A system which produces such iniquities and callousness stands self-condemned.

Look at the alternative. Socialism bans trade depression and removes unemployment which under capitalism always hangs over workers' heads like Democles' sword. A great worry is off. Free choice of occupation under capitalism is a farce. Who can really choose his occupation? The choice is limited by his parents' means and influence. Sometimes a man would like to get any work that he can. But there is no work. Capitalism regards him a part of the scrap heap. Who would not like to be put on to job compulsorily rather than face enforced unemployment and starvation? A socialist state provides permanent and pensionable job for everybody according to his aptitude and capacity.

A socialist state can allocate the resources of the community among the various uses with the sole consideration of social security and welfare. Consumers' wishes have to be replaced by higher social valuations. It is possible that at one stage there may be a shortage of some type of consumers' goods but this is deliberately done in the higher interests of the society taking a long range view. Surely there is no harm in making a temporary sacrifice so that we or our children
may be able to enjoy better standards later. Only a socialist state can build up a solid foundation for the country’s strength and prosperity. The policy of a capitalist economy is a short-sighted one guided by the immediate gains of the entrepreneurs.

Under socialism vast funds can be devoted to the expansion of education of all types, provision for adequate medical facilities, rationalisation of industry and reorganisation of agriculture. The result is that human and material resources of the nation are immensely improved. The socialist state can easily find vast sums because the profits of industry, which under capitalism go to enrich the already rich and surfeited, are pooled in the state treasury. Many things the consumption of which is considered essential for health and efficiency may be supplied free or much below the cost. No doubt consumption is regimented and it is curtailed in certain directions, yet there need be no hardship, for it may be expanded in some other and more desirable directions. A socialist state can provide free milk for children, free nursing, free education and free medical aid. It can give free cinema shows for the workers and provide for them swimming baths, recreational clubs, free railway passes to week-end resorts and light refreshment in the factory gratis. But a capitalist only looks to his dividend. Such things are impossible in a capitalist economy, where lure of the lucre rules.

Production of all types can be immediately increased by a socialist state. The achievements of Russian five-year plans are a standing monument as to what can be achieved by people who not long ago were illiterate, ignorant, backward, conservative and poor peasants. Russia, too, like us was a country of small farmers almost all illiterate. Now there is nearly cent per cent literacy and in production Russia has beaten every other European country which started in the race of industrialisation nearly one century ago. This is due to the fact that it is only in a socialist state that planning can be really effective. We have seen that in the war there was no unemployment and production figures have shot up to a level which would have staggered not long ago. This is all due to the fact that all phases of economic life are under the central state direction. A socialist state does exactly the same thing in peace times. It mobilises all the resources of the community in the most effective manner. Dangers of bureaucratic management have been exaggerated. There is lot of red-tapism in a company management even under capitalism.

A socialist state can also regulate the credit and banking operations so that financial maladjustments are eliminated.

As for incentive to hard work, a socialist state can, by persistent propaganda and through instruction in the educational institutions change the psychology of the people and create new scales of values. It can offer production bonuses so that every worker does his best. Who will do the dirty and disagreeable work? The socialists’ answer is that most of it will be done by machinery. Machinery is not being put to such tasks now simply because man is cheaper
than machinery. Thousands of semi-starving people are available under capitalism to do such jobs on a small wage, because capitalism has impoverished the masses to such an extent. But a socialist state, not working for profit, will be in a position to relieve man from all dangerous, dirty and degrading jobs.

Socialism may not be able to make every body economically equal. This is due not to the lack of organising ability in a socialist state. The cause lies in the innate inequalities among human beings. Nature does not make every one alike. Every one is endowed with varying degrees of intelligence and working capacity. No state can help it. It is not a matter for legislation. But a socialist state can discover the aptitude and ability of each citizen and develop it further by training and education, so that every citizen is enabled to make his best contribution to the welfare of the state. Real worth will not be allowed to be suppressed or depressed by poverty. The socialist state can pick up genius even from the lowliest of families and provide it with fullest facilities and opportunities. If, therefore the attainment of economic equality is not considered feasible, at least equality of opportunity can be assured to each and this is no mean achievement. There can also be a considerable levelling up of the masses.

The balance seems to be heavily tilted in favour of socialism.

20. Progress of Socialism. Pigou remarks, "If we take, as our representative of capitalism, the actual economic arrangements ruling in this country now and leave socialism a vague concept, we are tilting the balance against capitalism. For we are setting a nude figure, with all its blemishes patent to the eye, against a figure, that is veiled." But figure is no longer veiled. There was a time when socialism was only to be found in books like More's Utopia or Plato's Republic or was sought to be put into practice by idealists like Robert Owen. Small communistic societies e.g., Harmony, Oneida Community etc., were established. But the founders were bitterly disappointed. They were just a few oases of socialist brotherhood in the vast desert of competitive capitalism. They existed within the capitalist states which maintained law and order. The modern socialist wants socialism to be all-inclusive in a country and no small patches scattered hither and thither.

Socialism has now emerged from the utopian embryo. It is no longer a matter of economic theory but has taken its stand on practical politics. The communist manifesto of 1848 created a sensation by its clarion call for a union of all the workers of the world. It called for a revolution and said that the workers had nothing to lose except their chains and they had world to win.

Since then socialism has been winning adherents all over the world. Jewish refugees from Germany established in Cyprus several communities run on socialistic lines. Spread of socialism has been

1. Pigou—Capitalism and Socialism.
phenomenal in recent times. In the German elections of 1919 the socialists secured nearly 50% votes. Nearly one-third of the British electorate in 1924 voted for the Labour Party, in 1935 the percentage rose to more than 40. In 1945 they have returned them with solid majority. In France more than one-third of the Deputies in 1936 were of socialist views. Spain had a socialist government which was ousted by General Franco through an unholy alliance with Hitler and Mussolini. General Franco's throne is again shaking. The splendid success which has attended the Russian arms in the recent war and the way they turned back Hitlerian hordes as no other nation could, has won the unstinted admiration of the world. Its necessary consequence is that almost all European countries have gone 'red'. The governments in Italy, Bulgaria, Yugoslavia, France, Austria, Poland have all socialistic leanings.

In the East in China, the communists have a parallel government of their own. Thus in the East as well as in the West the gospel of socialism is finding a ready response.

Indian intelligentsia, youth and leaders like Pt. Jawahar Lal Nehru actively believe in some form of socialism. There is nothing to fear. The movement need not be a sudden revolution accompanied by all the horrors that a revolution brings, but the change can be gradual and by peaceful means. All socialists do not believe in revolutionary and abrupt changes. For a long time all thinking elements have been every where in favour of increasing nationalisation of the principal means of production. All the monopolies can without any remorse or provoking a protest be nationalised. When an industry has become set and has been reduced to a routine, private enterprise is really out of place, and it should be taken over by the government so that the profits can be secured for the community in general. Proper sphere for a private enterprise is in new industrial fields, where initiative counts the most.

The credit for creating enthusiasm for socialism belongs to Russia. It will not be out of place if we note a few facts about the Russian experiment.

21. The Russian Experiment. The Russians made their 'Red' Revolution even before the world war No. I had come to a close. The leaders of the Revolution inspired by Marxian doctrines of socialism started with a revolutionary programme. Capital and land were nationalised without any compensation. 'Kulaki,' the rich landlords were sent into exile. Production and distribution were completely centralised and money wages were abolished.

But the system did not work. Lenin in 1921 introduced the new economic system which has been called a strategic retreat. The leaders realised that they had overshot the mark. Thus followed a policy of compromise. Private ownership in land was recognised to a limited extent and private farming was allowed side by side with collective farming. Private enterprise in trade and industry was also permitted alongside with state enterprise. Instead of whole-
hag communism, a practical sort of state capitalism was created. Thus a variety of industrial and trade organisations grew up consisting of purely state undertakings, mixed state and private undertakings and those which represented leases and concessions to the private entrepreneurs from whom the state received royalties. Money wages were also restored.

During the early years of the Bolshevik era, poverty and misery reigned. The volume of production had shrunk to a fraction of the pre-war figures and the standard of living had considerably fallen. But work of rehabilitation was going on and by 1927 the pre-war levels were touched. In 1928 was inaugurated the first of the five-year plans which fixed targets for agricultural output and heavy industry. Policy of collectivisation was vigorously followed. Good-sized farms were created. Loans were advanced and machinery placed at their disposal. There was an enormous increase in agricultural output. It was nothing short of an agricultural revolution. In 1933-34, however, the pace of collectivisation was slowed down and individual profit making was permitted to some extent. Stalin followed a very realistic policy. He made a full use of human psychology which desires power, influence, fame and reward. Badges of honour were awarded to industrial leaders, bonuses and prizes were given for more efficient work. A spirit of rivalry and emulation was introduced among the various industrial groups and the whole thing was changed into a game where the team or group worked for honour. Production was speeded up and under the direction of Gosplan (Planning Commission) the targets were hit. When semi-civilised, illiterate peasants who had never known how to work in a group were put into a new system, the civilised world looked derisively at Russia but when the first plan achieved its aims, it stood aghast. The tractor plants, the machine-making tools, automobiles and other heavy machines came out of the factories like mushrooms.

The second plan paid more attention to the production of consumers’ goods. In 1919 the number of tractors and combines produced was 34,900 and 45 respectively but the corresponding figures in 1930 were 470,000 and 137,800 respectively. The output of electricity rose from 5 billion k.w. in 1928 to 38 billion in 1937. The rail road mileage was 50% more in 1937 as compared with 1923. Illiteracy during two decades was reduced from 67.7% to 8%1.

Few countries can show such a dazzling record of achievements with such a poor human material. The Russians are enjoying a standard of living which they could not even dream of in the Czarist regime. No doubt it still compares unfavourably with other European countries. But Russia is still in the building-up stage. They had hardly completed their plans when they had to wage a war unparalleled in human history and they had to bear the brunt. Had this war not intervened they would have added a big bunch of feathers on their cap.

1. Moore and others—Modern Economics, p. 469.
The organisation of the Russian system is based on a net work of Soviets. (councils representing occupational and industrial groups) scattered throughout the length and the breadth of the country in rural as well as urban centres. These are knit into congresses which in their turn are federated into a supreme congress, the highest authority in the land. As it is too big a body, it functions through a central executive which is a bicameral organisation. Below it there is the Presidium, a legislative body consisting of 21 members and a council of Peoples Commissars which is a smaller body and is mainly an administrative organ like the Indian Executive Council or the British Cabinet.

22. How Russia Tackled Economic Problems. It will be of interest to know how Soviet Russia has tackled the various economic problems:

Private property. Private property in a house, a car, a few animals and other consumers' goods is allowed. A man is free to buy government bonds or securities or he can keep a deposit in the bank. Property of the amount of 50,000 roubles can be transmitted by inheritance. But living on unearned income is discouraged and all unearned income is subjected to very heavy taxation.

Pricing system. Some economists notably Misses, Hayek and Robbins are of the opinion that rational accounting is impossible under a socialist regime and that it is all groping in the dark. Misses regards socialism as a renunciation of rational economy. But there are other economists like Pigou who do not see any difficulty in this. Dickenson, too, is of the opinion that the capitalist apparatus of marketing and pricing can be retained in socialism. Russians have been able to fix prices of the goods produced. Costs of raw materials and wages, transports and all other costs are added and then a small % for a little profit. This gives a selling price. It is a little arbitrary and prices do not reflect intensities of consumers' demands, although some note is taken of the relative scarcities.

Supply of labour and wages. Labour had some times to be conscripted. But there are now ample facilities for technical training. Government is even prepared to bear the cost of training on the condition that the trainees after completing training work in government factories for four or five years on terms settled beforehand. Money wages are paid and there are variations according to ability, efficiency and nature of work. Standard wages are fixed after a thorough motion study and time study in order to ascertain the standard time required for a job, and efficiency premiums are given to better workers who take less time. If there is a comparative shortage of some type of labour, higher wages are of course offered to attract the right type and sufficient supply of labour. Workers are assigned definite jobs and they are not allowed to leave without the permission of the higher authorities. This restriction on
mobility is considered essential, otherwise the plan might be upset. Such restrictions were imposed in all countries during the war in the case of essential services. The workers could also be transferred from one place to another just like government servants. The government tries to adjust supply to demand.

Finance. The Russians had repudiated foreign debts and could not hope to secure foreign loans. They relied, therefore, mostly on created money. Paper money was issued by the state in enormous amounts. There was inflation with all the inevitable consequences, exorbitant prices and a very high cost of living. They also raised loans from the people. Every worker had compulsorily to subscribe to the state bonds a certain portion of his monthly earnings, of course, in easy instalments. Later on, income from the socialised industry flowed in and helped to finance the later stages of planning.

Interest. Russians have not abolished interest altogether. The government itself pays 8 to 10% interest on the state loans. The high rate of interest shows an attempt to bring the demand for and supply of capital in equilibrium. The banks also pay interest on personal accounts. Interest as remuneration to capitalist i.e., payment to private owners of idle money does not occupy an important place in Russian economy as private capital has practically disappeared. State borrows and pays interest and appropriates the profit of industry.

 Allocation of factors of production. The state planning authority tries to estimate the amounts of factors required for the target production in an industry and arranges for the supply. It is first decided which industries have to be developed and to what extent, and the factors are diverted into channels decided by the state authorities and not according to consumers' preferences. For example they concentrated first on heavy industries. Naturally there was a shortage of consumers' goods whose prices shot up. In our system factors of production would rush towards consumers' goods industries to make up for the deficiency. But a socialist state does not allow this diversion. Shortage would continue and rationing and price control would be introduced. In Russia the normal function of the price-mechanism which brings about an optimum distribution of resources, as judged by the consumers' valuations, is nullified by the state action. Thus the resources are allocated not according to the valuation of the consumers but according to the valuation of the state. The state decides what is best for the nation at a particular period of her life and arranges the distribution of resources accordingly. The consumers must adjust their demands according to production and the exigencies of the state.

23. The Fascist Plan. The chief author of the Fascist philosophy Mussolini has made his exit and his senior partner Hitler is also reported to be dead. All the same the economic system which they have bequeathed is well worth studying. It can be especially useful and instructive to those nations which are anxious to realise
the benefit of planned economy without nationalising the means of production.

The essence of Fascism is that private ownership of land and capital and other instruments of production is permitted but their operation and management is subjected to strict state regulation in the interests of the nation generally. Individual initiative and enterprise are there but they have to work under general state direction. Profit-grabbing and enriching at the cost of the community, exploitation of workers by the capitalists and also of the consumers is not permitted.

The evils of the unregulated markets are well-known. The Indian agriculturist has not been able to get a fair return for his effort and investment. What is the use of saying that wages are determined according to marginal productivity when actually the worker gets much less on account of his weak bargaining power? It is idle to proclaim the sovereignty of the consumer when actually he is treated worse than a slave. The monopolist fleeces him and the businessmen hypnotise him by advertisement and take the better of him. The Indian money-lender has been taking full advantage of the helplessness and illiteracy of the peasant and charging usurious rates of interest. During and after the world war (1914-18) the directors of many cotton mills in Bombay ruined the business of the company by their dividend grabbing propensity. These are a few instances of the evils of unregulated economy. This is how blindly the economic forces operate when left to themselves. Demand and supply formula which is supposed to furnish an answer to so many economic enigmas, assumes free and full competition; but does it exist anywhere? The existence of economic friction nullifies the working of exchange mechanism to the detriment of certain sections of society.

The Fascist State as a representative of the community must restrain the forces of evil. It must regulate the unregulated economy to prevent its injuring some people. The state cannot allow some of its members to make undue gains at the expense of others, simply because they are economically weak. The interest of the community stands paramount and interest of all others, capitalists and workers, must be definitely subordinated to the interests of the state. Competition is not allowed to run amok. For this purpose it is not necessary that it should launch ambitious enterprises of state capitalism. It need not take any risk of investment or undertake the direct responsibility of production and business management. But it is able through its coercive authority to plan production and regulate distribution in the best interests of the community.

It is clear that Fascism wants to get the best of both worlds. This system ensures all the advantages of capitalism viz., individual initiative and responsibility, incentive to make improvements, competition among producers lowering the costs, satisfying consumers' desire to maximise their satisfaction and producers' desire to get
profits etc. But the state controls capitalism to minimise its evils and regulates its proper working so that exploitation of the weak by the strong or injuring of the national interest in any manner is rendered impossible. On the other hand, Fascism borrows good points of Socialism avoiding its pit-falls. The Fascist state takes no risk of capital investment, does not overhaul the whole system throwing it in a melting pot. By leaving private ownership and management of the means of production in the hands of private individuals it avoids formalism, corruption, inefficiency, timidity, red-tapism, and bureaucratic management, but retains the resiliency, vitality, resourcefulness and adaptability of capitalist production. But it does the planning like a socialist state without much botheration and responsibility.

The supremacy of the interests of the community as distinguished from those of the individuals, the preservation of national harmony and the avoidance of senseless class antagonism and harnessing the resources of the community to further the highest interests of the nation are the most outstanding features of Fascism or state-controlled capitalism, as it is also called.

24. The Fascist Organisation. To facilitate and make effective the type of state control that a Fascist State contemplates an appropriate economic organisation is essential. In Italy corporatives or syndicates have been formed in each trade and industry including representatives of the employers, employees and of the Fascist party. There are local corporatives, provincial corporatives and the national corporatives. The employers and the employees have their separate organisations too. In each there is a corporative council, representing all the interests concerned, which is the supreme governing organ. The representative of the Fascist party in each council is there as a reminder that national interests are to be supreme in every decision. At the top of all corporatives is the National Council of Corporatives working under the Ministry of Corporatives. The National Council is responsible for formulating all economic policies and giving major economic decisions. It coordinates all economic activities in the country and lays down the economic plan and looks to its execution.

In Germany, too, self-governing bodies were organised in each industry and trade fully representing all interests involved. At the top there was the National Economic Council working under the general direction and supervision of the Minister of Economics. The National Economic Council was responsible for planning and regulating the entire economic life of the country and in making it work as one harmonious whole. Unlike Italy, separate organisations of the employers and the employees were not permitted. There was one organisation viz., Labour Front representing both sides.

25. The Fascist Control. A rigid centralised control of the entire economic life of the country is the most outstanding feature of Fascism. The resources of the community are distributed in accordance with a central plan. The nature and the volume of produc-
tion is controlled. There are restrictions on new capital issues so that the factors of production are diverted into such directions as are best desired by the state and not as necessarily indicated by the consumers' preferences.

Dividends are limited and profits very heavily taxed so as not to exceed 6%. Limitation of dividends makes for automatic building up of sound reserves for the industry. It not only creates a solid foundation but provides finances for its expansion from its own resources. Further, as there are restrictions on new investments, the government could raise cheap loans from this source. So long term rates of interest were reduced. Cheap money was, therefore, available for the government and industry.

As for the labour problems, strikes or lock-outs were strictly prohibited. Industrial courts settled individual disputes and the labour officials of the government decided disputes in which the whole body of the workers was concerned. The employers had to pay at least the wages fixed by the government. They could pay more if they liked.

In order that the entire industry may be effectively subjected to state control, each industry was ordered to form cartels so that on the eve of the war (1939-45) almost the entire German industry had become cartelised and could operate as one unit. It realised that to co-ordinate the activities of numberless scattered entrepreneurs was difficult. There was greater likelihood of evasion. The purpose of the control may be defeated. Cartellisation removes this danger. Working efficiency was improved and costs lowered. All the economies of rationalisation were realised.

Agriculture in Germany was shown a greater degree of solicitude for very apparent reasons. Agricultural Associations representing the landowners, the farmers and the tenants were formed. Marketing Associations were established. The result was an efficient organisation of production and most economical distribution. Prices were stabilised at levels which were considered remunerative for the growers. Imports from abroad were so regulated that the home producer was adequately protected. The country was helped to produce as much of a commodity as was desired.

Prices of other goods were also fixed not in accordance with consumers' preferences but in accordance with the expenses of production. This seems arbitrary but not the less rational than under competition. Considering the costs they are quite rational and the consumer must pay this price if he wants the thing. Market fluctuations were not permitted to ruin a producer.

A 'closed economy' like this involves a strict control of foreign exchange and foreign trade. The country is not cut off. But imports and exports were not governed by the motive of private profit but according to necessities of the State.
A Fascist economy allows the operation of demand and supply forces within reasonable limits. It takes away sting from socialism and takes out the fangs of capitalism. It lays the foundation of self-government in the economic sphere subject to the over-all direction and supervision of the state.

The Fascist experiment demonstrates how a democratic state can plan the economic life of the country so as to ensure maximum efficiency in production and maximum justice in distribution. It can do all these without incurring the odium of expropriating the capitalists and the landlords and without raising a bogey of a revolution. The measures enumerated above have been in operation in all countries during the last six years. We have in India foreign exchange control, price control and rationing, control over foreign trade and new capital issues and also the excess profit tax. Major part of our economic life is being ruled by Ordinances. The war is over but the controls will continue for some time. This is Fascism in action and it need not frighten us. Given the peoples’ government, this system can be productive of the greatest good of the greatest number. We want to industrialise India, reorganise agriculture, raise our standard of living. As a matter of fact we need an economic kaya kalap (rejuvenation). If we fight shy of socialism, here is another path if we choose to tread it.
CHAPTER XXXXVII

WAR AND POSTWAR ECONOMICS

I. General Principles of War Economics. A war economy is bound to be different in organisation from the peace economy for the simple reason that the objectives of the two economies are different. The peace economy aims at giving the maximum satisfaction to the consumers at as little a cost to the producers as possible. Maximum satisfaction for the consumer and maximum profit for the entrepreneur are the two governing factors of peace economy. But the aim of the war economy is to win the war at all costs and to win it as early as possible. War means a life-and-death struggle for the nation, and the ideas of maximum satisfaction and maximum profits for individuals are obviously incompatible with the objective of the war economy. Here is an occasion when the interests of the individuals must be definitely subordinated to the wider interests of the nation. Of course individual interests are not to be injured unnecessarily but they must be unceremoniously brushed aside if they, in any manner, impede the war effort. Win-the-war slogan is the loudest and victory over the enemy is the most dominant consideration.

The fundamental principles of Economics that we have already studied operate, no doubt, in the war economy too. Multiplicity of needs and scarcity of means face the war economist also. The war needs are multifarious but the resources to meet them are strictly limited, and the country must make again the best of these resources. Maximum advantage must be taken of them. As the resources are limited, we are compelled to choose so that the most urgent wants are satisfied first. If guns are more important than butter, the resources must be diverted to the production of the former. The war minister wants guns, aeroplanes, ships, automobiles, war materials and hundreds of other things; he must so distribute the resources that the marginal productivity towards the war effort is the same. The law of substitution and equi-marginal returns is in operation. Even a war must be conducted economically without any unnecessary cost, monetary or real. Therefore all the fundamental laws of Economics apply. But as the aim is different, war economy looks fundamentally different from the peace economy. For example consumers’ sovereignty, if it ever ruled economic activity, ceases to be operative in war and the normal functioning of the price-mechanism is held in abeyance.

A modern war is not merely the concern of the armies on the front. It is the entire nation’s affair. It is a total war. The war-like the one that has just ended has hit every individual in the community, and we have not seen the worst of wars, for every successive war is worse than the preceding one. The next war, if it unfortunately
comes, will begin with the atomic bomb and will use more and more terrible weapons as it rolls on. We shudder at the very idea. To win a total war, therefore, a total war effort is needed. Every acre of land, every person in the land and every factor of production has to contribute to the winning of the war. The farmer ploughing the field, the factory worker, the woman taking upon herself the domestic duties and thus releasing a servant to join a war duty—all contribute to the war effort. Some acts of omission *e.g.*, not travelling by rail also help the war effort. Truly *they also serve who stand and wait.*

Such a gigantic effort, if it is to be really effective, must be planned. The war office must plan every phase of war activity, *e.g.* the giving of food, the transport of food, the recruitment, training and transport of men, the medical supplies, the manufacture and transport of war weapons. The nation cannot afford to take risks. Too many boots and too few recruits, too many guns and too few men, too much of ammunition and too little of food, too many ships but too few soldiers—these are symptoms of bad war Economics. All men and materials have to be in the right place, at the right time and just in the right quantity. A decentralised economy depending on the multitudinous decisions and exertions of scattered and independent producers cannot achieve this. Too many cooks are sure to spoil the broth. A war economy has to be a planned economy. Individual initiative, enterprise and resourcefulness are encouraged and are given a due place. But every body has to work within a system and at a place assigned to him. Planning is absolutely essential for the successful prosecution of a war. Consumers must give up their choices, the entrepreneurs must put a brake on their desire to make profits and every body must be prepared to make a sacrifice and undergo some inconvenience. Economic dictatorship during a war is inevitable. Only in this way social iniquities due to war profits and rising cost of living can be mitigated, monopolistic restrictions on output brushed aside and a speedy mobilisation ensured.

2. Economic Mobilisation. It is not always that the general commanding the biggest army wins a battle. The success in the battle field depends on the effective utilisation of the armed forces, their right disposition and proper deployment so that the maximum weight of the armour is brought to bear upon the weakest spot in the enemy ranks. There is the right way and the right time of doing a thing. In the same manner, it is not necessary that a nation possessing the biggest war potential should win the war. Potentialities must be turned into actualities. Potential resources are of little use in a war. India is said to possess vast wealth but Indian industries languish for lack of capital. Unless, therefore, the resources of the nation, human and material, are mobilised in the quickest and the most efficient manner, victory cannot be won. Hitler had conquered the whole of Europe before the allies could mobilise their resources. If you knock down your opponent before he gets quite ready for the combat you score and the matter finishes. Hitler might have finished with England, if he had not
attacked Russia which was at a higher stage of mobilisation. You cannot just take hold of people and send them to the front or catch hold of women and put them on nursing duty. The new recruits must be trained before they can fight, the armaments must be manufactured before they can be used and food must be first grown, collected and transported before it can be consumed. There is thus a time lag and the nation which shortens it improves her chances of victory. During the war (1914-18) the U.S.A. took about a year before its war preparations were complete.

Also mobilisation has to be properly timed, otherwise the nation's normal life may be dislocated. The home front must also not be weakened. During the war (1914-18) too speedy mobilisation in France and Russia disorganised their normal life and put industry out of gear. Everything has to be carefully planned if confusion is to be avoided.

Let us see how this mobilisation is effected. The war needs men and more men, materials and still more materials. Men are needed for the various branches of the army, navy and air force and the other necessary personnel. In a country like India where there is a very wide margin of unemployment or under-employment, mobilisation of man power does not present much difficulty. Poverty-stricken Indian masses are a happy hunting ground for the recruiting officer. Lot of cannon fodder at exceptionally cheap rates is available in India. The Economics of slump is useful here. In Benham's words: "The more we consume the cake the larger it grows. The good fairy Propensity to consume aided by an expansionist monetary policy, waves her magic wand, the Multiplier, and labour and resources previously idle are drawn into employment." The joint-family system enables some members to be released for war without causing much dislocation. But besides this, the other recruiting grounds are the universities from which grown-up students can be attracted on the promise of a degree in lieu of war service or women who are not gainfully employed. Even children can be put on some jobs.

People retired from service, but still physically fit, are re-employed. But when a full employment stage is reached, and in some countries this stage may exist practically at the commencement of the war itself, their diversion from peaceful vocations will be essential. Compulsion may be resorted to. Just a minimum number of shops will be kept open.

Advantage can also be taken of the position in the allied countries. There, a sort of division of labour may be arranged e.g., America and England supplying weapons and China, India and Russia supplying soldiers. In any case men will have to be withdrawn from their normal peace time occupations and diverted into war jobs, besides the army, navy and airforce, e.g., building barracks, aerodromes, roads, producing armaments, ammunition and other war equipment. This diversion is bound to affect adversely the peace time production of consumers' goods. Sometimes soldiers have to be put on the
production of goods. German soldiers are said to have been working in the factories.

Not only manpower has to be diverted but also large quantities of civilian goods have to be placed at the disposal of the armed forces. This aggravates further the shortage of consumers' goods. While diverting resources from civilian to military purposes, therefore, it is necessary to make sure that the diminished supply of consumers' goods is equitably distributed among the community. Also as far as possible the diversion should not be effected through an inflationary device, otherwise cost of living will go up out of all proportions and the burden of the war will be inequitably distributed.

3. Effective Use of the Mobilised Resources Necessary. But mere diversion of resources is not enough. It is also necessary to make an efficient use of the old resources at the disposal of the war services and the resources newly diverted. They must be used in such a manner as to make the maximum contribution to the war effort. Their production must be maximised. There are several ways in which war production can be increased. Working hours may be increased and holidays may be cut down. The machinery may be kept working by the adoption of nightshifts. Restrictions imposed by the Factory Acts e.g., about the age of child workers and the employment of women may be relaxed. The technical efficiency of the workers may be increased by providing facilities for training. The over-all efficiency of the war industries may be raised by rationalisation including modernisation and concentration of output in the most efficient works thus releasing factors employed in the less efficient works for other war purposes. Benham states that in Great Britain 144,000 workers and some 45 millions sq. ft. of factory space was set free in this way. The Government may subsidise modernisation or allow liberal income-tax allowances for all such expenditure. The manufacturers are generally reluctant to spend money on capital investment which will be used up in the war or which may increase the productive capacity for which there may not be much demand in the post-war years. This reluctance must be overcome by suitable guarantees and inducements. The Government should also set up research agencies so that suitable substitutes are discovered for those articles which are likely to become scarce and also find use for by-products. Scientists have to be set on finding the new weapons, more deadly weapons, new processes, new materials etc. The recent war was brought to a successful conclusion for the allies by the discovery of the atomic bomb which renders huge armies, huge armada of ships, planes and tanks as absolutely useless. The scientist plays an important part in developing the war potential of the country.

4. Can Capital Be Maintained Intact During War? Larger resources can be placed at the disposal of the war minister if capital is not maintained intact. Repairs may be put off and renewals and replacements held in abeyance. The sums which are ordinarily
spent by the industrialist on such items may be used for increasing production of armaments and munitions. This is another source which can be tapped. But this device will be suitable only when the war is likely to last for a short time, otherwise it will prove a shortsighted policy, and will do more harm in the end. Production will be hampered. In a prolonged war capital must be maintained intact. Also, as soon as better machinery is discovered, it should unhesitatingly be substituted for the old and out-of-date machinery so that at any time war machine works at the highest pitch of efficiency.

5. Production is Standardised. Another method of increasing production is to standardise production and go on producing a few patterns. This especially applies to the production of consumers' goods. The consumers may be expected during a national crisis to forego a desire to enjoy variety. But in the case of war weapons it will not pay to go on producing the same designs. The enemy must be stunned by the production of newer and newer design weapons. As soon as a better design is discovered, it should at once be put forth in the productive process. It is clear, therefore, that capital goods will have to be continually produced. Machines to produce war machinery must be produced. Production will thus become more and more capitalistic.

6. Control over Foreign Trade. War materials and weapons can also be imported from abroad, from the neutrals as well as allied countries; especially when the purchases can be made without cash payments. To increase the war effort a control over foreign trade becomes absolutely essential so that no luxuries or semi-luxuries get in, and the available foreign exchange is utilised only for the importation of war weapons that a country cannot make or machinery for the making of war weapons or materials essential for the purpose or such of the consumers' goods which are absolutely necessary to keep up the morale of the people or food supply. Control on the export side is essential so that goods may not somehow reach the enemy. Such goods are exported which may be needed by the allies or which may be necessary for the payment of imports. A clear watch has to be kept so that no essential war materials leak out.

7. Price Control and Rationing. Still another source that can be tapped to increase the supply of war resources is the curtailment of consumption. The consumers have to make a sacrifice both in quantity and quality. The ideal arrangement is that the consumers get not a little more and not a little less than what is absolutely necessary to maintain the people in health and efficiency. It is possible to make the diet simpler, more balanced and therefore more nutritious and at the same time less expensive. A great saving can be effected. A vigorous campaign in favour of thrift and economy may be conducted. People may be exhorted not to give or receive tea parties or dinners, to reduce the number of meals or to reduce the courses in the meals, to dispense with domestic servants, to avoid
unnecessary travel. The savings so made can be mobilised through government loans and savings schemes. Experience shows, however, that economy drive cannot be successful if it relies on voluntary saving. A recourse to law is essential. By law, therefore, the maximum number of guests to a party is fixed and the number of courses in a dinner is fixed. A rigorous control is exercised on imports, means of travel etc. An elaborate system of controls, covering foreign trade, price control, control of company floatations etc., is built up which is supplemented by rationing and taxation measures so that consumption is reduced to the desired limits and more resources are placed at the disposal of the war office. As Mr. Rao puts it, "there must be a sharp upward rise in the national curves of both willingness to work and willingness to save."

Price control is essential, because scarcity is bound to push up the prices. The fixing of the ceiling prices enables the consumers of moderate means to make the purchases of essential commodities and services. The British Government was spending £100 million a year to subsidise the production or import certain necessaries of life to keep their prices within the means of the poorest consumer. As the price-mechanism determines the amounts purchased by the consumers as well as the direction of productive activity, price control becomes essential in a war. The government must see not only that the consumers get the necessaries of life at reasonable prices but also that the producers are able to buy raw materials and machinery at suitable rates. In the absence of a check on prices, they will go up to undreamt heights, lead to labour unrest, raise the cost of the war, necessitating inflation. Such undesirable consequences must be avoided at all costs. The prices fixed by the government will most probably be not equilibrium prices i.e., where supply and demand are equal. But that cannot be helped. Administrative machinery will be used to check evil consequences of the disequilibrium.

It is open to the government through taxation and borrowing to curtail consumption. Government can tax the non-essential articles and subsidise the essential ones. But such devices take time to produce the desired result and even then it is not certain that enough purchasing power will be released for war purposes.

There are different ways which can be adopted to achieve price control objectives. In some cases it may fix the maximum, in others actual prices or the government may simply fix profit margins. In the latter case prices will vary from firm to firm. This may not matter unless the goods are of a standard variety.

But price control without the control of supply is useless. The Indian experience has been that as soon as a control price is fixed, the commodity disappeared into the black market. It is very essential that the controlled commodity must be made available in the bazaar at the controlled rates.

It becomes, therefore, necessary that price control should be supplemented by rationing so that every consumer gets a share of
the scarce commodity, otherwise the commodity gets distributed according to the purchasing power of the consumers. Moneyed people monopolise the available supply. The government cannot allow the price to establish an equilibrium between supply and demand. Rationing is carried out in several ways. In the case of some commodities ration will be uniform and in the case of others it may vary. Sometimes the ration is fixed in terms of value. The commodities to be rationed have also to be selected. Rationing is very vexatious; it should be instituted in as few a commodities as possible. But it is better to introduce rationing at a very early stage. The success of price control and rationing depends on the honesty and efficiency of the organisation, otherwise it will mean, as in India, discontent, confusion and corruption. If control rates are effective and rationing is complete, then the consumers cannot spend more than a certain amount and all their extra earnings will be saved and may find their way into government bonds.

8. War Finance. 'In the realm of domestic economy of a warring nation, it is not money that counts but productive power and stocks of useful goods' (Mendershausen). If the wars could be won with money then the printing press would have been the only war weapon needed. War is won by men and with materials. But to secure them money is needed.

For this purpose government can levy taxes, raise loans and also issue currency notes. For a modern war all these methods of raising funds are used more or less. Taxation has to be within limits lest it should discourage earnings and take away an incentive for work. Besides, it takes time for the taxes to flow in.

Taxes are supplemented by loans. The loans may be internal, i.e., raised from inside the country from its own people or external. Besides being more costly than taxation, for the government has to pay interest, the incidence of loans is uncertain and presses more heavily on the poor than on the rich especially if it is an indirect tax. The interest payments have to come from the tax payer who is generally less prosperous than the bond-holder. But money can be borrowed from a foreign country. In this case the country mortgages its future revenues and the burden is shifted on to the posterity. The repayment of interest and principal will represent a net drain from the country.

The worst form of raising funds is currency inflation. It is most haphazard and regressive in its effects. It involves a country in a vicious circle out of which it may not be able to get out. The entire German economy was ruined by inflation in the war (1914—18). This time Germany did not resort to inflation. They rigidly curtailed consumption. Even the rise of wages was controlled and the profits of industry were diverted to state bonds.

England borrowed compulsorily bank deposits at a very low rate 1½% and the banks were given the option of withdrawing them when they liked.
Lord Keynes suggested the deferred pay system according to which income beyond a certain limit has to be deposited in a bank compulsorily to the extent of 70 to 85%. The savings account is blocked except for certain emergencies. These deposits can be drawn upon by the Government.

9. Cost of War. Money cost of war is represented by the total amount of money spent by the country on the prosecution of war. Great Britain was spending £15 million on war every day. Even India was spending Rs. 50 lakhs daily on war. This is the money cost. If the people are patriotic enough to place themselves and their property at the disposal of the government, the cost of war can be kept very low.

But the real cost of war is measured by the efforts, sufferings and sacrifices of the people. Millions of valuable lives are lost. Men with courage and daring are lost to the country which is consequently poorer for this. Land is scorched and buildings are destroyed. Health of the people may have suffered through reduced consumption and they become prey to diseases. The reproductive power of the community has been adversely affected. Technical progress has been checked. Capital investment has become used up. Investments in foreign countries may have been sold off. Money will have to be spent on reconversion of factors into peaceful production.

A great deal of this real cost is borne by the posterity. Their energies will be spent in reconstruction. They will be saddled with debt payments and they have been deprived of the help and guidance of men who have died.

ECONOMIC MOBILISATION IN INDIA.

Let us see how Indian economy reacted to the war and whether it was adapted to the war conditions on sound economic principles.

10. Indian War Finance. In the words of Dr. Jain, 'The War budgets of India are budgets of increasing expenditure, increasing revenue and increasing deficits.'

The aggregate receipts during 1939-45 were Rs. 1113 crores and aggregate expenditure Rs. 1598 crores, the receipts being twice and the expenditure thrice the pre-war figures. The defence expenditure in India rose from Rs. 46 crores in 1938-39 to Rs. 397 crores in 1944-45 which is eight and a half times the pre-war. India was spending Rs. 50 lakhs daily on the prosecution of war during the last six years. The total war expenditure during six years came to Rs. 1198 crores excluding capital expenditure of Rs. 150 crores and also excluding contribution by His Majesty’s Government amounting to Rs. 1374 crores. Including these the grand total would come to Rs. 2,722 crores. Considering the low taxable capacity of India and the standard of living, probably the lowest in the world, sparing such huge amounts for war must be considered a very creditable

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1. Jain, L. C.—Indian Economy during the War, 1944, p. 91.
performance. India had also to find 300-400 crores every year to finance expenditure on behalf of His Majesty’s Government.

The money needed for war was raised by taxation to the extent of nearly 50%. Among the new taxes imposed may be mentioned the Excess Profits Tax rising from 50% in 1940-41 to 66% in 1941-42, the surcharge of income tax rising from 25% in 1940-41 to 66% in 1943-44, an all round customs surcharge of 20% imposed in 1942-43, increase in the duty of motor spirit, and in duty of import of artificial silk, increase in excise duty on sugar, matches and tobacco and increase in postal, telegraph and telephone charges and in railway rates.

Taxation alone could not be enough. Resort was had to borrowing. A series of loans were issued, including Special Income tax free Defence Bonds, Defence Savings Certificates, Defence Savings Accounts, Twelve years’ National Savings Certificates etc. Viceroy’s War Purposes Fund was instituted for the receipt of gifts. The small savings scheme brought during 1944-45 Rs. 3 crores every month. The aggregate borrowing during the war amounted to Rs. 833 crores.

Another source was the issue of paper currency. His Majesty’s Government paid the Government of India sterlings for the expenditure incurred in India by the latter on behalf of the former. The sterlings were tendered to the Reserve Bank of India which placed them in the Paper Currency Reserve and increased its notes correspondingly. The rupee note issue increased from Rs. 207 crores in 1938-39 to Rs. 850 crores in 1943. This has been called the inflationary method of war finance, because purchasing power has been obtained through merely currency mechanism. The right principle is to obtain purchasing power by transfer from private individuals and not by creating an additional purchasing power. This method was condemned by 20 leading Indian economists who warned the country of its serious dangers. Anti-inflationary measures were taken by the government with the object of withdrawing purchasing power. The rates of E. P. T. and surcharges of income tax were raised. Savings schemes were instituted and prize bonds were issued. The payers of E. P. T. could deposit ½ of excess profits to which the government would add one-half; it would earn 2% interest and would be refunded either within one year of the closing of the war or within 2 years of the deposit. The government also declared war on speculators, restricted the payments of bonuses and commission by the companies and extended price control system. In raising money the Government seemed to have relied too much on short-term borrowing as is shown by an abnormal increase in treasury bills from Rs. 46 crores nearly in 1939 to Rs. 265 crores nearly in 1943.

On the whole, the Indian economy responded splendidly to the call of war. All loans were promptly subscribed. But war finance entailed a very heavy real cost on Indian people. Inflation raised prices and inflicted untold sufferings and privation on Indian masses.
II. Industrial Production During War. With foreign supplies practically cut off and the decision to make India the Arsenal of the Orient, a heavy strain was placed on Indian industries. The visits of Roger and Grady Missions and establishment of the Eastern Group Supply Conference gave a great stimulus was given to industrial production. By March 1942 twenty new projects were in various stages of execution involving in all a capital outlay estimated at roughly Rs. 12 crores provided by His Majesty’s Government. The Government was flooded with applications for extensions and starting of new enterprises. The value of orders handled by the Supply Department alone increased from Rs. 85 crores in the first sixteen months of the War to Rs. 118 crores in 1941, Rs. 223 crores in 1942 and in five months of 1943 to Rs. 142 crores. A very large range of goods was produced including automobiles, aircraft, mining trawlers, special steels, machine tools medical stores, drugs, dressing and several chemicals, silk for parachutes. Production of rifles was ten times the pre-war quantity, light machine guns 12 times, bayonets 17 times, small arms and ammunition 4 times-gun ammunition 27 times and guns and carriage 9 times and production of explosives even by 1942 had doubled. In 1941-42 the output of iron and steel was 50%, of cotton textiles 53%, of paper 59% above the 1938-39 level. There was an all-round increase in industrial output. Factories with very much increased personnel were working overtime; nightshifts were universal. Prices and profits were rising. The Indian industry experienced boom conditions.

The Government helped laying the foundation of several new industries, and articles which were imported before came to be manufactured e.g., chemicals required for sterilisation and clarification, bleaching powder, ammonium chloride, soda ash, caustic soda, disinfectants etc. A Board of Scientific and Industrial Research under Sir Shanti Swarup Bhatnagar, a distinguished Scientist, was set up. It has done very valuable work indeed in finding several substitutes, in the use of vegetable oils as lubricants, production of plastic materials, preparation of dyes, drugs and several chemicals. Several technical training schemes were introduced and 62,000 trainees were turned out since 1941. Orders for blankets, dasuti etc., were placed with small-scale industries. In two years 1941 and 1942 orders to the value of Rs. 15 crores were placed with them.

The Indian industries were supplying 90% of the military requirements. In this field too the Indian response was magnificent. Mr. F. R. Picot, New Zealand representative on the Eastern Group Supply Conference, remarks, “As one travels through the factories of India it is inspiring to find that as a counterpart to Britain’s famous we can take it, has risen the determined cry of Indian industry we can make it.”

2. Ibid.,—p.31.
3. Ibid.,—p.29.
But there are a few snags in this portion of our war economy. Bulk of the industrial activity being monopolised by the war authorities and imports being almost negligible, there was an acute shortage of consumers' goods. No attention was paid to the production of consumers' goods for civilian purposes. Government used its inflationary wand and secured for itself the necessary supplies leaving the civilians to shift for themselves. No attempt was made until nearly towards the end for controlling the prices of such goods or of their equitable distribution by rationing. There was excellent opportunity for placing the Indian industries on a sound footing by the establishment of heavy engineering and heavy chemical industries. A hand-to-mouth policy was followed. The sole aim was to secure military supplies. Thus only the war production and allied industries were expanded. Now that the war is over this part of our development will disappear. No permanent increase has been made in our industrial capacity. Thanks to this short-sighted policy, a splendid opportunity of industrialising India has been missed. As Dr. Jain puts it, "It has been more a matter of necessary production by placing orders with the pre-selected rather than a serious and scientific attempt of mobilisation of the industrial resources of the whole country."1 Australia before the war could produce only raw materials but she now produces bombers, fighters, destroyers and automobiles. With the resources that India commands a first class industrial revolution could have been effected during six years of war.

12. The Food Problem. As for food problem is concerned, India started with an initial handicap. India is not at all self-sufficient in matters of food. There is no home grown food for 13% of the population.2 According to Prof. Radha Kamal Mukerjee there is a deficiency of 423 calories in each man's daily ration. Dr. Aykroyd, the Nutrition Expert of the Government of India also bears testimony to the fact that a very considerable proportion of the population in India did not get, in normal times, enough to eat and still larger proportion did not receive a really satisfactory diet.3 India was, therefore, ill equipped in matters of food. It was not in a position to feed itself or supply food to any other country.

But the war brought additional demands on her limited food resources. India was called upon to feed the Middle East Theatres of War. In India herself a large number of American and British troops were stationed and also there were prisoners of war. All this meant a further strain. The conquest of Burma cut off the rice supplies. This proved to be the last straw. There was a sharp rise in prices keeping up the inflationary spiral. There was an acute food crisis in 1943 the like of which there is none in living Indian memory. Millions of people died in Bengal. In the words of Dr. Jain, "never was the consumer in India in worse plight than in the summer of 1943. The
whole country was parcelled out into innumerable black markets." Transport arrangements had almost broken down. The Bengal famine gave a thorough shaking to Indian public.

The Government set up Food Grains Policy Committee in July 1943 to prepare a plan of food production, procurement, distribution and prices on an All-India basis. A Central Food Advisory Council was also established. 'Grow-more-food' campaign was launched in all earnestness. During the first two years of the campaign the Central Government gave grants and loans amounting to Rs. 4,75,00,000 nearly. Five million acres of land were diverted from cotton to food crops. Three million acres of fallow land were also brought under cultivation. The government leased out 900,000 acres of its own land free of rent or at concession rates. There was an aggregate addition of 6 million acres yielding two million tons of extra food. The supply of fertilisers was increased from 30,000 tons in 1944 to 170,000 tons in 1945. Area under vegetables, was also increased yielding 2½ million tons of vegetables. The schemes for the development of fisheries, fruit growing and milk supply are also well under way. Price control and rationing were introduced but on account of lax and inefficient administration people on the whole had a very bitter experience. Hoarding was rampant. Even some provincial governments are said to have made profits out of peoples' misery.

Indian agriculture displayed a very little resiliency to meet the war needs. In India there is very little scope for extensive cultivation. But the very low yield of Indian crops shows that much can be achieved by the application of science to Indian agriculture. Much relief could also not be expected from diversion of non-food areas to the growing of food, for already in 1938-39, only 29 million acres were under non-food crops. Indian agriculture proved to be the weakest link in the chain. No improvements were made or reorganisation effected in Indian agriculture. The government had a command of purchasing power and used it. The civilians had to go by the wall. On the whole, the war has left very unhappy memories on Indian mind when food situation is considered.

13. Indian Foreign Trade during War. The Indian trade had to adjust itself to the requirements of war. Control of foreign trade as well as of foreign exchange was inevitable. A licensing system was introduced. Articles could not be exported without permission or license. The aim was to prevent the enemy countries acquiring these articles through the neutral countries. In the same way licensing of imports was deemed necessary so that only such articles were imported which were essential for war purposes, either because they were necessary in the manufacture of war materials or because they relieved acute shortage of some consumers' goods. Restrictions on imports were also necessary so that the limited supply of country's foreign exchange may be used to the best advantage and that no non-essential articles were imported.
The war brought about great changes in the volume, composition and direction of India's foreign trade. The value of exports rose from Rs. 172.4 crores in 1938-39 to Rs. 198.8 crores in 1942-43 and the value of imports in the same period fell from Rs. 163.0 crores to Rs. 106.9 crores. In the first year of war there was a striking increase in exports but they declined in the second year on account of the loss of Continental markets. But since then demand for India's goods rose from the allied countries and exports went on increasing. But India could not import much on account of shipping difficulties and the pre-occupation of the other countries in supplying war needs of their own region. The balance of trade became markedly favourable as is shown by the accumulation of huge sterling assets in London on our account. As for the direction of trade, the Continent of Europe and Japan were eliminated and our trade with Empire countries and America naturally improved. Our export trade with the Middle East countries received a great stimulus. The most noteworthy changes in the composition of trade were the larger proportion of manufactured goods and a decreasing proportion of raw materials in our export trade and a larger proportion of raw materials and a smaller proportion of manufactured articles in our import trade.

From the point of view of civilians the changes in trade were not favourable. Import of consumers' goods were decreased and the deficiency was not made good by increased production of such goods inside the country. From the trends of the trade it appears that the civilian population was not at all in the picture. There was a very serious shortage of goods which were of daily use to the consumers e.g., electrical goods, razor blades, boot polish etc. From this point of view an increase in manufactured exports was not welcome, for it simply accentuated the shortage. The wise policy would have been rigorous restriction on exports, a liberal license for imports and increased production at home.

14. War and Transport. Indian transport system made no mean contribution to the winning of the war. India came to serve as a base of operations against Japan. Soldiers and ammunitions had to be transported from one end of the country to another. But the Indian railways stood the strain wonderfully well. The conquest of Burma and the Japanese nuisance raids on the East coast diverted even the coastal sea traffic to the railways. An efficient system of rail communications had to be built up hurriedly in the Middle East to accelerate supplies to Russia and to prevent the anticipated advance of Hitler. For this purpose locomotives, wagons and rails were exported from India and it has been estimated that at the end of the War India will have to supply five or six thousand miles of railway track as well as several hundred bridge girder span.\(^1\) On the other hand, necessary machinery, locomotives and other railway stock could not be imported either because shipping space was not available or the manufacturers were busy in other work. Also, no re-

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pairs, replacements and renewals could be effected because the railway workshops had been diverted to war production and were now making motor vehicles, shell bodies, aircraft and munitions. The railways had, therefore, to do more work with diminished capacity. Not to speak of expansion of railway communications, there was actually a curtailment. Railways carried 30% more goods traffic and 17% more passenger traffic.

There were difficulties on the road transport too, for motor vehicles could not be imported on civilian account and there was a serious shortage of petrol.

The coastal traffic fared no better, as the boats and the ships were requisitioned and coastal trade almost vanished.

Already, India was ill-equipped in the matter of roads and railways and Indian marine was in a very undeveloped state. Further, there was one fundamental weakness in the Indian transport system viz., dependence on foreign supplies for locomotives, vehicles and steam ships. Indian transport system was, therefore, very vulnerable. Considering the number of passengers travelling on foot boards and increasing number of railway accidents, railway yards over-flowing with goods waiting to be carried, the system may be considered to have almost broken down. Otherwise millions of people would not have died in Bengal when food was lying rotting at railway stations in the Punjab and Sind. There would have been less of profiteering, hoarding, and less steep rise in prices. Here again the Indian economy adapted to war needs more by diversion rather than by expansion. If India had established heavy engineering industry, automobile and shipping industries, she would have faced the war with greater confidence. There is no dearth of men and materials in India. It is, therefore, really a pity that it was not done long ago. Surely a war was not needed to remind us of this urgent need.

15. Reaction of the Money Market to War. The declaration of the War is always a sort of nervous shock to the money market. People become panicky. When the war was declared in 1939 there was a rush for the conversion of notes into rupees. People wanted to hoard rupees. It was a symptom of loss of confidence in the stability of the government. The stock of silver rupees which stood at Rs. 75.87 crores in the Issue Department of the Reserve Bank on 1st September 1939 had fallen below the statutory limit of Rs. 50 crores to Rs. 35.1 crores on 21st June, 1940 and was still falling.\footnote{Jain, L. C.—Indian Economy during the War, 1944, p. 72.}

But it was only a passing-phase.

Besides hoarding, there was increased trade activity and demand for currency was very great. The government took several measures to meet the situation e.g., withdrawal of old rupees and the issue of new rupees with a reduced silver content, issue of more small coins having a larger proportion of alloy, the issue of new pice with a hole in the middle, the issue of one-rupee and two-rupee notes.
The most important effect of the war on Indian currency was the abnormal expansion of paper currency, the active note circulation being Rs. 182.3 crores on 1st September 1939 and Rs. 910 crores on 26th May 1944; an increase of 400%. This expansion of the note issue was facilitated by the increase in sterling assets of the Reserve Bank. Sterling securities are a constituent of the Indian Paper Currency Reserve which, together with gold coin and bullion must be 40% of the total reserve. Now, whereas the other constituents remained practically the same, there was increase only in the sterling securities. Thus the new note issue was backed solely by the sterling securities. Thus in Dr. Jain’s words, “the law has been observed in form but not in spirit,” for the framers of the Reserve Bank Act never contemplated such a situation. The over-issue of currency led to a phenomenal rise in prices especially of the necessaries of life some of which became five times as dear as before the war. The United States and the U. K. rigorously controlled inflation and there was a rise of only 35% and 66% respectively by the middle of 1943.

As far the reaction on the Indian banking system, the prevailing panic led to a run on the banks and hurried withdrawal of balances. The consolidated balance sheets of the scheduled banks showed in September, 1939 a decline of Rs. 512 crores in demand deposits and Rs. 6.98 crores in time deposits in their balances with the Reserve Bank. But confidence was soon restored. There was a very rapid expansion of joint stock banking in India during the war. Although the number of the Scheduled banks has not gone up appreciably, yet many new banks were started and the existing banks opened many new branches. The number of banking offices of Scheduled banks rose from 1277 at the end of 1939 to 1600 in June 1943. The war has, therefore, provided India with increased banking facilities though the expansion has been haphazard leading to overcrowding. Let us hope that the new banks will survive the shock of the suspension of hostilities.

16. Concluding Remarks on the Response of Indian Economy to the War. This very rapid review of Indian economy during the war shows that India responded to the call of the war in a very magnificent manner indeed. For her part she has won the merited admiration of all the major allies. Her splendid war effort has been duly and publicly acknowledged by the highest authorities. This in spite of the fact that she had certain initial handicaps. She was already underfed, she had industrial deficiencies and, judged from modern standards, she was but inadequately equipped with means of transport. The Indian economy has displayed wonderful resiliency.

But the transition from peace to war economy was not accomplished in conformity with sound economic principles. The war needs
were met not by development of resources but by merely diversion of resources. And this has been effected to the utter disregard of the very elementary principles of diversion namely that it should not impinge on the bare minimum required for the civilian population, that a too steep rise in the cost of living should be avoided and that it should not be achieved merely by monetary mechanism. The existing Indian resources were stretched to the utmost with callous, almost criminal neglect of civilian needs. The civilian population went by the board and millions of civilian lives in Bengal perished, the people went about naked and there was no cloth even to cover the dead. Suicides were reported almost daily in the press. The Indian poverty proved a blessing in disguise to the war authorities. Extra money was created in abundance and the monetary incentives were freely, and sometimes too freely, used to draw goods and services for military needs. Further, the policy pursued was a very short-sighted one. The immediate requirements of the war were kept steadily in view and no attempt was made to fill gaps in India’s industrial structure and remove the bottle-necks. Excellent chance of building up heavy and key industries has been thrown away, so that, within a year of the end of the war, India will get the word ‘as you were,’ the same middle class unemployment, industrial depression, the same dependence on foreign countries for consumers’ and producers’ goods, using imported cars, imported cycles, imported toilet goods, imported silks and so on. The pre-war economy of agriculture-cum-cottage industries will be restored to every minute detail. India will not have reaped any permanent benefit from the war in spite of passing through so much suffering and privations undergone to win the war. Much depends now how we organise our post-war economy.

**POST WAR ECONOMICS.**

17. **Social Problems Created by the War.** War creates several social problems. It vitally affects the population structure. By carrying away millions of youthful male lives, it creates a great disparity between the sexes. At the end of war there will be more females and less males in countries where the war has worked the greatest havoc. The marriage problem will become difficult. Girls will not find it easy to secure suitable husbands but men will have wider choice.

During the war marriage rate falls. Even the marriages that do take place are not consummated so that the birth rate declines. The countries which had to bear the brunt of the war will have fewer children. In the lowest classes the teacher may face several empty benches. Some teachers may have to be retrenched. There will be less demand for goods needed by children and new mothers e.g., toys, feeding bottles etc. This age-group which will be the smallest has been called a ‘hollow class’. At every period of its age the ‘hollow class, if it is a substantial one, will cause economic distraction. It will perpetuate ‘hollowness,’ for example when they reach the marria-
geable age, there will be fewer marriages and few births and new ‘hollow classes.’

War has been called the father of epidemics. ‘It provokes, propagates and aggravates infectious diseases’. During the war people have to bear an abnormal mental and physical strain. The food rations are cut down to the minimum and the vitality is lowered. The war generation is so much tired and exhausted that it falls an easy prey to diseases.

A very liberal expenditure in public health and medical aid will be necessary so that effective preventive and curative measures are taken to fight disease and epidemics.

The demon of war delivers its blows not only on the present generation but also on the generation to come. They have to support the disabled soldiers, the widows and the orphans. Huge expenditure will be needed for rehabilitation and reconstruction of what has been destroyed by the enemy action. In case of the vanquished there is additional liability to pay reparations. The bill of Death is, therefore, not paid off as soon as the war has terminated. Still more suffering and sacrifices follow the cessation of hostilities.

18. Economic Consequences of the End of War. When ‘cease fire’ order is given, it is not to be thought that the nation is out of the wood. Well has Clemenceau remarked, “The making of peace is more terrible than the making of war”. The post-war period bristles with problems not less arduous, nor less confusing than those of the war. Statesmanship of a very high order is needed to tackle the problems of peace. The war had created employment for about four million persons of which nearly half was accounted for the armed forces alone. But soon after the war is over, the soldiers will be discharged, the war factories closed, the flow of war orders abruptly stopped and several departments brought into existence during the war will see the axe of retrenchment coming, and the extra personnel taken on by the civil departments will shortly receive notice to quit. The war profits, family endowments and war bonuses and allowances will cease to flow. And as soon as the unsatisfied consumer’s wants have been met, economic stagnation will face the nation.

19. A Sound Demobilization Policy. If the economic distress which generally follows in the wake of the end of the war is to be avoided a sound demobilization policy is necessary. Just as over-quick mobilisation when the war is declared may cause dislocation, similarly the too quick demobilisation is also likely to have very serious repercussions. Therefore it is very essential that demobilisation should be as gradual as is consistent with the exigencies of public finance. The transition from war to peace economy must be as smooth as possible so that it has the least disturbing effect on the economic life of the country in general and least inconvenience and suffering to the individuals concerned.
As for demobilisation of man power from the armed forces, thorough and systematic inquiries should be made in individual cases and demobilisation may be made in batches, so that they are manageable and it may be possible to set them to some job. There are some people who have got their own business or jobs waiting for them and they are anxious to return to normal civilian life. They should be the first to be discharged, for their mobilisation creates no problem. Similarly, there are many people whose services had been borrowed from other civil departments and those departments will take them back and put them on their own liens. They may also be allowed to go but care has to be taken to absorb those who were officiating in their places. The young persons can resume their studies and the universities may be asked to grant them the necessary concessions or facilities. The re-employed pensioners can be pensioned off again without causing any grievance or hardship.

The personnel engaged in the technical training schemes should be retained for these facilities can be continued and may be even further extended to take up the training of demobilised soldiers, so that when the soldiers return to civil life they can find a suitable job. All the medical men recruited should be retained in service unless of course they wish to resume private practice and medical facilities should be extended. In the same manner, the services of military transport personnel may be retained and transport facilities further improved. Ample room can also be created in civil life for men in the navy, air force, sappers and miners and several other branches of the army. It is also possible to absorb some army men in the police force. The army officers can be easily fitted in civil administration. A job should be procured for every discharged soldier. It will not do to buy him a railway ticket and to book him at his home address. A net-work of labour exchanges must be created who should find a place before a soldier is discharged. Vague promise to find employment and opening of waiting lists is useless and demoralising.

A similar care is needed in demobilisation of war industries. It will not do to close ordnance and ammunition factories. Just as during the war the peace industries were converted into war industries they should now be reconverted. Government should finance equipment needed for reconversion. These factories should be adapted to civilian production which is not a difficult job. A policy of indifference and selfishness on the part of the state will be suicidal. The state should not forget that they have rendered a great service and cannot now be ungratefully thrown on the scrap heap. The Government factories can be gradually sold to private entrepreneurs but their sale should be widely distributed so as to prevent the rise of monopolies.

The Congress Working Committee in their meeting on September 24, 1944 made very constructive suggestions regarding resettlement and demobilisation in India. It suggests that the large number of
well-equipped hospitals built all over India under the lend lease system or otherwise should be handed over to suitable civil authorities and public organisations, the training camps, transit camps, rest camps, farms, store sheds, factories and workshops which have been constructed all over the country with roads, bridges and sometimes railway lines leading up to them built on healthy sites with all sanitation and drainage arrangements should be used, with suitable alterations as hospitals, educational establishments, libraries, reading rooms, cooperative societies, village panchayats, health centres, recreation rooms, granaries, etc.

With the same drive and enthusiasm the State should stimulate private enterprise, initiative and resourcefulness so that more and more industries are started. The weight of scientific research should be now fully thrown in creating new opening for industrial enterprise and opening out fresh channels for investment. The industrial activity should not be allowed to flag or abate.

The Government can itself launch ambitious schemes of public-works, road building, rail construction and extension of canal irrigation, development of hydro-electric schemes, expansion of educational and medical facilities etc.

The whole object of sound demobilisation policy is to underwrite full employment and to assure those who are employed a decent living wage and a reasonable standard of living. The slump conditions should not be allowed to reappear. Now that the technique of planning seems to have been mastered the principles of planned economy should be fully applied to ban poverty and unemployment in the post-war era.

20. Post-war Economic Policy for India. India has yet another war to wage and win and that a war against poverty. The spectre of poverty stalks the land and claims thousands of lives every day in the form of infant mortality, female molatunity and deaths from an ever-recurring cycle of epidemics. Having helped to win the war against the Axis powers let us now declare war against poverty and wage this war with the same earnestness and single mindedness as the other war. All our energies should now be bent towards that end.

The sudden suspension of hostilities has perhaps found our administration napping. We did not expect the end to come so soon. Our post war plans were still in the making. We should now get ready a comprehensive and scientific plan and proceed to execute it with all earnestness. The Bombay Plan provides an excellent working basis and has been prepared by hard-headed and experienced businessmen, people who seem to know their job. We are already living under a planned economy and we have now only to shift the objective. We propose to indicate below in a very cursory manner how our chief economic problems should be tackled.
21. Post War Industrial Policy. It has already been pointed out that industrial potential of India was not appreciably increased during the war. No major industry has been developed and no striking industrial developments have taken place. Little change has been effected in our major industries like cotton mill industry, sugar, tea, paper industries etc. The war did stimulate the production of several new articles like electric bulbs, some chemicals, and drugs. We hope that in keeping with the pledge given by Sir Rama Swamy Mudaliar none of these newly started industries will be allowed to languish from foreign competition in the post-war era.

But over and above this we must put through a comprehensive scheme of industrial development and concentrate first on building up heavy industries. So far we have been relying on imported machinery, but we have seen it to our cost what it means. We must now remedy this situation. Industrial development without the heavy engineering industry is a house without a foundation. As Prof. Brij Narain has put it, "industrial development with imported machinery creates unemployment where machines are used and employment where machines are made." The sole cause of India's poverty is the almost exclusive reliance on agriculture which is admittedly the least remunerative occupation. Prof. Brij Narain gives figures to show that in the economically prosperous countries there has been a progressive decrease in the percentage of people following primary occupations like agriculture, fishing etc. The terms of international trade always are unfavourable to countries specialising in the production of agricultural commodities. "Every time", says M. Manoilescu, "that an agricultural country buys an industrial article that it ought to produce even at a greater cost itself, it loses, and to use a more precise but more commercial expression, it does bad business." "Industrialise Or Perish" is the most suitable slogan for us which we owe to Sir Manohar Lal. A balanced economy is our most urgent need.

It is feared that concentration on producers' goods will create a shortage of consumers' goods. The fear is unfounded. We have been doing nothing else during the last century except developing consumers' goods industries. Moreover, production of consumers' goods need not be neglected altogether.

Our industrial plan must also cover the reorganisation and rejuvenation of our handicrafts. They should be properly integrated with the major industries. Their expansion will go a long way in meeting consumers' demands.

Our exchange and fiscal policy should be subject to our most urgent need of industrialising the country.

22. Post War Agricultural Policy. Even under the stress of the war, we have not made any headway in improving our agri-
culture. The only change brought by the war has been a slight shift from the cultivation of non-food crops and this process may now be reversed. Increase in area under cultivation has not been very appreciable and there has been little improvement in productivity. We, therefore, practically start from where we were before the war.

We cannot expect any marked improvement in the direction of extensive cultivation. But there is ample scope, nay dire necessity of intensive cultivation. Our yields per acre of all crops make a very poor, almost ludicrous show, when placed along those of other countries. So far our agricultural methods have been most primitive. We must now see that the results of latest scientific research are applied to our fields. There should be a liberal use of artificial manures. Only improved varieties should be cultivated. Ample irrigation facilities should be provided and there should be a more rigid control of pests and diseases.

But we are convinced that so long as our holdings continue to be of the size they are, scientific agriculture is simply out of the question. This problem needs to be boldly tackled. The vested interests may have to be brushed aside. Socialisation may not be feasible but we must evolve some system of collective or joint farming in which individual holdings are pooled as there is pooling of share capital in a joint-stock company. Some agricultural operations e.g., ploughing, watering may be performed collectively and those requiring personal attention may be decentralised. The profits of cultivation may be divided in proportion to the land and labour contributed. We must some how bring into existence holdings where agricultural machinery and modern equipment can be economically used and operations scientifically conducted. Every effort must be made to make India self-sufficient and this can be done only by increasing productivity per acre.

Just as India has depressed classes, it also has depressed industries and agriculture is the most conspicuous example. In the years following the war (1914-18) a sort of revolution took place in agricultural technique, while we remained steeped in our medieval ideas. The result is that the competitive power of our agriculture has been crippled and it cannot stand on its own legs now even in its own home. Therefore when we are trying to revitalise it, we shall have to protect it from foreign competition. Further, we should not let the agricultural prices to find their own level according to the automatic working of the demand and supply formula. Agricultural prices will have to be stabilised at levels remunerative to agriculturists. In a planned economy the prices can be fixed in a more rational manner than letting them be fixed by the free working of the economic forces. We should remember that prosperity of 90% of our people who are inhabitants of rural areas is linked with the prosperity of agriculture. It is on their purchasing power that any scheme of economic development can depend for its success. By helping agriculture we shall be helping industry. As Prof. Brij Narain
remarks, "pace of industrialisation in India will be determined by the success of measures taken to stabilise agricultural prices at remunerative levels."

23. Post War Fiscal and Foreign Trade Policy. Our fiscal policy should be so directed as to preserve the industries we already have and to develop those we have not. We must also protect our agriculture. No country has ever conducted its fiscal policy from altruistic motives. It is, therefore, quite understandable why America favours the lowering of the tariff barriers in the interest of international peace and why England has favoured a system of Imperial preferences to cement unity of the Empire.

The United Nations have declared themselves in favour of removing or reducing trade barriers and the International Monetary Fund also looks forward to the elimination of exchange controls. But in spite of this we can very well expect that economic nationalism will rule international trade. Now that the war is over, every nation will formulate an economic policy that suits her best. No one policy can suit all. We shall also in India have to work out a policy consistent with our economic needs and we shall not be committing any economic crime if we do that. The trade control system is now a very old thing. They are a legacy of the last war and they are going to stay.

Our position briefly is this. India's agricultural products, which form a bulk of her exports, have been fast losing their hold on the world markets and it will be worse now after the war. Our balance of trade must consequently shrink and we cannot, therefore, afford the luxury of importing large quantities of foreign goods. We have not even now gold to pay for them. Also, the necessity of protecting our existing industries and developing new industries requires restriction of our imports. We must limit imports according to our capacity to pay. And then we must have selective imports. When we are waging war against poverty, we must ban luxuries and comforts and import only capital goods, essential materials for manufacture and essential consumers' goods. All non-essential imports must be cut out. We have to follow a policy of 'directive imports'. Not only shall we choose what to buy, how much to buy but also from whom to buy. We shall, therefore, import goods from those countries which are prepared to buy our goods in return. This indicates a policy of exchange control, import duties, quotas, bilateralism, preferential treaties etc. There is no escape. England is in a very unhappy position now having used all her over-sea investments in this titanic struggle and having to pay debts into the bargain. A similar policy will have to be pursued by England and it is being advocated by British Federation of Industries. We shall therefore be in good company.

24. Post War Currency and Exchange Policy. We have seen that India has passed through an orgy of inflation. But we should
remember that deflation has even deadlier consequences and deliberate deflation should, therefore, be avoided at all costs. Inflation will now die its natural death.

We have accumulated, through our own sacrifices and suffering, sterling assets. We should negotiate their early liquidation in the form of capital goods and industrial equipment. They can also be utilised for the purchase of foreign assets in India. We hope that mutually advantageous and convenient agreement can be drawn up between India and England on this matter which has been worrying India very much.

As for exchange rate, the whole policy should be reviewed by a committee of Indian experts and a rate should be fixed which suits peculiar Indian conditions. We should follow an independent policy and not follow Sterling blindly. We are of the opinion that if we are to choose between 18d. and 16d. the latter would suit us better. Now we do not have to pay any sterling debt, the advantage of higher rate from that point of view exists no longer. But the whole question needs careful consideration in the light of our post-war economic policy.

25. Post-war Finance. The war has increased our public expenditure to an enormous extent and the level of taxation too was pitched very high. Although no immediate relief to the tax-payer may be expected, yet the unproductive expenditure is bound to decrease in course of time. Post-war reconstruction schemes are sure to absorb a great deal of the increased revenues. Sir Jeremy Raisman hoped to raise Rs. 1500 crores in the first five years of the war excluding Provincial and States Funds and the dollar pool and sterling resources.

India now finds herself in a new position of being a creditor country and if sterling assets begin being liquidated, then she must use them to the best of her advantage. Their repayment in the form of consumers' goods will be positively injurious to our industries. If we can, we should secure capital goods for building up our industrial strength.

As a long-range policy, we should eliminate some of the regressive taxes like salt tax, place land revenue on a rational basis, and tax agricultural incomes. Public finance should be placed on a more equitable basis by taxing the rich by death duties etc., or the articles used by the rich and making a liberal provision for social services like education, public health and social insurance. A social security scheme on the lines of Beveridge Scheme should be prepared for India and carried out within a decade or two. In case this is done, no body will grudge high level of taxation. The military expenditure should be considerably scaled down. This will certainly be possible in view of some collective security plan being adopted by the United Nations. Similarly, there is room for reduction in the cost of civil administration. A poor country like India cannot afford to maintain an admittedly costliest administration in the world. There is thus a big scope for
adjustments both in public expenditure and public revenue to make the whole system of our public finance equitable.

There are two broad aims of our post-war economic policy the immediate and the ultimate. Our immediate concern is to prevent trade depression, unemployment and dislocation of economic life and our ultimate object is to bring about an economic development of the country on healthy lines, ban poverty and raise our standard of living to something like a decent level.

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