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ECONOMIC THOUGHT AND LANGUAGE

ECONOMIC THOUGHT AND LANGUAGE

A CRITIQUE OF SOME FUNDAMENTAL ECONOMIC CONCEPTS

BY

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PREFACE

THIS book is an attempt to assist students of economics to think clearly and logically about the fundamentals of their science, by exposing some of the main sources of error and confusion with which economics is surrounded. Economists have always suffered, as compared with natural scientists, from the inaccuracy of their linguistic equipment. Many of the disagreements which divide them are terminological, rather than genuinely economic, in character; and if these can be overcome they will have more time for examining, and more hope of solving, the problems of theory and policy with which economics is concerned.

The verbal difficulty will not be solved, however, by elaborating a scientific system of unisignificant terms. We may sympathise with Mr Robertson when he demands for economists the right, accorded to researchers in other fields of study, to "speak to one another in their own jargon". But we cannot afford to allow our language to cut us completely off from ordinary life. For economics, unlike physics or biology, is a study of human behaviour. It investigates the actions and experiences of men in the market-place and the factory, and it will in the end be judged by its success in explaining these. Now as the phenomena of economic life change, so too do the meanings of the words which are used to describe them. To take one obvious instance, the growth of joint-stock enterprise in the latter half of the nineteenth century had extensive repercussions on such terms as "profit" and "capital". The former came to stand for the income of the entrepreneur as such rather than for the total gains of the old-fashioned "captain of industry"; the latter took on several new and strange meanings, though without losing its older ones. These verbal changes were not accidental or arbitrary—they reflected changes in the facts. And as they have been accepted, consciously or unconsciously, in ordinary speech, so they must be recognised and allowed for by all those economists who believe that it is at least a part of their duty to enlighten the general public as to the actual economic problems of the day. If economists as a whole were to adopt a corpus of technical terms, each one with an unalterable meaning and content, there would be a real danger of their

being left behind by the march of events. A static terminology is not well suited to the study of dynamic phenomena.

But if we cannot have permanent scientific precision in our language, then it is all the more important that we should cultivate constant watchfulness in our use of words and the ability to see when and how their content changes. So long as we know what we are doing, there is no harm in our using words in more than one sense, nor need we hesitate to take over terms from everyday usage, keeping their common-sense meanings when we can, but altering and adapting them to our purposes when it seems necessary. I cannot agree with Mr Cole that it is an abuse of language, nor with the late Professor Cannan that it is a sign of ill-education, to make our words mean what we want them to mean—so long as we know what we are doing. The essential thing for fruitful speculation is the power of thinking logically, not the possession of a logical vocabulary. And this book is an attempt, as I have said, to help towards logical thought in economics.

Most current expositions of economic principles contain some examination of the main terms used. The analysis of value theory is prefaced with observations as to the meanings which the *word* "value" may bear, a distinction is drawn between capital as a "goods" concept and capital as a "money" concept, demand at a given price is contrasted with demand schedules, and so on. But all this is regarded, and rightly, as merely preliminary to the main task—the exposition of the actual content of economic doctrine. In consequence it is usually treated perfunctorily and hurriedly. Moreover, no writer feels himself called upon to carry terminological discussions beyond what is absolutely necessary for his immediate purpose. He draws attention to verbal difficulties only in so far as they affect either his own work or those other writings in which he happens to be especially interested—with the result that two authors may use the same word in totally different senses without any overt recognition, much less analysis, of the discrepancy between them. Here is an obvious scource of confusion and bewilderment both for qualified economists themselves and still more for the student and the amateur: how are they to know for certain what is the relationship between (say) "capital" as used by Marshall and by Schumpeter, or between the "entrepreneur" of Knight and the "undertaker" of Cannan?

I have here tried to cover this field systematically and (within reason) completely. My object has been to exhibit in some detail the various meanings which economic terms

are liable to bear in current literature, so far as I am acquainted with it. My book makes no claim to be a dictionary of economic terms, for I have neither covered all the terms which such a work should include, nor offered or recommended precise definitions except where these seemed likely to be of real service. Again, I have not studied my subject historically—a task for which in any case I am totally unqualified—for my concern is with how economists use, or might use, terms now, not with how they have used them in the past, and the ways in which words were used fifty or a hundred years ago enter into my discussion only in so far as they are directly relevant to present-day linguistic practice. Least of all have I attempted to recultivate the scarred battlefield of economic scope and method, though a brief survey of this territory has been unavoidable in the chapters on "Economics" and "Economic Law". This is a study neither in diction nor in philology nor in methodology, but in logic. One of the main tasks of logic, as I understand that word, is to investigate the relations between terms and concepts—between thought and language. I have tried to apply this type of logic to the field of economic theory.

The arrangement of the book follows readily from the above indications as to its purpose. After an introductory chapter designed to bring together a minimal vocabulary of logical terms and to note the main sources of confusion in economic thinking, I proceed to examine the fundamental concepts of economic theory one by one, investigating their meanings, relating these (when possible) to one another, pointing out the problems which have arisen round them in theoretical writings, and finally saying something about the relevance of the discussion for the content of economic doctrine. I have not stressed this last element. If at times suggestions have found their way into my book as to improvements which might be effected in the substance or form of economic theory as presented in current textbooks, these are incidental and subsidiary. In the main I have been content (in the words of Locke) "to be employed as an underlabourer in clearing the ground a little and removing some of the rubbish that lies in the way of knowledge". I venture to hope that in taking on this work I may prove to have given help both to my fellow-economists who wish to advance knowledge without being harassed by logical and terminological difficulties, and also to those students of the subject who are anxious to understand something of what economics is about and what it says.

I had originally hoped that the book would be both shorter and easier than it has turned out to be. And I had envisaged a series of short and virtually independent chapters, so that the student who desired to gain some idea of the scope and significance of (say) the term "utility", or "enterprise", might turn to the appropriate passage without needing to consult the rest of the book; whereas in fact the discussions in different chapters have come to be so intricately connected with one another as to make of the book a not easily divisible whole.[1] I have tried, however, by tiresomely frequent cross-references and a full index, to render it useful to persons who would not be prepared to read it from cover to cover. I have also allowed myself a certain amount of repetition, though only when it seemed essential for the clarity of my argument. In so far as my work has yielded any general conclusions they are to be found primarily in Chapters VII and XVII—chapters which represent, so to speak, "reports of progress", and in which some attempt is made to bring together the results of what has gone before. A series of Supplementary Notes (pp. 377-400) deals briefly with various matters which, while coming within the scope of the book, were not of sufficiently central importance to be allowed to hold up the argument of the text.

I have cited authorities whenever I found it convenient. It is proper to say, however, that my decisions as to what works to quote have been based first and foremost on the extent to which they happen to have impressed themselves on a highly capricious memory. I have made no pretence at providing a full bibliography. Details as to the books and articles actually cited, however, will be found in pp. 401-406.

Chapter XIV, on "Capital", got completely out of hand. I can only apologise for its monstrous length.

My debt to numerous friends, economists and others, who have at various points assisted me in developing my theme, is too immense for detailed acknowledgment. But a special word of thanks is due to my assistant, Miss MacDonald, for relieving me of almost all the administrative work of my department in Aberdeen University during the last eighteen months; and to my wife for indispensable help at every stage.

LINDLEY FRASER

December 31, 1936

[1] This fact accounts for the absence from the chapter heads of the terms "wages", "rent", "interest", and "profit". These are treated, as fully as the scope of this book allowed, in the chapters on "Land", "Capital", etc., and in Chapter XVII.

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ECONOMIC THOUGHT AND LANGUAGE

CHAPTER I

SOME LOGICAL PRELIMINARIES

1. Most thinking is done by means of language. And the results of thinking can only be communicated to a second person by language or by some substitute for it, such as mathematical symbols.[1] Thoughts and ideas need to be expressed before they can be fruitful, and the expression of them requires a vehicle or medium—which language provides. Obviously, however, thinking is *different* from expressing one's thoughts. It is one thing to conceive an idea; it is another thing to put it into words. And corresponding to the difference in these activities is the difference between the *content* of thought and of expression. This latter difference appears in the logician's contrasts between "terms" and "concepts", and between "propositions" and "judgments".[2]

A judgment is what we mean when we make a statement; a proposition is the expression of a judgment—i.e. it is the statement itself. If I say "interest is the reward of abstinence", that, when set down in black and white, or propounded in a lecture-room, is a proposition. But it is only worth saying in so far as it has a meaning; its object is to

[1] We can of course, if we prefer, regard mathematical symbols as a kind of language; indeed by a suitable extension of the meaning of the word we can assert that *no* thinking can be communicated (telepathy, possibly, excepted) without the aid of *some* kind of language—whether the language of words (written or spoken), gestures, mathematics, flowers, or anything else.

[2] These contrasts will sound old-fashioned to present-day logicians, who are accustomed to deal only in terms and propositions (unless they belong to the school of Bradley and Bosanquet, in which case they confine themselves to concepts and judgments). But they are, I think, clear in themselves—however they are verbally expressed—and they are essential for my present purpose. See on them (for example) Joseph, *Logic*, chaps. ii, vii.

convey an idea or group of ideas from one person to another. And what is conveyed by the proposition is a judgment. A judgment is the content or *meaning* of a proposition.[1]

But both the proposition "interest is the reward of abstinence" and the judgment which it expresses contain a number of distinguishable elements. The proposition can be divided into three main sections: "interest", "is the reward of", and "abstinence". These words or word-groups are the *terms* of the proposition. And corresponding to them are three *concepts* in the judgment. A concept is (roughly speaking) what we are thinking of when we use a common noun or a substantive phrase. The term "interest" expresses a concept—viz. the idea or complex of ideas which the word conveys to us and which we wish to communicate when we use it. So, too, the noun "abstinence" and the substantive phrase "being the reward of" are the expression of concepts.[2]

2. Three points require notice in the above distinctions.

(1) In the first place, terms need not necessarily consist of words or word-groups, as in the examples just given. They may be no more than *parts of* or *elements in* words. The proposition "I am here" contains two terms, "I" and "am here". But if we translate it into Latin and say with the schoolboy at roll-call "Adsum", the two terms are expressed in the one word; the former in the personal ending-form and the latter in the prepositional prefix and the verb-root. So, too, in English, the single words "fire" or "murder" may be propositions containing two distinct terms; namely, when they represent vivid ways of expressing the judgments that there is a fire or that somebody has been murdered.[3]

(2) The function of a judgment is to *relate* the concepts which it contains; similarly, the proposition in which it is expressed indicates the relations of the concepts to one another as well as the concepts themselves. When I say, for

[1] The distinction between a "proposition" and a "sentence" or statement is simply that the former has a meaning, whereas the latter may, at least in principle, be meaningless and empty. That is to say, a proposition is a "meaningful" statement.

[2] Joseph, *Logic*, pp. 17-22. For the purposes of exposition it will usually be convenient to distinguish terms (and propositions) from concepts (and judgments) by enclosing the former in inverted commas. Thus we shall refer to the term "interest" but to the concept interest (or the concept of interest) and of the proposition "interest is the reward of abstinence" but the judgment (or the judgment that) interest is the reward of abstinence.

[3] See on this case Bosanquet, *Logic*, pp. 106 ff.

example, that saving increases capital, the concepts to which I refer would be expressed, if taken separately, by the three terms "saving", "capital", and "increasing" (or "increase"). Put together in the proposition, they not merely have to come in a definite order, but the verbal form of one of them is changed, in order to show the way in which the three concepts are related. The terms remain essentially the same; they continue to mean the same thing; and yet they show by their specific verbal form those connections between the concepts which it is the object of the judgment to assert. Let us define the various grammatical forms which terms may assume as "term-forms". Thus "me" is a term-form of "I"; "save" and "saves" are term-forms of "saving"; "is the reward of" is a term-form of "being the reward of".

(3) Let us observe, finally, that terms (and with them concepts) may have various degrees of complexity. Take the proposition "money moves quickly". We can see here three terms: "money", "moves" (a term-form expressing the concept of motion), and "quickly" (a term-form expressing the concept of rapidity). But if we choose, we can combine the second and third of these and analyse the sentence into "money" and "moves quickly". Rapid motion (or rapidity of motion) is something which we can talk about as such. We know what it means, and can properly call it a concept. But it is a *complex* concept, since it combines within itself two simpler concepts, rapidity and motion, plus the relationship between them (as expressed in the adjectival term-form "rapid" or by the preposition "of"). While, therefore, we can still say that judgments can be analysed into concepts and their relations, we must remember that the analysis may be more or less elaborate; it may attempt to arrive at simple concepts intricately related to one another, or it may be content with concepts which are themselves complexes of other concepts and their relationships.

3. Now, if a judgment is to be communicated by a speaker to his audience, two conditions must clearly be fulfilled. The audience must be familiar with the concepts which the judgment contains; and it must also understand these concepts to be meant by the terms with which the speaker expresses them. It will not be worth my while to propound the judgment that interest is the reward for abstinence unless

my hearers know at least approximately what interest and abstinence are, since if they have not this knowledge the proposition will be for them a mere sentence without content or meaning. And secondly, if I mean by "being the reward of" merely being a payment for, whereas they understand by it being a *justifiable* or *well-merited* payment for; or if I mean by "abstinence" merely doing without, whereas they understand by it doing without *at some considerable sacrifice*: then the proposition will, indeed, have a meaning for them, but it will not be the meaning which I intended. It will convey one judgment to me and another, quite different, judgment to them. And this will be because its terms signify different concepts.

4. So far, all has been fairly plain sailing. What follows is rather more difficult.

In the first place, we have been assuming that every term expresses a concept. According to the terminology of most logicians, however, this is not so. Terms *may* express concepts, as in the examples on which we have hitherto dwelt. But they may also refer to a particular object or event, or to an individual person. In the proposition "Captain Webb swam across the Channel" the first term is the name of an individual person, and *means* that individual. And one cannot *think* an individual, though one can think about him and refer to him; he cannot be directly grasped in the mind in the sense in which (for example) interest, or rapidity of motion, can be so grasped; in short, he cannot be a concept.

We here come to a distinction which is vital for formal logic, the distinction between universal judgments and enumerative judgments. An enumerative judgment is one the subject of which is an individual person or a particular object or event, or else a number of such individuals or particulars. It is usually characterised by the fact that one of its terms is a proper name, or a common noun (or substantive phrase) coupled with a demonstrative pronoun. Thus the judgment, *this fountain pen has a broad nib*, is enumerative; it refers to a specific fountain pen indicated by the judger. So, too, is the judgment, *fifteen women have climbed Mont Blanc since the war*.[1] Contrast with these the statements "a broad

[1] When the subject of a judgment is *one* individual or thing the judgment is commonly called "singular", the adjective "enumerative" being reserved for judgments with plural subjects. But this distinction is irrelevant for our present

nib wastes ink" and "climbing mountains requires great powers of endurance". In the latter examples we are not referring to any particular thing or person. Our object in expressing them is to give information about the general activity of writing or climbing, and the general characteristics of broad nibs or mountains. We are concerned not with this or that specific pen or ascent, but with the *class* of broad nibs or the *concept* of mountaineering.

By a "class" we mean more than a mere number of unrelated individuals. We mean a number of individuals all of which possess some common characteristic or attribute. The class of red things includes all those things, and those things only, which are red. The class-term "bourgeoisie" denotes all those people who are alike in occupying a particular economic position in a capitalist economy. Any individual who belongs to either of these classes does so in virtue of possessing their particular attribute or attributes. A rose is red—i.e. belongs to the class of red things—because it has those particular reactions to light waves which our vision knows as "redness"; a small merchant or dealer is a bourgeois because he has those attributes which are associated (among socialists, at any rate) with the term "bourgeoisie". And all classes are similarly determined, in range and scope, by specific attributes or (in technical language) *class-differentiae*.[1]

It follows that a judgment which refers to a class, and applies to individuals only in so far as they belong to it and in their capacity as members of it, is necessarily concerned in the first instance with the differentia or differentiæ of that class. To say with Callimachus that big books are big evils is to pass judgment not merely upon this or that two-volume epic, but on the nature of big books as such. It is to say something about the attribute common to members of the *class* of big books. Judgments of this type are called "universal" judgments, in contrast to the enumerative judgments which refer to particular objects or individuals.

In the light of this distinction we can see more clearly than before what is meant by "a concept". The term "big book" may be regarded as having two kinds of meaning. On the one hand it can be used as the name of a particular thing—

argument, and the word "enumerative" is used here for singular and plural judgments alike.

[1] Joseph, *Logic*, p. 74.

as in the sentence "a big book fell upon my head as I was looking at his library". Or, on the other hand, it may express the *concept* big book, as in the sentence "a big book is a nuisance on a railway journey". For in the latter case we are not referring to any particular volume, but to a universal characteristic or attribute.[1] And it is only when we are dealing with attributes, or "universals", that we can properly speak of concepts.

It is important to notice about universals that though they are, or may be, *real*, that is to say, may constitute genuine and recognisable elements in actual objects, yet they do not *exist* in the sense in which the objects themselves exist, or may exist. *Roses* exist; *red*, though a real characteristic of some roses, does not. But it can be *conceived*; it can be grasped by our minds and can enter into our thought and discussion; in a word, it can be a concept. And in distinguishing between universal and enumerative judgments, we are classifying judgments according as their subject is a concept or an individual (or a number of individuals).

5. The distinction between universals and particulars (or individuals) is sometimes put by saying that the former are abstract and the latter concrete. This is a perfectly legitimate form of expression. By "abstraction" is often meant the process of singling out common characteristics in a number of different objects, with a view to studying these characteristics for their own sake. And universals are clearly the result of abstraction in this sense. We arrive at the concept of a big book by "abstracting" from all existing and imaginable big books and concentrating on their common attributes, or at the concept of red by "abstracting" from red things the colour which they are alike in possessing.

The word sometimes, however, bears a fundamentally different meaning. It is often said that the "economic man" is an abstraction; and so he obviously is. But he is not a common quality or characteristic of existing people, nor is he to be conceived of as a *class* of people. If we wish to construct

[1] This distinction is commonly put by logicians in the form of saying that a class-term *denotes* the members of the class to which it refers, and *connotes* the specific differentia of the class. Thus the term "bourgeois" denotes everyone who is a bourgeois—i.e. everyone to whom the word applies—and connotes everything that a bourgeois is (in contradistinction to, for example, a proletarian)—i.e. every attribute which the word implies.

an economic man, we must do so by taking an existing individual and confining our attention to one particular element in him, or aspect of him, viz. the element of hedonism, or of the maximisation of pleasures and the minimisation of pains. We then have something which represents what the man would be in real life *if* he were an undiluted hedonist. Since he is not an undiluted hedonist the picture of him as an economic man is not true to life. It is an abstraction which may be useful for understanding his behaviour to the extent to which he acts *as if* he were a hedonist, but which cannot enable us to know him as a whole.

But an economic man is not a *universal*. There can be as many economic men as there are real men, and each one will be an individual or "particular", different from every other; since each will find his pleasures and pains in his own characteristic way, i.e. will have his own scales of preference and choice, and each will have his own corresponding scheme of behaviour. And if we want to study these economic men, not as individuals, with their own idiosyncrasies, but as a class, then a second act of "abstraction" is required. We must separate out from all these particular economic men their common characteristic and so construct the concept of economic-mannishness or of the-economic-man-as-such.[1]

There are, then, two kinds of abstraction: that of the universal or class, as opposed to the concrete particular, or instance; and that of the element or aspect of a thing, as opposed to the concrete thing itself.[2] It is vital to distinguish clearly between them. The latter gives us the contrast between partial and complete knowledge, the former gives us the distinction between theoretical and historical or statistical knowledge. And a science which is abstract in the one sense may be concrete in the other. Thus the various branches of history, though concrete in the sense of being interested in individual persons and particular events, are abstract in that they deal only with one aspect—e.g. the military or the political or the economic aspect—of these persons and events. Contrast with such studies on the one hand biography which attempts to be concrete in both

[1] On the economic man and the part he plays in economics see (for example) Keynes, *Scope and Method*, pp. 117 ff.; Douglas, *Non-Commercial Incentives*, pp. 153-155; Robbins, *Nature and Significance*, pp. 94-9.

[2] Joseph, *Logic*, pp. 28 ff., especially pp. 34-5.

senses, and on the other hand physics which not merely abstracts from all but the physical properties of material objects but also confines attention to the general or universal characteristics of these objects, i.e. is interested in classes, not individuals.[1]

It may be added that in whichever of the two ways the contrast between abstract and concrete is understood it must on no account be confused with that between "material" and "immaterial". For the latter is really a distinction between two different kinds of concrete things. Material objects are individuals, not universals: and we shall also usually envisage them as wholes—i.e. "completely"—rather than as elements or parts of wholes. But the same is true of much that is not in any ordinary sense material. A period of time, for example, such as a day or a year, is neither a universal nor an element in something else, but an individual entity. So, too, if I have lent some money to a friend, then the claim which I possess against him—i.e. the debt which he must settle in the future—though it is as such immaterial is yet a concrete whole: it is concrete both in the sense that it is an "individual", falling into the class of debts in general, and also in the sense that it may be treated either in its totality or "partially" according as we consider all the conditions or circumstances attached to it or concentrate on one or more particular aspects (e.g. on the period for which it is outstanding or the rate of interest which it carries), abstracting from others which may in themselves be not less worthy of study. It is in fact a "thing" or entity, no less than is a chair or a giraffe.[2]

[1] It is not easy to find an example of the fourth possible combination—viz. the union of "completeness" with "universality". An approach to it is, however, to be seen in certain kinds of natural history or "descriptive zoology" where the life-story or biography of a typical representative specimen of some species is recounted. So, too, in history it might be possible to write a *concrete* (i.e. complete) account of a *typical* (i.e. abstract or universal) mediaeval serf or baron.

For the bearing of this section on the nature of economics cf. below, pp. 14-15, 30 ff.

[2] The distinction between material and immaterial things is not easy to draw, but is happily irrelevant for most economic purposes. (See, however, below, pp. 24-6, 125 n., 178, 259, 333-4.) What is of more immediate importance is the light thrown by the last paragraph on the second sense of the concrete-abstract contrast. It can be argued that "a day" is empty and meaningless apart from the events which it contains—that time itself is an abstraction. But so, too (if we take this view), are material things: since (*a*) when we treat them as such we are abstracting from their non-material aspects, and (*b*) they are a part of the universe as a whole and cannot ultimately be considered in isolation therefrom. Whether or not this line of argument is metaphysically satisfactory,

6. Let us return to the argument of § 4. We have seen that universal judgments are concerned with classes and class-differentiae, rather than with individual instances. We must now note that they do not necessarily imply that any instances in fact exist. Take the proposition "channel-swimming requires great powers of endurance". That statement would not lose its meaning or truth even if we were to find that no historical person had ever actually swum the Channel. It expresses a purely theoretical judgment which makes no claim to concrete realisation. So, too, the judgment that interest is the reward of abstinence might still be important for economic theory even if nobody ever abstained or if no abstinence were ever rewarded.

Here, however, we come upon a serious practical difficulty. Suppose that for the first of the two propositions cited in the last paragraph we were to substitute the closely similar proposition "channel-swimmers possess great powers of endurance"; is the judgment now universal or has it become enumerative? Is it still about the attribute channel-swimming or does it refer to a series of individual persons—Captain Webb, Miss Gertrude Ederle, and so on? The answer to this question depends upon the intention of the propounder. If he is someone who is engaged in writing biographical sketches of great people, and who is interested in them as individuals, then his judgment is strictly enumerative. "Channel-swimmers" is in this case simply a shorthand way of referring to a number of individuals; it is a device which he adopts in order to avoid the trouble of mentioning them all by their proper names. He may, however, be a physiologist who is studying the powers of the human body, or a physicist whose concern is with the resistance of water to objects moving through it and with the amount of energy-output which swimming requires. In either of these cases the subject of his judgment is *not* the individuals who have in fact swum the Channel, but the attribute which is common to them. What he is saying might equally well have been expressed in some such form as "channel-swimming involves the possession of", etc.—obviously the expression of a *universal* judgment.

however, does not matter here. The *practical* distinction between a "complete" and a "partial" view of a thing or a group of things is reasonably clear and workable. And it is one which is not affected by whether the thing in question is material or immaterial.

Or, thirdly, he may be a sociologist, or a journalist, who is equally interested in both aspects of the situation; who is anxious to draw attention at once to the theoretical relationship between the possession of physical powers and the activity of swimming the Channel, and to the historical fact that certain individuals have possessed these powers and have used them in that particular way.

Thus the proposition is essentially ambiguous; it may express any one of three different judgments,[1] and in order to know which one is in fact meant we must have further information as to the point of view and intention of the writer.

This kind of ambiguity is especially troublesome in propositions which begin with "some" or an equivalent word or phrase.[2] "Some vipers are venomous, some the reverse": does this mean that there are two main species (or sets of species) of viper, and that one of the ways in which they may be distinguished is by whether or not their bites have fatal consequences? Or is it a statement that of the particular vipers known to the writer certain ones are to be avoided, while the others need not be feared? "A number of the workers in that factory are wholly unskilled": is this part of an analysis of the division of labour among different classes of worker, or of a statistical account of the varying abilities of different individuals doing the same kind of work? Unless we have further evidence we cannot be certain which is meant. Sometimes the context will provide us with this evidence. At other times the writer will be thoughtful enough to cast his judgment in a form which leaves no room for doubt. But not infrequently real misunderstandings occur, even in the minds of sympathetic and intelligent readers.

Nor is this danger necessarily due to inaccurate expression on the part of the writer. If his knowledge of his subject were complete it should always be possible for him to avoid ambiguity. But if he is in course of learning about the things with which he is dealing, then he may not himself be certain whether a given judgment is only a historical enumeration or

[1] Or more; for as we shall see the distinction between universal and enumerative judgments is not the only source of ambiguity in propositions.

[2] These are the so-called "particular" propositions of formal logic. A discussion of the distinction between them and the universal or complete-enumerative propositions of the form "*all* A is B" is of importance for the theory of deductive inference, but may be omitted here.

can claim universal validity. It may even start by being one and end by turning into the other. On the basis of my historical knowledge I may say "French prime ministers are never long in office". In the first instance, that is no more than a statement of fact. But as such it is not very satisfying (except, perhaps, to a pure chronicler, with no theoretical interests). For it suggests strongly that there is some *reason* for the facts being as they are. And I am likely to be stimulated to ask what this reason is. Suppose, now, that under this stimulus I conduct investigations into political conditions in France, and find an explanation of the short life of French governments in (let us say) the structure of French political parties and the technique of the French electoral system: then the proposition with which I started will have fundamentally changed its meaning for me. It will now express the judgment that French prime ministers *in the nature of things* are unlikely to hold office for long; I shall no longer be talking about a number of individual people, but about a political office as such. I shall have added to my knowledge of the *concept* prime minister of France.

The contrary process may be observed in the conduct of a scientist who on the basis of a series of observations constructs a generalisation or hypothesis to serve as a basis of research. The generalisation at first makes at least a provisional claim to universality. But further experiment and observation may in fact disallow this claim. It may turn out that the preliminary survey of the data was misleading, and that what looked like a universal relationship was merely an accidental coexistence. If so, then a proposition which started by expressing a universal judgment ends as an enumerative assertion about particular objects.

Thus, the ambiguity between enumerative and universal judgments, though it is often a source of confusion and misunderstanding, may also be an instrument for the advancement of knowledge.

7. The significance of the preceding analysis for economic thought will appear in due course. Meanwhile, let us turn to another type of ambiguity, in many respects similar to the one which we have been discussing, but capable of being dealt with more briefly. We may take as an illustration the proposition already quoted: "interest is the reward for abstinence".

Suppose that there is no misunderstanding as to the meaning of the second and third terms; that both the writer and his readers understand by "being the reward for" *being a payment for*, and by "abstinence" *doing without*: we are still left in doubt as to the exact import of the proposition. Does it express the judgment that by "interest" the writer intends to mean the payment for doing without? Or is it a piece of information about the form of income which is known by that name? Is it, in other words, a definition of the *term* "interest", or an addition to one's knowledge of the *concept* interest?

Logicians have given to judgments of these two types the names "verbal" and "real". A verbal judgment is one which is about a term as such; a real judgment is about the concept (or the individual) for which the term stands. The former indicates a use of language, the latter a connection of thought. Theoretically the difference between the two is perfectly clear, and in practice also there is often no cause for confusion. "For the purpose of railway livestock charges dogs shall include cats and rabbits, but not tortoises" is about "dogs", the word; "dogs belong to the same family as wolves" is about dogs, the animals. Nobody would be misled by the former into thinking that a cat is a kind of dog, or by the latter into thinking that the words "dogs" and "wolves" are etymologically connected. Sometimes, however, a proposition may be intended to be partly verbal and partly real. Or it may pass from being the one to being the other. And in this way confusion may arise. T. H. Green, in his *Principles of Political Obligation*, lays down the principle "Will, not force, is the basis of the State". That proposition is obviously meant to express a real and positive contribution to political theory. But if one examines the arguments with which he supports it, one may be tempted to conclude that its truth depends upon exactly what one means by the word "State". Many organisations which we are accustomed to describe by that name seem in fact to rest upon force, rather than upon will—at any rate, in the senses in which we would normally use these words. And if so, the proposition can only be true as expressing a fact about Green's terminology—i.e. as indicating what he proposes to understand by "a State". What started by being a real judgment has come to be little more than a verbal one

Similarly, examples are not lacking of verbal definitions acquiring a real content, and coming to show not merely the use of a word but also the nature of a concept. "Economics is the study of the distribution of scarce means among competing ends", though it in the first instance need be no more than a definition of the word "economics", yet has come to contain an important assertion of principle about the nature of economics as a science.[1]

Thus, just as one and the same proposition may express either a singular or a universal judgment, according to the plane of knowledge, and the interests, of the propounder, so it may express either a verbal or a real judgment—or both. These ambiguities are not as such a cause for regret. They are the penalties which we must pay for the fact that our knowledge of the universe is incomplete and changing. But their existence makes it essential for us to be on our guard lest we read into other people's propositions either more or less than the judgments which they in fact wish to express.

8. The contrast between "verbal" and "real" is relevant not merely for the theory of the judgment, but also in another way. In any study which (like economics) has to make use of complex concepts and has trouble with its terminology, it is of the first importance to differentiate clearly between two kinds of distinction or classification: (1) classification proper, i.e. the distinction between different kinds of *thing*, or between special concepts lying within a wider generic concept; and (2) the distinction between different uses of a term. There might not seem to be any serious danger of confusion between these two types of distinction. No one could fail to recognise, for example, that the contrast between saving for hoarding and saving for investment (two different kinds of saving) was different in principle from the contrast between saving a penny and saving a soul (two different uses of "saving"). But in fact confusion from this source is extremely easy, as later chapters will show. For when a word stands for two or more concepts or types of thing, it is certain—puns apart—that these concepts or types will be related to each other in *some* way. Before we can be sure where we stand, therefore, we must know the nature of the relationship

[1] See below, Chapter II, pp. 29 ff.

between them. If it is a relationship of co-ordinate species within a genus, then the distinction will naturally be regarded as being between "two kinds of a *thing*", and the case is one of classification proper: if it is not a relationship of co-ordinate species within a genus, then the distinction is between "two senses of a *word*". But in any given case we may find it extremely difficult to be certain which of the two it in fact is.[1] Indeed under certain circumstances it may not be possible even in principle to demarcate sharply between the two kinds of distinction. When a term is used of two *analogous* concepts, it is liable to come to suggest not so much these two concepts separately as the common characteristic in virtue of which the analogy has been drawn. Do the phrases "a man's foot", "the foot of a table", "the foot of a mountain" and "the foot of a list" represent different kinds of foot or different uses of "foot"? Is lacing a generic concept including the specific concepts lacing shoes and lacing port or sherry, or is "lacing" a term with two different meanings, according as it is associated wth footwear or with wine? We need not—even if we could—decide definitely one way or the other in such cases. The important thing is that we should recognise them for what they are—intermediates between purely verbal and purely real distinctions, and that we should not allow their existence to obscure the fundamental contrast between the two.

9. The ambiguities with which we have been dealing in the last three sections are especially prominent in social studies such as economics. Much of the work of economists is neither purely historical nor purely theoretical. It is concerned with historical phenomena—with the events and conditions of the economic life of particular epochs; and yet it aims not merely at describing these events, but also at understanding them. The economist must disentangle those elements in the economic world which can be explained in terms of theoreti-

[1] The use of the word "capital" abounds with difficulties of this kind. (See below, Chapter XIV, especially pp. 238, 265-266.) If we choose, of course, we can treat *all* distinctions on the verbal plane. Saving for hoarding and saving for investment represent as such two different *senses* of "saving". But since the relation of the concepts which these two senses express is one of co-ordinate species within a genus it is natural that "saving" should stand also for the genus itself. There is then, so to speak, a concept of saving *an sich*, of which the other two are special types or kinds—that is to say, the classification almost inevitably shifts from the verbal to the conceptual plane.

cal principles, and must mark these off from the irregular and (from his point of view) accidental variations that characterise particular instances. His search is for *significant generalisations*; for those classifications of his subject-matter by means of which he can explain and illuminate what is going on. He is not in the position of physicists or chemists, for whom the particular is only an instance or an illustration of the class; who are interested not in this or that particular atom or molecule, but in the properties of atoms and molecules (or their various species) as such, and whose judgments always aim at being universal. In economics it is precisely the range and character of the particulars which determines what lines of classification will prove helpful. Nor, on the other hand, can the economist, like the pure historian or the statistician, confine himself to enumerative judgments. For his aim is not merely a knowledge of fact but an understanding of causes and effects and a grasp of the forces lying behind the facts. In the nature of the case, therefore, he is obliged to be constantly passing to and fro between the realm of particular instances and the realm of general attributes. He can never come finally to rest in the one or the other.[1]

So, also, with the other type of ambiguity. As economic phenomena change, and as our knowledge of them develops, our concepts will inevitably change their content. The concept of profit, for example, has altered substantially with the development of joint-stock companies; as has the concept of money with the growth of deposit banking. These two terms have changed their meaning, and as they have changed, so it has been necessary to re-define them. Thus it comes about that the same proposition which expresses a new theory as to the nature of a concept such as profit—e.g. that it is the reward of uncertainty-bearing, or the payment for the initiation of new methods of production—is also to some extent a new definition of the *word* "profit".

10. A third form of ambiguity, one which has been particularly troublesome in methodological discussions, is that which may exist between what are known as "positive" and "normative" judgments. In its simplest form the distinction between them is simply this. A positive judgment is one which deals with questions of fact; it indicates that A *is* B (or

[1] See on this below, Chapter III, pp. 50 ff.

is not B). A normative judgment is one which deals with questions of value or the desirable; it takes the form, A *ought to be* B (or ought not to be B).[1] "Twenty-five people were killed in road accidents on Easter Monday" expresses a positive judgment; "strict control of automobile traffic is urgently required" expresses a normative judgment. The former contains no value element; it asserts neither that twenty-five deaths in one day is too large a number nor that it is fortunate that the number was not much larger. The latter contains no factual element; it is equally compatible with historical conditions of the strictest imaginable traffic control and of road anarchy. And even if the ideal world and the actual world sometimes coincide—if what ought to be sometimes is, and what is not sometimes ought not to be—yet the theoretical contrast between the two worlds is clear; at any rate so far as historical and enumerative judgments are concerned.

In the case of judgments which lay claim to scientific universality, however, this distinction is often blurred and lost. This may happen in either of two ways.

(1) Just as the same proposition may express both a universal and a historical, or both a verbal and a real judgment, so it may express both a positive and a normative judgment. Consider the proposition "the community is saving too little". Is this a statement of fact, or of value, or both? We cannot be sure until we know what is meant by "too little". It may merely be equivalent to "less than it ought to"—and this is the interpretation which we most naturally place upon it when the proposition is stated without reference to any particular context. In this case the judgment is purely normative. But if we already know something about the "optimal" rate of saving—e.g. if we have been told that it is that rate which equates the amount saved with the amount invested—then the proposition also expresses the positive judgment that the community is saving less than is being invested. "Nobody in his senses believes that a raising of the rate of wages will relieve unemployment." Is that a colourless statement of fact about current opinion among rational people—or is it also a condemnation of those who fail to hold rational opinions? We cannot tell except in the light of the

[1] Such judgments are called "normative" because they set up a "norm" or *standard* with which existing things can be compared.

context in which the proposition occurs, or of our knowledge of the temperament of the propounder.[1]

(2) The case just considered depends on the possibility that a proposition may express either or both of two distinct judgments, the one positive, the other normative. Under certain circumstances, however, the distinction between the two kinds of judgment may itself tend to break down. Let us take as an illustration the proposition "the business of a teacher is to make his pupils think for themselves". Here is a statement with a perfectly plain and unmistakable meaning, requiring no further information for its elucidation. And yet it can be regarded with equal justification as *either* positive *or* normative. It states a general characteristic of the class of teachers and is true as a fact about all members of the class in their capacity as members. But it is normative as regards particular persons; for it can be restated "those who act as teachers should make it their business to make their pupils think for themselves"—evidently the expression of what ought to be.

The source of the complexity here lies in the fact that teaching is a *function*; it is a concept which we can only understand with reference to an end or purpose, viz. culture or education (or whatever the end may be which teaching is intended to realise). And the term "teacher", as we know, though in the first instance it may refer to the individuals who fulfil this function, yet is also specifically connected with the function itself. Now, most functions may be undertaken with varying degrees of success and completeness by the persons to whom they are entrusted—or by the things which are devised for their fulfilment. The function of a teacher is to teach, but some people who are in the position of teachers do not do all that is expected of them in this respect. The function of lawn-mowers is to mow lawns; but not all the instruments which go by that name are competent to fulfil their task. Under such circumstances an ambiguity may arise as between the concrete and the abstract, or (as we may call them) the "substantial" and the "functional" reference of the terms "teacher" and "lawn-mower". The man who makes me learn the German irregular verbs by heart in school may be a teacher in the one sense and not, or only very inade-

[1] For an illustration of the sort of difficulties which may arise from this source, see my article "Optimum Population", pp. 38 ff.

quately, in the other; the knived and wheeled tool in my garden may be a lawn-mower in its substance, but not (owing to bluntness or rust) in its functioning.[1]

But to say that something (or someone) fails to fulfil its function is evidently a value judgment; it asserts that the thing is other than it ought to be. And any judgment which contains information about the function of a class of objects, while it is positive as regards that function itself, and states a "fact" about those particular objects which are *functionally* qualified for membership of it, yet is normative with respect to the particulars as such. What "is" true of the class "ought to be" true of every particular which aspires to membership of it.

It is evident that ambiguities arising from this source are likely to be of particularly frequent occurrence in economics. For many of the most important concepts with which economists have to deal are functional or purposive in origin. An "entrepreneur", for instance, is a person who plays a particular part in the working of an individualist economy. Are we, then, to mean by the word those who *occupy entrepreneurial positions*, or are we rather to use it of individuals "in so far as" they *exercise entrepreneurial functions*? Does "money" include all those things, and those things only, which have been created for the purpose of providing a medium of exchange: or can we say that "money is as money does" and that a sovereign at the end of a watch chain is not money, whereas the marbles or cigarette cards which are used by schoolboys in settling their small debts are money? Is the judgment that the function of speculators is to smooth out unnecessary price fluctuations a statement of how the speculator *qua* speculator *does* behave, or of how the individual members of stock and commodity exchanges *ought* to behave? Economic theory is filled with uncertainties of this kind; indeed, practically every term of major importance with which this book will deal is subject to the substance-function ambiguity in one form or another. Let us, therefore, note carefully the distinction between persons (or things) as concrete individuals, and persons (or things) in their capacity as performing certain specific activities or fulfilling this or that particular purpose.

[1] See Supplementary Note 1, p. 377.

11. One further type of ambiguity must be noted before we embark on our main task. Many nouns which are derived from verbs, and which stand for the actions or activities denoted by these verbs, may be understood in either of two ways, according as emphasis is laid on the *process* of the activity in question or on its *result*. We may call this the "ing and ed" ambiguity.[1] It is characteristically present in words ending with "tion", though it is by no means confined to these. The word "action" itself is typical; for it may denote either doing or *acting* (as in the proposition "a conjurer must possess the power of rapid action") or else the thing done or the *act* ("a conjurer's actions are rapid enough to deceive the eyes of onlookers"). In the same way, "composition" may stand for the process of composing or for the thing composed, "thought" may mean the activity of thinking or the thing thought, "sacrifice" may refer to the giving up of something or to the thing given up: and so on. The "ing and ed" ambiguity, in fact, tends to be found wherever people are accustomed to using a substantive term-form for the processes denoted by a verb; since the term-form selected will almost certainly be that which is also used for the immediate object of the verb.[2]

This ambiguity is present in a fair number of important economic terms—as we shall see in due course. Moreover, so far as economics is concerned there is a further complication. Many words are liable to be used not merely of the doing of a thing and the thing done, but also of the *amount* of the doing or the *quantity* done. "Accumulation", for example, may mean either (1) the process of accumulating ("the accumulation of money beyond the needs of ordinary life and business is a sign of miserliness"): or (2) the thing or things accumulated ("on my return I found a vast accumulation of unanswered letters"); or (3) the size of the accumulating process, or the volume of things accumulated ("capital accumulations last

[1] The only passage known to me where the "ing and ed" ambiguity receives explicit treatment is in Alexander, *Space, Time and Deity*, pp. 11 ff. But it has played an important part in various metaphysical controversies at least since the time of Spinoza.

[2] "Object" is here used in its grammatical sense. The "ed" sense of these ambiguous substantives represents the "internal accusative" of the verb in question: though it may also come to stand for a genuinely external object. But this is a problem for the grammarian or pure logician and need not be pursued here.

year totalled five million pounds"). So, too, with a substantial list of frequently employed economic words: production, consumption, saving(s), investment(s), acquisition, appropriation and the like. In each case we may have to distinguish between an "ing" sense, an "ed" sense, and a quantitative or numerical sense.[1] For the most part, indeed, this triple ambiguity is not likely to be a serious source of confusion. But it is worth noticing here, if only to enable us to dispose of it promptly whenever we encounter it during our investigations.

12. In the light of what has been said in the last few pages we need not be surprised at the terminological difficulties with which the advance of economic theory has been so continually beset, or at the frequency with which economists have not merely misunderstood each other's arguments but have even failed to grasp the implications of their own contentions. It is probably too much to hope that difficulties of this sort will ever be finally overcome: we shall never be able to devise a perfect economic vocabulary. But as Mill said, "when it is impossible to obtain good tools, the next best thing is to understand thoroughly the defects of those we have".[2] The task before us, then, is to uncover the weaknesses in our linguistic equipment, and to note, in order that we may avoid, the confusions to which they may give rise.

[1] In the case of "production" and "consumption", however, the "ed" sense seems to be absent, at any rate in economics. See below, Chapter XI, p. 175.

[2] *Logic*, Book I, chap. iii, 2.

CHAPTER II

"ECONOMICS"

WE may properly start with the term "economics" itself; for there is real doubt both as to the meaning of the word and as to the content of the concept, or concepts, which it expresses.[1]

1. Broadly speaking, two groups of definitions of "economics" are to be found in the literature of the subject. The first connects the concept with wealth, or welfare, the second with scarcity. It will be convenient to refer to them as "type A" and "type B" definitions, respectively.

As a specimen of the former type we may take the definition arrived at (after careful investigation) by J. N. Keynes. Economics, or Political Economy, he says, is "the science which treats of the phenomena arising out of the economic activities of men in society".[2] Let us look for a few moments at the main elements which this definition contains.

(1) The word "science" is not wholly unambiguous. It may be used broadly of any systematic body of knowledge, or, more accurately, of the study which attempts to build up such a body of knowledge. But its meaning may also be limited in two different ways. (*a*) It may be confined to studies of what *is*, as opposed to studies of what ought to be; and (*b*) it may be applied to knowledge which is built up *for its own sake*, as opposed to knowledge which is valued because it is practically useful. The former limitation rests upon the contrast between positive science and normative science; the latter, the contrast between pure (or theoretical) science and applied science or art. A combination of the two limitations yields the definition of "science" *par excellence* as the systematic study of what is for its own sake.[3]

[1] This chapter and the one which follows it represent a digression from the main purpose of the present book, and may safely be omitted by readers who are not interested in quasi-methodological subjects.

[2] *Scope and Method*, p. 101.

[3] On economics as a science in this very narrow sense, see below, pp. 30 ff.

In this present context, however, we may understand the word, at least provisionally, in its widest sense. Keynes's definition might still be acceptable if it turned out that economics was concerned more with the ideal than with the actual, and aimed at being practically useful rather than theoretically true.

(2) The phrase "economic activities" in a definition of "economics" suggests at first a mere verbal circle. In fact, however, it contains two important—and highly controversial—pieces of information. For in the first place, the adjective "economic" has a fairly clear meaning in ordinary speech. We speak of particular courses of action as being "economically" worth while (or the reverse)—of free trade, for example, as being "economically" or "from the economic point of view" a sounder (or less sound) policy than protection—when what we mean is that it is likely (or unlikely) to *add to the country's wealth*, or prosperity. Economic activities are those activities which are concerned with adding to wealth; and to say that economics studies economic activities is to connect it with the phenomena of the production and appropriation of wealth.[1]

We shall return in a moment to the meaning of "wealth". In the meantime let us observe the second significant point about the phrase "economic activities". People obviously do not *always* act economically, in the sense of seeking to increase wealth. We enjoy leisure as well as earning our daily bread, we sometimes play when we might have been working. It follows that the definition under consideration confines the sphere of economics to a certain section or *department* of human behaviour. A large part of the life of everybody, and the whole life of certain fortunate persons, falls outside its scope.

(3) The phrase "in society" raises the much disputed point of whether economics includes the study of the economic activities of a Robinson Crusoe. We deal with this below, §§ 12-13.

Other definitions follow an essentially similar course. Marshall described economics as the study of mankind "in the ordinary business of life", and added that while this showed it to be a part of the general study of man, yet from

[1] Keynes, *Scope and Method*, pp. 99-100.

another point of view it amounted to calling it the science of Wealth.[1] Adam Smith notoriously regarded the subject of "Political Œconomy" as the nature and causes of the wealth of nations, and many economists since his time have defined their subject as comprising the production, exchange and distribution, or the production, distribution and consumption, or the creation and use, of wealth.[2]

2. The crucial word in all such definitions is, of course, "wealth". And it is necessary to observe with some care what it implies.

In ordinary speech wealth means in the first instance *riches*, i.e. an abundance of material possessions. From this it has come to have two further senses: (*a*) the material possessions themselves—as when one talks of a landlord's wealth as consisting of so many acres of land, so many head of cattle, etc.—the idea of abundance having passed into the background, or even completely disappeared; and (*b*) an abundance of anything, whether material or not and whether possessed or not—as in such phrases as "a wealth of daffodils" or "a wealth of metaphors". Economic terminology has tended on the whole to make exclusive use of the first derived meaning. "Wealth" almost always suggests to the economist an aggregate, whether large or small, of material objects. Not all material objects, however, constitute wealth, in the economic sense. Before a thing can claim to be a form of economic wealth it must satisfy two conditions; it must be *useful*—i.e. capable of satisfying a human want; and it must be, at least potentially, *exchangeable*. Exchangeability, in its turn, contains two moments: physical transferability or disposability; and scarcity. One cannot in any ordinary sense exchange, for example, one's own body, since it is not possible to transfer it to someone else. And one cannot exchange those things which (like air) are present in so great an abundance as to satisfy without effort the total desire for them. Such things as these are "free goods"; however useful they may be, they have no exchange value and do not form part of economic wealth, as usually understood.

We may then understand wealth in the economic sense as consisting of "all material and exchangeable means of

[1] *Principles*, p. 1.

[2] See for example Sidgwick, *Principles*, p. 12; Clark, *Essentials*, p. 1; Nicholson, *Elements*, p. 8.

satisfying human needs". And economics is the science which treats of their production and appropriation.[1]

3. We can also express what is fundamentally the same conception of the scope of economics by saying that it studies the "economic system" or the "economy". For by the "economy" we should naturally be understood to mean the community's equipment for the production and distribution of wealth. It is, in Cassel's words, "the sum of actions which make the satisfaction of wants possible".[2]

Again, the type A definition may be used to connect economics not so much with the material means of satisfying human wants as with the satisfactions themselves. People desire wealth because it ministers to their well-being, or *welfare*. And we can, therefore, describe economics, if we prefer, as the study of the welfare which material possessions yield. Thus Professor Cannan defines "economic" as "having to do with the more material side of human happiness", or, more briefly, as "having to do with material welfare".[3]

4. In all these definitions, however, there are two main difficulties. The first concerns the connection of economics with material things. We have seen that wealth is usually conceived of in material terms. So, too, the phrase "the economic system" strongly suggests the mechanism whereby physical objects are manufactured, transported, and exchanged. And Professor Cannan's definition expressly stipulates that the kinds of welfare with which economics is associated are those which are derived from material sources. But are economists as a matter of actual practice at all specifically material in their interests?

Let us note, in the first place, that the border-line between the material and the immaterial is not always so clear cut

[1] We shall find as we proceed that "wealth" is in fact highly ambiguous. (1) It need not be confined to material goods only (cf. below, p. 26, and Chapter VIII, especially p. 125 n.). (2) To confine it to *scarce* goods implies that if by increased abundance a particular commodity cease to be scarce, becoming a "free good", the community's wealth is thereby *reduced* (cf. Robbins, *Nature and Significance*, p. 47 n.). In order to avoid this paradox we must define it as including all *potentially* exchangeable goods, irrespective of whether they have or have not a value in any given case. (The same treatment has to be applied, as we shall see, to such terms as "commodity", "land", and "labour". See on these below, Chapters VIII, p. 124, XIII, p. 222. (3) It may be regarded either as a "stock" at a given moment of time or as a "flow" through time—i.e. either as "capital" or as "income" (cf. Cannan, *Wealth*, pp. 3-6). This contrast will be examined in Chapters XIV and XVI (pp. 250-1, 330-1).

[2] *Social Economy*, p. 3.

[3] *Wealth*, p. 17.

as it looks. From the point of view of common sense, indeed, it is perfectly simple to distinguish between them. But we must remember that the economist, according to type A definitions of his subject, is concerned with things "in so far as they are capable of satisfying human wants". He is abstracting (in the second of the two senses distinguished in Chapter I) from their physical and chemical qualities, in order to concentrate on their scarcity and utility. Now the same want may be capable of being satisfied *either* by a material *or* by an immaterial agent. Suppose that I wish to brown my skin by subjecting it to ultra-violet light rays: I may either do this by exposing it directly to the summer sun; or else I may buy or hire some electrical equipment with which to generate the rays artificially. The difference between the two methods is that with the second I substitute certain material implements for the time consumed and the inconvenience caused by adopting the first. In the one case I use up material resources, in the other, I use up time and trouble —both of them *immaterial* resources. If the former is a part of my economic wealth it seems unreasonable to deny the same status to the latter.

Again, much of our energies are devoted, not to the production of useful things, but to the removal or destruction of harmful things. When the farmer has cleared his fields of weeds, or when the householder has had his refuse carted away to the incinerator, he is better off than he was before, and no economist would deny that activities of this sort are economic in character. And yet they do not lead to the production of *material* wealth. The absence of unpleasant matter is not itself material.

Thus, in actual fact, economists have regularly gone outside the sphere of the purely material in their investigations. Indeed the concept of *production*—which forms one of the main divisions of the usual treatment of economic theory—is regularly understood nowadays to mean the creation not of *material* wealth, but of the immaterial something which is known as "utility". Economics has long since discarded the old view that only those labourers are to be called productive whose work is embodied in physical objects.[1] Similarly, the whole analysis of utility and its relation to value falls outside

[1] See on this below, Chapter XI, particularly pp. 178-80

any definition of the range of economics which associates it with the purely material.

In the face of these considerations the type A definition must be recast if it is to reflect economists' actual practice. The readjustment may be made in one of two ways:

(1) We may redefine "wealth" so as to purge it of its materialist taint. It will then come to everything which is both useful and scarce, whether material or not. Our physical energies and our time will now be included, along with our external possessions, in our wealth. They are useful to us and may be used to produce satisfactions. Moreover, they are scarce, and though not literally transferable to other people, can yet be hired out—viz. when we enter into the service of an employer.[1]

(2) If we prefer the "welfare" to the "wealth" form of the definition, then we must adopt some other criterion of "economic" welfare than its being derived from material objects. Thus, Professor Pigou defines economic welfare as "that part of social welfare which can be brought directly or indirectly into relation with the measuring-rod of money".[2]

5. The other difficulty in type A definitions is more fundamental. We have seen that one of their essential characteristics is that they associate economics with a particular "department" of human life and behaviour. They involve that people sometimes act "economically"—whatever the precise meaning of the phrase may be—and sometimes do not. And this "departmental" view has two serious weaknesses. In the first place, even when we have severed the specific connection of economics with material things, the borderline between economic and non-economic activities is not at all easy to draw. A stockbroker, after a morning in his office, goes out to the country and plays a round of golf. We should be inclined to say that the economic department of his life covered only his business hours; since the object of his afternoon's occupation is pleasure (or exercise), rather

[1] Clark, we may note, retained "material" in his definition of wealth by making it equivalent to "external" or "non-personal" (*Philosophy of Wealth*, p. 5). Thus he regards an orchestral concert as material; whereas the energies and abilities of a labourer are immaterial!

On labour as a "commodity" see Chapter VIII below, p. 125 and n., and cf. Chapters XIV, p. 246 n., XVI, pp. 336-8, XVII, pp. 360-1, for the possibility of treating it as a form of "capital" resources.

[2] *Economics of Welfare*, p. 11; cf. *Stationary States*, pp. 19-20.

than the earning of an income. But a moment's reflection will show that this contrast rests on very shaky foundations. For on the one hand, the morning's work may be in itself a source of pleasure; he may enjoy his business life for its own sake. And, on the other hand, the exercise which he takes out of hours may be an important factor in maintaining his working efficiency. Indeed, he may have decided to take up golf precisely because of the beneficial effects it has upon his capacity to earn an income. If so, then how can it be denied a place among his economic activities? And yet, if we admit the claim of exercise to an economic status, where are we to stop? The stockbroker must sleep in order to work, therefore sleep is an economic activity. Playing chess, reading detective novels, having a holiday by the seaside—all these may add their quota to his ability as an economic agent.[1] If we are to be consistent, we must include within the economic sphere every activity which makes him the stockbroker he is. Thus the study of man "in the ordinary business of life" widens out into the study of life as a whole.

We can evade this conclusion, indeed, if we understand "economic activities" as having a "functional" rather than a "substantial" reference (see Chapter I, pp. 17-18). We may define them, namely, not as those activities which aim at increasing wealth, but as including any and every activity, *in so far as* it has this character. In that case, we will say that while economics is *in principle* concerned with all departments of human behaviour, in so far as they are relevant to the production of wealth, as a matter of *practice* only such activities need receive its close attention which are exclusively or primarily undertaken with wealth in view. We can then continue to study the principles of the stock exchange, or of the organisation of industry, in some detail, while neglecting the physical and psychological effects of golf or greyhound-racing. To take this view, however, involves the admission that there is no precise boundary between economics and other departments of the general study of man, and that economists must be potentially interested in *all* branches of human behaviour.

Most supporters of the type A definition are prepared to accept this conclusion. And we must therefore set down as a

[1] For a further discussion of these cases see below, Chapter XIV, pp. 247, 269.

fundamental characteristic of this conception of economics that its sphere of study is not accurately distinguishable from those of neighbouring sciences.

But that is not all. Suppose that our stockbroker can only get his afternoon's golf if he is prepared to sacrifice some business to a rival, and so suffer a diminution of income. Let us assume that the effect of his game upon his productive efficiency can be neglected, and that he desires it simply for the direct pleasure which it yields him. He then has to choose between an "economic" and a "non-economic" activity—between the satisfaction of earning and spending extra income and the satisfaction of a round of golf. Is not this choice itself economic in nature? The problem before him is one of distributing his "resources" (viz. his time and energies) in the best possible way. And we could with perfect propriety say that if he chooses rightly as between the alternatives before him—i.e. if he adopts the course of action which will in fact give him the larger satisfaction—he is "economising" his resources, whereas if he chooses wrongly he is to that extent "wasting" them. In this respect he is precisely in the same position as any manufacturer who has to choose between (say) devoting his spare money to the improvement of his plant and to the increase of his outlay on advertising. In both cases the question is: how can the available resources be used to the best advantage? And yet according to type A definitions, such questions only fall within the province of economics when they concern alternative ways of making an income or increasing wealth. The choice between making an income and spending one's time in some other way lies half inside and half outside the "science of wealth".

The seriousness of this difficulty has been variously estimated. Some people have refused to take it too tragically. They have argued that the choice between work and play, or between business and art or religion or any of the other main fields of human activity is a problem, not of economics, but of life as a whole, and have held that economists are perfectly entitled to consider the "economising of resources" only in so far as it arises within the field of business and industrial life—as, indeed, accords with their usual practice. For others, on the contrary, it represents a crushing objection to all "wealth" or "welfare" definitions. Economics, they

say, must be concerned with "the economic problem" wherever it occurs; and they therefore seek to find a definition of its scope that will not confine it to that particular department of human affairs which ordinary speech describes as "the economic system".[1]

6. The main formal characteristics of type A definitions, as we have so far seen them, may be summarised as follows:

(1) They connect economics with a particular "department" of human activities.

(2) They do not draw a sharp line of demarcation between it and other human studies; that is to say, they make no claim to scientific precision.

(3) They are positive, not normative. There is no suggestion of their laying down what subjects economists *ought* to consider. They are satisfied with indicating roughly what subjects economists generally *do* consider.

7. Let us now turn to the second main group of definitions. We may take as its representative Professor Lionel Robbins. It is his view that the problem of economics is simply and solely the problem of economising. We assume an individual, or a set of individuals, each of whom has various desires and needs. We further assume that owing to the inadequacy of their resources not all their needs can be satisfied. Their means are limited in comparison with their ends, and they must choose which of the ends to retain and which to sacrifice. In order to do this some kind of pricing process is necessary. The ends must be compared with one another and set in some sort of scale of importance, and values must be set upon the means so as to restrict them to their most urgent uses. This process, and this process alone, is in Professor Robbins' view the subject of the theoretical economist. He studies human behaviour "as a relationship between ends and scarce means". He examines "the implications of the different ends we may choose" and "makes it possible to select a system of ends which are mutually consistent with one another". But he is not concerned with either the ends or the

[1] The second of these views is that taken by Robbins, *Nature and Significance*, p. 11; the first is that taken by Cannan, in his review of Robbins' book (cf. also his *Wealth*, pp. 15-18).

means *themselves*. His subject is neither ultimate values nor material resources but scarcity.[1]

8. A similar approach is to be found in Wicksteed, who describes economics "in its widest scope" as "the study of the general principles of the administration of resources . . . [and] of the ways in which waste arises in such administration".[2] And a substantial number of the Austrian School of economists adopt the same view. Thus Mises states that the fundamental problem of the science is "Handeln" or "Wirtschaften"—that is to say, the "disposal" or the "economising" of resources.[3] And Dr. Strigl, after an exhaustive investigation of the conditions of scientific thinking in economics, comes to a conclusion which may be freely translated as follows:

> Suppose that an individual has control over a set of resources which can be devoted to the fulfilment of various ends; and suppose that these ends have been arranged in a scale of descending importance. The question then arises: how does this determine the ends to which the resources will in fact be devoted? This is the question to which theoretical economics must find the answer. . . . The formula "distribution of resources among given possible uses" expresses the unifying principle of economic theory.[4]

9. The guiding principle which has led Professor Robbins, Dr. Strigl, and their associates, to this result is to be found in their conviction that economics is a *science*, and that its scope must be capable of being so defined as to provide the basis of a strictly scientific study. A science is, for them, not any systematic or quasi-systematic body of knowledge, but a system of *theoretical* and *positive* knowledge. They hold economics to be scientific, not merely in the sense of pursuing objective truth, but in the narrower sense of seeking truth *for its own sake* (rather than for its practical usefulness) and—still more important—of seeking truth about what *is*, rather than about what *ought to be*. A great deal of the work done by economists (so their argument runs) fails in fact to fulfil one or both of these conditions. It is very often "applied", rather

[1] *Nature and Significance*, especially pp. 12-16, 151-2. (Cf. my article "How do we want Economists to Behave?" pp. 555-6).

Professor Robbins therefore proposes to define economics as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses"—or, more briefly, as the study of "the disposal of scarce means" among competing ends (*ibid.* p. 16). On the qualification that the scarce means must "have alternative uses" see Supplementary Note, 17, p. 389.

[2] *Commonsense*, p. 17. [3] *Grundprobleme*, p. 22. [4] *Oekonomische Kategorien*, p. 123.

than "pure", in that it is directed towards the solution of particular problems of industrial or commercial administration. And it may also be interested in ideals—with what is desirable or is thought by the writer to be desirable—instead of confining itself to what actually exists. In both these ways it forfeits its claim to be in the strictest sense a science. And while this does not necessarily imply that such work is not worth doing, yet it suggests that it has, so to speak, an inferior status. For on the one hand it may not admit of the accurate measurement which is an essential feature of a true science, having thus to rest content with guesses and approximations. And on the other hand it is likely to involve matters of personal opinion, on which there can legitimately be ground for disagreement; whereas a true science should be wholly neutral as between the tastes and prejudices of its exponents. We cannot hope for unanimity in matters of economic policy: we ought to expect it in economic theory. And in order to secure it we must confine economic theory to pure and positive investigations. If, therefore, it is true—as supporters of the type B definition believe—that the only economic investigations which can be neutrally scientific in the sense above indicated group themselves round the central problem of scarcity and the economising of limited resources, then it follows that these terms alone can provide us with a satisfactory definition of theoretical economics.[1]

Moreover, the definition so arrived at—as is highly desirable, if not indispensable, in a pure science—has a precision and accuracy which is conspicuously lacking in type A definitions. It can be used, as they cannot, to decide in particular cases whether a problem is "economic" or not. I have a log of wood, with which I propose to warm my room. Shall I put it on my fire in large or small pieces, shall I dry it or leave it damp, shall I subject it to a strong or a weak draught? These are "technical", not "economic" questions. For there is only one end in view: the provision of warmth. Shall I allow my room to stay cold and use the wood for making a chair? Here are two competing ends: warmth, and seating accommodation. I cannot have both and must decide which to sacrifice. My choice is economic.[2]

[1] Cf. Benham, "Economic Welfare", esp. pp. 174-6.
[2] Oswalt, *Grundbegriffe*, pp. 27-9; Robbins, *Nature and Significance*, pp. 32-8.

This distinction between the two types of definition is closely connected with another, not less striking. Whereas according to the A type economics is concerned with a particular department of human activities—a view which, as we have seen, gives rise to certain difficulties—type B definitions connect it with a particular *aspect* of human activities. The element of scarcity is present in all parts of our lives; we have to "economise" our leisure time and our private incomes no less than our business or industrial resources. And economics is concerned with scarcity, *wherever* it occurs. It is an abstract study in the second of the two senses which we distinguished in Chapter I;[1] that is to say, it undertakes, not an investigation, from all points of view, of certain parts of human behaviour (as under the A type), but an investigation, from one point of view, of the whole of human behaviour.[2]

It is also abstract, we may add, in the sense of being universal, not historical. People have sometimes criticised the type B definition on the ground that it includes within the sphere of economics problems which seem to lie well outside the economist's range. A chess player, we must believe, is making an economic choice when he decides between playing for a sure, but dull, victory by means of an exchange of queens, and risking a draw or defeat for the sake of the excitement which the game will provide if the queens remain on the board. So, too, a country is "economising" when it decides whether the prospect of peace by international guarantees justifies the loss of national freedom of action which a system of guarantees involves. But objections to the definition on the ground that economists are neither chess players nor Foreign Secretaries miss the point. To say that these are examples of "economic" decisions is not to say that the economist need necessarily be able to throw *specific* light upon them. He is concerned with the general principles underlying choices as such, not with the particular circumstances attending each individual act of choosing. His science is not merely pure and positive, it is also theoretical and (in the logical sense) "universal".[3]

[1] Pp. 6-8 above. [2] Robbins, *Nature and Significance*, p. 17.

[3] In "How do we want Economists to Behave?" pp. 556-8, I advanced criticisms of this kind against the type B definition, with special reference to Professor Robbins' version. I am glad to have this opportunity of answering myself.

10. The above account, abbreviated and elliptical as it is, will perhaps suffice to indicate what the proponents of the type B definition have in mind. The case they put forward is extremely complex, and in order to do it justice we must attempt to disentangle the various elements which it contains. We can best do this if we distinguish three planes of abstraction and devote a brief discussion to each in turn. The three planes are: (1) the formal characteristics of the type B definition *as a definition*; (2) the formal characteristics of an economic theory so defined; and (3) the content of economic theory as so characterised.[1]

(1) It is fairly clear, in the first place, that type B definitions are different in nature from definitions in terms of wealth or welfare. The strength (and the weakness) of the latter type lay, as we saw, in the facts that (*a*) they approximate more or less closely to the ordinary man's conception of what the word "economics" means, merely attempting to give a measure of precision to his no doubt crude and uncertain ideas; and (*b*) they roughly conform to the practice of the majority of past and present economists. They are, therefore, *real*, not verbal; and they are *positive*, not normative. They attempt to explain what economics, the subject of study, is, rather than what the writer proposes to understand by "economics", the word. And they make no claim to show what economists *ought* to study, but merely indicate what they in practice do study.

Now, the type B definition *may* be real, and *may* be positive, but *cannot* be both. Or rather, to the extent that it is real it must be normative, and to the extent that it is positive it must be verbal.

In the first place, it makes no claim to correspond with ordinary language. This is explicitly pointed out by Strigl, who urges that ordinary linguistic usage is not likely to provide an adequate basis for a scientific conception of the study.[2] To this extent there is a positive but verbal element in it. Strigl is telling us what he wishes to understand by the word "economics". As a science, he says, it has a different significance from that which would ordinarily be attributed to it.

Secondly, however, it contains an invitation to economists to

[1] The following paragraphs may be compared with the discussion in Macfie, *Economy and Value*, which appeared too late for more specific treatment here.
[2] *Ökonomische Kategorien*, p. 3.

change their practice in certain important respects. Professor Robbins indicates that one of the main reasons which led him to write his book was the tendency among students of economics towards a "preoccupation with the irrelevant", and towards "the multiplication of activities having little or no connection with the solution of problems strictly germane to their subject". He calls them back from the ambiguous regions which lie on the frontier of ethics or psychology, and urges them to abandon their excursions into technology and history, in order that they may concentrate upon "the central economic problem".[1] And a similar apostolic motif appears more or less explicitly in all methodological works which advocate definitions of the B type. They are concerned to show what (in their view) economics, the subject of study, *ought* to be. From this point of view the definition is real but normative.

There is thus a composite ambiguity in definitions of this type. The proposition that economists are concerned with the study of the distribution of scarce means among competing ends may be intended to show what economists (understood in its "substantial" reference as those individuals who profess to study economics) *ought* to be doing, or it may refer to economists *qua economists* (the "functional" reference of the term) and may so express the judgment that the word "economist" *means* a person who studies this problem, while, and in so far as, he does study it. Or, of course, it may hover uncertainly between the two, and be intended in part as an exhortation to students in the economic field, in part as a delimitation, within that field, of "economics" in the strict sense.

An example may make this clearer. Suppose that a particular Professor of Economics decides to devote his leisure time to a piece of inductive-practical research upon (let us say) the marketing of milk in an American city. Are we to say of him (assuming that we support the type B definition) that he is allowing himself to be "preoccupied with the irrelevant" and that he would be better serving the cause of truth, as well as employing his own time to greater advantage, if he took a hand in solving the theoretical problems of the pricing process? Or are we to turn a benevolent eye upon his work, making no attempt to cramp his speculative range or

[1] *Nature and Significance*, especially pp. xiv, 3, 42 n.

to impose limits upon his interests, but merely saying that in so far as he pursues these studies he is not, in the proper sense, "an economist"? The one answer would be based upon the real-normative, the other upon the verbal-positive interpretation of our definition.[1]

The above analysis is important in two different ways. In the first place it throws some light upon one of the main difficulties in Professor Robbins' book; the apparent inconsistency, namely, between his early protests (pp. 3, 42) against the over-diversification of economists' actual practice, and his later assurance that all he is pleading for is "more accuracy in mode of statement, not over-austerity in speculative range" (p. 130 n.).[2] Both these points of view are potentially present in the definition of economics from which he sets out. And the inconsistency in his results is due to the ambiguity in his starting-point.

Secondly, however, we are now able to see that there need be no irreconcilable conflict between the two main types of definition. Type A shows us broadly what problems have generally been understood to belong to economists, and have usually been studied by them. Type B attempts a classification, or else a discrimination, between them. It offers on its verbal-positive side a definition, not of economic problems in general, but of "economics" or "economic science" as a central point within these problems; and on its real-normative side, it suggests the desirability of a shift in emphasis from the wider to the narrower sphere. All we have to do in order to be free to accept both types of definition is to distinguish between economics in general, as definable by some form of the A type, and "economics as such", or whatever we choose to call it, as definable under the B type.[3]

[1] For completeness, we may note that the definition *might* be intended to be *both* normative *and* verbal; it might, namely, be no more than an exhortation to the world to use the word "economics" in the particular way indicated. But no economist in his senses would write a book or article merely to argue a matter of verbal usage. The only ground for urging that "economics", the word, ought to be applied in a particular way is the belief that economics, the subject of study, ought to be conceived of in that way. So the verbal-normative judgment becomes real-normative.

[2] Cf. p. viii., and also p. 118 n. of 1st edition. On the controversy over this question between Professor Robbins and myself see further Chapter XVIII below, especially p. 375 n.

[3] The purpose of this book is to examine logical possibilities, rather than to inculcate particular doctrines. I am not, therefore, concerned to advocate, or to oppose, such a *modus vivendi* as is here indicated. In particular, I am here

(2) Let us pass to our second question—the nature of "economics as such". We have already noticed its main characteristics. It is a science. It is concerned with what is, rather than with what ought to be. It provides scope for exact reasoning and measurement. It is "pure", and can be distinguished from its practical applications in the same sense in which (for example) pure physics can be distinguished from engineering, and physiology from therapeutics. It is theoretical, not historical, and its judgments are universal, not enumerative. Finally it deals in necessary truth, and is wholly independent of the personal equation of its students; so that unanimity as to its doctrines is a practical possibility.

As regards the general merits of an economic theory which has the above attributes there is little to say. Its appeal must rest largely upon the individual temperament of the persons concerned. Those who value theoretical truth in the economic sphere for its own sake, and to whom the idea of a clearly defined and independent body of abstract knowledge is aesthetically and intellectually satisfying, must agree that in virtue of possessing these characteristics "economic science" is entitled to a place of honour among the studies which economic in the widest sense includes. Others may be inclined to reject its claims outright; they may feel that the economist's scientific technique is only of importance as a tool for practical investigations, and that the construction of the tool is subordinate to its use. Such people may be compared with doctors who study physiology merely because it enables them to fight disease, or with navigators whose interest in astronomy is entirely derived from their desire to steer their ships in the right course. Most economists, however, will probably be attracted, to a greater or less extent, by both points of view. They will be conscious at once of the theoretical superiority of "economic science" over its practical applications, and of the undesirability of the implication that economic scientists as such ought to refrain from giving advice on matters of economic policy. All these points of view are *a priori* possible, and there is no need here to discuss their relative merits. All that we must insist upon here is that the first one is not *self-*

omitting all discussion of the *desirability* of using the type B definition as a basis of appeals to students of economics that they should concentrate more on "economics as such" and less on "outlying problems". For some comments on this, see my article, already cited, p. 559; also below, Chapter XVIII, pp. 374-5.

evidently superior to the other two; that it is not *obvious* that the scientific characteristics of "economics as such" entitle it to be regarded as economics *par excellence.*

But the specific question of the exclusion of *normative* studies from the domain of "economics as such" requires more detailed attention. In the last chapter we saw that the distinction between normative and positive judgments, while perfectly clear in the purely historical sphere, tends to vanish in the case of theoretical and universal judgments or propositions. And we noted in particular that where the subject of a universal proposition is a *functional* term, an ambiguity between the normative and the positive is regularly present.[1] The first part of the present section has already given us an example of the relevance of this for economics; for we have seen that the propositions incorporating definitions of economics of the B type are positive as regards "economics as such" but normative as regards the behaviour of economists.

Now the content of economic theory is comprised of universal judgments. And many of its most important concepts are the embodiment of functions—as we shall repeatedly have occasion to observe in the course of this book. We must not be surprised, therefore, if we find normative elements even in its most colourless statements of fact.

Let us take as an example the corner-stone of modern value theory, the principle of the equi-marginal satisfaction of wants. Does this principle lay down that people do *in fact* distribute their resources in the most economical way—that no case can be found in which a less important want is satisfied at the expense of a more important one? Obviously not. Such an assertion would be merely false: people often make mistakes and act uneconomically, i.e. irrationally. Does it, then, *postulate* rational behaviour, as constituting at least a first approximation to a realistic theory of how people behave? In that case its results are true "in so far as"—and only in so far as—people are rational.[2] But any judgment

[1] Above, pp. 17-18.

[2] Cf. Joan Robinson, *Imperfect Competition*, pp. 211-12. Mises, indeed, declares that for economics *all* conscious behaviour is "rational" (*Grundprobleme*, pp. 22, 33, 139). This seems to me a mere misuse of words—and a dangerous misuse, in that it attempts to conceal the normative side of value theory which I am here concerned to bring out. It makes the proposition "people are assumed to dispose of their resources in the most rational way" a pointless tautology.

Cf. on this Robbins, *Nature and Significance*, pp. 90-94. Professor Robbins'

embodying such results is as much normative as positive. The word "rational" is itself so essentially normative in significance that to say "one ought to act rationally" is little more than a truism. And every judgment as to the behaviour of "rational people"—i.e. of people in so far as they behave rationally—carries with it the normative implication that those individuals of whom it is not true are acting mistakenly or wrongly. We can, of course, if we choose, refuse to dwell upon this aspect of our conclusions; we can confine our attention to elaborating positive judgments about "the rational man as such", and resolutely refrain from commenting upon such cases of irrationality as we meet with in private or political life. But that is a matter of personal self-restraint on our part. It is not a matter of passing from one plane of knowledge to another.[1]

Furthermore, let us remember that there is nothing inherently absurd in the idea of a chain of deductive reasoning which starts from a normative first premise, or contains normative links. "Spaniels should have long ears, John is a spaniel, therefore he should have long ears" is a formally unexceptionable syllogism. So too is the argument that if the best way of raising incomes is to increase productivity, then since the object of trade unions is to improve the standard of life of their members they ought not to resist technical improvements in the productive process. From the two premises—given, of course, that they are true—the conclusion, normative as it is, follows ineluctably. We need not shrink, therefore, in the interests of a "scientific" conception of

defence of Mises' terminology (p. 93 n.) leaves me wholly unconvinced. If the issue were a *mere* matter of words it might not be important. But it is vital to realise that if "rational" is understood in its natural sense, then value theory *enjoins* rational behaviour.

[1] One of the most striking features of Professor Robbins' book is the way in which, after exercising "personal self-restraint" of the kind suggested in the text till his penultimate page—after repeatedly insisting that economists' judgments are positive only, and emphasising the "logical abyss" that separates what is from what ought to be—he on the last page of all breaks down and confesses that the normative element has been present all the time; that economic science depends for its significance upon "an ultimate valuation—the affirmation that rationality and ability to choose with knowledge is desirable". This final *bouleversement* is bewildering in the extreme—until one reflects that it is of the essential nature of functional-universal judgments to rest upon "an ultimate valuation", however purely positive they may be made to appear. *Naturan expellas furca . . .*

For further illustrations of this most important principle see below, Chapter III, § 2 (pp. 48 ff.).

economic theory, from admitting that its starting-point is the normative judgment that human choices ought to be rationalised, or that the ability to choose with knowledge is a good thing. What is vital is that we should remember that to detach the normative from the positive implications of its particular propositions is an operation, not of logic, but of the surgeon's knife.

(3) Our final, and most concrete, question is this: given that "economics as such" has the formal characteristics indicated above, what specific problems can it actually include? Is it true that its content is exhausted by the type B definition—that only those questions which can be described in terms of the distribution of scarce means among competing ends are worthy of a place within its domain?

We need not linger over historical and statistical investigations. No violence is done to thought or language in saying that economic history and the compilation of economic statistics form a branch of study distinct from, if related to, economic theory; though of course we must also recognise that much of the most valuable work which economists can do involves both—viz. when theoretical analysis is applied to the interpretation of statistical information, or is used to suggest lines of inductive research. And the same argument applies—with the same qualification—to the contrast of "pure" and "applied" economics: the union of theory and practice may be highly fruitful, but does not destroy the reality of the distinction between them.[1] But there remains at least one large field of study about which doubts may be felt; the field, namely, of "welfare" economics, as studied, outstandingly, in the works of Professor Pigou. The central problem to which he has devoted himself concerns the relationship between the economic interests of individuals and those of the community of which they are members, and the extent to which (and the conditions under which) the pursuit of the former will tend to the realisation of the latter. This problem is obviously *as such* theoretical, though it is capable of being made the basis of historical research. It is equally clearly "pure", though it may point to results which are relevant for practical policy. And it is a study of what "is", just as much as the problem of scarcity, even if, like the

[1] Cf. on these points "How do we want Economists to Behave?" pp. 564-6.

problem of scarcity, it contains important implications about what "ought to be". Nor need we doubt that its conclusions, provided they are formulated with due care, are capable, at least in theory, of commanding the unanimous consent of scientific economists. Indeed, the formal parallelism between welfare theory and value theory is astonishingly close. The latter derives its significance (as we have seen) from the judgment that choice ought to be rationalised, the former from the judgment that welfare ought to be maximised. The one investigates the theoretical consequences of rational choice, and (in Wicksteed's words) "the waste which arises in the administration of resources", the other studies the theoretical conditions of maximum welfare on given resources and the ways in which the actual organisation of society fails to realise this ideal. The difficulty which dogs the welfare economist—viz. how to decide wherein under specific conditions maximum welfare consists—has as its counterpart the difficulty of knowing wherein, under specific conditions, rational choice consists. On all these points the two studies are on exactly the same footing. The only important difference which emerges between them is this; that certain economists have (for some reason) found it easy to assume that as a matter of fact people always do choose rationally in the administration of their resources, and have therefore neglected the problem of "the ways in which waste arises in such administration", whereas nobody nowadays believes, with Bastiat, that welfare always is maximised in existing society. In consequence the normative element in welfare economics cannot be concealed, as it has sometimes been concealed in value economics. But this amounts at the most to a difference in degree between them; it does not involve that the one is in principle more "scientific" than the other.[1]

What, then, is the status of welfare investigations under the type B definition? Can they be included among the problems which concern the distribution of scarce means among competing ends? It may be that they can. But if they cannot—and Professor Robbins, at least, makes it clear that he does not *intend* them to be so included [2]—does that mean that they

[1] There is also indeed, a difference with regard to the *range* of the two subjects; see below, p. 43, and cf. also Chapter V, pp. 86 ff.

[2] *Nature and Significance*, pp. 136-42.

are to be excluded from the realm of "economics as such"? And in that case, where do they belong, and what are they to be called? We cannot here offer a final answer to any of these questions. The object of the above discussion is not to provide an exhaustive analysis of the nature and significance of welfare economics, or of the difficulties which are involved in its study, but simply to show that there is at least a *prima facie* case for saying that it can be "scientific" in any sense in which value economics is scientific. If this case is a sound one, then to define "scientific economics" in terms of the value problem alone loses all its real content. It becomes true *only* as a verbal definition of what the advocates of the type B definition propose to *mean* by the phrase "economic science".

11. Let us recapitulate the main results of our examination of the type B definition. We have found the following to be its main characteristics:

(1) It is inspired by the desire to establish economics as a theoretical and positive science. Its content is therefore determined, not by the usage of ordinary speech, but by what is required for the definition of a science.

(2) It has a precision and accuracy which is lacking in definitions of the A type. One can at once deduce from it whether a particular problem is to be called "economic" or not.

(3) It is abstract, both (*a*) in the sense of being concerned with a particular *aspect* (as opposed to a particular concrete *department*) of human life, and also (*b*) in the sense of being theoretical and formal, and issuing in universal, not historical, judgments.

(4) It is ambiguous, in so far as it may be regarded either as legislating for the practice of existing economists, or as merely marking out within the general economic sphere those investigations which are to be regarded as "economic" *par excellence*.

(5) From neither of these two points of view is it destructive of definitions of the general field of economic studies which conform to the A type.

(6) It does not necessarily involve the view, commonly held by its exponents, that economics is *purely* positive.

(7) It leaves uncertain the exact status of investigations

into the relationship between the interests of the individual and those of the community.

12. One further question remains to be noticed. We have hitherto discussed the definition of economics in terms of its formal characteristics and of the range of problems which it comprises. Controversy has also arisen, however, with regard to the area of applicability of its results. The point at issue is whether economics is to be regarded as a purely social science, concerned primarily if not exclusively with the phenomena of individualist exchange communities, or whether it includes within its purview the economic life of a man on a desert island, on the one hand, and of a communist State or a slave State on the other.[1]

By an individualist exchange community in this context is meant a community the members of which are free (at any rate within reasonably wide limits) to choose for themselves as between different articles of consumption and different kinds of occupation. It thus includes not merely the capitalist States of the last two centuries, but also those proposed forms of socialist communities in which the State owns the material means, and controls the processes, of production, while leaving its citizens the right of deciding what to buy and where to offer their services.[2] The common characteristic of all economies of this kind rests in the fact that some mechanism is required to harmonise the several decisions of the individuals concerned, so as to solve the problem of the distribution of the resources of the community as a whole. This mechanism is found in a price system. The function of the price system is to bring it about that the total demand for anything shall be equal to the total supply of it; it encourages people (by low prices) to consume largely those things of which the supply is plentiful, and (by high wages) to offer their services where they are most in demand—and con-

[1] See on this (for example) Robbins, *Nature and Significance*, pp. 17-21; Strigl, *Ökonomische Kategorien*, pp. 23-8; Cassel, *Fundamental Thoughts*, chaps. i and ii.

[2] On socialist (as opposed to communist) societies as a field for economic study, see (*inter alia*) Roper, *Pricing in a Socialist State*, especially pp. 21 ff.; Hall, *Economic System in a Socialist State*, especially chaps. iv and v; Cassel, *Social Economy*, pp. 131 ff.; Dickinson, "Socialist Community", Dobb, "Socialist Economy", Lerner, "Socialist Economy", Cole, "New Economic Theory (B)", etc. The relevance of institutional changes such as the introduction of socialism for the economic problem of distribution is touched upon in Chapter XVII below, pp. 345-6, 350-1 n.

versely it discourages the consumption of scarce goods and the recruiting of overstaffed occupations. To say, therefore, that economic theory is concerned with individualist economies only is in effect to define it as the study of the laws of a price system—or of the way in which production and consumption are controlled by prices.

We can, if we choose, regard this view of the subject matter of economics as a third type of definition, co-ordinate with the two which we have hitherto examined. Or we can treat it simply as a variant of one or other of them. Let us note, in any case, that it can be expressed in either a type A or a type B guise. The economics of the price system can be described equally well as the study of the production and distribution of wealth in an individualist economy, or as the study of the distribution of scarce resources among competing ends under individualist conditions.

13. What are the main issues as between those who wish to confine economics to individualist exchange economies and those who refuse to accept this limitation?

Let us note, in the first place, that the discussion affects the problem of "scarcity" only. About the "welfare" problem there can be no dispute: since the possibility of a conflict between the interests of a community as a whole and those of its members as individuals can only arise when courses of action which in fact have repercussions on economic agents other than those responsible for choosing them are decided upon without reference to such repercussions. In a crusoe economy this question cannot arise, while in a communist economy (as also within the circle of a family), where all the decisions are presumably made by a central authority, it merges with the general problem of how to use the community's (or the family's) resources to the best advantage.

This point apart, the problem may be approached from two different angles. First, can the economist perform any useful function from the point of view of the community as a whole by pursuing his studies outside the limits of the price system—will his results have any value either in their own right or as throwing light upon practical problems? And, secondly, can such studies be of any use to the economist himself—will they help him to understand the price system better?

(1) In the first place, nobody will dispute that in all economies there is an *economic problem.* Robinson Crusoe engages himself in the production of useful commodities, and has to economise his resources; the pursuit of wealth and the distribution of scarce means among competing ends is to be found in the slave states of the ancient world and the feudal communities of mediaeval Europe; communist Russia is concerned with the phenomena of scarcity and abundance, of economy and waste.

Neither, on the other hand, can it be doubted that it is in individualist-price economies that the economic problem lends itself most readily to elaborate scientific treatment. In other economies what matters is the specific choice of the individual in control (Crusoe himself, the communist dictator, or whoever it may be) and not, as in price economies, the *interactions* of the choices of different individuals. And it is in their interactions that choices become fit subjects for formal scientific treatment. We might write an economic history of a Crusoe, we can collect statistical information about the economic condition of Russia, and can discuss the problems involved in its economic policy; but in every case we shall be concerned with actual and concrete decisions, which are too unique in their character for it to be possible to build any extensive body of abstract generalisations about them. Pure theoretical economics is a "bourgeois" science, in the sense of being most at home in the price economy which has hitherto been associated with bourgeois civilisation.

From this point of view, then, the question in dispute is not so much about the practice of economists as about the ideal scope of economics. On the whole, the broader view seems the more reasonable. *If* crusoe or communist economics came to be susceptible of abstract-theoretical treatment, then the science which would investigate them would naturally be called economic theory. Moreover, since the phenomena of any price system directly arise from the choices of the individuals concerned, and from their activities as producers and consumers, it seems natural to suppose that economics must say *something* about those choices themselves, even if it be only to postulate that they are rational.[1] Why, then, should not economists extend their observations about indi-

[1] See above, pp. 37-8.

vidual decisions and preferences to include cases where they do not give rise to complicated reactions of price and exchange?

(2) Secondly, even though economics may be in the first instance concerned only with a price economy, yet the study of life on a desert island may be of real use to it for pedagogical or illustrative purposes.[1] We are obviously entitled, if we wish, to prepare ourselves for the complex picture of modern economic life by a preliminary consideration of cases in which the economic problem is simpler and more obvious. There are in this two points at issue. (*a*) Are such investigations in fact likely to be useful in this way or not? Cassel holds that they are not; other economists (for example, Professor Cannan) believe that they are. (*b*) Given that they can be of use, are they to be regarded as a part of economic theory in the strict sense, or are they merely ancillary to it, in the sense in which practising scales is ancillary to the acquirement of musical technique, though scales are not themselves music? Neither of these questions needs to be discussed here. The former is a matter of practical experience, and goes back in the end to the different temperaments of different economists, some of whom prefer to approach the abstract problems of scientific economics by indirect routes, while others prefer the direct method. The latter is little more than a question of words, once the former is disposed of. There is in fact a distinction between the area of theoretical economics as cultivated by some economists and the narrower field of the price system. If we agree to call the wider subject "economic theory"—which will then be applicable to all formal investigations of economic activity and the phenomena arising out of it—we can give to the specific study of the pricing problem some such name as "catallactics" or "the science of prices" or "the economics of the price system".[2] A verbal distinction of this kind will not solve the real problem of the legitimacy of studies of choices which are not studies of prices. But it may help us to keep the issues clear and to avoid wasting our time in fighting shadows.

[1] See on this, Kromphardt, "Cassels Ablehnung der Wertlehre", especially pp. 99-100.

[2] The term "catallactics" is due to Archbishop Whately, in whose *Introductory Lectures* is to be found a stimulating, if unsystematic exposition of the objections to defining economics in terms of wealth.

CHAPTER III

"ECONOMIC LAW"

BEFORE we leave the methodological and quasi-methodological problems with which we were concerned in the last chapter there is one term, of common occurrence in economic writings, which deserves examination on formal grounds—the term "law". Having dealt with it we shall be able to pass on to the contents proper of economic doctrine.

1. All students of the social sciences are familiar with the distinction between a "scientific" and a "juristic" or a "moral" law. The latter is a rule enjoined. It prescribes what must be or what ought to be, and orders, or demands, the conformation of those subject to it. The former is also a rule, but it concerns what is, not what ought to be. Scientific laws do not command people, or things, to behave under given circumstances, in a particular way; they sum up the way in which people, or things, under given circumstances do behave. In the language of preceding chapters, they are positive, not normative. It follows that whereas legal rules and moral precepts are sometimes disregarded or broken—even if they ought not to be—scientific laws must hold wherever the circumstances are found to which they apply. They cannot be broken; for if any case is found in which the rule they embody does not hold, the existence of this exception disproves the law as formulated. Suppose we assert as a law of physics that water boils at a temperature of 100° C. And suppose we then find that under certain conditions—e.g. when it is in a vacuum, or at the top of Mount Everest—water boils at a much lower temperature. We should never conclude that in these conditions it is "breaking" the law which prescribed 100° as its proper boiling-point. We should rather argue that there is no such law; that the relation between the boiling of water and the degree of heat was wrongly stated.[1] And if we were physicists we should try to reformulate the relationship

[1] This illustration is elaborated from Joseph, *Logic*, pp. 1-2.

by taking specific notice of the fact of varying pressure conditions. This may be done in either of two ways. The law may be *narrowed* by the insertion into its formulation of the clause "under particular pressure conditions—viz. a pressure of 14.696 lbs. per square inch". Or it may be *widened* into a formula for the relationship between pressure conditions and steam points in general. In either case our aim will be to arrive at a statement to which *no* exceptions can be found. Such a statement, if we can ever establish it, will be the expression of the *true* "law" of the boiling of water. If, on the other hand, no general formula can be found which is completely free from exceptions, that will show that there is in the strict sense no scientific law connecting the conversion of water into steam with the conditions of pressure and temperature. A true scientific law cannot be broken; it can only be wrongly formulated.[1]

2. The distinction between positive and normative laws has been accepted, and, indeed, expressly insisted upon, by orthodox economic theorists as being of the first importance for the understanding of the nature of economics. Economic laws, they say, are the expression of scientific uniformities, and must on no account be confused with commands or injunctions. They are indicative, not imperative; explanatory, not admonitory.[2] Nor is it uncommon to find in economic textbooks denunciations of those laymen who talk about "breaking economic laws". The fact, it is urged, that (for example) governmental intervention can maintain a commodity at a price higher or lower than the equilibrium point is no more a "breach" of the laws of supply and demand than is the ascent of an aeroplane a "breach" of the law of gravitation. And it is normally concluded that there is in principle no connection whatever between positive relationships of this kind and the enactments of the legal system or the maxims of moral codes, and that only the grossest carelessness can lead to a confusion between them.

[1] In actual fact, I understand, no convenient formula can be devised for relating boiling temperatures to pressure conditions, (owing to the difficulty of providing in general terms for the factor of latent heat). But *in principle* a formulation is possible—on the analogy of Boyle's law for gases—which would be of universal validity and would so be a "scientific law".

[2] See (for example) Marshall, *Principles*, Book I, chap. iii; Sidgwick, *Principles*, p. 13; Keynes, *Scope and Method*, especially chap ii; Bonar, *Philosophy and Political Economy*, p. 194.

That the above point of view represents an important part of the truth is undeniable. But it is not the whole truth. We have already seen [1] that where the subject of a universal judgment is a human agent, or a class of human agents, the judgment may contain both normative and positive elements; it may at the same moment assert an existing relationship and lay down a form of ideal behaviour. And what is true of universal judgments in general is true in particular of those judgments which embody "laws". Take any rule of law in the present-day British legal system: say, the rule which forbids the setting off of fireworks in the public highway. This law is clearly in the first instance a precept or order. It is an enactment which lays down what "ought to be" in a particular department of human behaviour. And as such, it can, of course, be broken. But it is not a *mere* imperative. Those who violate it are liable to be punished in certain ways which the rule itself lays down. What is asserted is not simply that the setting off of fireworks is illegal, but also that certain unpleasant consequences will follow if the illegality is committed. And in this latter formulation it is at once normative *and* positive. It indicates, on the one hand, the course of action which "ought" to be pursued by policemen and magistrates when confronted with offenders; and on the other hand it provides the private citizen—or his solicitor—with evidence from which to deduce what will in fact happen to him if he has offended. The latter of these two aspects of the law is, of course, dependent on the former. I can only argue "if I behave in this particular way I shall be punished", so long as I know that those entrusted with the administration and enforcement of laws will fulfil their functions. But in a country in which laws are regularly enforced—in the sense of rarely being broken *with impunity*—the statement of a rule of law comes to have a scientific and positive content; it sets out a causal relationship between a particular kind of human action and its consequences.[2]

So too, on the other side, what starts as the colourless

[1] Chapter I, pp. 17-18; cf. II, pp. 37 ff.

[2] See Pound, *Philosophy of Law*, pp. 60 ff., and the same author's "Science of Law". Some jurists have gone so far as to attempt to reduce the *whole* content of legal rules to the assertion of the effects of illegal courses of action. But we need not go so far as this in order to be able to recognise that codes of law contain positive elements.

formulation of a general uniformity in human behaviour may often acquire a normative content; it may cease to be a mere scientific theorem and become, in part, a practical precept. This phenomenon has been examined in the preceding chapters and needs no detailed discussion here. It will be sufficient to give an illustration. The early Utilitarians held that it could be asserted universally that men seek pleasure and will always prefer a more pleasurable to a less pleasurable course of action. As a statement of fact this is now generally taken to be untrue; and if it is untrue, then (from the purely positive point of view) it cannot express a "law" of human behaviour. But it can still survive as a *moral* law. For supposing we believe, as the Utilitarians did, that the world would be a better place if everybody *did* aim rationally at the maximisation of pleasure (provided that "pleasure" is properly understood), then we shall perhaps be prepared to assert that people "ought" to behave in this way. We shall then speak of those who choose less, in preference to more, pleasurable courses of action as "breaking" the law which "prescribes" the maximisation of pleasure.[1]

Double references of this latter kind are characteristic of all the main laws of economics. As economic theorists we may lay down, with Gresham, that bad money drives out good, and may claim that this theorem, provided it is hedged about with certain qualifications and restrictions, represents a universal positive law. For the coin-dealer or money-changer, on the other hand, it incorporates a most important practical maxim: if he wishes to maximise his profits he must convert full-weight coins into bullion and leave debased coins in circulation. Should he fail to do this he can with perfect accuracy be described as "breaking" Gresham's Law.

This point, however, is perhaps rather academic, at any rate so far as economic theory is concerned. It will not be disputed that economics as a theoretical discipline is concerned with laws in their positive, not their normative, reference. And in what follows it is assumed that by an economic law is meant a statement which, whatever its normative implications for business men or politicians, is of

[1] This illustration is, I think, due to Bertrand Russell, though I cannot remember in which of his writings it occurs.

interest to economic theorists as displaying uniformities and causal relationships in the actual economic world.[1]

It may be added that at least in the view of most economists—though their practice has shown considerable variations—the uniformity which a proposition asserts must be of a reasonably wide range and generality before the proposition is entitled to be called a "law", or the expression of a law. "An increase in prices will tend to reduce demand" would usually be called an economic law; "an increase in cats will tend to reduce the number of mice", though it is formally identical and makes an equal claim to universal validity, would not be similarly honoured.[2]

3. So far we have been assuming that economic laws in their positive aspect, are "scientific", not merely in the sense of being concerned to enunciate truth for its own sake, but also in the sense of being hypothetical and "abstract".[3] We have taken for granted that they assert a relationship between two (or more) possible sets of phenomena, rather than the existence of these phenomena in the actual economic world. We must now ask how far this assumption is justifiable. Given that an economic law is in some sense the expression of a "uniformity", is this uniformity a summary of information as to historical facts, or is it a connection between hypothetical situations? Does the Malthusian law of population, for

[1] Nevertheless, confusion has sometimes arisen from neglecting the normative implications of certain economic doctrines. When the nineteenth-century advocates of *laissez-faire* opposed workers' combinations and factory acts on the ground that they were contrary to the teachings of Political Economy, which prescribed freedom of contract and pure competition, they were *not* guilty, as Sidgwick (*Principles*, p. 13 n.) and others believed, of an elementary misunderstanding of the nature of economic thought. The classical Political Economy, particularly in its more popular versions, *did* embody maxims of policy which enjoined *laissez-faire* at home and abroad. Most people would now agree that some of these maxims were wrong. But they were wrong, not because they did not follow from the classical theoretical analysis, but because that analysis was itself faulty. If their positive conclusions had been correct, the normative implications of these conclusions would have been inescapable. Once more it must be insisted that at least *some* of the doctrines of theoretical economics can only be kept within the purely positive sphere as a result of the personal self-restraint of their exponents.

For a pretty example of the process whereby a positive doctrine may become normative see the discussion of the Labour Theory of Value in Chapter VII, Appendix, especially p. 120.

[2] Dr. Bonar (*Philosophy and Political Economy*, p. 194) holds that no economic principles have sufficient generality to be entitled to be called laws. At the other extreme, Mill was prepared to give the name to almost any universal proposition, however narrow.

[3] I.e. "universal"; see p. 6 above.

instance, assert that population *will* as a rule increase up to the starvation level—or does it lay down that if people beget the maximum number of children of which they are biologically capable population *must* increase up to the starvation level? In the first of these formulations it claims to give factual information; in its second it claims to indicate a universal relationship between a certain kind of human behaviour and its economic consequences. The former is a matter of fact, the latter of hypothetical truth.[1]

Formally these two types of law are quite distinct. No confusion can arise in theory between judgments of the form "A exists" and of the form "*if* B, C, and D exist, *then* A must exist too. But for working students of economics—as we have already seen[2]—universal and enumerative judgments are often closely interlinked, and may be expressed by one and the same proposition. The economist is usually concerned neither with facts alone nor with relationships alone, but with the embodiment of relationships *in* facts. He wants, not merely to know that certain events have taken place, nor merely to construct hypothetical chains of cause and effect, but to *understand* events in terms of general principles. And consequently, the laws which he formulates will to a greater or less extent be *both* universal *and* enumerative. On the one hand they will assert—if they are not to be completely empty—something about the concrete phenomena studied; on the other hand they will exhibit these phenomena—if they are to be more than a blind array of facts and statistics—as being the result of certain predisposing conditions, and as being necessary given those conditions. In some cases, no doubt, the enumerative element will be nearer to the centre of his interests, in other cases the hypothetical element. But if the main object of economists is to formulate "significant generalisations" about the economic world, then the measure of their success will be their ability to formulate laws which are equally important as summaries of historical fact and as expositions of scientific uniformities.

[1] The "abstract" formulation, as given above, is of course incomplete. For scientific accuracy it would be necessary to deal with possible exceptions to the universality of the rule by the insertion of clauses excluding cases in which *either* human fecundity declined *or* land showed indefinitely constant or increasing returns. But the *form* of the law remains unaffected by these additions.

[2] Pp. 14-15 above.

This union of the enumerative and the universal is well illustrated in the Malthusian law. Neither of the two formulations of the law given above represents what Malthus really wanted to say. He was concerned to assert a combination of them: namely, that population would constantly press against subsistence *because* the fecundity of the human race was greater either than its foresight or than the fertility of land. In its purely historical aspect this proposition is false: in its purely hypothetical aspect it is a truism. But the whole point of it lies in the fact that it is neither purely historical nor purely hypothetical. It is an attempt to interpret a concrete economic situation with the help of certain *a priori* principles. And it can only be properly appraised if this is clearly understood.[1]

Under the circumstances, then, it seems misleading to maintain, as Sidgwick, for example, does,[2] that there are two distinct types or levels of law in economics. Still less is it desirable to carry the distinction over into actual nomenclature. Some economists have proposed to confine "law" to propositions asserting hypothetical relationships, preferring to describe the assertions of historical uniformities as merely the "applications" of laws.[3] More recently it has been urged, on the contrary, that economic laws are *always* concrete and empirical, and that the statement of an abstract relationship is to be regarded, like a theorem in geometry, not as a law, but as a "propositional function".[4] The objection to both these points of view is that they departmentalise what should be synthetised. The distinction lies not between two sets of propositions but between two aspects of the same propositions. It is a distinction of formal logic, not of economics.

[1] For a full discussion of the methodological side of the Malthusian controversy, see Cairnes, *Logical Method*, Lecture VII. Cairnes fully recognised the combination of the historical and deductive in Malthus's law, but did not swerve from his conviction that Political Economy was a purely hypothetical science.

[2] *Principles*, p. 143.

[3] This procedure seems to have had the approval of Edgeworth ("Laws of Increasing and Diminishing Returns", p. 62), though the issue is in his case complicated by his thinking of an abstract law as, not a kind of universal judgment, but a kind of general concept. See on this below, § 4.

[4] Kaufmann, "The Concept of Law in Economic Science", especially pp. 104 f. Dr. Kaufmann is of course right in insisting that economic laws, as defined by him, may have more or less theoretical validity. But any theoretical validity that they may have is due precisely to the fact that they are not merely empirical.

The foregoing discussion may help us to understand the fondness of economic writers for the words "tend" and "tendency". The natural way of laying roughly equal emphasis on the universal and enumerative aspects of a proposition is to cast it in the form "A tends to be B". For that implies *both* that there is a universal connection between A and B as such, *and* that actual situations are likely to arise in which this connection is displayed. "Goods tend to flow to the dearest market", for instance, expresses both the abstract judgment that (given certain assumptions as to the motives of buyers and sellers and the possibilities of goods-transference) if there are price differences there will be a movement from the low price to the high price area, and also the historical generalisation that in fact prices are commonly the same for any one commodity at the same time and in the same area. Taken separately these two judgments would be barren: together, they represent one of the most significant of the generalisations of classical economic theory.[1]

4. The last point to be noticed is much less fundamental. We have been taking for granted that whatever a law may be, whether positive or normative, universal or enumerative, it is at any rate something which can be expressed in a *proposition*, i.e. in words which form a sentence, with a finite verb. This assumption would probably command the assent of all natural scientists as also of historians, jurists and moral philosophers. In economic writings, however, the word is not always used in this way. Some of the "laws" of economic textbooks are of the nature, not of judgments, but of *concepts*. They do not assert a uniformity, they merely formulate a general idea. Compare, for example the law of diminishing utility with the "law" of diminishing returns. The former lays down (in Marshall's words)[2] that "the marginal utility

[1] I have been tempted to expand the above section very considerably. It seems to me to throw a really important light on the significance of propositions of the type "A tends to be B" and thus on the meaning of the word "tendency". But this is not a work on pure logic or on scientific method, and what I have said here is perhaps sufficient for my present purpose.

It should, perhaps be added that the success of the proposition "goods tend to flow into the dearest market", in combining the enumerative with the hypothetical depends on the assumption that commodities can be grouped in classes of completely "substitutable" units. When they are not so classifiable the enumerative aspect becomes highly dubious—as we shall see later (Chapter VIII, pp. 129-133 ff. below).

[2] *Principles*, p. 93.

of a thing to anyone diminishes with every increase in the amount of it he already has". This is a proposition which indicates a general uniformity, both enumerative and abstract, of human experience. The latter is not as such expressible in a proposition at all. Let us quote the paragraph in which Professor Flux seeks to provide a definition of it:

> If one or more of the industrial agents, the cooperation of which is necessary for the production of any commodity, be increased, the others remaining unaltered, the amount of the product will generally be increased. If the increase of the product be in a less proportion than the increase of the industrial agents considered, we express this fact by saying that in this case the product obeys the law of diminishing returns.[1]

From this it is easy to learn what Professor Flux means by the *term* "diminishing returns". It is the name given to the situation in which increases in the output of a product are less than proportionate to increases in the use of some of its factors of production. Now, this situation is one which is very commonly, if not invariably found in economic life.[2] And the concept of diminishing returns has played a most important part in the development of economic analysis. But it is not a *law*. It is a situation or state of affairs—actual or hypothetical—and nothing more. It presents itself to our thought as a concept, not a judgment, and is expressed in language as a term, not a proposition.

If we are strict in our use of words, then, we shall refuse to dignify "diminishing returns" with the name "law". It may of course *enter* into economic laws. For it may be related in propositional form either to other general concepts or to actual economic conditions; as when we assert, for example, that "under conditions of diminishing returns an increase in output tends to be associated with a rise in unit price" or that "diminishing returns tend to be characteristic of agricultural production". But such propositions—if they have a sufficient degree of generality to be called laws—are not "laws of diminishing returns" but laws of value or production.

So, too, with a number of other concepts—increasing returns, decreasing and increasing costs, joint cost and so on.

[1] "Laws of Political Economy", p. 583.

[2] It is almost certain to be found in any *equilibrium* situation. (See on this, Clark, *Overhead Costs*, chap. iv, *init.*).

All of these are important and useful working tools of economic analysis. But they are not themselves laws, they are merely the raw material from which laws may be constructed.[1]

[1] See further on this matter Supplementary Note 2 on p. 377.

CHAPTER IV

"VALUE"

WE are now ready to turn our attention to the content, as opposed to the form or scope, of economic theory. It seems proper to start with "value", both because the theory of value has always been regarded as the corner-stone of economic analysis, and because the difficulties with which that theory has been confronted are to an exceptional degree the result of terminological and conceptual ambiguities. The disentangling of the various concepts involved is a painful and difficult business, and for that very reason the distinctions between them must be punctiliously observed.

1. We are not here concerned with *all* the senses in which the word "value" is used. In ordinary speech it is used in a number of non-economic ways. And recently it has been taken over by philosophers and has become the centre of active debate among them.[1] But even if we confine our attention to those of its uses which are strictly relevant for economics we shall find its content highly uncertain. We talk in everyday life of getting value for our money, of selling goods below (or above) their true value, of particular things being valuable in particular ways, of valuing one thing more (or less) than another, and so on. In phrases such as these—all of which, it will be agreed, have at least a partially economic significance—it is possible to detect the following main senses in which the term is used.

(1) By the "value" of a thing may be meant, first, what it costs to make. When we say that an article is being sold below its value, we mean—or at least we *may* mean—that the price that is paid for it is so low as not to provide a reasonable return to its producers; when shopkeepers adver-

[1] For a discussion of philosophical value and its relation to economic value, see Laird, *The Idea of Value.*

tise their half-yearly clearance sales by declaring that "all goods are to be sold regardless of value" they wish to give the impression that they are prepared to accept prices which represent a pure loss to themselves. In these sentences, the "value" of a thing comes to mean the amount that one will expect to pay for it assuming that there has been no unusual waste or inefficiency in its production and that none of the producers either of it itself or of its constituent parts are making either losses or unreasonable profits. Value, in other words, here equals normal costs of production.[1]

(2) Secondly, we may mean by the value of an article the amount of other articles, or of money, which we can get for it if we are prepared to sell it, or will be required to pay if we wish to buy it. If we say, for example, that at current prices a ton of bar iron is equal in value to an ounce of fine gold, or that a diamond is more valuable than a pearl of the same size, we probably mean no more than that we can get a ton of iron for the same money as an ounce of platinum, or that we will have to pay more for diamonds than for pearls. There is here no necessary implication that the commodities compared are produced under normal conditions or sold at prices corresponding to costs of production. We should still call diamonds more valuable than pearls if we knew that the former were sold at prices far above, and the latter at prices far below, what would represent a reasonable return to their producers. What concerns us is not conditions of output, but ratios of exchange.

The contrast between these two senses of the word can be seen clearly from the relationship which they imply between the value of a thing and its price. In the first sense the value of a thing is its "normal" price—that is, it is the price which will be paid for it if certain conditions as regards the profitability of its production and sale are fulfilled. If these conditions are not fulfilled its actual price will be above, or below, its "value", so understood. In the second sense, on the contrary, the only difference between value and price is that the former may refer to the ratio of exchange between the commodity in question and *any* other commodity, whereas the latter usually refers only to its exchange ratio against

[1] See on this Chapter VI below, pp. 95-6 ff., Appendix to Chapter VII, pp. 118-19, 123.

money. We can say, then, that in this sense price equals money-value.[1]

(3) Thirdly, "valuable" is sometimes used in ordinary speech as the equivalent of "useful". When I talk of the "value" of a good memory in the study of history, I mean simply its helpfulness, its ability to be of use in this particular field; when I say that pickaxes are more valuable in mining than in farming, I mean that they are more serviceable and more appropriate in the former than in the latter occupation. In neither case has the word anything to do with costs of production, or with rates of exchange. A good memory has in the ordinary sense no cost of production and cannot be bought or sold. And while a pickaxe is both costly to produce and has a market price, yet its "value" in these two senses is irrelevant in this particular context: it will cost the same amount to produce, for whatever purpose it is used, and will presumably bear the same price for the farmer as for the miner—and yet it is more "valuable" for the latter than for the former. Value here, then, simply means usefulness, or *utility*.

2. So far we have seen three senses in which the word is used in ordinary speech. Confusion is liable to arise between them, not merely because a speaker using the word in one sense may be understood by his listeners in either of the other two—a mishap which can be avoided by substituting in any doubtful case a less ambiguous word or phrase—but also because the various senses are not always clearly distinguished even in the minds of its users. The phrase "getting value for one's money", for example, combines the ideas of (*a*) not buying things at more than their proper or normal price—

[1] See (for example) Walker, *Political Economy*, p. 82. Under certain circumstances even this difference disappears. Economists may find it desirable to adopt a standard for the comparison of exchange ratios other than money. Thus, Professor Pigou sometimes uses wheat as such a standard, and speaks of the "wheat price" of iron, boots and shoes, labour, etc., meaning the number of units of wheat for which a unit of any one of these things will exchange. If we wished to distinguish between their "wheat price" and their "wheat value" we could only do so by saying that the latter is the amount of wheat which exchanges for *any given quantity* of the commodity in question, whereas the former is the amount which exchanges for *one unit* of it. In this case the price of a thing is its *unit* value. But there cannot be many contexts in which this contrast is of much importance (*cf.* Pareto, *Manuel*, p. 208).

We shall see, however, that exchange value, like cost value may have to be understood in "normal" rather than in actual terms; in which case the "price" of a thing (its *actual* exchange ratio) may be once more contrasted with its "value". See p. 69 n below; and cf. also p. 65 n. for another possible distinction between the two terms.

i.e. not giving money away in excessive profits or in the subsidisation of inefficient production—and (*b*) buying only those things which are really useful to the buyer. So too, a "valuable" piece of apparatus is a piece of apparatus which is not merely useful, at any rate to the scientist who requires its services, but is also *either* difficult and costly to make *or* highly priced in the market, or both. In the first of these illustrations two, in the second all three, of the primary senses of the word are combined, and we cannot pin it down to any one sense taken in isolation. There is no question here of the ambiguity of a word, but of the complexity of the concept which the word is intended to express.

One particular combination of the simple senses of "value" needs especially careful attention. If a thing is useful to me, and if at the same time I cannot have all that I want of it, either because it is naturally scarce or because it is costly to produce or highly priced, I am likely to attach importance to it or esteem it; I will set store by such units of it as I already possess, and will be anxious to acquire more units if I can do so without excessive difficulty or sacrifice. It will have a "value" for me in the sense of being an object of my esteem or regard. The extent to which I shall value it, in this sense, will depend, not merely on its usefulness, but also upon the ease with which I can acquire it, whether by exchanging other things for it, or by devoting my own time and enegy to its production. If it is so plentiful that I can secure and retain all that I need of it without any sacrifice, then however useful it may be my desire for it will be completely satisfied, and I shall set no store by it: it will have for me, in this sense, no value.[1]

We have thus discovered no less than four senses in which the word may be used in ordinary speech. Let us define them as "cost-value", "exchange-value", "use-value", and "esteem-value". Note that they do not represent four *kinds* of value. We have no ground for supposing that they are co-ordinate species of a genus and that there is a fundamental

[1] "Esteem-value" is, I believe, due to Jevons (*Theory*, pp. 85-87); though the *idea* is of course much older (below, p. 72 n.), and though it is identified by him —mistakenly, as I hold—with "final utility" (see Chapter V, pp. 81-4). The use of the *noun* "value" in the sense of esteem is not very frequent in economic writings. But it constantly appears in *verb* form—as when reference is made to the "act" of valuing a commodity (=the attaching to it of (*esteem*) value).

generic concept of "value as such" of which they are the forms or expressions. They are not different types of value (the concept), but different senses of "value" (the word).[1]

3. Not all of these senses, however, are regularly used in economics. On the one hand, value is never—or hardly ever[2]—used in the sense of cost of production—indeed, economists have rarely recognised that the word is liable to be so used in popular speech. Similarly, use value is always now known to economists by a special word (as a rule, the word "utility")—though the reason in this case is not that they are unaware that "value" may mean usefulness, but that they are too well aware of this, and of the confusions to which it is liable to give rise. So far as works on economic theory are concerned, therefore, "value" means either exchange value, or esteem value. And in general it has been understood (as we shall see later) that it is with these two senses that the economic theory of value is primarily concerned. For the remainder of this chapter, therefore, we may confine our attention to exchange- and esteem-value. The problems connected with the concepts of utility and cost will be examined in Chapters V and VI.

4. Let us start with exchange value. It may be conceived of in three different ways. Let us imagine a primitive community in which only two things are ever exchanged—say apples and potatoes. And let us suppose that on a given day conditions are such that ten potatoes are exchanged for one apple—in the sense that if any individual possesses apples and wants potatoes he can obtain ten potatoes for every apple he gives up, while if he possesses potatoes and wants apples he must sacrifice ten potatoes for every apple which he acquires. Then the exchange value of apples is evidently given, for that day, by the formula: ten potatoes exchange for one apple. But this does not amount to a *definition* of the concept. If we ask what under the given conditions *is* the exchange

[1] On this distinction see above, Chapter I, pp. 13 f. The suggestive treatment of value by C. M. Walsh (the first person, so far as I am aware, to develop a quadripartite classification along the above lines) is seriously weakened by his failure on this point. He assumes throughout that he is concerned with four "species" of value—an assumption which not merely leads him to define them rather oddly, but also prevents him from giving any adequate account of the relationship between them. (See his *Four Kinds of Value, passim.*)

[2] See for an exception Chapter VI, pp. 95-6 below, and Appendix to Chapter VII, especially p. 123.

value of apples, then the answer may be *either* (1) that it is the rate or ratio at which apples and potatoes exchange (viz. 10:1); *or* (2) that it is the power which apples confer upon their owners of obtaining potatoes; *or* (3) that it is the number of potatoes which each apple will buy. In the first case we are defining it as the *rate of exchange* of potatoes against apples, in the second as the potato *purchasing power* of apples, in the third as the potato yield, or *equivalent*, of apples.[1] The first represents exchange value as a relationship between the valuable commodity and something else. The second represents exchange value as a quality of the valuable commodity itself. The third represents exchange value as an amount or quantity of the other commodity.

When more than two types of commodity are involved—when, for example, one may sell apples for oranges and bananas and all sorts of other goods, and may buy apples by means of any one (or more) of these other goods—the concept of exchange value must be correspondingly broadened. But its three forms can still be distinguished: it continues to be expressible in terms either of rates of exchange, of purchasing power, or of exchange equivalents.

5. These forms of exchange value are closely and indeed inextricably bound up with one another. "Rates of exchange" is connected with "purchasing power" as relation with relational quality; "purchasing power" is connected with "exchange equivalents" as thing measured with measure. Both these connections deserve attention.

(1) To understand the first a further brief excursion into the field of pure logic is unavoidable. It is customary among logicians to distinguish between the "qualities" of a thing and its "relations" (or relationships) on the basis that the former are *internal* to it while the latter are *external*.[2] It would

[1] These expressions are not wholly satisfactory. The second point of view is not merely the power which the possession of an apple confers upon its owner to acquire potatoes, but also the liability which it lays upon anybody who wants it of *sacrificing* ten potatoes for it. Strictly speaking, therefore, we ought to speak of the potato "purchasing or sacrifice power" of apples. So, too, the potato "equivalent" of apples is not merely the number of potatoes which selling an apple "yields", but also the number of potatoes which buying an apple "absorbs". The contrast here is between *selling* and *buying* values. It may be of considerable practical importance; e.g. when we are concerned to study marketing costs. But we need not trouble with it here.

[2] The word "quality" is here used to cover both "properties" and "attributes", the distinction between which is not relevant in the present context. Nor

retain its "qualities" even if it were alone in the universe, whereas it can only have "relationships" if there are other things for it to be related to. The ultimate validity of this distinction has, indeed, given philosophers much trouble. But for the present purpose it may be accepted without question. Nevertheless, it is not easy to say exactly where the dividing line is to come. In the first place, the possession by an object of certain qualities may relate it, at least *potentially*, to other objects. If we know that a particular thing is made of iron, and has the physical qualities which characterise iron, then we also know that if it is brought into proximity with a magnet it will tend to be attracted towards it. The qualities of iron are such as to involve magnetic relationships, under suitable circumstances. So, too, with most, if not all, of its qualities. It has mass, and is therefore related by gravitation and attraction to the earth and other heavy bodies, it has opaqueness, and so is related in a particular way to light rays, and so on. Because it is what it is, i.e. has its own particular qualities, therefore it has specific and determinate connections with other things in the universe.

And on the other hand, all relations can be treated, if so desired, as qualities of the things related. If one thing is greater (or smaller) than another thing, or is its cause (or effect), or is temporarily and spatially a certain distance away from it—these are all relationships between the two, and yet they are also facts about either one of them, and indicate what may with perfect accuracy be termed attributes or qualities. The ability to attract iron is a quality of a magnet: the ability (or liability) to be attracted by a magnet is a quality of iron.

But the fact that all qualities involve relations and that all relations can be expressed as qualities does not mean that the distinction between the two has no importance. It is still possible, at least provisionally, to distinguish those qualities in a thing which, though they may give rise to relationships with other things are yet in the first instance qualities, from those qualities which are simply the expression of such relationships. The former may be termed "intrinsic" the

need we concern ourselves with the exact difference between "relation" and "relationship" — though an application of the argument of the next few paragraphs suggests readily enough that "relationship" is used when we wish to think of relations as (relational) qualities of the thing or things related.

latter "relational" qualities. A given rag has the quality of redness. That is—we need not dispute it—an intrinsic quality; even if nothing else existed in the universe, the rag would still be red.[1] But being in the existing world, the fact that it is red will involve it in relations with these other things. For example, it may induce indignation, or rapid motion, in a bull. And *this* is not merely a relationship between the red rag and the bull; it is also a fact about the rag. We now know that the rag possesses not merely the "intrinsic" quality of redness, but also, and as a result, a "relational" quality—viz. the power to stimulate bulls. This latter quality, it is to be observed, does not *cause*, or *account for*, the relation between the rag and bulls. It is merely a way of *expressing* that relation.[2]

It is in this second way that exchange rates and purchasing power are connected. The former is a relation between two (or more) commodities. The latter is that relation reflected back on to one of the commodities as a "relational quality". It follows that to speak of the exchange-value of a thing as its purchasing power and as the rate at which it exchanges for other things represent merely two different ways of expressing the same meaning. Much controversy has raged round the question which of the two it is. Some economists have urged that it is a relation and nothing but a relation; that the value of a thing is simply and solely the rate at which it exchanges with other things. Others, on the contrary, have insisted upon their right to regard it as a property or attribute

[1] To call red an "intrinsic" quality of a thing is to tread a metaphysical quicksand. Can a thing have a colour if nobody is looking at it? This question, like the problem of whether the mulberry tree continues to exist when there is nobody in the quadrangle, is one which economic theorists are not called upon to answer. But in defence of the point of view here adopted it may be remarked (1) that the relations with which we are at the moment concerned are purely relations between objects, *not* the subject-object relation—and no one will dispute that an object could have a colour even if it were the only object in the universe, *provided that* it could be observed; and (2) that if we choose we can always *define* red in such a way as to make it independent of visual observation, without invalidating the argument in the text; in other words, if a rag is not red when no one is looking at it, then it is something else of the same name.

[2] This does not, of course, mean that it can have *no* causal power. On the contrary, it is clear that the fact that red rags will stimulate bulls may have a decisive influence upon people's behaviour—it will induce them either to display or to conceal any red cloth they may be carrying when in the vicinity of bulls, according as their object is (like matadors) to stimulate, or (like ordinary persons in country fields) to avoid stimulating, the bulls to activity. But in such cases as these it is not the relational quality as such, but the relation of which it is the expression, which really exercises the causal force. The relational quality is as such a reflection, and nothing more.

of the things exchanged. To a large extent, indeed, this latter point of view is based upon the desire to define value in terms of esteem, rather than of exchange, and therefore represents a confusion between two of the main senses of the word. But so long as we avoid this confusion, and so long as we also remember that exchange value, if a quality, is only a *relational* quality—viz. the quality of purchasing power—then no harm will be done in speaking of it in qualitative as well as in relational terms.[1]

(2) Secondly, as to the connection between purchasing power and exchange equivalents. The former is the (relational) quality of exchanging at a given rate or series of rates with other things. This quality is not something which is as such measurable or expressible in quantitative terms. In order to know not merely *what* the purchasing power of apples is (i.e. what we mean by the phrase) but also *how great* it is, we must be able to observe how much it will in fact yield, in terms of other things, when bought in the market.[2] In the same way, we measure the heat of an oven by placing a thermometer in it and observing the height of the mercury in the tube. And if it is the measurement of heat, rather than the nature of heat as such, which interests us—if, for example, we want to know *how* hot the oven must be in order to roast a leg of lamb, or to decrystallise, without burning, a lump of sugar—then it will be natural for us to say that the heat of the oven "is" so many degrees Centigrade or Fahrenheit. We shall tend to identify degrees of temperature with intensity of heat. This is an exact parallel to our procedure when we say that the exchange value of an apple "is" ten potatoes or two lemons, or whatever it may be. Nor are these expressions really misleading for practical purposes. Logically, however, the distinction between purchasing power and exchange equivalents is clear and unmistakable. When Walker defines value as "power in exchange", or as the power which an article confers upon its possessor of purchasing other com-

[1] The purely relational view is championed (among others) by Jevons (*Theory*, pp. 87 ff.) and Pareto (*Manuel*, p. 208), the qualitative view by Walker (*Political Economy*, p. 5, etc.). There is, indeed, slightly more in this issue than meets the eye, as we shall see in § 6, pp. 66-7 below.

[2] In a money economy, indeed, it is possible—and usual—to speak of "amounts" of purchasing power, which are then conceived of in terms of an abstract scale of units bearing monetary names. We shall have much to say about this in Chapter IX (pp. 141-6, 151-5). For the time being it can be ignored.

modities in exchange for itself, what he is saying is not the same, though it amounts to the same, as the old saw that the value of a thing is "just as much as it will bring".[1]

Thus we do not have to make a final decision as between the three ways in which exchange value may be conceived. The relational interpretation, indeed, may be called the most fundamental; for, as we have seen, exchange value as a quality is derived from and reflects exchange value as a relation, and exchange value as a quantity provides a means of expressing and measuring exchange value as a quality. But the truth is that each of them is suitable in its own particular field. When stating the theory of value in general terms we shall naturally adopt the first; for the theory of value sets out to explain what determines the ratios in which things exchange for one another, and is interested, not in the qualities or quantities of this or that particular commodity, but in the interconnections of commodities with one another. But if we wish to particularise and apply our theories to any one commodity we shall naturally shift to the qualitative concept and think in terms of purchasing power.[2] And if, finally, our problem is quantitative or statistical—if, for example, we want to measure the amount by which a commodity has changed in value during a given period or to compute "in value terms" the exports of a particular country, or the output of a given industry—we shall confine ourselves to a discussion of exchange equivalents, and observe how much of other commodities—or else, how much of a particular commodity, such as money—will exchange for the articles we are considering.[3] So long as we remember that both the quantitative and the qualitative concepts of value are derived from, and dependent upon, the relational, there is no real inconsistency or error in using all three, even in the course of the same argument.[4]

[1] Davenport defines the exchange value of a commodity as "reporting" its exchange relation to any other (*Economics of Enterprise*, p. 24). I should guess that "reporting" meant, roughly, "measuring"—in which case he is among those who interpret value quantitatively. Oppenheimer, on the contrary (if I remember aright) defines *value* (i.e. exchange value) as purchasing power, and uses "price" to describe exchange equivalents.

[2] The obvious example of this shift is to be found in the case in which the commodity under consideration is money. The value of money is regularly understood to be its purchasing power. (See below, Chapter IX, p. 136 etc.)

[3] On the phrase "in value terms" (="in money terms") see below, pp. 144 ff.

[4] On the dangers, however, which may arise if we *forget* the primacy of the relational view see Robbins, *Nature and Significance*, chap. iii, especially pp. 58 ff.

6. We come now to a rather intricate series of points which must be disposed of before we pass on to the consideration of the other main senses of "value". In the first place, are we to conceive of the exchange value of a commodity as a relationship (or quality) of the commodity *as a whole*, or of each unit of the commodity taken separately? The phrase "rate of exchange" is in strictness only applicable on the former assumption; for a "rate" implies some sort of *uniformity* in the units in connection with which it is employed, and is not therefore an appropriate term if we are thinking of the value relationships of *one* unit of a commodity only.[1] But it is clear that ordinary usage is undecided on the point. When we say that the value of a commodity is rising (or falling) the "value" in question is obviously that of all the units which comprise it. But we may equally refer to the value of one unit as being higher than that of another, or as being higher today than it was yesterday or three months ago. In the one case we are using the word "collectively", in the other, "distributively"; from the latter point of view it is the *units* of the commodity which matter, from the former it is the commodity itself as an aggregate or *class* of units.[2]

Secondly, value may be interpreted either "continuously" or "discretely", acording as we hold a commodity to be valuable in so far as it is *exchangeable*, or only at the moment when it is actually exchanged. In strictness we ought probably to understand it in the latter, narrower, way. For if it is fundamentally an exchange *relation*, then it can only exist when exchange actually takes place. But for ordinary purposes the wider point of view is much more natural. And so long as a commodity *can* be exchanged at given rates with

[1] Cf. on "rate" Chapter XII, pp. 213-14, XVI, pp. 330-31, and on the concept of a commodity-unit Chapter VIII, pp. 126-7. Where only one commodity unit is in question the value relation shows itself as a *ratio*, not a rate. (See on this the somewhat arid controversy between Clark and Anderson entitled "The Concept of Value", especially pp. 667 ff., 682 ff., 717. Note, however, that in these passages the distinction between a ratio and a rate is taken to be that the former can only be used where the things related have a common quantifiable quality whereas the latter may be used in cases where the things related are not so commensurable.)

[2] We can see the contrast clearly if we compare the two equivalent propositions: "In a perfect market all the units of a given commodity have the same value at any one moment"; and "in a perfect market a given commodity has only one value at any one moment". For "collective" and "distributive" see (for example) Keynes, *Logic*, pp. 12-13; though I am here using the words in a slightly different sense from that in which logicians usually understand them.

other commodities we shall almost certainly regard these rates as representing its value even though they are not often put to the test of actual purchase and sale. Indeed, it is only on this view that the qualitative aspect of value (as "purchasing power") has any meaning; since it is evidently of the essence of purchasing power that it should belong to a commodity even when that commodity is not in course of being offered for sale.[1]

These points are not in themselves very serious. But they lead up to a third distinction which is of fundamental importance for the scope and content of value theory. We have been assuming that in order to have a given value a commodity must be at least *capable* of being exchanged with other commodities at the rates which constitute that value: that if the owner of any unit of the commodity should at any moment decide to sell it he will have no difficulty in finding a purchaser at the current price. Now in the real world this assumption is by no means always realised. A dwelling-house, for example, may have a "potential" value of (say) £2000. But if its owner decides to sell it he may have to wait a period of months or even years before he finds anybody who will in fact pay as much as this. An immediate or "forced" sale may mean that the *actual* price he receives is far below the £2000 which the house is potentially worth. So too on the side of demand: if I propose to buy a house, and if it is imperative that I should secure one without delay, the price I must pay will in all likelihood be considerably higher—or else the house I can obtain will be considerably less attractive —than if I had been in a position to wait until a suitable seller came forward. In cases like these the actual terms on which the house changes hands are affected not merely by the conditions of supply of and demand for houses in general but also by the special emergency in which the seller, or the

[1] The importance of purchasing power as a "continuous" quality will emerge clearly when we come to discuss the term "money" (see Chapter IX below, especially p. 136). Meanwhile, we may note that *if* value in its relational aspect is interpreted "discretely", then the connection between it and purchasing power is not quite so close as the last section led us to believe. A commodity can now have "purchasing power" even when it has in the relational sense no "value". The desire to stress the "continuousness" of value may help to explain the unwillingness of some writers to admit the primacy of the relational point of view. (Cf. Anderson, *Social Value*, especially chap. ii., *Value of Money*, pp. 5-7. It is obvious, however, that Anderson really means by "value" not exchange value—which he calls "ratios of exchange"—but *esteem* value.)

buyer, finds himself. This being so, what are we to regard as the "value" of a house? Is it the price at which it in fact changes hands—or is it the price at which it *might be expected* to change hands in the absence of fortuitous disturbing elements of this kind? Are we, in other words, to think of value in "actual" or in "normal" terms? So far as economic theory is concerned the latter is obviously the more attractive, if only because the accidental circumstances entering into any particular exchange transaction are not as a rule susceptible to analytical treatment in general terms. But if we accept it then we can no longer assert that the value of a thing is the rate or rates at which it exchanges for other things; for it is now perfectly possible that a commodity may change hands at a price either far below or far above its "value", so understood.

We have thus found three different ways in which the concept of exchange value is ambiguous. It may be understood either "collectively" or "distributively", either "continuously" or "discretely", either "actually" or "normally". We cannot attempt to follow up all the implications of these distinctions. But two points are worth noticing for the sake of what is to come in later chapters.

(1) In the first place the distinctions are very much less important for some commodities than for others. If there is a ready market for a commodity—if it comprises a large number of more or less identical units, if these units change hands frequently, if the number of purchasers and sellers is large—then it will be a matter of indifference whether we interpret its value collectively or distributively, and whether we think of it as a continuous quality or a series of discrete relationships; and furthermore, the rate at which each unit actually changes hands will approximate to the general or "normal" rate for the market as a whole. But if these conditions are not present (as in the case of dwelling-houses), not merely may the divergence of actual rates from normal rates be considerable, the whole concept of "normal" exchange value itself may become empty and meaningless.[1]

[1] The "normal" value of a house, we have seen, can only mean the amount which could be obtained for it (or which would be paid for it) if neither the seller nor the buyer were faced with an imperative necessity to complete the transaction without delay. It is in fact its value *given time*. But the lapse of time itself may affect the general conditions of supply of and demand for houses and

And this means that a theory of value which runs in normal terms applies only to commodities in which there is an active market. Or rather, it must take for granted in the case of commodities in which there is *not* an active market that the buyers and sellers can afford to wait until a suitable moment presents itself for completing their bargains. Value theory, then, deals with "long-run" phenomena, not—or at any rate not necessarily—with the actual purchases and sales of the market place.[1]

(2) Secondly let us observe the significance of our argument for the concept of *purchasing power*. What we have said shows that it is really a two-dimensional quality. Commodities may differ from one another, not merely in the *amount* of their purchasing power, but also in the extent to which that purchasing power can be readily made effective in the market—i.e. in the extent to which it is *liquid*. As we shall see later, the distinction between liquid and illiquid forms of wealth—between resources which are immediately saleable at normal rates of exchange and resources whose actual market price is likely to be to a greater or less extent determined by fortuitous circumstances connected with the precise moment of sale—this distinction is of the utmost importance not

so change the "normal" value of this particular house. And thus the whole concept becomes a figment or abstraction—an abstraction which might be useful *if* we could assume that dwelling-houses represented a true "commodity class" (see Chapter VIII, p. 127), but which is merely misleading in cases in which (as with houses) the individual peculiarities of each commodity unit are at least as important as the general conditions of supply and demand. See on this the following paragraph in the text.

In real life, of course, the value of a house is usually thought of by its owner —unless he happens to be an economist—in terms of what he himself paid for it plus the cost of any improvements for which he has himself effected. But this is an obvious confusion between "exchange value" and "*cost* value"—a confusion which constantly leads to extreme irrationalities in the administration of real property resources.

[1] This is, of course, a familiar conclusion. But it is perhaps worth emphasising, because most modern accounts of value do not make it clear *how far* they conceive of exchange value in "normal" and how far in "actual" terms. All that is certain is that value is nowadays much less of a long-run phenomenon than it was during the ascendency of the labour and cost of production theories (cf. below, Chapter VI, p. 95). We may add that what has been said here does not at all affect the distinction which was drawn on p. 57 between exchange value and *cost* value (cf. also Chapter VI below, *ibid.*), though it does in principle leave room for a reintroduction of the contrast between "value" and "price" there rejected, in that if we reserve the former term for normal rates of exchange we can apply the latter to the actual rates at which particular commodity units do in fact change hands. On the whole subject of "commodity classification" see Chapter VIII, pp. 127 ff., and also the somewhat depressing observations in Chapter XVII, pp. 358-9.

merely for the content of economic theory, but also for the understanding of some of its most important terms and concepts.[1]

7. Let us now turn to the second main sense in which the word "value" is used by economists. We saw in § 2 that a thing may be said to have value for a person if he esteems it or sets store by it. For him to "value" it in this sense two conditions must be fulfilled: it must be something which he desires or for which he has some use; and it must not be available in so large quantities as to satisfy his requirements completely. A thing can be extremely useful without being "esteemed" if, like air and (in some places) water, it is plentiful and free. As soon as it becomes "scarce", so that there is less of it than people would like to have, it also becomes valuable; people will be prepared to give up other things for the sake of further units of it, and will not sacrifice those units they already possess without compensation of some kind—whether in the form of other commodities or in a non-economic satisfaction, like the joy of generosity.

What, then, do we mean precisely by a thing's esteem value? It is clear that the concept has a wider range than that of exchange value. A thing can only have exchange value in relation with other things; indeed, we have just learnt that in its most fundamental aspect exchange value is simply a particular kind of relation between two or more valuable goods. Esteem value is not so simple. It is true, as we shall see shortly, that if what interests us is to compare and measure the esteem in which a person holds different things, then it involves, and can itself be regarded as, a relationship between them. But it is also possible to esteem a thing wholly without

[1] See below, Chapter XIV, pp. 270 ff, where the concept of liquidity is examined in some detail and cf. also Chapter IX, pp. 135 ff., XIV, pp. 294, 307. It must be emphasised that we are not here concerned with *fluctuations* in a commodity's value through time—merely with divergences in the actual value of particular commodity units from a (real or imaginary) normal value, caused by the fact that the commodity does not command a ready market.

The outstanding example of *illiquid* value is the "value" that may be placed upon (e.g.) a piece of antique furniture by an insurance valuer. This may have no effective bearing whatever upon the price which the piece of furniture would fetch upon the market—though the reason here is partly that for such commodities as these "buying" prices and "selling" prices (cf. p. 61 n.) are likely to be very different, and it is the former, not the latter, which is usually considered relevant for insurance purposes.

reference to other things. If there were only one type of commodity in the world, and only one person to consume it, it would still have an esteem value—provided that it were both useful and scarce. We have therefore to distinguish between two main ways of looking at esteem value, according as we are considering the valuable commodity in isolation from other commodities or in relation to them.

Let us call the former "absolute esteem value" and the latter "relative esteem value".

(1) "Absolute esteem value" is the importance of a commodity conceived of in isolation from other commodities. It involves a relationship between a commodity and an individual—viz. the valuing subject—but not, as such, between two or more commodities.[1] It can be treated either subjectively as the esteem in which he holds it, or objectively as the quality in it of being esteemed. These are two different ways of looking at the same thing, conceptually distinct but practically inseparable. When I esteem or value a particular commodity, I attach importance to it or set store by it; and therefore it has importance for me and is esteemed or valued. Of the two, the former is the more fundamental. It is *because* I esteem it that it has an importance for me. But for most economic purposes the second point of view is the more convenient. Economists are as a rule not so actively concerned with the psychology of valuation as with the objective fact that commodities are valued; and they therefore find it natural to treat esteem value as a quality of the valued commodities. No confusion can arise from this usage, so long as it is remembered that absolute esteem value, so understood, is dependent on, and is indeed merely the expression of, an act of valuing or valuation. If this is forgotten, however, then there will arise the danger of identifying the esteem value of a thing with those qualities *in virtue of which*, and as a result of which, it is valued. A commodity acquires an esteem value, as we have seen, because it is both useful and scarce. But its esteem value is not *the same thing as* its utility or its scarcity.[2]

[1] In principle of course, the "valuing subject" may be, not an individual person, but the whole community. But we need not concern ourselves with semi-philosophical notions of "social value" and "social minds,—nor with the criticisms to which these may be subjected.

[2] See on this below, Chapter V, pp. 81 ff. Similarly on the other side, we must not allow the recognition of the use of "value" = the esteem in which an object

(2) Relative esteem value involves a relationship not merely between a valuing subject and a valued object, but also between two or more objects. We are now concerned rather with the comparison of the esteem value of different things than with the esteem value of any one of them taken separately; rather with the *preferences* which a person has as between this commodity and that than with the absolute importance of either of them in itself. Suppose that a schoolboy possesses ten marbles and fifty cigarette cards. And suppose than on a particular day he finds that he can exchange either of these for the other at the rate of six cigarette cards for one marble, or six marbles for one cigarette card. His behaviour will then be determined, if he is sensible, by the "relative esteem value" to him of the two. If he esteems six cards more than one marble, he will be prepared to exchange marbles for cards, if less, then he will prefer to "buy" marbles and "sell" cards; while if they possess exactly the same esteem value for him, then he will be content to leave his stocks of both unaltered. In this last case the esteem value of one marble is equal to the esteem value of six cigarette cards, and we can say if we choose that six cigarette cards express or represent the esteem value of one marble—and *vice versa*.

The same comparison and equation of esteem values occurs when the problem before the valuing individual is not so much that of *exchanging* one commodity for another, as of deciding which of two alternative commodities he will *acquire*. Suppose that I come to the market to buy fruit, and find that oranges cost twopence each and lemons a penny each. Or suppose that I am not in touch with a market at all and have to go to nearby orchards to pick my fruit, but that the trouble of finding and collecting oranges is twice as great as that of finding and collecting lemons. In either case, my decision as between the two will depend upon their comparative esteem values. If I set more store by two lemons than by

is held—to shake our conclusion that *exchange* value is primarily a *relation* between commodities. Edgeworth shows signs of falling into this verbal trap (see his article "Intrinsic Value", p. 456). So, too, Bailey, whose first sentence emphasises the connection of value with "esteem" (*Nature and Causes of Value*, p. 1), and who brings out with magnificent clarity the contrast between what I have here called "absolute" and "relative" esteem value (pp. 2-3), spoils the effect by identifying the latter with *exchange* value. (On Bailey in this connection cf. further p. 119 n. below.)

one orange I will prefer to buy (or pick) lemons, if less I will prefer to buy (or pick) oranges. But if I value oranges exactly twice as much as lemons then I shall be indifferent as to which I secure: two oranges to one lemon will represent the point of equivalence or equality in esteem value as between the two.

These illustrations may be generalised. Between any two commodities there must exist a rate of equivalence for a given valuing subject, such that if that rate represented the comparative prices of the two, he would be indifferent as to which of them to buy or acquire. We shall see later the kind of factors which determine what this rate shall be in any particular case. For the moment what concerns us is that it is the rate which expressses the *relation* between the esteem values of the two commodities concerned.

Now clearly there is a close parallel between relative esteem value, so understood, and exchange value.[1] The exchange value of apples in terms of potatoes indicates the amount of potatoes which one will have to give, or accept, in exchange for a given quantity of apples. The relative esteem value of apples in terms of potatoes for an individual indicates the amount of potatoes which he would *just not object* to giving, or accepting, for a given quantity of apples. The former shows the market equivalence, the latter the equivalence *for a given person*, of the two commodities. And just as we were able to distinguish three ways of looking at exchange value, a relational, a qualitative, and a quantitative, so we can distinguish the same three ways of looking at relative esteem value. The relative esteem value of a commodity for anybody may be regarded *either* (*a*) as a relation or a series of relations between it and other commodities, *or* (*b*) as a (relational) quality of the commodity itself, *or* (*c*) as an amount of any one, or more, of the other commodities. From the first point of view the relative esteem value of (say) apples to me is my ratios or *rates of indifference* as between them and other commodities; from the second point of view it is what we may call the *preference power* of apples as against other commodities —their quality of being acceptable to me, at the rate in

[1] We might be tempted to rechristen relative esteem value "subjective exchange value", were it not that that phrase has been appropriated by writers of the Austrian School for the utility which a good possesses for its owner, as a means for acquiring other goods by exchange. See on this Chapter V, below, p. 77.

question, instead of other things; from the third point of view it is the *indifference equivalents* of apples—the amounts of other commodities as between which and the given quantity of apples I am indifferent. The second is merely the first regarded as a quality of one of the commodities compared. The third is the quantitative expression of this relational quality.[1]

It remains to add a word as to the connection between absolute and relative esteem value. We saw at the beginning of § 5 that any object's intrinsic qualities are liable to involve it in relationships with other objects; that, for example, the physical properties of a piece of iron were such as to involve it in a particular kind of relationship with magnets. Now absolute esteem value is an intrinsic quality of a commodity, so far as *other commodities* are concerned.[2] And it is also a quality which can give rise to quantitative or comparative relationship between the commodity in question and other commodities with the same quality. This relationship is what we have described as "relative" esteem value. If we choose to, we can call this a "relative quality". But like all "relative qualities" (such as the "comparative height" of two mountains, or the "relative speed" of two cars) it is not in the first instance a quality at all but a "qualitative relation"—i.e. a relation between two (or more) objects which arises from their both possessing a particular quality. For economists the relations between commodities which arise from the quality of esteem value is highly important. Except, perhaps, at the very outset of their analysis, when they are setting forth the data of the problem before them, they are not really interested in absolute esteem value itself, but in its measurement and in

[1] The phrase "preference power" for the qualitative aspect of relative esteem value is even more unsatisfactory than is "purchasing power" for the corresponding aspect of exchange value (see above, p. 61 n.). The quality it is intended to convey must include not merely the ability of a thing to be preferred to other things by a valuing subject, up to the indifference ratio, but also its liability to be rejected beyond that ratio. Fortunately this concept is so shadowy that so far as I am aware no economist has ever had occasion to make use of it, and therefore the difficulty of finding an adequate term for it need not distress us unduly. But logically it is important to have tried to formulate it, if only in order to emphasise that it is *not* the same as the *absolute* esteem value of the commodity in question. The difference is that which exists between, for example, the size of St. Paul's Cathedral and the superiority in size of St. Paul's over All Hallows', Lombard Street. See also on this the following paragraph.

[2] We have seen that it is *not* intrinsic but relational, from the point of view of the valuing subject.

the comparison between the esteem value of different things. And qualities can only be measured—if at all—through the relationships to which they give rise. So it comes about that in economic thought the esteem in which a thing is held is regularly translated into the "rates of indifference" between it and other things, or else, by a further transformation, into the amounts of other things which are "equivalent" to it in esteem. As we shall see, esteem value is of far greater economic importance as a relationship between things than as the intrinsic quality of "being esteemed".[1]

8. So far, then, we have seen three main senses, each with its sub-variants, in which "value" is used in economic writings. It may stand either for the rates at which a commodity exchanges for other commodities (exchange value) or for the importance which the commodity has for a valuing subject (absolute esteem value) or for that subject's "rates of indifference" as between it and other commodities. All three are in the last analysis relations, rather than qualities or quantities. But for economic purposes absolute esteem value is more naturally to be thought of as a quality of the esteemed objects; and both the others may, if so desired, be expressed either as the (purely relational) qualities of "purchasing" and "preference" power, or else quantitatively in the form of exchange and indifference "equivalents".

[1] This paragraph is likely to have given the reader a headache, unless he is a hardened logician. But I do not see how I could have put the point more simply. The operation of comparing qualities quantitatively, though we constantly carry it through in real life, is in logic extremely complicated. "Height" is a quality; this involves the object possessing it in relations with other objects—among them the relation of being "higher" (or "lower") than these other objects; and this particular relation is then reflected back on to the first object as a "relational" quality—viz. *comparative* height. So, too, esteem value starts by being a quality, proceeds to engender esteem relations between the esteemed thing and other things, and ends by being reflected back on to the first thing as its *comparative*, or *relative*, esteem value. The importance of tracing out this process rests in the fact that the relationships whereby the initial "intrinsic" qualities are measured are only too likely (so far as *economic* qualities, such as esteem value and utility, are concerned) to provide *inaccurate* basis of comparison between them. On this see below, Chapter V, pp. 86 ff., and cf. also the discussion of the measurement of exchange values in Chapter IX, pp. 150 ff., 158 ff.

It is only, of course, within comparatively recent times that esteem values, rates of indifference, etc., have come to play any large part in the enunciation of value theory. We shall have something to say on their significance from this point of view in Chapter VII, pp. 110 ff.

CHAPTER V

"UTILITY"

WE pass now to those senses of "value" which in economic writings are generally known by the terms "utility" and "cost". This chapter is concerned with the former of these.

1. Usefulness or "utility" is not used by economists in precisely the sense with which we are familiar in everyday life. Outside economics it often bears an ethical or semi-ethical tinge. We tend to be unwilling to call a thing "useful" unless we are satisfied, not merely that it meets a desire, but that the desire is a reasonably worthy one. Many things are desired which satisfy no genuine need. People do not "really" require footmen, jewellery, and champagne; they do "really" require board, lodging, and clothes. And if a person is found to prefer articles of the former to articles of the latter type—if, for example, he is prepared to starve himself while keeping up the outward appearance of wealth, or to waste money in gambling which he might devote to paying for his house or furniture—we are inclined to call his tastes perverse and to say that he does not know what is really useful and good for him. So, too, with people who through habituation have become dependent upon drugs. We cannot in this case deny that they really "need" the drugs, but we will probably take the view that the need is an unnatural one—that drugs, so far from being genuinely useful to such people, are positively harmful.

Again, it is quite common in non-economic contexts to describe things as "useful" or "useless" according to the purposes for which they are desired. A thing is "useful" if it is wanted *as a means to some further end.* Should it be wanted for its own sake, or for the direct pleasures which it can yield, it is *not,* in this sense, useful, however attractive and desirable. Thus tools, utensils, machines, and all the aids to production and construction are useful, whereas pictures and ornaments,

books of poetry, churches and concert halls are not useful (except to those who make a living out of them, and for whom they *are*, in part, a means to a further end). Or we can contrast the "usefulness" of (say) a sword to a duellist with its attractiveness as a decoration upon the walls of a dining-room.

Neither of these distinctions is accepted in the economic definition of the term. For the economist *everything* is useful which is wanted—whether the want is worthy or reprehensible, and whether the thing is wanted for its own sake or as a means to some further end. The fact that people are prepared to acquire and consume things is the sufficient and necessary proof of their having, in the economic sense, "utility".[1]

This departure from ordinary usage has always been recognised by economists and usually occupies a prominent place in their expositions. Nevertheless, it has sometimes been forgotten in the heat of the value controversy. Thus, one American writer has proposed to distinguish as a special kind of value what he calls "prestige value"; commodities, he holds, may be desired, not merely because they are "useful" (possess use value), but also, or alternatively, because they contribute to the social standing of their owners.[2] Similarly, and even more surprisingly, some of the leading members of the Austrian School have contrasted use value, or utility, with what they call "subjective exchange value". Like Aristotle, they distinguish between desiring a commodity in its own right, and desiring it *because it can be used as a means of purchasing other desired commodities*.[3] In the latter case the desire for it will be determined, not by its own utility, but by the utility of its exchange equivalents. Distinctions of this sort are no doubt of the highest importance for an understanding of *why* people want the things they do want.[4] But they are distinctions *within* the concept of utility, not contrasts between it and other senses of value. The neglect of this fact has led,

[1] The desire to avoid moral implications led Pareto to substitute for "utility" the colourless "ophelimity" (*Manuel*, p. 157).

[2] Keasbey, "Prestige Value".

[3] Aristotle, *Politics*, Book I, chap. 9; Wieser, *Natural Value*, Book II, chap. ii; Philippovich, *Grundriss*, vol. i, § 76, p. 244, etc., etc.

[4] See (for example) the fascinating discussion of the sociological and economic significance of "prestige value" in Veblen's *Theory of the Leisure Class*. The concept of "subjective exchange value" reappears in a different context in Chapter XIV below, especially p. 261.

as we shall see at a later stage, to grave confusions as regards the value of money.[1] They can be avoided if we hold unswervingly to the principle that the reasons *why* a thing is wanted have nothing to do with whether or not it possesses "utility", in the economic sense.[2]

2. This complication apart, two questions have to be answered before we can be quite certain that we know what the word means. In the first place, is the utility of an article to be found in its being the object of a desire, or in its having the power to satisfy a desire? Economists do not, as a rule, trouble to distinguish between the two concepts. And it might seem as if they could only diverge as the result of carelessness on the part of the desiring subject. So long as people know what they want and act sensibly (one is tempted to argue) they will only desire what will in fact give them satisfaction (i.e satisfy their desire), and the intensity of the desire will be determined by the anticipated—and in general realised—magnitude of their satisfaction, should the desire be met. Nor is there any need to question this view, so long as the commodity in question is desired *in isolation* from other commodities. But a difficulty arises when we consider the cases—immensely common in ordinary life—in which a desired thing is only, or primarily, capable of giving satisfaction in conjunction with one or more other things. I go into the market and buy a lettuce, some tomatoes, a cucumber, and some oil and vinegar. What I really want is not any of these commodities taken separately, but the salad which I can make by combining them in suitable proportions. It is possible, indeed, that any one of them might have a certain usefulness to me even apart from the others. I might, for instance, be prepared to eat the tomatoes by themselves if I had to: or I might find other uses for the oil or the vinegar if I were prevented from using them in a salad. But this is by no means necessarily the case. It may be that the *only* ground on which I could want these commodities is the fact that *together* they are capable of satisfying a particular desire. I eat the salad as

[1] Below, Chapter IX, especially pp. 140 n., 157-8.

[2] A further example of this kind of confusion is the distinction between the "intrinsic" and the "sentimental" value of a jewel or other possession. "Value" here means utility (or else esteem value): whereas in the contrast between the "intrinsic" and the "token" or "face" value of a piece of money, it means purchasing power. See on this Chapter IX, p. 139 n.

a unity and it is as a unity that it satisfies my desires. I *desire*—and am prepared to pay for—its constituent parts. But they are not as such capable of giving me any satisfaction.

So, too, with all those things the function of which is to make, or help in making, other things—tools, machinery, factors of production, and so on. It is easy to see why they are "desired"—why people are prepared to buy them and to pay for them. But they have *as such* no power of affording direct satisfactions, except, perhaps, as a pure accident.[1]

Under these circumstances we have to choose between two definitions of utility. Either it is the quality of being desired, or else it is the quality of yielding satisfactions. The types of commodity which we have just been considering have utility in the former sense, but not (in general) in the latter.

Economic usage is uncertain as between them. Sometimes they are found together in the same sentence or paragraph or sentence. On the whole, in recent years, the wider definition is preferred and utility is identified with "desiredness" rather than with "satisfyingness". Certainly, no economist would hesitate to attribute utility to a consumption commodity even if he knew that it was *never* desired except in conjunction with other commodities.[2] On the other hand, it is rare to find factors of production credited with utility, even though they obviously possess "desiredness". This difference in usage has played an important part, as we shall see later, in the development of the theories of value and distribution.[3] For the time being, however, we can neglect it. In what follows utility is to be understood, unless the contrary is specifically stated, in its wider sense of "desiredness".

3. Secondly, however, the word "desire" is not free from ambiguity. Can a person be said to desire something which he already possesses? We have hitherto been assuming that he can; for evidently things do not cease to have utility, however defined, as soon as they are acquired (except in those

[1] Some machines are beautiful: but that is not why they are constructed and bought. Cf. below, Chapter XIV, p. 252.

[2] The reason for this usage is partly to be found in the fact that the phenomenon of "joint demand" is so tremendously widespread in actual life, partly also in the fear that to speak in terms of "yielding satisfactions" will suggest that the speaker is a believer in psychological hedonism. In this latter respect the contrast between the economics of the last thirty years and the economics of Gossen and Jevons is extremely striking (see Chapter VII, pp. 110-11 below).

[3] Below, Chapter XVII, pp. 354-7, and cf. Chapter XI, p. 185.

rare cases in which it is the acquisition of a thing rather than the thing itself which is really desired). And there can be no objection to our understanding the word in this way if we choose. But if by "desire" is meant something that is present in our consciousness, something that we are aware of as a stimulus (or at least a potential stimulus) to action, then it becomes difficult to describe as an object of desire something of which a person already has as much as he wants or requires. I need fresh air and water, and my consumption of these things affords me an important set of satisfactions; and yet it is very uncommon for me actively to "desire" them in the narrower sense, useful as they are to me, and serious as would be my loss if I were deprived of them. And the ambiguity can be clearly seen in the case of goods of which I do *not* possess all that I want; we can still distinguish between my desire (in the wide sense) for all the units which are already at my disposal, and my more conscious and active desire for *further* units.

Thus, the utility, or desiredness, of a commodity may be conceived of, *either* in terms of the extent to which I should be unwilling to give it up as a whole, *or*, more narrowly, in terms of the extent to which I am still anxious to acquire units of it, even though I possess a certain amount of it already. The former may be called the *total* utility of the commodity to me. The latter yields the conception of its "final" or *marginal* utility. A commodity's marginal utility may be defined as the desiredness of *one more unit* of it. It is the difference between the total utility of the amount already possessed and of an amount greater than that by one unit.[1]

4. The concept of marginal utility is familiar to all students of economic theory. It is connected with total utility by the "principle of diminishing utility". This principle tells us that the more units any individual has of a commodity the less will be his desire for further units. It is partly a psycho-

[1] This is strictly the "additive" marginal utility of the commodity—as contrasted with its "substitutive" (or "subtractive") marginal utility, viz. the difference between the total utility of the amount actually possessed and of an amount *less* than that by one. Economists usually assume, however, that from the quantitative point of view the two are in most cases sufficiently nearly equal for it to be unnecessary to distinguish between them. This assumption is accepted here without question.

Note that the marginal utility of a commodity is simply and solely the utility of the "marginal" unit of it. We must not be misled by the phrase into thinking that it is a quality of the total quantity of the good possessed.

logical fact and partly a matter of rational behaviour. Psychologically it is the case that at any given time the satisfactions derivable from any particular form of consumption will increase less than proportionately with increases in the amount consumed—that, for example, a thirsty man will obtain more satisfaction from, and will desire more intensely, the first glass of water he drinks than the second or third. It is a matter of rational behaviour that when a commodity is capable of being used in different ways (and so is desired for more than one reason) and yet is not available in sufficient quantities to satisfy all its possible uses, it will be devoted to meeting the more urgent, rather than the less urgent of them, so that any *additional* units which may become available will necessarily satisfy less urgent desires than those already in use, and will therefore have a lower utility, or desiredness. It follows from the principles of diminishing utility that a commodity's *average* utility (i.e. its total utility divided by the number of units in use) will always be more than its marginal utility—except, of course, in the limiting case in which only *one* unit of the commodity is available and its total and (subtractive) marginal utilities are indistinguishable.

On the other side, the concept of marginal utility is connected with that of *esteem value* by the "principle of indifference". The exact nature of this connection requires careful attention.

First of all, let us be clear that esteem value and marginal utility are *always* analytically distinct.[1] The absolute esteem value of a thing, we have agreed, is its "importance" to the valuing subject. Its marginal utility is the *desiredness*, for him, of the last unit actually possessed, or of an extra unit. To desire a thing, even in the active and conscious sense, is not the same as to set store by it.

On the other hand, it is also reasonably evident that the connection between the two concepts is extremely close. The one is, indeed, directly derived from and dependent upon the other. If we did not desire a thing, we should set no store by it. Given that it is limited in quantity, so that we cannot have all of it that we should like, it will have an esteem value for us only *because* we desire it.

[1] This needs emphasising the more strongly in that it was explicitly denied by Jevons (*Theory*, pp. 85-7).

Suppose, now, that we consider the case of a commodity, only one unit of which is available, so that (as we have seen) its total and its marginal utility are identical. In this case its esteem value is not merely derived from, but is also *determined by*, its utility. It is esteemed by its possessor both because and *to the extent that* he desires it. And any quantitative measure of its esteem value is also a measure of its utility. If, for example, it is equally esteemed with another commodity, also available to the extent of one unit only, that will show that the two commodities have an equal utility. Under these circumstances utility determines esteem value, and esteem value provides a measure of utility.

Next, let us take the case of commodities of which more than one unit is available. The conceptual distinction between setting store by it and desiring it still remains, and the former continues to be derived from the latter. But we now distinguish between the commodity's total utility and its marginal utility. And what we have to ask is: which, if either, of these *determines* esteem value?

The answer to this question must depend upon whether the various units of the commodity are, or are not, in the fullest sense "substitutable" for one another.

When we say that two units of a commodity are substitutable for one another, we mean, first, that if we can only have one of them, it is a matter of indifference to us which we shall have. Two cigarettes of the same brand, two pints of beer of the same brew, two new copies of the same edition of the same book are all in this sense substitutable for one another. There may, indeed, be small differences in detail between them. One of the cigarettes may be slightly better packed than the other, one of the pints may happen to have a slightly larger proportion of hops to malt, the paper used for one of the volumes may turn out on careful scrutiny to be slightly smoother in texture than in the other. But these differences, if they exist at all, will probably be wholly insufficient to influence our behaviour. *For our purposes*, the units are physically indistinguishable; and they have an identical ability to satisfy our desires.[1]

This is not all, however. It is possible for physically indis-

[1] On the economic scope of substitutability in this sense, see also below, Chapter VIII, pp. 127-31.

tinguishable units of a commodity to be differentiated from one another, so to speak, artificially. Suppose I go into a café for morning coffee. And suppose that I contemplate drinking not more than three cups. They may all be identical, as regards the strength and quality of the coffee itself, as regards the proportions in which cream and sugar are added, and as regards their temperature and the cups in which they are served. And yet they are distinct in that one of them is drunk first, another second, and the remaining one third. If I had desired only one of them it would have made no difference which I chose—they would have been perfectly substitutable. But as I am prepared to drink all three successively, they are not identical *as objects of my desire*; and therefore they are *not* substitutable. This may be shown in the following way. Suppose that I would be prepared to pay 8d. for one cup, 4d. for a second (i.e. after I have drunk one) and only 2d. for a third. Then if the price were uniform at 4d. I shall presumably drink only two cups, at a total cost of 8d. But the café proprietor might, if he chose, charge a higher price for the first cup than for the second, and for the second than for the third. And if, for instance, he offers me one cup for 6d., two for 10d. and three for 1s., then I will consume all three, at an *average* price of 4d. The fact that they can be charged for at different rates, and that I will find it worth while to spend 1s. on three cups if the first costs 6d. and the third 2d., but not if all three cost 4d., means that the three cups need not be identical in *all* relevant respects. Though physically indistinguishable, they are not necessarily *substitutable.*

Now, the "principle of indifference" asserts that where the several units of a commodity are *perfectly* substitutable for one another, then no one unit can be more highly esteemed than another.[1] If I have six pails of water, one of which I propose to use for drinking and the others for less urgent purposes, and if I spill that one, I shall not for that reason go thirsty (if I am sensible); I shall promote one of the others into its place

[1] For this principle see (for example) Fetter, *Principles*, chap. iv, pp. 37-8. It must be distinguished from Jevohs' "law of indifference", which lays down that in a perfect market there cannot be two prices for the same commodity —i.e. which has to do with exchange value rather than esteem value (*Theory*, pp. 98 ff.; see also below, Chapter VIII, pp. 128, 132). Nor, though it has to do with "substitutability", is it the same as the "principle of substitution", which may mean *either* (1) the proposition that of two types or grades of consumption goods, both of which are equally capable of fulfilling a *particular* purpose, the

—that one, namely, which I had intended to use for the *least* important of the purposes which I had hoped to realise. My loss will be the utility to me of that least important pail. And so with all the other pails; their esteem value will all be equal to the esteem value of the marginal pail. And it will be determined by the utility of that pail—i.e. by the marginal utility of pails of water.

But if, for any reason, the units are *not* perfectly substitutable, as in the case of the successive cups of coffee, then they will not all be equal in esteem value. As we saw, I attach more importance to getting one cup than to getting a second, and to getting a second than to getting a third. The esteem value of each unit is determined by the specific utility of that unit; not by the utility of the marginal unit.

We can sum up, then, the relations between esteem value and utility as follows. (1) Esteem value is always analytically distinct from, but derived from utility. (2) If only one unit of a commodity is available, its esteem value is determined by its utility. (3) If more than one unit of a commodity is available, but the units are not substitutable for one another, the esteem value of each unit will in general be different, and will be determined by that unit's utility. (4) If more than one unit of a commodity is available, and the units *are* perfectly substitutable for one another, then the esteem value of each unit will be the same, and will be determined by the utility of the marginal unit—i.e. by the commodity's marginal utility.

5. This conclusion will help us to understand one of the most famous of the controversies which have filled the pages of value theory. It is well known that two of the leading Austrian economists, Böhm-Bawerk and Wieser, fell out over the interpretation of the concept of *total utility*. The former held that it was the sum of all the utilities taken separately; that in estimating the total utility of six pails of water one must add together the utility of quenching thirst, the utility of cooking, the utility of washing, the utility of watering the garden, and so on. Wieser, on the contrary, took the view that

less valuable, or expensive, will be applied to this purpose, in order to release the more valuable for purposes which it alone can fulfil (Fetter, *ibid*, p. 33); *or* (2) the proposition that business men will tend so to substitute one factor of production for another (when they represent alternative ways of making the same product) as to secure that combination of factors with which production is least expensive (Marshall, *Principles*, pp. 340-41; Seligman, *Principles*, p. 142).

since each pail is completely substitutable for every other pail, and since, therefore, the loss of any one of them would involve a sacrifice equal only to the utility of the marginal pail, therefore the total utility must be equal to the marginal utility multiplied by the number of pails.[1] And the same quarrel is to be found among English-speaking economists. Marshall, in particular, laid great stress upon what he called "consumers' surplus". If I am to be persuaded, he held, to buy (say) six units of a commodity, then the price I am charged for each must not be more (assuming perfect substitutability) than will offset the utility of the sixth. But since, by the principle of diminishing utility, the utility of the last unit is less than that of any preceding unit, it follows that I in fact pay for the preceding units a smaller amount (in the case of the earliest units it may be a very much smaller amount) than I would have been prepared to pay rather than do without them. And the difference between the total amount that I actually pay and the sum of the maximum amounts I would have been willing to pay on each unit separately, represents the net gain, or consumer's surplus, that I derive from my purchases.[2] Other writers, on the contrary, insist that the fact that the later units are in fact bought reacts upon, and reduces, the value and significance of the former ones.[3] A large part of the trouble here has arisen from the failure to formulate clearly the two concepts of utility and esteem value. It is one thing to desire an article in the sense of implicitly realising the services and satisfactions which it yields and the loss which would be felt if it were withheld. It is another thing actively to desire, and to "set store by" it. When we use the word in the former sense, then we are considering the desiredness of each unit of the commodity *as a unit*—i.e. on the assumption that if it is removed the satisfaction that it in fact yields will be lost. When we use the word in the latter sense we are concerned with the desiredness of each unit when account is taken of the fact that if it is removed other units may be able to take its place. The first point of view yields the Böhm-Bawerk, the second

[1] For full references to this controversy see Suranyi-Unger, *Economics in the Twentieth Century*, pp. 88-92, 354-5.

[2] *Principles*, pp. 124 ff.

[3] See (for example) Cannan "Consumers' Surplus", esp. p. 25; Knight, *Risk, Uncertainty and Profit*, p. 71.

the Wieser concept of total utility. We do not need to decide here which of the two is the right one. Indeed no such decision is possible at all; for the former is relevant for welfare theory, and the latter for value and price theory. What is important is to remember that they are *different* concepts; that we cannot judge the extent to which we desire a thing, in the wide sense, by the extent to which we *esteem* it, and that esteem value is not merely a form of use value.[1]

6. This raises our third, and last, question about utility. What we have just been saying implies that it is something which, like esteem value, can be conceived of in relational and quantitative terms. In the case of esteem value we saw that it was possible to distinguish "absolute" esteem value, a quality of commodities from "relative" esteem value, or the esteem relation. Can we do the same for utility? That is to say, is the utility of a commodity something which is capable of being compared with or expressed in terms of some other commodity (or its utility)?

In the first place, it cannot be disputed that such comparisons are a regular and legitimate feature of everyday life, *so far as any one individual is concerned.* If I say that I prefer trifle to rice pudding, or Chopin to Czerny, I am comparing two sets of desires and satisfactions. And the relations between them can be given quantitative precision, either in terms of my "ratios of indifference" or in terms of money value. Thus I might be "indifferent" as between 3 oz. of trifle and 8 oz. of rice pudding. Or I might be prepared to pay 8s. for a volume of Chopin's Studies, and only 2s. for a volume of Czerny's. In either of these ways, I can provide myself with a measure of

[1] This qualified defence of the consumers' surplus concept does not, of course, carry us very far. The controversy covers, in all, *three* points: (1) does consumers' surplus exist? (2) if it does, can it be of any use for economic theory? (3) can it be measured? To the first question the argument in the text returns a positive answer. That consumers' surplus exists in fact seems to me to be proved whenever we declare any purchase to have been "a bargain" (cf. Taussig, *Principles*, chap. ix, § 5, particularly p. 129). To the second question it also returns a positive answer, though in a highly dogmatic form. I agree with Knight that the concept is irrelevant for *value* theory; that what matters for the decisions which people make as to how much of a commodity to buy at a given price (or how much to pay for a given quantity) is the esteem value of the commodity and its marginal utility, not its total utility in the Marshallian sense (see further the following section of the present chapter, and below, Chapter VII, especially pp. 110-11). But I deny that value theory is the whole of economics (see Chapters II, pp. 39-41; XVIII, pp. 374-5; Joan Robinson, *Imperfect Competition*, pp. 214 ff.). The third question is not touched in the text, and falls outside the scope of the present work.

the utility—as of the esteem value—which a thing has for me.[1]

Economics, however, is a social science. It is concerned, not merely with the comparative utilities of different things to the same person, but with the comparative utilities of the same (or different) things to different persons. And the methods for expressing the relations between utilities indicated above cannot be directly applied to this wider problem. One person may be indifferent as between 1 oz. of tobacco and 5 pints of beer, another as between 1 oz. of tobacco and 6 pints of beer. But we cannot conclude that beer has more utility for the former person than for the latter, for we have no ground for assuming that the utility of tobacco is the same for both; nor can we conclude that tobacco has more utility for the latter person than for the former, for we have no ground for assuming that the utility of beer is the same for both. In actual fact, one of the two may be a heavy consumer of both—i.e. both may have a very high utility for him—while the other may be almost a non-smoker and almost an abstainer.

So, too, with the other method. The fact that one person is prepared to pay £50 fo a diamond watch for which another would only give at the most £2:10s. does not in the least prove that the former will derive more utility from it than the latter. For (1) the first person may have far fewer wants than the second; he may be more contented with what he has, and less anxious to acquire things. And (2) he may have far larger total resources already at his disposal. Either of these reasons may bring it about that the sacrifice involved *for him* in giving up £50 is comparatively small—smaller, in fact, than the loss involved in giving up £2:10s. for his less easily contented, or less well endowed, rival. And if £50 means very little to a man, then the utility of something for which he will not pay more must also be small; whereas the utility of something for which a man is prepared to pay £2:10s. will be great if £2:10s. represents "a lot of money" to him.

[1] Even here there are difficulties. I cannot, for instance, say that the utility of one thing is twice as great—or a hundred times as great—as the utility of another. My comparison must take the form of considering the different quantities of two (or more) commodities the utilities of which are *equal*—i.e. as between which I am indifferent. On this point see (for example) Lange, Brown, and others, "Determinateness", and cf. below, Chapter VII, pp. 114-16.

It follows that the utilities of a commodity to different people cannot be quantitatively compared by a mere consideration *either* of the amount *or* of the exchange value of the things which they would be prepared to give up for its sake. How, then, can they be compared *at all*? How can we arrive at any conclusion whatsoever as to the relative utility of commodities to different people with different ranges of tastes and different volumes of resources?

Note that the above difficulty concerns *accurate* and *quantitative* comparisons only. Economists sometimes talk as though the utilities of different people are so completely incommensurable that it is wholly without meaning to describe a commodity as having the same or different degrees of utility to two people. Such a view is merely "silly" in the technical sense; that is to say, it implies a doctrine which nobody would seriously attempt to adopt in ordinary life — it denies the possibility of something which in fact constantly happens. We all do make such comparisons. Every father or mother of a family, every subscriber to charity, every Chancellor of the Exchequer, makes and has to make them. It is the task of each such person to decide how to distribute his limited resources among *other people*—his immediate dependants, the recipients of his philanthropy, his fellow-citizens—so as to maximise the usefulness of these resources. And in order to do this he *must* ask himself whether a given shilling (or a given million pounds) will do more good if spent on one person (or set of persons) or on another; that is to say he must compare the utility of a given quantity of goods to the different possible recipients.[1]

But the point here is that so far no means has been devised of making such comparisons *accurate*, or of expressing them in

[1] On "silliness" see Broad, *Mind and its Place in Nature*, pp. 5 f. I cannot help feeling that Professor Robbins' argument in chap. vi. of his *Nature and Significance* (pp. 136-42, especially p. 141), is rather silly—in this Pickwickian sense. For he describes as "illegitimate" reasoning based on an assumption which we *must* make, and *do* make—as he himself admits (p. 140)—in our ordinary lives. Mr. Macfie, arguing along similar lines (*Economy and Value*, pp. 13 ff.), only escapes the charge of silliness by the device of saying that when we make inter-personal utility comparisons we are psychologists rather than economists. I have said enough on this departmentalisation of knowledge elsewhere ("How do we want Economists to Behave?" pp. 568-9). Here I need only remark that nothing Mr. Macfie has yet said will persuade me to subscribe to a system of definitions which treats the "economics of welfare" as either non-existent or else as a branch of psychology and/or ethics. Cf. Chapter II above, pp. 39-40.

the relevant quantitative or numerical terms. In the theory of value what we want to know is how the utility of particular things affects people's behaviour in their own economic choices and in the market-place. The only way in which *for this purpose* utilities could be measured, would be by observing how much of one thing they are prepared to give up for another. And the argument of the preceding paragraphs has shown that this measure gives inaccurate and misleading results; that equal demands and equal price offers need not go together with equal utilities.

This being so, we have to choose between abandoning hope of correlating utility with the other senses of value, or else redefining it so as to make correlation possible. If we adopt the latter course we shall say that since desiredness is only relevant for value theory in so far as it can be quantitatively measured, and since the only way in which the extent of my desire for a thing can be measured is by the amount of other things which I am prepared to give up for it, therefore for economic purposes its utility must be regarded as being, precisely, its power of inducing people to give up other things for its sake. And we shall therefore define utility, not as the quality of being desired (or of yielding satisfactions), but as the quality of *inducing purchase*. So defined it is a relative, not an absolute concept. It has nothing to do with the quantities of real satisfaction which commodities may yield, being concerned simply with their comparative powers of arousing demand. But as such it is accurately measurable, not merely for a single individual, but for the whole community. If one person is prepared to pay £600 for a house, and another £600 for a car, then the utility of the house to the former is necessarily equal to the utility of the car to the latter—no matter if the latter is a millionaire with thousands of pounds to spend in any way he likes while the former is a poor man to whom £600 represents a year's income or more. Both the commodities have the same power of inducing purchase; and therefore both have the same "utility".[1]

What is the relation between "relative" utility and esteem value? If the utility of a commodity is its power of persuading

[1] This proposition is "verbal", not "real" (above p. 12); it tells us nothing about the desires or satisfactions of the persons concerned, but only about what is meant by "utility".

people to buy it, then its marginal utility must be its power of inducing people to buy *one more unit* of it. Now we saw in the last chapter that if we chose we could think of esteem value as a relation between different commodities, and further, that this "esteem" relation might be regarded as a quality of the commodities related—viz. their "preference power" against one another. But the power of a commodity to be preferred to another is simply another way of describing its power of inducing people to give up the other commodity for its sake. It follows that in the new sense of utility marginal utility and relative esteem value are identical. The distinction, on which we formerly had to insist, between the desire for a thing and the importance attached to it, has now disappeared, since we are concerned, not with utility or esteem value as such, but with the comparison of different commodities *in respect of* their esteem value, and since we have so defined the "desiredness" of a commodity as to make it *necessarily* vary with the importance attached to it.

In general, economists have tended in recent years to understand utility "relatively", rather than absolutely, at any rate for the purposes of value theory. Attempts have been made, indeed, to introduce such words as "vendibility"[1] or "payworthiness"[2] to describe a commodity's power of inducing purchase, in order to allow "utility" to continue to bear the meaning of "desiredness" (or "satisfyingness"). But neither of these words has won general currency; and we must therefore be content to recognise the power of inducing purchase as a third possible sense in which "utility" is liable to be used.[3]

7. The opposite of utility in its various senses is disutility. The disutility of a thing may be (*a*) its power of yielding dissatisfactions, or (*b*) its power of being "desired away" or resisted, or (*c*) its "negative relative esteem value", that is to say, the amount of other commodities which will be given up in order to get rid of it. We shall see in Chapter VII that the

[1] Taussig, *Principles*, i, p. 123.

[2] Brown, "Demand Functions", p. 51.

[3] The use of "utility" in this third sense, rather than "vendibility", etc., is unfortunate in that it has helped to conceal the fundamental difference between theories which involve the concept of desiredness and those which are content with the esteem relation and the power to induce purchase. It has also stimulated the formulation of value theory in terms in which the phrase "relative utility" is eliminated, its place being taken by concepts such as rates of substitution and indifference. See on these points Chapter VII below, pp. 110-11.

status of disutility is very different, over against utility, in the third, as compared with the first two senses. If utility means desiredness or satisfyingness, then disutility represents something quite independent of it, and has an equal claim to consideration; if, on the contrary, utility means merely relative esteem value, then disutility is no more than utility looked at from the opposite side. But before elaborating this it is necessary for us to complete our survey of the meanings of "value" by a consideration of the concept of *cost.*

CHAPTER VI

"COST"

1. THE word "cost" is commonly used in either of two senses. By the cost of a thing we mean, first, the efforts and resources that have been invested in it or have gone to the making of it. Or we may mean, secondly, what is given up for it—what is sacrificed, or "displaced" for its sake. Compare the two propositions "that newspaper article cost its author ten hours' hard work", and "that newspaper article cost its author his job". The former, though it is not quite unambiguous, would naturally be understood to mean that the article "embodied" a specified amount of labour and energy; that that amount had been used up or absorbed in its production. The latter means that the *price* of writing the article was the loss of employment: that the writer, whether intentionally or not, gave up, or sacrificed, his professional position for its sake. The first statement does not say that ten hours' work was *displaced or foregone* as a result of the article, but that it was devoted to, or invested in, its composition; the second does not say that the article *embodied* the author's employment but that it destroyed it. The first gives us information about the technique of producing articles: the second about their possible economic consequences.

Let us call the two concepts respectively "embodied costs" and "displacement costs". The former are sometimes also known as "sacrifice" costs. But this is liable to be seriously misleading. The word "sacrifice" is subject to the "-ing and -ed" ambiguity noticed in Chapter I.[1] That is to say, it may denote *either* the action or process of sacrificing, *or* the thing or things sacrificed. In the former case a sacrifice is as a rule something unpleasant. In general, people do not enjoy giving things up and undergoing pain or exhaustion, at any rate in their economic lives. And when the processes of production

[1] Above p. 19.

involve the producers in unpleasantnesses,[1] of these or any other kinds, then we may say that the embodied cost of the product is also *in this sense* partly a sacrifice cost. But displacement costs can also be regarded as sacrifice costs—in the *second* sense of "sacrifice". For the displacement cost of a commodity to me is (as we have seen) what I have to give up, or "sacrifice", for its sake. The sacrifice is now, not an unpleasant thing which I endure, but a pleasant thing which I do without. Suppose that on a sunny afternoon I decide to work in my garden instead of idling with a book in a deck-chair. The efforts and discomforts of gardening are a sacrifice (i.e. a sacrific*ing*) undertaken in the course of producing flowers or shrubs, and are part of the embodied costs of these commodities. But what I sacrifice (i.e. the thing sacrific*ed*) is not work or discomfort, but leisure, or the satisfaction of sitting in the sun and reading. I do without these things for the sake of a beautiful garden: they are part of its *displacement* costs.[2]

2. Before we proceed to discuss the significance of this distinction for economic theory, let us observe that it is not the same as the distinction which is commonly drawn between "real" costs and "money" costs. The latter is a distinction between two ways of measuring or expressing the same kind of objective fact: either we are concerned with the real quantities of what a thing has cost, measured in physical or psychological terms, or else we prefer to think in terms of the exchange value (i.e. "purchasing power") of these quantities, and to say rather that the thing cost so much *money*.[3] The distinction between embodied and displacement costs, on the contrary, involves two ways of *conceiving* "costs"—two senses of the word. Cost (the thing) may be *expressed* as either real cost or money cost; "cost" (the word) may *mean* either embodied cost or displacement cost.

In actual use, unfortunately, the two distinctions are as a rule combined; for embodied costs tend to be expressed in real terms and displacement costs in monetary terms. The reason for this is easily found. What one "embodies" in a thing when making or producing it generally takes the form

[1] Or (absolute) "disutilities"; see below, p. 98.

[2] Embodied costs are also known as "pain" costs; while "displacement" costs are sometimes called "alternative" or "opportunity" costs.

[3] On the use of "money" in this context cf. below, Chapter IX, pp. 145-6.

of time, energy, skill, exertions, material possessions, and so on. Some of these may not have a directly known exchange value at all. It is not easy to say of an artist, for instance, that he puts (say) £50 worth of labour and skill into a picture over which he spends two weeks' time; for even if we know that his income averages £25 a week, we cannot be sure that during these particular two weeks he was working at exactly normal speed and quality.[1] And in any case, what we are interested in is certain to be the *amount* of labour involved in making the picture, rather than the value of that labour. When we are thinking in terms of displacement costs, on the contrary, value is at the centre of our attention from the outset. If I want to acquire possession of something, what I have to "give up" for it, under modern conditions is not, in the first instance a quantity of some other directly useful commodity, but a sum of money. And I will naturally think of it as "costing" the money which I immediately pay for it rather than the other commodity which in consequence I have to do without. So it comes about that the most obvious contrast in the meanings of "cost" involves *both* distinctions. A traveller finds a porter to carry his suitcase from the train to a taxi: we should normally think of this service as costing the porter the effort of lifting and carrying it (real embodied costs) and as costing the traveller a shilling, or whatever he pays the porter for his services (money displacement costs).

This is, however, a matter of convenience and usage only. Occasions may well arise in which it is convenient to be able to talk of embodied costs in money terms, or in which it is important to conceive of displacement costs in real terms.

[1] Nor, of course, is the fact that he may happen to be paid for the picture precisely £50 plus the cost of the canvas, paints, etc., any ground for supposing that £50 really represents the (cost) value of his work; for he may not be getting a reasonable return on his exertions on this particular occasion.

Note that money-embodied costs to have any meaning *must* be conceived of in "normal" terms. The whole concept is, indeed, highly obscure and far-fetched, and is scarcely worth detailed analysis—though, as we shall see in a moment, it has played an important part in the history of economic theory. But we may note that it has to be distinguished from (*a*) the actual amounts paid to the factors of production—i.e. the "expenses" of production (below, pp. 102-103)—in that these may be affected by all sorts of accidental circumstances, and may be either above or below the "normal" value of these factors; and (*b*) the amounts which *must* be paid to the producers if they are to be able to do their work (see pp. 99-101) in that there is no ground for assuming that the "normal" values of factors are the same as the minimum necessary to keep them in working condition.

Let us remember, therefore, that by the cost, or cost value, of a thing we may mean either (1) the amount of labour, etc., that has been invested in it; or (2) the normal exchange value (or purchasing power) of these investments; or (3) the amount of other things that have to be given up for it; or (4) the exchange value (or purchasing power) of these other things.

3. Now, when "value" is used in the sense of cost in ordinary speech, it is usually the second of these four possible kinds of cost that the speaker has in mind. At the beginning of Chapter IV we saw that the value of a thing may mean, in a rough sort of way, the amount that it "cost" the seller to produce, and that this amount is likely to be thought of as the amount which must be paid to all those who co-operated in its production in order to secure to them a reasonable return for their trouble. This concept was in its essence adopted by Adam Smith as the basis of his theory of value, and was used, at times, by Ricardo, and also by John Stuart Mill. Though their terminology was by no means always consistent—though they often adopted a purely "exchange" conception of value—yet in general they tended to understand by the "value" of a commodity the sum of the normal amounts payable for the use of the factors of productions which went to make it. And the fact that they adopted this starting-point determined the whole of the subsequent development of their theories. The essence of an embodied cost view of value is, as we saw,[1] that it expresses at best the *normal* rate at which things exchange. Things may in fact be sold for either less or more than their cost of production. They may be subject to monopoly conditions which enable their producers to secure substantially more than a reasonable return upon them: or a glut may drive their exchange value down to a point at which costs are far from fully covered. Such cases, on the classical view, represent the divergence of market values from "true" values—i.e. cost values. And it is only if the producers of a thing are neither gaining excessive profits nor suffering actual loss that the rate of its exchange with other things corresponds to its "value", so understood.[2]

Under what circumstances, however (one naturally asks),

[1] Chapter IV, p. 57.

[2] We saw in Chapter IV (pp. 67-8 above) that under certain circumstances "exchange value" itself may have to be interpreted as a "normal" concept. But the difficulty there was concerned with the relation between the rates of

will these conditions be realised? The classical economists' answer may be summed up in two words: perfect competition. Provided, they held, that there are no restrictions on the mobility of factors of production, provided that there are no monopolies or artificial scarcities, provided that neither entrepreneurs nor labourers, neither capitalists nor consumers make mistakes as to what to produce and what to buy—given all these conditions—*then* exchange values will correspond with cost values. And the whole classical value theory really amounts to little more than this: that given free and perfect competition, as expressed in the fulfilment of the above conditions, the rate at which things exchange against one another will correspond to, and will be determined by their (money embodied) costs of production.

Later economists have devoted great pains to the criticism of this doctrine. It is, indeed, vulnerable at many points, to some of which we shall return later.[1] But what concerns us at the moment is to observe how the tacit adoption of a cost conception of value, and of a money-embodied conception of cost, decided the range of classical value theory. Instead of investigating the question what determines the ratio in which things in fact exchange with one another—and economists are generally agreed that it is this question which constitutes the main subject matter of value theory—it merely noted the special cases under which this ratio is determined by cost of production. It assumed the answer to the main question as given, and was content with safeguarding it from attack by stressing the hypothetical conditions under which it would in fact be true. In other words, it was not a theory of actual exchange ratios at all.[2]

exchange of a commodity as a whole and the rates of exchange of individual units of it. Here what matters is whether the commodity *as a whole* is exchanged under "normal" conditions or not. If it is, then cost value and exchange value will coincide; if not they will be divergent.

[1] Pp. 102-3 f. below.

[2] The above account of the cost of production theory is, of course, extremely incomplete. On the one hand it does not attempt to elaborate all the weaknesses of the theory: on the other hand it does not do justice to its merits, or to the importance which it may still have in the corpus of economic thought. Most economic textbooks contain a fairly full, if highly critical, account of the theory: for example, Clay, *Economics for the General Reader*, chap. xiv, § 3. Something is said about its possible normative implications below, Chapter VII, pp. 115, 120 f., and a further attempt is made to elucidate the concept of cost value on p. 123.

Nor must it be supposed that the classical economists clearly formulated it in

4. The breakdown of the money-embodied view of costs has resulted in the abandonment, by a large and increasing number of economists, of embodied costs in general; and nowadays it is more usual, at any rate in value theory, to think of costs in terms of foregone alternatives and displaced opportunities. But before leaving embodied costs it will be worth while to notice the attempts which have been made, particularly by Marshall, to "pierce the monetary veil" and establish them on a *real* basis. Marshall distinguished carefully between the real costs of producing a commodity and what he called its "expenses" of production. The former he defined as "the efforts and abstinences required for producing it", the latter consisted of the *money payments* made to the various people who are concerned in its production.[1] Both these concepts deserve examination.

(1) Let us start with "real costs". The term presents two closely related problems—a problem of interpretation, and a problem of measurement.

First of all, we may mean by the real embodied costs of producing a commodity *either* the amount of work, etc., that is actually undertaken by the producers and the quantity of materials that they use up; *or else* the psychological impact of this work and of the loss of these materials. In the first case we are concerned with objective physical or physiological quantities—so many foot-pounds of energy, so much weight or volume of materials, so many units (however they are to be conceived) of technical skill and knowledge, of "abstinence", of "management", and so on. Let us define these as the "invested" costs of the commodity.[2] The difficulties in the way of arriving at any clear concept of these quantities are on the face of it almost insuperable. Even if we confine ourselves to one productive agent we cannot avoid them. Labour, for example, is of many different kinds, and contains

the above form, or were aware of all its implications. On the contrary, their writings often contain other and more satisfactory elements (even if we confine our attention to the "orthodox" among them) as well as a certain amount that is *both* remote from the facts *and* inconsistent with the pure cost of production theory. But a discussion of all this obviously falls outside the scope of the present work. (See, however, for a defence of Mill's account of the Theory, Marshall, "On Mr Mill's Theory of Value".)

[1] *Economics of Industry*, pp. 73-4; *Principles*, pp. 338-9.

[2] This is a pure definition. I simply wish to be able to use "embodied costs" to cover both these "invested costs" and the psychological (or "disutility") costs which lie behind them.

varying degrees of arduousness and difficulty; how, then, are we to compare the "amount" of labour in a particular product, say a piece of cotton fabric, with the amount of labour in another product, say a system of philosophy, which requires workers of a quite different type? So, too, with "land", or natural resources: on what basis are we to compare the "amount" of land represented by (say) a ton of iron ore with that represented by (say) a thousand gallons of crude petroleum, or by a year's use of a farm or a waterfall? And if we cannot compare in physical terms the amounts of different kinds of labour, or of different kinds of natural resources, among themselves still less can we compare the one with the other. "Amounts" of labour are wholly incommensurable with "amounts" of land, and both are incommensurable with "amounts" of abstinence, uncertainty bearing and the like.[1]

Can we do any better, then, if we adopt the alternative course, and consider the various producers' contributions to the productive process in subjective or *psychological* terms? Real costs are now associated with what it is usual to call "disutility". Just as people are prepared to buy, and pay for, consumption commodities because they desire them, and expect to derive satisfaction from possessing or consuming them, so one reason why they expect to be paid for producing and selling things may be that they are repelled by the idea of playing their part in the productive process, and expect to find it irksome or painful. And if we wish, we can construct an elaborate theory of the disutility of production—distinguishing, for example (as we found necessary in the case of utility), between disutility as meaning "undesiredness" or the extent to which a particular thing—e.g. a particular piece of work, or the hiring out of a particular piece of property—is repellent or disliked, and disutility as meaning "dissatisfyingness" or the extent to which the thing in question in the event causes dissatisfactions or pain. Or we can convert the principle of diminishing utility into a principle of increasing disutility and with its aid (and that of the principle of substitution) generate the concept of "marginal disutility". The usefulness of elaborating a theory of this sort need not be

[1] The classification of productive agents into "labour", "land", and the rest, will be examined in detail in Chapter XII.

discussed here. But two points with regard to disutility must be emphasised.

In the first place, there is no necessary correlation between the psychological or "disutility" costs of producing a commodity and what we have called its "invested" costs. Just as different units of consumption yield varying degrees of utility, so different units of productive activity yield varying degrees of disutility. Some kinds of employment are inherently less pleasant than others, and involve more disutility per unit of work done (however these units may be measured). Some workers, again, through natural tastes or aptitudes, may find a given type of occupation pleasant, or at least tolerable, which others find extremely repellent. Finally, any occupation will vary in unpleasantness according to the amount of time spent upon it: it may be, for example, that when a labourer starts his day's work he finds it actively unpleasant, but that once he is properly in his stride it ceases to be a burden, until towards the end of the day when he becomes tired and bored. In all these ways the "disutility" of work, as of other forms of productive activity, will vary according to the circumstances under which it is carried out: and we cannot assume that the "invested" cost of producing a given commodity throws any direct light upon its "disutility cost".[1]

Secondly, it is impossible to measure disutility costs with accuracy, and any generalisations we may make about them must be uncertain and quantitatively vague. How can we compare the disutility of two different kinds of work, of different degrees of skill or arduousness? How—still more—can we equate the disutility of labour with that of other productive activities? The "abstinence" or "waiting" which is generally thought of as the contribution of the capitalist investor to the productive process involves him—we need not dispute it—in dissatisfactions or "disutilities". But they are different in kind from the unpleasantness of labour, and there is no direct way of making them commensurable.

The nearest we can get to a solution of these problems is to examine the *relative utility* to the producers themselves of *withholding* their contributions from the productive process

[1] The relationship between productive activity and disutility is a topic on which a good deal might be said. Here, however, it is enough to draw attention to a problem which is worthy of study, although lying outside the range of value theory.

—that is to say, the "relative disutility" of making these contributions. A man may be paid 2s. for a piece of work: i.e. 2s. represents the displacement cost of his work to his employer. It is possible, however, that he himself would have been willing, if it had been necessary, to undertake the work for less than 2s.—say for a minimum of 1s. 6d. In that case he values leisure, or the avoidance of the disutility of the work at 1s. 6d. May we not regard this sum as giving a provisional measure of that disutility? If so, then we have found a method for the summing and the comparison of disutility costs. The value of the disutility costs of production of any commodity is the total amount that *must* be paid to the producers in order to persuade them to play their part in the productive process. If the exchange value of the product is greater than this—if any one, or more, of the producers receives a reward greater than his minimum (i.e. than the relative esteem value to him of not producing) then the extra which he receives is a "surplus", which is part of the *expenses* of production, but not of its (disutility) *cost*.

This solution of the problem is far from ideal. The fact that two people are prepared to undertake the same piece of work for the same minimum reward would only show that it possessed equal disutility if we could assume that the reward represented an equal utility. And we cannot assume this in real life. For on the one hand people differ in tastes and inclinations: and it is perfectly possible that though you and I might both be prepared to undertake a given task for the same sum, yet you may be the sort of person for whom work is pleasant and wealth not of great importance while I find work acutely unpleasant, but at the same time am dependent to a large extent for my happiness upon material possessions. In that case the disutility of the work may have the same relation to the utility of the reward for the two of us—and yet both will be low for you and high for me. And on the other hand, people differ in resources, and a wealthy man will expect a substantially higher reward than will a poor man, for undertaking work of a given degree of disutility.[1] Nor, furthermore, must we allow ourselves to confuse the payments

[1] These two difficulties are precisely the same as those which we had occasion to notice in considering the problem of the measurement of utilities, and which led us to the concept of *relative* utility (see above, Chapter V, p. 87).

necessary to *induce* production with the payments necessary to make production physically possible. The latter amount is largely determined by technical and physiological factors. In the case of unskilled labour it amounts, presumably, to little more than the value of a quantity of the necessities of life sufficient to maintain physical health and strength. For skilled labour, and particularly for intellectual labour, more than this is required; since, for example, a student needs leisure and recreation, and also books and periodicals, if he is to be able to do his work. For the provision of capital and land, on the contrary, the physical costs are zero; for if a man can save at all he can save—whether or not he *will*—without receiving interest, nor does a landlord require rent in order to *enable* him to lend his land to farmers or builders.[1] This physical conception of embodied costs has its importance for various political questions, and has also played its part in economic theory. But it is not identical with *relative disutility* costs, as measured by the minimum payments necessary to *induce* workers to work, investors to save, and landlords to rent out their estates.

When every allowance is made for these complications it may still be true that the concept of absolute disutility is important for economists, at any rate in studies of welfare, and in some of the related problems of public finance. But it seems clear that so far as value theory is concerned the only relevant concepts are those of *relative* disutility and its correlative, marginal relative disutility or "negative relative esteem value" [2]—i.e. the expression in terms of goods or of money of the "desiredness", and of the "importance", of *avoiding* taking part in the productive process. And even these are not in fact concepts of which great use is made by value theorists; for once we cease to speak in terms of "absolutes"

[1] So far as land (and other forms of material equipment) is concerned, indeed, this statement is only true because "rent" is habitually thought of in "net" rather than in "gross" terms. Land does in fact require maintenance, and material goods have to be repaired, renovated, and replaced; and if the landlord himself is responsible for these expenses, then he must receive something from the tenant or user of his property to enable him to keep it fit for productive use. But such payments as these are not counted a part of his "rent" in economic writings. This point is examined at some length in Chapter XVI below, pp. 335-8.

[2] We saw in the last chapter (p. 90) that once utility is understood "relatively", rather than absolutely, marginal utility becomes identical with (positive) relative esteem value. So here.

and confine our attention to exchange and esteem or utility relations, the importance of disutility as an independent tool of analysis disappears.[1] In consequence, the whole idea of embodied costs has tended in recent years to disappear from expositions of value theory.

(2) It remains to say a word about Marshall's "expenses of production". They consist of all the payments which are in fact made to producers. As such, they are not embodied costs but what might be called entrepreneur's displacement costs: they are what the entrepreneur has to give up or forego in order to secure the services of the labour, capital, and natural resources which he needs for carrying on production. If production were carried on under conditions of perfect competition, then these costs would in fact be equal to, and would be determined by, the money value of the embodied costs of production—i.e. the costs of the classical economists. In general, however, this is not so, and entrepreneurial displacement costs are different from money-embodied costs.

The concept of expenses of production seems at first extremely clear and intelligible. There can on the face of it be no difficulty in finding out how much exactly any given commodity "costs" to make in this sense. For we are no longer now undertaking ambitious investigations into the "disutility" of production, nor into the amount of goods which will either enable, or persuade, the producers to fulfil their functions in the productive process; we are merely asking how much these producers are in fact paid—what is the exchange value of their services. But even here, there are two difficulties, long familiar to students of economic theory. They affect particularly the classical cost of production theory of value, but also apply to *any* attempt to give a precise meaning to the concept of cost value in other than pure displacement terms.

In the first place, the cost of producing any commodity in general depends upon the amount of the commodity to be produced. If we could assume, as the classical economists tended to do, that all manufacturing is carried on under conditions of constant costs—that to make x units of any article would cost exactly x times as much as to make one unit of it—then so far as that article is concerned we could

[1] See on this below, Chapter VII, pp. 116-17.

say precisely and unambiguously how much is its unit cost of production. But in real life we regularly meet conditions under which an increase in the amount produced will involve either a more or a less than proportionate increase in the total cost. And under these circumstances it is not possible to say what is the cost value of any unit of the commodity until we know how many units are being produced.

Secondly, even if a commodity is produced under conditions of constant costs, it will not have a definitely and precisely assignable cost value if it is produced jointly with another commodity. Let us take an illustration. It is well known that silver is derived from ores which also yield lead. These two minerals are, then, in joint supply. Now suppose that a given quantity of raw ore contains 15 tons of lead and 800 ounces of silver. And suppose that the total cost of mining the ore and smelting and refining the metals is £200. Then if the lead can be sold at £10 per ton, and the silver at 1s. 3d. per ounce, expenses will be exactly covered. And if the price of lead could be taken as fixed, then it would follow that 1s. 3d. per ounce represented the cost value of silver. But in fact, the price of lead is not fixed, any more than is the price of silver. And the total expenses of mining the two would be covered if, for example, lead could be sold for £8 a ton and silver for 2s. an ounce, or if lead could be sold for £11 a ton, and silver for 10½d. an ounce. This being so neither of the two, taken separately, has a determinate cost value. All we know is the cost value of the two together.[1]

Thus it is only in the highly unusual case in which a commodity is produced *both* under conditions of constant costs *and* in isolation from all other commodities that its cost value, even in the highly attenuated form to which this concept has already been reduced, can be precisely determined and stated.

5. We are left, then, with the conception of costs as "displaced alternatives". Here there is no ambiguity or perplexity. The cost of a thing is now simply the amount of other things which has to be given up for its sake. This is on the face of it merely another way of describing the commodity's exchange value. And, indeed, when the easiest way for an individual

[1] This consideration is, of course, the exact converse of that which arises when commodities are in "joint demand". See above, Chapter V, pp. 78-9.

to acquire a particular desired good is to go into the market and buy it, or barter some other good for it, the cost of the good is precisely its "exchange equivalent"—or if we prefer, we can treat it as a quality of the good itself and call it (not its "purchasing" but) its "absorption power".[1] That is to say, cost value is, if at all different from exchange value, merely exchange value seen from the side of the buyer, rather than the seller. But cost value has a wider range than exchange value. Suppose I go into the market with a given sum of money, say 6d. And suppose I can choose between two commodities, both costing 6d. Then the real displacement cost of the article which I finally decide upon is the article which I reject. In order to get the former I have to give up the latter—it represents the sacrifice which my purchase entails. It has a cost value, which is formally quite distinct from its exchange value—since I am not offering the one article in exchange for the other, but merely giving up the one for the sake of the other. So, too, in the case of Robinson Crusoe when he finds that he can either build a house *or* catch some fish—but not both. Here there is no question of exchange value at all; but it is still true to say that the cost of the house is the fish, and *vice versa*. Indeed, this cost relationship is to be found in all circumstances, of whatever kind, in which a choice has to be made between two mutually exclusive courses of action. Like the exchange and esteem relationships it can be conceived of, *either* as a relation—the rate at which one thing has to be given up for the sake of another, *or* as a quality of the thing chosen,—its "displacement power" *or* as a quantity of the other thing—the "displacement" or "cost equivalent" of the thing chosen. It is, in fact, merely the extension of the exchange relationships to the whole range of economic life.[2]

[1] See above, Chapter IV, p. 61 n.

[2] See on all this, Henderson, *Supply and Demand*, chap. x, Davenport, *Economics of Enterprise*, chap. vi, etc. Wicksell extends the term "exchange" to cover *all* cases of choosing between mutually exclusive alternatives (*Lectures*, vol. i, pp. 36-7). But this seems an unnecessarily violent departure from ordinary economic usage.

CHAPTER VII

THEORIES OF VALUE

1. We have now elaborated a formidable array of terms and concepts, most of them having at least some claim to be regarded as types of "value". The table on the next page summarises the results so far reached. The terms which are bracketed together express not so much different concepts as different aspects of the same concept. Thus, the "purchasing power" of a commodity is merely a particular way of looking at the rates at which it exchanges with other commodities: and similarly its "desiredness" is no more than the fact that somebody desires seen as one of its qualities. Even, however, when we treat bracketed terms as standing for the same fundamental idea, we have a substantial number of concepts to deal with: in addition to exchange value, with its sub-variants, there are two senses of "esteem value", three senses of "utility", three special kinds of utility to which the name "value" is sometimes applied, and not less than six senses of "cost". Nor all of these are of positive importance for the purposes of economic analysis. But they are all logically independent and must be distinguished from one another if we are to make sure of avoiding confusion.[1]

2. Now, as we already know, the main task of the economic theory of value is the explanation of *exchange* value. Different groups of economists have, indeed, from time to time devoted careful attention to the analysis and understanding of one or more of the other main senses of the word: but so far as *value theory* (as opposed to welfare theory) is concerned these investigations have been purely preliminary. The theory of value is not interested in absolute utility or embodied costs and disutility *as such*: it is not concerned with the question

[1] Some of the *cost* concepts, indeed, would never be given the name of "value" even in ordinary speech. But even if these are excluded the word has upward of a dozen distinct meanings in economic contexts.

EXCHANGE VALUE: (A) Central meaning: the exchange relation:
- Relational: "rates (or ratios) of exchange";
- Qualitative: "purchasing (or absorption) power";
- Quantitative: "exchange equivalents".

(B) Sub-variants: (1) "Collective" *v.* "distributive";
(2) "Continuous" *v.* "discrete";
(3) "Normal" *v.* "actual".

ESTEEM VALUE: (A) Absolute:
- Subjective: "esteem";
- Objective: "importance".

(B) Relative: i.e. the esteem relation:
- Relational: "rates of indifference";
- Qualitative: "preference power";
- Quantitative: "indifference equivalents".

USE VALUE: (A) Absolute utility:
(1)
- Subjective: "desire";
- Objective: "desiredness";

(2)
- Subjective: "satisfaction";
- Objective: "satisfyingness".

(B) Relative utility ("vendibility", "payworthiness") = "power to induce purchase".
[*Marginal* relative utility = relative esteem value.]

(C) Special cases: (1) "Subjective exchange value";
(2) "Prestige value";
(3) "Intrinsic" *v.* "sentimental value".

COST VALUE: (A) Embodied cost:
(I) Pain cost or absolute disutility:
(1)
- Subjective: "repulsion";
- Objective: "undesiredness";

(2)
- Subjective: "dissatisfaction";
- Objective: "dissatisfyingness".

(II) Absolute invested cost [(*a*) real, (*b*) money] = amount (or value) of productive resources embodied.

(III) Special cases: [(*a*) real, (*b*) money]:
(1) What is required to *enable* producers to produce;
(2) What is required to *induce* producers to produce = "relative disutility". [*Marginal* relative disutility = negative relative esteem value.]

(B) Displacement cost:
(I) General case = extended form of exchange relation from point of view of consumer:
Relational: "rates (or ratios) of displacement";
Qualitative: "displacement power";
Quantitative: "cost (displacement) equivalents".

(II) Special case: where consumer is an extrepreneur, displacement costs = "expenses of production".

why particular objects are useful or attractive, or why particular activities are unpleasant or difficult. The question it asks with regard to esteem value, use value, and (embodied) cost value is simply this: do they help to account for the rates at which things are bartered against one another, or for the amount of any one commodity which must be given up for any other? And the claim of any other of the concepts on our list to a place in value theory depends upon its having a share in the answer to this question.

The historic value theories can be divided into three groups according to the type of non-exchange value to which they attach most importance in supplying an explanation of exchange value. The classical theories—i.e. the labour theory and the cost of production theory—believed exchange ratios to be determined, with certain exceptions, by *embodied cost* values, differing from one another chiefly in their idea of the constituent elements of these cost values. The earlier marginal utility theories—e.g. those of Jevons and the first Austrians—laid stress rather upon *use* value as the source (*via* marginal utility) of exchange value. And finally, both the more modern versions of the marginal utility theory, and also those "scarcity" theories which profess not to have any dealings with the concept of value at all, in effect explain exchange ratios (whether they admit it or not) in terms of *esteem* value.

How are we to estimate these three types of theory? We have already seen during the course of the last two chapters some of the difficulties which confront the first two. Both the cost of production theory and the marginal utility theory in its naïve form break down when tested by the facts. For the former "cost" means embodied or invested cost; for the latter "utility" means desiredness or satisfyingness. The former

fails to explain actually existing exchange ratios, both because not everything which is bought and sold has in this sense a cost at all—not, at any rate, a determinate and unique cost—and also because even those things which cost something to produce and whose costs are determinate often exchange at prices either below or above the amount which the level of these costs would have led one to expect. The latter fails to explain the facts because while it is true that in order to have an exchange value a thing must have "desiredness" and that in order to have desiredness it must in general be capable of yielding satisfactions, there is no possibility of correlating its exchange value with its utility in *either* of these two senses—not even with the help of the concept of "marginal" utility. It is no more true to say that the exchange value of a thing is determined by its (absolute) marginal utility than to say that it is determined by its (embodied) costs of production.

Both of these theories can, indeed, be saved in name by the redefinition of their main terms. If we substitute displacement costs for embodied costs, and vendibility (or whatever we like to call it) for desiredness or satisfyingness, then it may still be possible to assert a correlation between the exchange value of a thing and both its "cost" on the one hand, and its marginal "utility" on the other. But this is no more than a formal solution. Cost in its new sense is no more than an extended form of *exchange* value. And the marginal utility of a thing is now no more than its relative *esteem* value. So that if we now explain exchange ratios in terms of costs and marginal utilities we are at the best establishing a connection between the exchange relation and the esteem relation: the other two main senses of the word have been *in substance* extruded to the hinterland of our analysis. And this means that the first two types of value theory have reduced themselves to the third.

3. Value theory, then, is now in its baldest outline simply this. An individual's choices between different goods depend upon the comparison between two ratios: an "indifference" ratio, expressing the relative esteem value of the goods to him, and an "exchange" or a "cost" ratio, expressing their exchange values or displacement costs. In accordance with the principle of diminishing utility the esteem value of any one commodity will fall for him the more he possesses of it, and will rise the less he possesses of it. But so long as the

indifference ratio is different from the exchange ratio it will be worth his while to exchange the commodity which is "cheaper", in terms of the exchange ratios, than he esteems it for that which is "dearer" than he esteems it. In this way he will reduce the esteem value of the former, and raise the esteem value of the latter, until the indifference ratio and the exchange ratio are the same.

But exchange ratios are themselves no more than the resultant of the indifference ratios of all the individuals in the market. Given the total quantity of goods, the exchange relation between them must be such as to distribute all their units among potential demanders or consumers. And this means that it must adjust itself to the indifference ratios of everybody concerned. If any one good exchanges against other goods at a rate either less or more than the indifference ratio of even a single person, then (as we have just seen) that person will proceed to adjust his holdings accordingly. If the article is cheaper than he esteems it he will try to obtain a larger number of units of it; others will find their holdings of it reduced and its esteem value correspondingly higher; and they will not be willing to part with further units except at a higher exchange ratio—in other words, the commodity will become dearer. Conversely, if the commodity is already too dear, in comparison with its esteem value for him, he will reduce his holdings, other people will increase theirs, its esteem value will fall for them, and they will not be prepared to accept further units except at a lower exchange rate.

Thus any divergence between exchange and esteem relations will lead to adjustments in *both*, which will tend to bring them together again. And the only possible position of stable equilibrium will be one in which the two types of ratio are identical.

The situation is complicated, but not fundamentally altered, when what is "given" is, not a series of commodities in fixed quantities, but a fixed quantity of "resources"—raw materials, labour power, etc.—which can be used in various ways, i.e. for the production of commodities in varying proportions. Indifference ratios now involve the relative esteem value of leisure and present enjoyment (or the negative relative esteem value of work and abstinence), etc., and not merely that of consumption goods; and exchange ratios

involve the exchange value of factors of production as well as of finished goods. But the conclusion remains in essence the same: so long as exchange and indifference ratios are in any way different from one another, a tendency will be set up for each to move towards the other; and in equilibrium they will be equal.

In all this, utility and disutility in the old sense are relevant only in so far as they help to explain why consumption commodities have a positive, and factors of production have a negative, relative esteem value. They are among the general conditions which give rise to the situation in which esteem values and exchange values are equated, but they do not themselves play an active part in bringing about the equation. Embodied cost, in the naïve sense, has a not less subordinate role. The fact that the production of different commodities absorbs various, more or less determinate, amounts of resources is one of the factors which explain why consumption goods are scarce and have an esteem value. But it does not *determine* their esteem values in any quantitative or numerical sense.[1]

4. The importance of the contrast between this type of theory and the other two cannot be too strongly emphasised. In the first place its claims are far more modest. It deals, not in amounts of welfare, in satisfactions and dissatisfactions, pleasures and pains, but in esteem and exchange ratios. It explains the prices which people actually pay and receive for things in terms of the prices which they *might* have been willing to pay or accept for other things, or for the same things if they had been available in different quantities; not in terms of the real desirability of consumption or the real difficulties of production. It substitutes indifference curves for calculations of diminishing utility and increasing disutility. It abandons the attempt to establish a correlation between what goes on in the market and the happiness of the community.

This shrinkage has come about gradually. It has not involved a clean break with the past. And as a result, it has not brought with it its own vocabulary. Some bold writers,

[1] What this means is that absolute utilities and embodied costs—as also, we may add, such institutional factors as the social distribution of property resources (cf. below, pp. 350-51 n.)—are taken as *data* or "knowns" in the pure problem of value. They are the *a*'s and *b*'s of the "literal" equations we studied at school; not the *x*'s and *y*'s.

indeed, have abandoned the whole apparatus of marginal utility, and are content to talk exclusively in terms of "tastes and obstacles", indifference curves, rates of substitution, and the like.[1] But for the most part economists have continued to use the old terms—cost and utility, production and productivity,[2] even disutility and sacrifice—but with an altered content. Such terms no longer refer exclusively to technical facts or psychological experiences; they may also now denote the expression of these facts and experiences in the price schedules of the market-place. And just because the transition from the older point of view to the new has been gradual, the two types of meaning have not always been clearly contrasted. No wonder, then, that critics of modern value theory, and sometimes even its own exponents, have been liable to misunderstand its scope.[3]

5. Secondly, the conclusions of value theory now run in terms—if one may use Kantian language—of *reciprocity*, rather than of causality. The older theories tried to explain what *determined* value. They hoped to explain exchange ratios as

[1] The outstanding example is, of course, Pareto, in his *Manuel*; cf. also Hicks and Allen, "Reconsideration of Value Theory". One effect of this break with the past is to make superfluous the concept of *relative* utility as analysed in Chapter V above (pp. 89-90); the word can now be used *simply* with reference to desires and their satisfactions—and the possibility of measuring utility may be canvassed without fear of verbal ambiguity (cf. the discussion in the *Review of Economic Studies*, vol. i, pp. 218-25, ii, pp. 66-77, 155-8).

Fetter, it may be noticed, gave up the phrase "marginal utility" in his *Principles* (1915). But this was apparently due merely to a desire to be up to date in his psychological vocabulary, and did not substantially affect his approach to value problems.

[2] These two words will be examined in later chapters.

[3] Cf. below, Chapter XVII, especially p. 351. The above paragraph may help to resolve an apparent contradiction between the argument of the present chapter and that of Morgenstern's "Drei Grundtypen". He argues that there is no essential incompatibility between the marginal utility analyses of Austrian and of Anglo-Saxon writers, or between either of these and the more mathematical expositions of the Lausanne School. I do not dispute this—*provided that* by "marginal utility" is understood "marginal power of inducing purchase". I have been concerned to emphasise the contrast between two stages in the marginal utility theory: I do not dispute the substantial agreement of that theory *in its second stage* with the formally quite different analysis in terms of indifference curves, etc.

It is, of course, no part of my task to advocate either of the two methods of approach as against the other. But I may perhaps be allowed to cite chapter xvii of Mrs Robinson's *Imperfect Competition*, as an illustration of one disadvantage of the "marginal utility" approach. Mrs Robinson first defines utility as "the quality which makes commodities desirable to buyers" (p. 211), and then devotes four pages to explaining that she does not really mean it and that marginal utility is after all quite unimportant for the analysis of value (p. 214, cf. p. 217 n.). This she describes as a "fragment of philosophy".

the *effect*, or result, of things other than exchange ratios—to show that if two commodities had the same exchange value that was *because* they cost the same to produce, or possessed the same marginal desiredness, or satisfyingness. The new theory, while recognising these phenomena as outside conditions of esteem and exchange relations, thinks of these relations themselves as being quantitatively determined by mutual interaction. What interests it is not the one-way chain from cause to effect, but the reciprocal dependence of relationships. It deals, not in independent qualities of commodities, the existence of which sets up relations between them, but in the relations themselves and their interrelations.

It is worth while dwelling on this point for a moment or two. We have already seen that before things can have an exchange value—i.e. before they can actually exchange for one another in the market—they must be objects of esteem. And we have also seen that given that they are objects of esteem the exact degree to which they are esteemed will determine, and in its turn will be determined by, their relative exchange and (displacement) cost values. What we have now to note is that in some cases the existence of exchange value is a necessary *condition* of the existence of esteem value. There are two types of commodity for which this is universally true: first, those goods which are valued because they confer pecuniary prestige on their owners (i.e. objects of ostentatious expenditure, such as some forms of jewellery, domestic service, etc., which are desired, not for their own sake, but because they are the symbols of wealth); and secondly, money. Neither of these classes of commodity would have any esteem value if they did not possess purchasing power, the fact that they can exchange, at a more or less high rate, with other commodities is in the first case an important, in the second case a necessary, condition of their being objects of desire and regard.[1] This is not all, however. In any society in which things are being produced and sold on a large scale, a class of people will come into existence whose business it is to buy commodities, or resources, from one set of persons and sell them—changed,

[1] In neither case, it may be admitted, is the possession of exchange value a *sufficient* condition of esteem value, at any rate when we are considering the *historical origin* of the attachment of value to these types of commodity. But we need not concern ourselves with this matter here. (On the case of money see below, Chapter IX, especially p. 135).

perhaps, in form—to another. To this class belong, not merely traders and shopkeepers, on the one hand, and speculators on the other, but also employers of labour and capital, and, indeed, everyone who can properly be called an "entrepreneur".[1] All such people come into the market as buyers of various things—labour or natural resources, raw materials or finished goods—and therefore these things have (by definition) an esteem value for them. But their reason for buying them is that they expect to be able to sell them again—altered and adapted in various ways, no doubt—at profitable prices. And since a commodity can only be sold if it has an exchange value, it follows that *for this type of person* esteem value is dependent upon exchange value. As we shall see later, the importance of this way of putting things for the theory of distribution is extremely great. The earlier exponents of the marginal utility theory were forced to adopt a cumbrous doctrine of "imputation" to account for the value of factors of production; if a desired consumption commodity, they argued, can only be produced by means of some particular factor of production or set of factors of production, then the latter has a value because the utility of the former is reflected back on to it, or imputed to it. This doctrine is not so much untrue (though it has its difficulties[2]) as unnecessary, under the new dispensation. The values of factors of production are fixed, like the values of consumption goods, by the interaction of exchange and indifference ratios. The only difference between them—it is admittedly a difference which deserves careful attention—is that the esteem value of the former is dependent upon their having a potential exchange value, whereas the esteem value of the latter is dependent, in general, on their having a direct power of satisfying human desires.[3]

The distinction between a theory of value which runs in terms of cause and effect and one which runs in terms of reciprocity is also important in another way. Is it the conclusion of the marginal utility theory that the exchange value of a thing is determined *by* the value of the marginal unit which is in fact bought and sold, or *at* that value? The earliest

[1] See on this Chapter XV, especially pp. 325-6, XVII, pp. 364 ff.
[2] See M. Laws, "The Difficulty of Imputation."
[3] We return to this point in Chapter XVII, pp. 354-7 below (cf. also Chapter XI, p. 185).

forms of the theory clearly implied the former; they thought of utility as something itself independent of price which determines what price shall be. The later theory *cannot* mean that prices are determined "by" marginal utility; for it means by "marginal utility" relative esteem value, and the relative esteem value of a thing is itself a price phenomenon, and is in part determined by the prices which are in fact ruling in the market. What it asserts is that there is a mutual and reciprocal dependence of marginal utilities, so understood, and exchange values; that in equilibrium prices and price offers will coincide.[1]

6. Thirdly, the explanation of exchange values in terms of relative esteem values, beyond enjoining rational behaviour upon all buyers and sellers, private or public,[2] points to no specific conclusions for economic policy. Here, too, it is more modest than the earlier theories. An analysis which purports to show the connection between exchange ratios and the absolute (marginal) desiredness, or satisfyingness, of commodities is something which, if it can be refuted by the facts, may yet be important as a doctrine of reform. We have seen that one reason why the exchange value of a thing is no measure of its marginal utility, in the old sense, is that people's resources are unequal; that £100 represents very much more to one person than to another, and that for that reason a commodity for which the former person is just prepared to pay £100 must have more utility than a commodity for which the latter is just prepared to pay the same amount. What follows from this? We can, of course, if we choose, be content to say that the old marginal utility theory was false to the facts, and go on to build up a truer theory in its place. But we may also take the line, "so much the worse for the facts". If the distribution of resources, we may argue, is so uneven as to vitiate the conclusions of our theory, that shows that resources are *badly* distributed, and that the community would be better off if incomes were to be more nearly equal. So, too, with the other conditions for the realisation in fact of a naïve marginal utility theory—free competition, mobility of resources, etc. These are not found in the actual world, and therefore exchange values fail to express true marginal utili-

[1] See (for example) Davenport, *Economics of Enterprise*, pp. 94-5.
[2] See above, Chapter II, pp. 37-8.

ties. That is an argument against the marginal utility theory, so formulated, but it is also capable of being used as an argument in favour of measures for the maintenance (or restoration) of free competition and for the elimination of frictions and immobilities in the movement of resources and purchasing power.[1]

A similar use can be made of the "cost" theories of value. It is not true that commodities exchange in proportion to the amount of labour (or of resources in general) embodied in them. But that is in part due to the fact that owing to inequalities of opportunity and education some types of worker are artificially scarce and can command a higher return for their efforts than can others; it is also in part due to inequalities of resources, which enable the owners of factors of production other than labour to get more than a proportionate return on their services in the productive process. And it is not difficult to draw the conclusion that it would be a good thing if efforts were made to reduce inequalities in the wages of different types of worker, as also in the rewards to labour as compared with other types of productive service, so as to make the cost of production theory in these respects more true to life.[2]

The esteem value theory, on the contrary, makes no assumptions as to the mobility of resources or the equality of incomes, and is as true under conditions of monopoly and semi-monopoly as under conditions of the purest competition. It thus leaves entirely open the question of the *desirability* of these conditions. All that it demands for its truth is that people should be guided in their choices by the desire to distribute their resources in the most advantageous manner, and should be ready to prefer one commodity to another so long as the esteem value of the former, relative to the latter, is higher than its exchange value. As it is truer to the actual facts of

[1] It was, in effect, so used by J. B. Clark, in his attack on monopolies.

[2] This theme must not be pursued further at this point. But I cannot refrain from remarking upon the extraordinary paradox that during the socialist controversies of the last century, while the labour theory of value was always recognised as a doctrine of reform, and even of revolution, the marginal utility theory, particularly in its extension to labour as the marginal productivity theory of wages, was thought of as the bulwark of conservatism and free competition. It cannot be this. In its naïvest form it is, as I have just argued, as much a doctrine of reform as are the cost theories. In its newer form it is merely an account of the facts, and has literally no bearing *whatever* on political controversy. Cf. below, Chapter XVII, pp. 352-3.

economic life, so it carries fewer implications as to what is desirable for economic policy.[1]

Thus once more we arrive at the conclusion that absolute utilities and disutilities, and real embodied costs, however important for welfare theory, do not greatly matter if all we are anxious to do is to discover what determines the ratios in which commodities exchange.

7. Finally, a word must be said as to the changed relationship of utility and disutility. On the old view the two were independent and opposite psychological states, and a complete theory had to give them an equal status as determinants of human behaviour. People were conceived of, broadly, as being prepared to pay for some things—viz. consumption commodities—because they possessed utility, and as insisting on being paid for other things—viz. their services or the use of their property—because they possessed disutility. And while the connection of satisfactions with demand price was easier to trace than the connection of dissatisfactions with supply price, yet there was no reason for denying to the avoidance of the latter the same significance, as a determinant of action, as was attributed to the pursuit of the former. But when the utility of a thing means what will be given up for it, and the disutility of a thing means what must be paid to compensate for it, this dichotomy disappears. What matters now is whether one thing is preferred to another or is equivalent to it in esteem value. And the relations of preference and indifference are formally the same, whether the choice lies between two goods, or between two evils, or between a good *plus* an evil and the loss of the good *plus* the avoidance of the evil. Disutility is now *merely* negative utility, and utility is merely negative disutility.

And this means that if we are really anxious to do so we can give up talking about disutility altogether, in our value theory. For if a particular thing is unattractive to me—if, for example, I am not prepared to endure it except for a payment of (say) £1—then the *avoidance* of that thing can be described as having a "utility" of £1. Or if I have to decide between digging in my garden and writing a newspaper

[1] In principle, we may add, it is as applicable to socialist communities (in so far as they satisfy its fundamental postulate of rational individual choice) as it is to any form of capitalism. See on this above, Chapter II, p. 42; below, Chapter XVII, p. 350 and n.

article so as to be able to pay a gardener to do my digging for me, I can be said to be choosing between the "utility" of not digging and the "utility" of not writing the article. And so with all our choices: if we wish we can always, so to speak, concentrate on the bright side of things, and think in terms of good things foregone rather than of evil things endured. Formally this expedient is perfectly legitimate, and it is of considerable practical use in the expositions of the general principles of value determination: thus it would be intolerable if we always had to speak of "commodities or discommodities" and of "the principle of diminishing utility or increasing disutility", and so on. Let us not forget, however, that it is no more than an expedient. For many purposes the fact that a given activity is unpleasant and requires compensation is of the first importance in economic analysis. It is possible, but not natural, to discuss such cases in terms of the utility of avoiding the activity in question. And the fact that it is not natural may make us tend to discuss these cases less frequently, or less carefully, than they deserve. If so, then the simplification in terminology and exposition brought about by the disuse of "disutility" will have been too dearly bought.

Appendix: The Labour Theory of Value

8. Before passing on it will be worth while to say a few words about the labour theory of value. We are not, of course, concerned to evaluate or criticise that theory in detail. But its difficulties are to a large extent of a logical rather than of a purely economic nature, and some of these may be briefly reviewed. We shall find that they are connected with two matters on which a good deal has already been said in previous chapters—the distinction between "cost value" and "exchange value", and the relationship of "normative" to "positive" judgments.

9. We may start with Ricardo. He laid down that if one were to compare two commodities, the one costing (say) £2000 and the other £1500, the amount of labour in the former would be four-thirds of the amount of labour in the latter; thus if £1200 were spent on wages in the first case, £900 would be spent on wages in the second.[1] This assumes, of course, that "amounts of labour" can be measured by wages

[1] *Principles*, chap. i, § 6 *sub fin.* (p. 29).

payments, and also that the proportion of wages payments to total expenses of production (including profits) is the same for the commodities in question—both highly arbitrary assumptions. These and other difficulties apart, however, the upshot of the theory is that labour represents a possible *measure* of value. Ricardo was not asserting that labour is the *source* or *determinant* of value—merely that differences in value were likely to show a quantitative correlation with differences in amounts of labour embodied. Moreover, in this context "value" undoubtedly means *exchange* value. The relationship he sought to establish was between labour content on the one hand, and market purchasing power on the other.

We need not stop to enquire whether such a relationship, could it be established, was worth finding. What is of more importance is to notice its consequences for economic thought. If the amount of labour embodied is a "measure" of exchange value, then when the ratio of exchange between two commodities alters, the amount of labour embodied in one or other of them (or in both) must alter also.[1] In strictness all we are entitled to say, on the basis of the labour theory as so far stated, is that there is a *coexistence* in these changes. But it is almost impossible to stop there: we shall quite certainly tend in fact to believe that the change in exchange value is *due* to the accompanying change, or changes, in labour content. If so, then the latter is no longer merely the measure of value, it is also in some sense its determinant and source. In Ricardo's own words, labour is "the *foundation* of exchangeable value" and "the great *cause* of the variation in the value of commodities".[2]

Nor is this all. For if changes in the exchange value of a thing are caused by changes in the amount of labour it contains (or in the amount of labour contained in the other things with which it exchanges) then it is difficult not to treat the value as being in some sense a quality of the thing in question, associated with, and dependent on, its labour content. Commodities will now be thought of as having a

[1] Thus if one commodity becomes dearer in terms of another that may correspond with *either* an increase in its labour content, *or* a decrease in the labour content of the other, or both together. (Or, of course, the labour content of both may have changed in the same direction, provided that the rise is greater, or the fall less, in the case of the commodity whose value is now higher, than in the case of the commodity whose exchange value is now lower.) We might expect these various possibilities to be expressed in corresponding *price* changes. But that would assume that the value of *money* remains constant. And Ricardo was well aware that money itself is as liable to change in value as other commodities; see his *Letters to Trower*, p. 57, *Principles*, chap. i, § vii, etc.

[2] *Principles*, chap. i, §§ 1, 4 (pp. 7, 22)—my italics.

"value" in so far as they are the product of labour, quite irrespective of their exchange relations. Indeed exchange relations will be analysable in terms of these "values"; thus, it will be possible, at least in principle, to decide whether a given alteration in the rate of exchange between two things is due to a rise in the value of the one which has become dearer or to a fall in the value of the one which has become cheaper. This point of view, too, is to be found in Ricardo; indeed it was precisely the desire to be able to assign the responsibility for alterations in exchange rates as between the commodities exchanged that led him to the quest for an "invariable measure of value".[1] Its significance for our present discussion rests in the fact that it introduces a new meaning for the *word* "value". For we must now distinguish (as did Ricardo himself) between the "exchange value" of a thing and its "real" or "natural" value. The former is a relation (or series of relations) between it and other things; the latter is one of its *qualities*—a quality which is due to its being the product of labour. It represents, in fact, one interpretation of what in this and former chapters has been called "*cost* value".[2]

There are thus three distinguishable planes of analysis in Ricardo's theory. On the first it is merely a doctrine of how exchange values may be measured; on the second it is an attempt to disclose the sources and governing principles of exchange values; and on the third it relates to a contrast between two *senses* of "value", and is concerned with the possibility of discovering the relationship which they bear to one another.[3]

[1] *Principles*, chap. i, § 6; cf. *Letters to Trower*, p. 155. We shall have something to say about the legitimacy of attempts to "assign responsibility" for value changes in Chapter IX (below, pp. 158-60).

[2] The "real" or cost value of a thing, as understood by Ricardo, is not of course *identical* with the amount of labour embodied in it: but it is so closely dependent upon this as to make the distinction between the two an unnecessary refinement of analysis. So, too, with other possible interpretations of "cost value": they are always associated with amounts of resources embodied, even if they do not mean precisely these amounts themselves, standing rather for a property of the product in which they have been embodied. To the question what that property is, however, no very clear answer can be given (cf. below, p. 123 n.).

[3] Cf. on all this Bailey, *Nature and Causes of Value*, especially pp. 9-21; Diehl, *Erläuterungen*, vol. i, pp. 21-31. Bailey's strictures on Ricardo seem to me wholly justified, provided that it be assumed that Ricardo always meant—or thought he meant—by " value" *exchange* value. I cannot believe this; indeed it is an essential part of my argument that the labour theory of value would never have been formulated, much less have survived as long as it did, had it not been for the presence in the minds of its exponents of a more or less vaguely conceived "*cost* value" lying behind exchange relationships. See further the following sections of this appendix.

10. Now Ricardo realised that the real or cost value of things does not in fact fix their selling prices: other elements, in particular profits, enter into the latter figure. And this has a double importance for the theory of value. On the one hand it destroys the possibility of establishing even a quantitative correlation—much less a direct causal connection—between amounts of labour and exchange values, in that the proportion of labour costs to profits may vary enormously as between commodity and commodity. Recognition of this fact opened the way to substituting a cost of production theory for the labour theory as an account of actual exchange ratios.[1] On the other hand it left room for the development of the labour theory as a doctrine of reform. If the (cost) values of things are determined by the amount of labour embodied in them, and if their selling prices are regularly disproportionate to, and higher than, these values, does that not suggest that there is something wrong with the economic system? *Ought* not the selling price of things be equal to their labour cost values? This was the conclusion drawn by many socialist writers during the middle of the nineteenth century; they used the labour theory of value as a weapon for attacking the payment of profits and the system which made profits possible. We need not examine their arguments in detail. Bur one or two points deserve comment.

(1) They are derived from Ricardo's labour theory only if that is interpreted on its *third* plane of analysis. Statements to the effect that exchange values are measurable by amounts of labour embodied and that changes in the former are in general due to changes in the latter have in themselves no normative implications. But once it is believed that the labour content of a thing determines, and even in some sense constitutes, its ("real") value, then it is not difficult to understand the theory as indicating what ought to be rather than what is.

(2) The argument in its barest outline runs, therefore, as follows: "exchange values and (labour) cost values are intimately associated; but in the real world this association

[1] Ricardo himself often uses "cost of production" language. See (for example) his famous footnote at the end of chap. i, 6 (p. 30), where he states that the cost and the value of a thing are the same if by cost is meant "*cost of production* including profits"(my italics). It is not, however, clear whether this asserts an identity in the meaning of the *terms* "cost of production" and "value" or a tendency for value to *equal* cost of production. On the latter interpretation "value" is presumably exchange value; on the former it is (a wider form of) cost value, being associated with the amount of resources, *including non-labour resources*, which are embodied in commodities.

is obscured and distorted: therefore reforms should be introduced which will bring exchange values into conformity with cost values". The force of this reasoning depends, of course, upon the exact content of the first premise. If the association between exchange values and labour cost values is genuinely of an "ought" character—if it is, so to speak, a "rule of reason"—then the conclusion presumably follows. But we may be inclined to suspect that at least part of its plausibility is derived from the fact that the two associated concepts bear the same *name*, and part also from the evident truth that changes in the cost value of a thing will almost certainly have some effect upon its *actual* exchange value. Moreover, once it is recognised that non-labour costs of production are not mere gratuities to the property-owning classes, being to some extent at any rate payment for real productive services, the case for equating exchange values to *labour* cost values becomes highly unconvincing—though there is still room for arguing that exchange values should be brought into conformity with cost values *as these are now to be understood*—i.e. as including an allowance for *all* real resources embodied.[1]

(3) When all these points have been taken into account, however, we are still entitled to feel that there is something wrong in a system of distribution in which exchange values are glaringly divergent from embodied costs. But such a feeling can neither be defended nor destroyed by a pure analysis of value. Thus, the labour theory of value as a doctrine of reform is not a matter of economics at all, but of political justice or social policy. And it seems probable that the appearance which the theory wears of being derived from the academic investigation of the value problem is simply due to the ambiguity of the *word* "value"—to the assumption that because it may be used both of embodied resources and exchange rates therefore the latter ought to be explicable in terms of the former.

11. Let us turn now for a few moments to the theory as expounded by Marx. It is well known that Marx used "value" in two senses. He distinguished between the "Value" of a commodity as dependent upon the amount of labour embodied in it and its *exchange* value.[2] And he tried to exhibit

[1] This last consideration is of some moment. The labour theory as a doctrine of reform must be *modified* if due recognition is to be given to the real services of non-labour producers; but it is not *refuted* by pointing to the existence and importance of such services.

[2] *Capital*, I, chap. i, § 1 (p. 7), etc. Marx's terminology is not quite consistent; he sometimes—but not often—calls *labour* value "exchange value".

exchange values as representing little more than the market expression of cost values so understood—only to find that in fact they are far more closely connected with costs of production as a whole than with pure quantities of labour. But this did not lead him to give up the labour theory; on the contrary his writings contain two virtually independent theories side by side—a cost of production theory along more or less orthodox lines, and a theory which runs in terms of "amounts of labour embodied".[1] Of the two it was the former which was intended as a final explanation of actual exchange rates. What, then, was the function of the *labour* theory?

It was *not* intended as a doctrine of reform: for Marx was by instinct and philosophical training opposed to theoretical discussions of what "ought" to be, and constantly denounced those "utopian" socialists whose main contention was that the present existing economic system was unjust.[2] His labour theory was intended as a "scientific" analysis of the actual world. It showed how in a capitalist system the working classes were exploited by the propertied classes. The labourer embodies his efforts and energies in *commodities*, which thereby acquire a *value*. But the value so produced is not equal to the value of the goods which the labourer himself receives as wages. And the difference between the two—i.e. the "surplus" value—goes to the capitalist class and constitutes the measure of capitalist exploitation. So understood the labour theory is not a theory of exchange values at all. It is part of Marx's central doctrine—the doctrine of the class war. "Value" for it means, not exchange value but *cost* value—the quality which belongs to a commodity by reason of the fact that it is the product of human labour. And all criticisms of the theory which are directed to showing that it is not an adequate analysis of the forces determining actual exchange values, though they may effectively refute those few passages in which Marx seems to think of it from this point of view, are yet powerless against the essential point which he was rightly or wrongly trying to make.[3]

[1] The cost of production theory is developed at length in *Capital*, III, first published (by Engels) in 1894. But it is foreshadowed in various passages in *Capital*, I.—e.g. chap. vii, § 1 (notes on pp. 212, 218)—and it was clearly present in Marx's mind when he wrote *Theorien über den Mehrwert* in 1861-1863, five years before the publication of *Capital*, I. This being so it seems to me impossible to assert, as do some critics, that Marx (like Ricardo) started with a pure labour theory of value but threw it overboard when he found that it did not work.

[2] See, for example, his *Misère de la philosophie*, chap. i, § 11.

[3] On all this see Helander, *Marx und Hegel*, especially pp. 11-14; and on the contrast between Marx and the Utopian Socialists cf. Diehl, *Erläuterungen*, vol. i, pp. 143-50. The discussion of Marx in these two paragraphs is even more

12. It appears, then, that the labour theory of value may be interpreted in at least three different ways. Either it is in some sense an attempt to analyse existing exchange relationships; or it is a doctrine of reform—a theory of what *ought* to determine exchange relationships; or it is a means of displaying the nature of class exploitation under a capitalist system. On the second and third interpretation it is not a theory of value in the economic sense at all: on the first it is an obviously inadequate theory. But whichever it is, its starting-point is the concept of *cost* value. And the last few pages have shown clearly how obscure and uncertain this concept is. For what is the "real" value of a thing according to Ricardo, or its "Value" according to Marx? It is a property or quality of the thing, a kind of "virtue" or "essence" which belongs to it and inheres in it in consequence of its being the product of human labour. Again, what is the "normal" value of the cost of production theory? We cannot say simply that it is the exchange value which things would possess if they were produced and sold under "normal" conditions—i.e. conditions of free competition; for one main reason why such conditions are regarded by the theory as normal was precisely that when they were realised—and not otherwise—actual values coincided with cost values. Here, too, is implied a more esoteric sense of "value", a sense which attributes to everything a worth in so far as it is the embodiment of real resources. How such a "worth" is to be measured or even discovered is an unanswered, perhaps an unanswerable question. But that "value" is used in this kind of way, not merely by the Utopian Socialists and Marx but also by Ricardo and the orthodox writers of the cost of production school, is beyond question. Economists are fortunate nowadays in that such a concept no longer warps and misdirects their investigations of the problem of exchange value.[1]

cavalier than that of Ricardo in § 8. I need not apologise for this. My concern is with the elucidation of the word "value" not with the history of economic thought.

[1] For Marx, we may hazard the guess, labour itself had an ultimate value or "worth", some of which it imparted to its products. (See Helander, *Marx und Hegel*, pp. 7 ff., 20, etc.) Possibly a similar kind of explanation applies to the others too. If so, "cost value" is really an intrusion into economics from philosophy. The attribution of ultimate "value" to labour, etc., is of course an act of "valuation" on the part of the attributer—in his capacity, however, not as a buyer or seller in the market, but as a democrat or social philosopher. Thus, even if the concept of cost value has its source in a valuing subject, it is quite distinct from what in this and previous chapters we have called "esteem" value; it is, in fact, not an economic concept at all. Happily, therefore, a detailed analysis of its content lies outside our task.

CHAPTER VIII

"COMMODITY": "MARKET"

BEFORE leaving value theory it is necessary to say a few words about two concepts which are fundamental to it: the concept of a commodity, and the concept of a market.

1. The term "commodity" is commonly used by economists in four main senses. Either it is anything which has *utility*: or anything which has *exchange value*; or any *material* thing which has utility or exchange value; or any *directly consumable* thing which has utility or exchange value.

The distinction between the first and second of these meanings is of little practical importance. If by utility is meant "desiredness" (see p. 79) then everything which has exchange value has utility; while those things which though they have utility do not enter into exchange—either because they are "free goods" or because they cannot be transferred and appropriated—may yet be regarded as having at least a *potential* exchange value.[1] It we must choose, however, it is perhaps better to define the word in terms of exchange value rather than in terms of utility (in spite of the etymological association of "commodity" with what is convenient or useful); for since the theory of value is a theory of exchange, commodities are primarily of interest to economists in so far as they are bought and sold.[2]

[1] For "free goods" see Supplementary Note 3, p. 378.

[2] Or more precisely, in so far as they are *esteemed*, as well as being useful. Dickinson contrasts "commodities", = things which have exchange value, with "goods", = things which have utility to their owner. (*Institutional Revenue*, p. 76 n.) But there is here a double distinction. Goods which are not "commodities"—i.e. have no exchange value—comprise (*a*) free goods; and (*b*) goods which are scarce and esteemed, but which happen not to enter into exchange transactions—e.g. because they are in the possession of a Robinson Crusoe. The contrast is therefore between exchange value on the one hand and esteem value and/or utility on the other. Nor is there, of course, any objection to defining "commodity" and "good" in this way. But it is *also* possible to distinguish between exchange value and/or esteem value on the one hand and utility on the other; and on this basis goods which are scarce and esteemed will be counted as "commodities" even if they happen not to be brought to market.

We may add here that the opposite of a commodity—what Jevons called a

Whether the word is to be understood only of *material* exchangeables or of exchangeables in general is usually perfectly clear from the context. For certain purposes the narrower denotation is convenient. Thus, it is common in the theories of production and distribution to distinguish between (material) "commodities" and (immaterial) "services" such as labour. So, too, we talk of "commodity" markets, as distinct from the money market, and of "commodity" price levels as distinct from the level of wages or incomes. For other purposes—and particularly for the exposition of pure value theory—this distinction is irrelevant, and the word means *anything* which is bought and sold. In this sense both "money" (i.e. short-term capital) and "labour" are commodities, no less than ordinary consumption goods.[1]

Similarly with the other possible restriction in the range of the word. It is sometimes useful to be able to distinguish between (consumption) "commodities" and factors of production, raw materials, natural resources, etc., the latter

"discommodity" (*Theory*, p. 63: *Principles*, chap. xxviii)—will naturally be thought of as something possessing *disutility*, whether or not it has a negative exchange value. But the concept is nowadays an unimportant one; see Chapter VII above, pp. 116-17.

[1] On "money" see below, Chapter IX. Radical writers have often protested against the inhumanity of calling labour a commodity. And the United States once passed an Act in which it was specifically denied. But this is obviously a mere misunderstanding of ordinary economic usage. (Cf. Henderson, *Supply and Demand*, p. 19.) Marx contrasted "labour" with "labour power" and held that the latter only was properly describable as a commodity. But this point need not concern us here.

It should be noted that the distinction between "material" commodities and "services" is not really one between two *kinds* of commodity but between two *ways of interpreting* "commodity". We can if we choose institute a tripartite classification of useful and exchangeable things: (1) material things, (2) the *services* of material things, and (3) human services. (Cf. Cannan, *Wealth*, pp. 99-100.) Of these the second is the only one which presents any apparent ambiguity. A piece of land, for example, may be *either* sold *or* leased. In the former case the land itself is exchanged—i.e. is a "commodity"; in the latter case what is bought and sold is the *use* of the land, the "services" it can render, and these services are also (in the wider sense) "commodities". Evidently, however, *all* material goods yield "services" and are valued by reason thereof; though it happens that in the case of short-lived goods (or more precisely, of "single-use" goods—see Chapter XIV below, pp. 256-8) the distinction between the good itself and the service which it renders is of no practical importance. It follows that the "immaterial" interpretation of "commodity" covers *all* forms of wealth, whether they are embodied in material goods or not. And this is no doubt the fundamental significance of the word for economic purposes; for the contrast between material and immaterial forms of wealth is not really economic in scope (cf. above, Chapter II, pp. 24-6; below, Chapters XI, pp. 176 ff., XIV, p. 259). We shall have to return to this point when we come to deal with the concept of "income": see Chapter XVI, pp. 333-4.

having exchange value and utility, only because they can be *made into* consumption commodities. Here again there is no serious possibility of confusion. In the present discussion the word is used with special reference to consumption goods; but what is said here applies to non-consumption goods also, as we shall learn in later chapters.[1]

2. "Commodity" is a *class* term. It applies to all things which are bought and sold, irrespective of their specific differences. Apples, screw-drivers, grand pianos, tame lizards, all belong to the class of "commodities", and can each of them be called "a" commodity—just as Captain Webb may be called "a" channel swimmer, in virtue of belonging to the *class* of channel swimmers.[2] But there is this difference between the class term "commodity" and the class term "channel swimmer", that the members of the latter class are individual people, whereas those of the former are themselves classes. The term "screw-driver", for example—a member of the class of commodity—itself refers to a class of things each one of which may be called "a" screw-driver, in virtue of belonging to the class. And this leads to a complication. For the particular instrument which I used this morning to unscrew the lock of my desk is not merely a "screw-driver"; it is also, in virtue of having been bought last week at the ironmonger's, a "commodity". And when we use the term "commodity" we may be referring either to a particular *type* of commodity or else to a particular individual or representative of the type. Contrast the sentences "some commodities are naturally and necessarily limited in supply" and "no seller can get more for a commodity than the buyer is prepared to pay". In the first case the "commodities" referred to are classes or types—works of art, rare books, old coins, etc. In the second case the word means an individual object or thing—not rare books or old coins as such, but *this particular* Breeches Bible or Henry VIII shilling.[3]

For the present purposes it is worth while to have special terms for these two ranges of denotation. Let us distinguish between "commodity classes" and "commodity units". By a "commodity class" we mean a class of things, one of the

[1] See in particular Chapter XII, pp. 200-205.

[2] Chapter I, pp. 4-5.

[3] Cf. on this the distinction between the "collective" and "distributive" references of "exchange value", in Chapter IV above, p. 66.

characteristics of which is that all its members are capable of being bought and sold. By a "commodity unit" we mean an *individual object* which is capable of being bought and sold. Screw-drivers, apples, old coins, etc., are commodity classes; any particular screw-driver, etc., is a commodity unit.[1]

3. The concept of a commodity unit presents no serious analytical difficulties. It is only necessary to remark that under certain circumstances it may be a matter of choice *how much* of any class shall be taken as the unit. The natural unit of the commodity class *wheat* is presumably the ear of corn. But ears of corn are never bought and sold separately, and are therefore, according to the definition, not commodities at all. What in fact has exchange value is an aggregate of these natural units, measured in terms of volume or mass—in bushels and quarters, or in pounds and hundredweights. And a unit of wheat for economic purposes is probably best described as the smallest quantity of wheat that is actually bought and sold. So with every commodity class which is economically significant in aggregates, rather than in natural units; we mean by a unit of the class the minimum amount which in fact has a price and is exchanged.[2]

The exact meaning of "commodity class" is less easy to determine. At first sight it seems natural to suggest as the test of a commodity class that all the units comprising it should be "substitutable" for one another. We have already seen what this involves.[3] Two things are completely substitutable if they are so alike in their physical and technical properties, as also in the way in which they are presented to us, as to be identical in their influence on our behaviour. I buy a crate of apples from a greengrocer. The apples it contains are (let us suppose) indistinguishable from one another in size, appearance, and flavour. I have no cause, then, to prefer any one of them to any other; they are of interest to me, not as individuals but as indistinguishable units or representatives of the same *class* of apples.

Now if this is what we mean by a "commodity class" then

[1] "Commodity class" is simply what we have hitherto vaguely called a "commodity *as a whole*".

[2] The relevant unit may, of course, be different at different stages in the productive and distributive process. An egg would be regarded as a unit by the ultimate consumer; the retailer, on the contrary, measures eggs, as a rule, by the dozen, the shipper or wholesaler by the gross.

[3] Chapter V, pp. 82-3.

we can make certain statements about it which are of great importance for value theory. We already know [1] that when a series of commodity units are completely substitutable, each must have the same esteem value for any individual buyer or owner. I will not be prepared to pay more for any one unit than for any other if I know that the latter is for all practical purposes identical with the former. Suppose, now, that I am buying the apples, not in a crate, but singly or in small quantities, and that I have a choice of retailers from whom to buy. Then if I find that the prices asked by the various retailers are different, I will presumably go to the one who is prepared to sell them most cheaply. And since in this respect my example will be followed by other buyers, any retailer who charges more for the apples than any one of his competitors will fail to effect any sales. If, then, he wishes to remain in business, he will be forced to reduce his prices to the "competitive" level, i.e. to the level of the cheapest retailer in the market. And the result will then be that *all the apples that are bought and sold will have the same exchange value.*

In this way we can arrive at a precise picture of what is meant by a commodity class. It is a group of commodity units which are completely substitutable for one another and which, in a competitive market, have the same exchange value.

4. For a long time economic theorists were wholly satisfied with this concept and made universal use of it. Indeed, it forms the basis of the whole classical theory of competition and monopoly. Competitive conditions exist when more than one person is engaged in the production and sale of "identical" —i.e. perfectly substitutable—commodity units; when there is no difference between their several products, and no reason for buyers to prefer those of one to those of another. A monopolist, on the contrary, is a person who is the only producer of a particular commodity class; no substitution is possible between his product and that of any other producer. The demand for the output of a competitive producer is infinitely elastic; he cannot lower his price, even by the smallest amount, without being flooded with orders far exceeding his capacity, nor can he raise his price, even by the

[1] Chapter V, pp. 83-4.

smallest amount, without losing all his trade. The demand for the output of a monopolist, on the contrary, is more or less inelastic. He can vary his price within limits which are only set by the conditions of demand for the commodity class he produces, and the only thing which he has to fear, apart from the possibility that his monopoly may be broken, is that if he charges too high a price consumers may try to do without his product altogether.

In recent years, however, it has come to be realised that this rigid distinction will not do. On the one hand a large degree of substitution is often possible between different commodity classes; on the other hand the products of different competitive producers may not be completely identical and interchangeable.

The former point needs no elaboration here. It has always been recognised that no monopoly is perfect; that even if a man is the sole producer of one commodity class he has to reckon with the competition of other commodity classes which can satisfy the same or allied desires. Nor is there anything in our definition to imply that there can be *no* substitution between the units of different commodity classes. What is much more serious is the second point—the fact that purely competitive conditions, as envisaged by the classical economists, are practically never to be found in the real world. For *this* fact, as we shall see, cuts at the roots of the whole conception of commodity classes and substitutability.

Let us take any commodity, normally so called, as an illustration—say, cigarettes. If cigarettes formed a true commodity class, then every unit, i.e. every individual cigarette, or every packet of ten, would be completely substitutable for every other unit, and it would be a matter of indifference to smokers what cigarettes they bought. That this is not so is painfully obvious. Cigarettes are available in infinite variety, and at all sorts of different prices. We can in the first place distinguish between them according as they are made from American or from Eurasian tobacco, or from a mixture of the two; the substitutability between Turkish and Virginian cigarettes is sufficiently imperfect for them to be clearly entitled to be counted as separate commodity classes, or at any rate commodity sub-classes. And within each of these groups are to be found complicated subdivisions. Some units

are mild, some strong; some are plain, some are cork, ivory, or gold tipped; some are small or loosely packed, some thick or tightly packed. There is no complete substitutability between (say) a mild, standard-sized, cork-tipped cigarette and an extra strong, extra large, plain-tipped cigarette—even if both are made from pure Virginia tobacco. Each has its own special appeal and its own public, and many people will so greatly prize the one particular combination of qualities that they will not be tempted, even by substantial price concessions, to transfer their allegiance to the other.

And even now we are only at the beginning of the story. We buy cigarettes in packets, we buy them at particular times and places, we buy them in greater or smaller quantities. Of two brands of cigarettes which are identical in their physical constitution we may prefer one rather than the other, because it is supplied in more attractively designed boxes; or because it is more skilfully advertised; or because it is accompanied by cigarette cards, or bridge-scoring pads; or because we can get it in twenty-fives or air-tight fifties, rather than in tens and twenties; or because we can get it from automatic machines at any time of the day and night; or because it is stocked by a shop which is near our place of business, or which has an attractive assistant, or which will provide us with credit. Any one, or more, of these and a host of other considerations may so decisively determine our choice as to make even a ten or twenty per cent difference in price a matter of little or no moment.[1]

The truth is that nobody ever buys cigarettes—even of a particular quality and physical constitution—by themselves or as such. They buy them in conjunction with a great many other things, material and immaterial. The utility of the shilling that I spend on a packet of twenty cigarettes of a standard brand is not merely the utility of twenty cigarettes; it includes all those utilities (or disutilities) which are involved in the form, time, place, and manner in which I can buy them. And in so far as these other utilities and disutilities come to me in different proportions and degrees according to the brand I buy, the various brands are not perfectly sub-

[1] This illustration is due to Mr G. F. Shove—though he is not to be held responsible for every detail in it, still less for the use to which it is here being put. Cf. also Clapham, "Empty Economic Boxes", especially p. 309.

stitutable for one another: they do not form a true commodity class.[1]

This kind of phenomenon is to be found throughout the whole of economic life. Modern theory recognises it under the name of imperfect, or monopolistic, competition. And in recent years a large body of scientific literature has grown up round it.[2] Competition is said to be imperfect when goods which are of the same general type—which go by the same name, and would usually be regarded as forming in some sense a commodity class—are nevertheless not fully substitutable for one another; when for instance they are divided into brands, each with its own special public, and when the market of each brand will be neither indefinitely expanded by small price reductions nor wholly destroyed by small price increases. Into the details of the theory of imperfect competition we do not need to enter. What concerns us here is simply to observe its significance for the notion of a commodity class. If by a commodity class is meant a group of units every one of which is in all relevant respects identical with every other, then practically speaking there is no such thing.[3] To be fully realistic we must talk in terms of commodity units only.[4] Or rather, if we use the word "commodity" of a group of physically similar things, like cigarettes, we must keep carefully in mind that our classification is likely to be provisional and arbitrary; that the units contained in the class may have a more or less high degree of substitutability, but are almost certainly *not* "identical in *all* relevant respects".

5. The word "market" need not detain us long. In eco-

[1] The condition as stated in the last sentence is important. It is not the fact that the utility of cigarettes is complex that prevents their forming a commodity class, but the fact that the simpler elements into which the utility of a packet of cigarettes can be analysed are combined *in different proportions* for different cigarettes—in some the tobacco-utility is great but the packing or advertising utility is small; in others the time (or place) of purchase utility is exceptionally great; and so on.

[2] See in particular, Chamberlin, *Monopolistic Competition*; Robinson, *Imperfect Competition*. Both these books were published in 1933. It is only fair to add that the phenomena which they analyse had been noticed and emphasised by critics of orthodox theory long ago—e.g. by Cliff Leslie in the second half of the nineteenth century and (still more) by the Institutionalists just after the war.

[3] Cf. below, pp. 358-9.

[4] Mr A. P. Lerner suggests as an alternative speaking only of "units of accommodation" (see his article, "Measurement of Monopoly Power", p. 168).

nomics it means, not a particular building or locality, but a state of affairs. There is a "market" in a commodity (i.e. a commodity class) when there are a number of buyers and sellers, and when the unit price offered and paid by each is affected by the decisions of all the others. The market is said to be "perfect" when each buyer has full knowledge, and the ability to use it, of what every seller is demanding, and each seller has full knowledge, and the ability to use it, of what every buyer is offering. Under these conditions, if the commodity dealt in forms a true class, then the perfect substitutability of the units will exercise its full influence. No buyer will accept units from a seller whose price is higher than that of any other seller, and no seller will supply units to a buyer whose price offer is less than that of any other buyer. Therefore, the price of every unit will necessarily be the same.

Markets will be *imperfect* if either (1) the commodity units do not form a true class—e.g. if they are separated from one another in space, or are available in different and imperfectly competing qualities; or (2) if either the buyers or the sellers, or both, are ignorant of each other's intentions—e.g. if a buyer only knows the price demand of one seller and takes it for granted that it is the same as the price demands of all the other sellers; or (3) if either the buyers or sellers are aware of variations in each other's price policies but are prevented, either by habituation and conservatism or by previous commitments, from taking advantage of their knowledge and buying from the cheapest seller or selling to the dearest buyer. Any one of these circumstances may be sufficient to allow of more than one price for the same commodity in the same market.[1]

6. Thus, both the concept of a commodity class and the concept of a perfect market are essentially abstract and "functional" terms.[2] An approximation to their realisation is to be found in the financial world—on the stock exchange, and on the speculative commodity exchanges, as also among foreign exchange dealers. The commodities dealt in by these markets are divisible into classes—a particular group of

[1] For a full and suggestive analysis of market imperfections see Slichter, "The Control of Economic Activity".

[2] See pp. 17-18.

shares, a particular standardised quality of wheat or cotton deliverable in such and such quantities at such and such a date, a particular foreign currency—each unit of which is perfectly substitutable for every other unit. Moreover, the dealers in these markets are for the most part experts, who are in close touch with one another, and who may be trusted to buy as cheaply, or sell as dearly, as they can. And one expects to find there that uniformity of price, at any given moment, which is the theoretical characteristic of the true commodity class in the perfect market. But outside this circumscribed area the conditions envisaged by the theory of perfect competition are not to be found in all their purity. In the general field of economic life, commodity classes and markets are only to a limited degree "true" commodity classes and "perfect" markets. In so far as they do conform to the abstract idea, then the propositions which may be laid down about the abstract idea will also apply to them. But to the extent that they depart from it, then these propositions will have a purely abstract and hypothetical validity. And in the last analysis we may have to admit that to say that in any one market there can only be one price for the same commodity at the same time is of more importance as a definition of the words "commodity" and "market" than as a positive contribution to the understanding of exchange value.[1]

[1] The argument of the last few pages may be compared with the observations in Chapters XII and XVII below, pp. 216 ff., 358-9. Cf. also, on the last paragraph, Chapter III above, pp. 50-3.

CHAPTER IX

"MONEY"

WE must now turn to a consideration of one of the most important and difficult terms in the whole range of the economist's vocabulary—the term "money". As we shall see, it presents a series of intricate problems for logic no less than for economics; and some treatment of it is necessary both in order to complete our study of the theory of value and also to prepare us for certain aspects of what is to come later. "Money" is a word which has five or six meanings in ordinary speech, as in economic discussions. And while economists are fully aware of the importance of distinguishing between them, they are not always clear as to the exact nature of the connections which link one meaning to another—with results which have been little short of disastrous for the development of monetary theory.

Much of the ground covered in this chapter is well worn. And in going over it again we cannot hope to discover a great deal that is new—except in the form of logical subtleties which many economists will be inclined to think barren and irrelevant. But clarity of thought and expression is so vital for the solution of those economic problems into which money enters that it is better to incur the charge of scholasticism or pedantry than to omit all reference to the concept and its difficulties.

1. In the first instance the word "money" applies to a particular set of things or objects. They may be of various forms and materials, either metal coins or paper notes, or they may be immaterial, like bank deposits—though, as we shall see, some economists have been unwilling to admit the claim of bank deposits to be called money in the strict sense. But whatever their physical nature, they are *things*; and they change hands, passing from one person to another in the ordinary course of trade and industry. I pay "money" for a

book or a cup of coffee, when I hand over in exchange for these a certain number of coins to the bookseller or the restaurant cashier. This process is known as "buying", and the opposite process—of parting with something other than money and receiving money in return—as "selling". But the transaction is also a case of barter. One thing (money) is exchanged at a particular ratio against another (a book, or a quantity of coffee); just as though I paid for my book with a picture I had painted, or for my coffee by singing a song for the landlord's entertainment. Money, in short, is a *commodity*. It is something which is given and taken in exchange for other commodities; and like them it has value and "purchasing power".[1]

But if money has a value it must also have a utility. People must be prepared to take it in exchange—i.e. they must demand it. Wherein, then, does the utility of money rest? We do not need to answer this question in detail. But it is sufficiently clear along what lines an answer must be sought. No coin or note will be taken in payment for goods or services unless it is (in the current phrase) "generally acceptable"; unless the recipient is assured that he will be able to pass it on to other people in payment for such things as he himself wishes to acquire. Pieces of money are not wanted for their own sake, at any rate as a general rule; but if they have an exchange value they may come to be demanded, and to have a utility, as a means to the purchase of other commodities. And it is one of the characteristics of money—a characteristic with the consequences of which we shall be largely concerned in this chapter—that its power of arousing demand in any person depends upon the prospect of its being acceptable to those other persons with whom he has exchange dealings.

2. This account of the reason why people are prepared to take money in exchange for goods other than money is important in more than one way. In the first place it indicates two main functions which pieces of money fulfil in the economic system. For they are likely to act both as "media of exchange" and as liquid "stores of value" or wealth. By

[1] By convention the word "barter" is applied only to exchanges between commodities *other* than money. But this is a matter of definition. It does not deprive us of the right to treat money as a commodity which is "bartered" against other commodities, whenever this treatment seems helpful.

their means the process of parting with the things which we are prepared to give up can be separated, both in time and in space, from that of acquiring the things we wish to have in their place. Barter is analysed into the two elements "selling" and "buying"; direct exchange becomes mediate exchange. This is made possible, with all its well-known economic advantages, because of the existence of a group of commodities which are recognised as fit means of payment for goods and services of all kinds, and which form a generally accepted medium for the exchange of wealth. And on the other hand the presence of money in any community is of enormous assistance in the efforts of its members to distribute their resources in the best possible way. Not merely can they postpone the purchase of the things they wish to possess until the moment which is most convenient to them: but if they regularly keep some part of their wealth in money form they will be protected against the possibility of serious inconvenience and loss at times when the ability to acquire a particular commodity or service represents a really high degree of utility. Thus, if I am on my way to an appointment, and if the bus on which I am travelling breaks down, it may be of crucial importance to me to be able to hire a taxi; and I shall suffer quite unnecessarily if I am not able to offer the taxi-driver an acceptable form of payment for conveying me to my destination. To provide for emergencies such as these, as well as, more generally, to make it possible for me to buy things *when* and *where* I want them, I shall do well to make a habit of carrying with me a supply of ready money. Money has purchasing power, and the possession of a store of purchasing power in liquid form is an essential part of the equipment whereby I am enabled to make the most of the wealth at my disposal.[1]

These two functions are, of course, intimately connected. The reason why coins and notes are useful as stores of liquid purchasing power is precisely that they are "generally acceptable", and the fact that they are generally acceptable is both the effect and the cause of their being able to act as media of exchange. It is not surprising, therefore, that the same commodity units which are regularly employed for the

[1] Economists have not always paid sufficient attention to this aspect of the usefulness of money. See, however, p. 158 n. below, and the authors there cited

latter purpose should also be the standard means of providing for the former. But this conjunction is a matter of historical probability, not of theoretical necessity. For on the one hand it is possible to imagine a community in which there is no "medium of exchange" in the full sense, and in which people yet make a practice of holding a stock of some particular commodity—presumably a durable article of universal consumption—as a reserve fund to be used for emergency purchases of other things. And on the other hand in times of severe monetary inflation, when the value of the generally accepted exchange medium is falling continuously and catastrophically, everybody will reduce their holdings of it to a minimum, using it *merely* as a means of making and receiving payments, and not in any legitimate sense as a store of value.[1] The two functions, in short, while they are *likely* to be fulfilled by the same concrete goods, *may* become independent; and we must not make the mistake of regarding them as merely aspects of one another, distinguishable in thought but inseparable in fact.[2]

It follows that if we are to be strict in our definitions of "money" we must make up our mind which of these two functions—or of any others which pieces of money may be called upon to fulfil—is the monetary function *par excellence.* The word may denote *either* those commodities which act as media of exchange (whether or not they are also used as stores of value) *or* those commodities which act as stores of value (whether or not they are also used as media of exchange); but it cannot at the same moment denote both, unless we deliberately abstract from the possibility of a separation between them.[3] Or to put the point in another way, when we contrast "acting as a medium of exchange" with "acting as a store of value", we are in the last resort distinguishing not between two functions of money (the thing) but between two senses of "money" (the word).

[1] See further on this case below, pp. 151, 154 n.

[2] On the treatment of money as a store of value in economic writings, see Supplementary Note 4, p. 379.

[3] In this last case we are in effect adopting the view that it is of the essence of money to *combine* the functions: and we shall have to say that any community in which they are separated possesses no "money", but merely a set of exchange media and a set of stores of value. (In fact, indeed, it is certain that the word will be associated with the first of the two functions, i.e. that media of exchange will be called "money" even when they are unfitted for use as stores of value. Cf. Supplementary Note 4, *sub fin.*)

3. In what has been said so far the word "money" has been understood as denoting a series of concrete things. Its reference has been "substantial"—it has stood for a particular kind of objects—coins, notes, etc.—which are distinguishable from other things by certain fairly clearly defined physical characteristics of shape, material, and design. But the argument has shewn that the importance of these objects rests in their fulfilling certain functions. A half-crown, or a five-pound note, is regarded as constituting money because it is capable of acting as a medium of exchange and a store of value, and because it is regularly used, and valued, in these ways. This being so, it is almost inevitable that we shall associate "money" specifically with the functions which such things serve rather than with their purely physical attributes and properties. We shall want to use the word, that is to say, not of coins and notes as such, but of these commodities only *in so far as* they are used as media of exchange and stores of value; and at the same time we shall tend to include under the denotation of the term any *other* commodity which is so used, whatever its physical characteristics may be. On this view sovereigns will not be regarded as constituting units of money, so far as the post-war period is concerned; for they no longer remain in active circulation, surviving only as curios or mascots. On the other hand, a bank deposit which can be transferred by cheque *is* now money; for it is regularly used as a medium of exchange and as a store of value. This is true as a matter of definition; we are *defining* as a unit of money anything which fulfils the monetary functions, whether or not it possesses the physical qualities which are antecedently associated with money in its everyday sense. The word has discarded its substantial reference, and has become "functional".[1]

This shift in reference is what differentiates students of monetary theory from numismatists. The latter are interested in coins and notes as *pieces* of money—as having certain specific physical qualities, and as being minted or stamped in a particular way. The economist, on the contrary, is concerned with them as pieces of *money*—i.e. as exercising monetary functions. The physical characteristics of the various commodities which may be employed as money are of interest to him only in so far as they bear upon the ability of such things

[1] On these terms see Chapter I, pp. 17-18.

to carry out their monetary duties. Thus, he will no doubt wish to point out that notes are on the whole to be preferred to coins for units of money with a high purchasing power, as being less expensive to produce, whereas for small sums it is better to use metal than paper, on account of its greater durability. Still more will he set out to investigate the advantages and disadvantages of bank notes, as compared with deposits assignable by cheque, for the successful fulfilment of the monetary functions. But unless he has a lingering interest in numismatics, or has failed to overcome the everyday association of the word with physical and material objects, he will regard these enquiries as no more than comparisons between different sub-species of the same commodity class. For him everything is money which functions as such.[1]

And this means that we can no longer say that money "acts as" a medium of exchange or a store of value. This is the appropriate form of expression if we are using the word in its substantial reference. For coins, notes, and bank deposits regularly do "act" in these ways. But if the word is defined functionally, then it connotes these functions themselves. Money now *is*, by definition, the medium of exchange and the store of value. Or if the two functions are to be separated, then it *is* either the medium of exchange or the store of value, according to whether we consider the former or the latter to be *par excellence* "the" monetary function.[2]

4. Armed with this new definition, we may return to the argument of §§ 1 and 2. It follows from the fact that pieces of money are used as media of exchange and/or as stores of value that they can only have a utility in so far as they have an exchange value. Coins and notes which could not be exchanged for other things would be useless to their owner, at

[1] On the relevance of this for the monetary status of bank deposits, see Supplementary Note 5, p. 379.

[2] It may be added that the transition from the substantial to the functional interpretation of "money" enables us to dispense with the old distinction between the "face" value and the "intrinsic" value of a piece of money. The former was its value *as money*, the latter was supposed to represent its value in non-monetary uses—e.g. in the case of a gold coin, the value of its gold content *as metal*. This contrast was in any case somewhat misleading, in that it tended to obscure the decisive effect upon the value of gold of the monetary demand for it. And it has lost most of its practical interest now that almost all pieces of money are "intrinsically" valueless. But in any case it is a contrast which only has meaning when "money" is understood substantially. On the functional interpretation the "intrinsic" value of a coin has nothing to do with "money" at all.

any rate as money; though of course he might still find them serviceable in non-monetary ways—e.g. for playing board games, or for papering his walls. If they are to constitute *money* and to be esteemed as such they must have purchasing power over other goods. In this respect money differs from most things. For whereas, as we know, it is a general rule that commodities derive their exchange value from being useful and scarce, but can be useful without having an exchange value (viz. when they are "free goods"), money *cannot* have a value in use unless it also has a value in exchange. This is so because it is the purchasing power of money over other goods which (among other things) qualifies it to exercise its monetary functions. It is, in fact, of the essence of money to possess, and indeed to represent, purchasing power in a highly liquid form.[1]

And this fact has an important bearing on the meaning of the *word* "money". For if we are in the habit of thinking of the coins and notes in our pockets and the deposits standing to our credit in the bank as constituting money because and in so far as they represent stores of liquid purchasing power, then it will be an easy transference to use the word as a synonym for purchasing power itself.[2] When I lend some "money" to a friend, what is it that is lent? No doubt what actually happens is that I hand over to him a certain number of coins or notes, or transfer a claim against a bank from my name to his. But I am not really lending him these; for I do not expect him to return the identical units of money with

[1] The distinction here drawn between money and other things is not so fundamental as is sometimes supposed. On the one hand there is a considerable range of commodities whose value, if not ultimately dependent on, is yet greatly enhanced by, their having an exchange value and being scarce—e.g. antiques, precious stones, etc. (cf. Chapter VII above, p. 112). And on the other hand, to say that the utility of money depends on its having an exchange value does not in the least mean that the former is unreal—cf. p. 136 above—or that the latter can be explained without reference to it. All we are entitled to assert is that having an exchange value is *one* of the conditions which are essential to money's having a utility. There are others; and when these are included it becomes perfectly possible to treat the utility of money as an ultimate factor determining (along with its supply) the ratios at which it exchanges with other goods. But we cannot do justice to this topic in the present work.

[2] In much the same way the word "book", which starts by standing for an aggregation of paper, printers' ink, covers, etc., which have the outstanding property of conveying to readers the results of an author's ratiocinations or imaginings, comes to be used of these results themselves; so that we talk about "writing a book" as a short way of saying "writing something which is to be published in book form".

which I effect the loan. The whole point of the transaction is presumably that he may be able to spend what I give him on commodities for which he has a need.[1] And to do that means to lose all control of the actual pieces of money thus spent. All that I hope to get back from him is an *equivalent* amount of money (plus any interest I may exact); and by an "equivalent" amount of money is meant an amount which carries the same purchasing power. It is not so much money which changes hands as purchasing power in the form of money; or rather, if we choose to use the word "money" in such contexts as these we have introduced a fundamental change in its meaning. We cannot now say that money possesses purchasing power: for "money" (the word) *means* "purchasing power".

Here, however, we must walk warily. "Money" and "purchasing power" are never *full* synonyms. The latter, as we already know,[2] is a *quality* of commodities; it is, in fact, simply their exchange value expressed in qualitative form. And we also know that it is not as such measurable or expressible in quantitative terms, and that if value is to be treated quantitatively it will tend to adopt the guise of "exchange equivalents". Nevertheless in a money economy it is common to think of purchasing power *as though* it were a quantitative concept; as though we were entitled to speak of the "amount" of purchasing power a commodity possesses and to make quantitative or numerical comparisons between that and the "amounts" of purchasing power belonging to other commodities. The full significance of this practice will occupy us at a later stage in the present chapter. For the moment what we have to notice is that "money" can only stand for purchasing power when we are thinking of the latter quantitatively. We should never dream of drawing attention to the

[1] There are exceptions to this. In 1925 the Federal Reserve authorities in America made a "loan" of £200,000,000 to the Bank of England in order to assist Great Britain to return to the Gold Standard. The money was never in fact spent; for the mere knowledge that it was available convinced people that the re-establishment of the Gold Standard would be successfully achieved, and so dissuaded them from conducting bear raids on sterling. Similarly, a commercial bank in temporary difficulties may borrow cash from other banks, and by this means may avert a "run" by its creditors, without actually having to part with the cash borrowed. Even in these cases, of course, the *important* thing is the transference, not of units of money, but of purchasing power. This is what differentiates the borrowers from (say) a museum which secures the loan of a collection of coins for a numismatic exhibition.

[2] Chapter IV, pp. 63-4.

value of a commodity by saying that it "possessed money" But we might easily say that its value *amounts to* such and such a sum of money. "Money", in short, cannot mean purchasing power in the strict qualitative sense; but it may be used of an *amount* of purchasing power.

This usage, it may be added, is also to be found in the terms denoting specific monetary units. The word "shilling" applies primarily to a particular coin possessing purchasing power. But it is also liable to be used of the amount of that purchasing power itself. When I am told that a packet of cigarettes will cost me a shilling I do not take that as meaning that I must necessarily hand over a shilling piece to the tobacconist; for I know perfectly well that he will accept two sixpenny pieces, or even twelve pennies, if it is more convenient to me to make the payment in either of these forms. His interest, and mine, is in purchasing power, not in coins. So, too, with pounds and pence, dollars and cents, marks and pfennigs. All these terms in the first instance denote pieces of money, metal or paper. But they are also regularly employed as the names of specific amounts of purchasing power.[1]

Here, then, we have a third main meaning which "money" may bear. It may stand for the purchasing power (conceived of as a quantity) which changes hands when loans are contracted or goods are bought and sold. The nature of the connection between this and the earlier senses of the word is obvious. Much the most important attribute of pieces of money or media of exchange is their possession of purchasing power in liquid form. From the first, therefore, the word *implies* purchasing power. And all that has happened is that what was formerly a part of its "*con*notation" has come to be its "*de*notation".

5. But this is not all. For as the last few paragraphs have shewn us, purchasing power itself is a somewhat elusive and unstable concept. On the one hand it is a quality of all valu-

[1] Cf. on this Walras, *Éléments*, p. 170. Not all the names of monetary units, of course, are subject to this ambiguity. Some stand exclusively for pieces of money (e.g. half-crowns, dimes, sous), others exclusively for amounts of purchasing power (e.g. guineas, "bits"). Moreover, it is common to mark the ambiguity, when it exists, either by slight changes in the term forms—contrast, for example, "two pennies" with "twopence", and "a five-pound note" with "five pounds" —or else by employing numerical symbols for amounts of purchasing power (1/-, $1, etc.).

able commodities: on the other hand it may take on the guise of concreteness and appear as something which can be transferred from one person to another, being lent and recovered, borrowed and repaid. And since "money" may stand for purchasing power, at any rate in a quantitative sense, it too shares in this instability, sometimes becoming more concrete, at other times more purely abstract than our discussion has so far indicated. And from this fact no less than three further senses of the word are derived.

(1) The first of these can best be illustrated by a further consideration of the use of "money" in the contracting of loans. A lends a certain sum to B, who in due course repays it with interest. We have already observed that this double transaction, while it is almost certain to involve the handing over or assigning of "pieces of money", is yet concerned rather with purchasing power than with money in its primary sense. But we cannot stop there. For we also know that in general B will use the proceeds of the loan for the purchase of goods or services. He wants pieces of money because they represent liquid purchasing power; but he wants liquid purchasing power—at any rate as a rule—because it can be converted by exchange into the things of which he stands in need. Its importance rests in its giving him control over resources. Conversely, A in transferring the purchasing power to B is giving up the uses to which he might otherwise have put it; for the period of the loan he has less wealth at his disposal—less control over resources—than he would have had if the loan had not been made. Now for the purposes of economic analysis it is vital to distinguish between the "control over resources", which is what is really lent and borrowed, and the money or purchasing power through which the transference of this control is normally effected. And economists are regularly in the habit of giving the former the special name of "capital". But in the world of finance this distinction is not of any urgent importance. Provided that the loan is repayable in money form within a comparatively short period of time, there is for practical purposes no necessity to emphasise the contrast between capital (in this sense) and the vehicle by which it is transferred from one person to another. And since the latter is called "money", the former comes to be known as "money" too.

In this way we arrive at what may be called the "financial" meaning of the word. By the "money" market is meant the short-term capital market—the market in early maturing loans. If the interest on these loans is high, "money" is said to be dear; if it is low, "money" is cheap. This usage is completely harmless, so long as it is recognised as involving a new and further sense of "money". We must not suppose, as practically everybody in this country supposed up till the time of Hume and Adam Smith, that the rate of interest on short-term loans represents the cost, or value, of media of exchange.

(2) Secondly, since the usefulness of a store of liquid purchasing power rests in its being spent on commodities and services, we need not be surprised if the word is sometimes employed with specific reference to these objects of expenditure themselves. This transference is particularly likely to take place when what we are interested in is the amount of wealth which an individual possesses, or the quantitative changes to which that wealth is subject. If a man's possessions are large we shall be tempted to say that he has "a great deal of money"; if by ill-advised speculation or the impact of industrial depression the value of his property falls to zero we shall describe him as having "lost all his money". In such phrases as these the word refers not to media of exchange or their purchasing power, but to what they will buy. It is, in fact, almost a synonym for wealth in general.

This fifth sense of the word is constantly encountered in ordinary life. But the confusions to which a careless use of it may give rise are so notorious that it is rarely allowed any place in serious economic writings: indeed even those economists who are as a rule least willing to allow economics a special vocabulary of its own have no hesitation in refusing to follow popular usage in this particular case. There is, therefore, no need to illustrate or dwell upon its dangers in the present discussion.[1]

(3) The third shift in the meaning of "money" is at once more subtle and of greater theoretical importance than the

[1] It is perhaps unfortunate that economists are still prepared to give the word its popular meaning in the phrase "the diminishing utility of money"—not merely because this represents a breach of their own professions and promises, but also because it helps to conceal the importance of diminishing utility in the explanation of the value of media of exchange. (See on this below, pp. 157-8.)

other two. Once more we start from the fact that "purchasing power" stands for a quality of all valuable commodities—that it is in the first instance no more than a way of expressing the exchange relationship. Now, since a unit of money may be understood to mean a unit of purchasing power, it follows that if we choose we can give quantitative or (perhaps better) numerical precision to the exchange value of any particular good by describing it "in money terms". The value of an orange, we may say, is 2d.; that of a grand piano is £150. Such statements as these *may*, of course, mean merely that an orange will exchange against two pennies and a piano against one hundred and fifty bank notes, or a bank deposit of an equivalent amount. If so, then all that they tell us is the ratio of exchange between the things in question and a third thing—"money", or the medium of exchange. But in actual fact they are certain to mean more than this. For if we are in the habit of expressing *all* values in terms of the monetary units, then in order to arrive at the ratio at which any one commodity will exchange against any other all we have to do is to compare the "money" value of the first with the "money" value of the second. If an apple costs 1d., then we know that one orange is worth two apples: if an automobile is priced at £250, then the ratio of exchange between automobiles and grand pianos is 3 : 5; and so on. What we are now doing is to use monetary units as a medium for the measurement and comparison of things in respect of their value—in precisely the same way in which we measure and compare things in respect of (say) their length by adopting the yard or metre as a standard unit of length and expressing the lengths of the things in question in terms of quantities or fractions of these units. So used, a unit of "money" is a unit of *value*; money has come to be the *standard* of value.

The concept of a standard of value is one of extreme logical difficulty, and before we are finished we shall have to subject it to careful scrutiny. But for the moment let us be satisfied with simply noting that it represents a sixth possible meaning of the word "money". It is a meaning which is to be found in ordinary and business life no less than in writings on theoretical economics. We are all of us accustomed to estimates of industrial output or of a nation's exports and imports which are expressed "in money terms" rather than

in terms of the goods actually produced or bought and sold. The whole point of such estimates is that they are concerned with the *values* of these goods, as opposed to their physical characteristics. No direct reference is intended to media of exchange, much less to liquid resources or short-term capital: "in money terms" is simply a short way of saying "with reference to value and in terms of the monetary units by which value is quantitatively measured".[1]

6. We have now seen how from the use of "money" as denoting purchasing power three further meanings of the word are derived. In its "financial" sense it is practically equivalent to "short-term capital"; in what we may call its "popular" sense it stands for wealth or resources in general; and in its "abstract" sense it is a "standard of value". We must not suppose, however, that these various uses are at all completely separable from one another; on the contrary they are related to one another and to the parent definition from which they spring in the most intricate ways. It will be worth while to consider a few illustrations of their interdependence.

(1) The financial definition differs from the parent definition only by a change in emphasis. Compare the two statements: "installing this machine will cost a lot of money" and "I shall have to borrow a lot of money if I am to install this machine". One is tempted to say that there is here no genuine difference in the meaning of the word. And yet its *implications* are not the same in the two cases. In the first it still carries some suggestion of the coins, notes, or bank deposits which must change hands if the machine is to be bought; though the main stress is undoubtedly upon the purchasing power which they possess. In the second the reference to *pieces* of money is much fainter: purchasing power is still in the foreground, but it is now associated rather with the uses to which it can be put than with the vehicle by which it is transferred. Hence we can substitute "capital" for "money" in the second

[1] It has been proposed, I cannot recall by whom, to distinguish the phrases "in terms of money" and "in terms of value", the latter being used only of *rates* of exchange, while the former refers to amounts actually exchanged (against media of exchange). Thus if a man earns a larger income by working longer hours per day or more days per week, his wages, it is suggested, should be regarded as having gone up in money terms, but not in value terms. In this way the use of "money" would be brought back once more into association with *pieces of money*. But it is doubtful whether economists would really be much better off by departing from what is not, on the face of it, a serious source of confusion

sentence without greatly altering its meaning—but not in the first.

(2) The "popular" sense of the word, we have seen, is regarded by economists as being wholly distinct from all others; indeed its employment at all is likely to be thought of in academic circles as a sign of superficial or confused thinking. Yet here again the difference is largely a matter of emphasis. In the first place it is doubtful whether "money" is ever treated as a *full* synonym for wealth, even in popular speech. When a man is said to possess "a great deal of money" the suggestion is not merely that he is wealthy, but also—at least by implication—that his possessions are reasonably "liquid"; that if they do not actually take the form of media of exchange they are at any rate capable of being readily converted thereinto. A large landowner who is prevented by entail restrictions from selling his property may be a "wealthy" man, but would not normally be regarded as "monied". So, too, even more clearly, being "short of money" is not *necessarily* incompatible with being "well off"; it involves not so much being short of wealth in general as being short of wealth *in a readily usable and disposable form.*

And as a result the difference between this and the "financial" sense of the word depends mainly upon the degree of emphasis which is laid upon liquidity. Financially the word means "*liquid* resources", popularly it means "(liquid) *resources*". In the former case attention is directed to the control over wealth in general which the possession of liquid purchasing power provides; in the latter case the centre of interest is rather that liquid resources are themselves a form of wealth, and may be taken as typifying wealth in general. It follows that the two meanings are liable to be for practical purposes indistinguishable. People may be said, for example, to have "tied up their money" in some long-term investment, or to have "put a lot of money" into their houses or their businesses. In such phrases as these it is almost a matter of indifference whether we understand the word as meaning "capital" or "resources in general".[1]

(3) The popular meaning is also linked closely with the

[1] On the concept of liquidity—the ability of a valuable commodity to be *readily* convertible by exchange into other forms of wealth—cf. above, Chapter IV, p. 69; below, Chapter XIV, pp. 270 ff.

"abstract" meaning. Once we have acquired the habit of expressing amounts of wealth "in money terms", it will not be a difficult transition to use the word of the wealth itself, as so expressed. This represents another route by which "money" arrives at its association with resources in general. It is, however, a route which our thought will not naturally adopt unless it is the *value* of the wealth in question, not its physical characteristics, in which we are primarily interested. That is to say, once more wealth will only be given the name "money" when it has some degree of exchangeability—i.e. is reasonably "liquid"—and when its exchangeability is particularly relevant for the purposes which we have in hand.

These examples are perhaps sufficient to shew that so far as the last four definitions of the word "money" are concerned we are dealing not with four clearly contrasted concepts but with a complex of interrelated ideas and associations, different elements in which are brought into prominence according to the exact circumstances of its employment. This is why it is so extraordinarily difficult to give a satisfactory account of what the word really means. As a matter of logical analysis we have found it necessary to distinguish "purchasing power" from "control over resources", and to contrast quantities of wealth with units of value. But in actual use the four are fused together and we can pass from one to another without any full consciousness of a shift in our thought. The word, in fact, hovers uncertainly between and over all of them. At times it is wide and vague, at times narrow and precise; in some cases our meaning is relatively concrete, in others relatively abstract; here the emphasis is on liquidity, there liquidity is allowed to retire into the middle distance or even the remote background. Into this psychological chaos it will probably never be possible to bring complete order. But we must at least be aware of its existence if we wish to minimise the risk of confusion in our thought.

7. One further problem remains. It is a commonplace of economic textbooks that money acts not merely as a medium of exchange (and a store of value) but also as a *standard* of value. The case in favour of this proposition is too familiar to need elaboration here. Whenever we express the values of commodities in quantitative terms—when we put a price on

a thing or calculate its cheapness or dearness relative to other things—we are using "money" as the medium for measurement and comparison. And it is one of the important characteristics of a monetary economy—one of the characteristics by which it is most sharply distinguished from an economy that relies entirely upon direct barter—that in it people have a common and generally accepted measure of value and purchasing power. All this is sufficiently well known to students of monetary theory, and we need dispute neither its truth nor its importance. But we cannot refrain from asking what exactly is the "money" which acts in this way. The argument of the last few pages has suggested that when commodity values are expressed "in money terms" what is meant is simply that they are expressed quantitatively (or numerically) as containing so many units of purchasing power. "Money" in such contexts—so it has appeared—stands not for *pieces* of money, nor even for exchange media as such, but for pure quantities of value. And from this it would seem to follow that to describe money as a "standard of value" represents not so much attributing to it a new function (in addition to its already recognised functions as medium of exchange and store of value) as defining it in a new way. The word, we shall want to say, may *mean* the standard of value: this represents one of the five or six senses which it is liable to bear. But if so, how can money be said to *act* both as a medium of exchange and as a standard of value? Language of this kind implies that the distinction between the two is one between two functions of the same *thing*; whereas we have seen reason to suppose that it is really one between two senses of the same *word*. And what we have now to find out is whether the orthodox view of the relationship between the medium of exchange and the standard of value is logically satisfactory. Is it true that one and the same *thing* fulfils both these functions? [1]

[1] As a rule a further function is added to the list of duties which "money" must fulfil—the providing of a "standard of deferred payments". This is really a double function. (1) On the one hand it is a particular—if very important—instance of the function of providing a "standard of value". We are still concerned, that is to say, with comparing goods in respect of their value; but the values in which we are now interested are those not of different commodities at the same time, but of the same (or different) commodities at different times. (Certain difficulties, indeed, are involved in inter-temporal value comparisons. But they need not concern us at the moment; see below, pp. 158-60.) (2) Secondly, however, the "standard of deferred payments" commonly has specific reference

8. In order to answer this question it will be necessary to examine with some care the concept of a standard of value. We shall find before we are finished that it is neither so simple nor so important for monetary theory as is usually supposed.

We already know that in order to make possible the comparison of commodities with one another in respect of their value it is necessary to express their values in quantitative terms: there must be some means of saying, with reasonable precision, *how much* value a given thing has, and *by what amount*, or proportion, its value exceeds or falls short of that of other things with which we wish to compare it. Now where only two commodities are concerned this presents no particular difficulty. All we have to do is to express the value of one in terms of the other as an "exchange equivalent". Thus, if three pounds of coffee exchange for four pounds of tea we can say that the value of a pound of coffee is $1\frac{1}{3}$ pounds of tea, and it will follow at once that the purchasing power of the latter is three-quarters that of the former. But in real life cases so simple as this are rarely to be found. What is normally required is to be able to compare the value of a given commodity with reference not to one other commodity but to wealth in general. Neither the merchant who sells tea nor the housewife who buys it will be exclusively interested in its value relative to coffee; on the contrary, the former will want to know how much of *any* commodity he will be able to obtain if he parts with a particular quantity of tea, and the latter will be concerned with the effect of her purchase upon her ability to secure *any* of the other goods which she would like to be able to buy with her limited resources. The value of tea is now not one relationship but a long series of relationships, each expressible in terms of its own "exchange equivalent". But it would be intolerably cumbersome to have to carry in one's mind *all* the exchange equivalents of the particular commodity one wished to buy or sell. What is wanted, therefore, is some way of reducing the values of all commodities to the same denominator—some method whereby the value

to the contracting and repayment of *debts*; and the point which is in economists' minds when they speak of "money" as providing such a standard is, accordingly, the tendency for debts to run "in money terms"—i.e. to be expressed in amounts of purchasing power. The association, that is to say, is now with the *third* rather than the sixth of the main senses of "money". But this complication need not concern us further.

of one thing can be compared at will with that of *any* other. In fact, two such methods are available, closely connected with one another but in principle quite distinct.

(1) In the first place, some one commodity may be chosen out for use as a standard medium of comparison—as what we may call a *representative* exchange equivalent. Suppose, for example, that the commodity selected is wheat. Then if people develop the habit of expressing the unit values of the goods they buy and sell by means of their wheat equivalents, it will be possible for them to compare any two or more things "in terms of" wheat. One commodity, perhaps, is worth one bushel of wheat, another three-quarters of a bushel, a third five bushels. From this information it is at once possible to deduce the exchange relations which exist between these three commodities themselves. And in general, provided that we have some idea of the wheat equivalents of the whole range of commodities in which we are interested, all that we need to know about any particular thing is *its* value in terms of wheat.

In principle, we may note, *any* commodity will do as the representative exchange equivalent. But in a money economy it is inevitable that money itself should be chosen, at any rate as a rule, to fulfil this function. In such an economy the great majority of transactions take the form of bartering pieces of money for goods other than money; and people will find it much simpler to express values in the form of money equivalents, than to adopt as the standard medium for value comparisons some commodity, like wheat, which is rarely in fact exchanged for anything except money itself. Indeed, it is only when the medium of exchange is on other grounds a clearly unsuitable commodity for fulfilling this function—e.g. in times of severe monetary inflation—that the possibility of using something else as the representative exchange equivalent will be seriously contemplated.[1]

(2) Secondly, values may be measured and compared in

[1] It is said that in Germany during the post-war inflation period incomes and prices were sometimes calculated in terms of margarine. They were still *paid* in mark notes—or rather, in thousand and million mark notes—but the amount of these exchange media which was in fact handed over on any occasion was determined by comparing their value and the value of the things to be paid for, by means of their current margarine equivalents. Margarine, then, was used as the "representative" exchange equivalent for measuring and expressing all values, *including that of "money"*.

terms of an abstract system or scale of units. The position for practical purposes, as we shall find, is not greatly different from that just considered. But theoretically it is much more complicated. What we are now doing is to treat the value of a thing as though it were a quality of it, like length or weight, and as though it were capable, like them, of numerical assessment. Thus, just as I may express the length of a thing in feet and inches or in metres and centimetres—all of these terms standing for pure and abstract units of length—so I may express its value in pure units of purchasing power. So far as one commodity in isolation is concerned, indeed, this procedure will be quite meaningless: both because (as we know) purchasing power is not a quality of things except in so far as they enter into exchange relations with other things, and also because to say that the value of anything amounts to so many pure units of value tells us nothing unless we know by what criterion a pure unit of value is defined. But if the same unit or scale of units is employed for assessing the value of two or more *different* commodities, the case is completely altered. From the statements—empty in themselves—that A possesses 3 units of pure value, B 200 units, and C a $\frac{1}{4}$ of a unit, we can discover the purchasing power of any one of these things over either or both of the others, wholly without reference to any knowledge of how a "pure unit" of value is determined. So, too, with all the commodities in which we are interested: once we have given their values a numerical expression in terms of one and the same scale of value units—whatever its origin and antecedents—we have provided ourselves with a simple and precise means of comparing them with one another and of assessing their exchange relationships—a means which is theoretically quite independent of the medium of exchange or any other "representative exchange equivalent".

But how is such a system of value units to come into existence and general use? In principle, it has been argued, this is a matter of indifference. If we wish we can construct a unit specially for the purpose, giving it any name we think appropriate and either defining it with reference to a particular commodity or set of commodities, or else leaving it to define itself in the course of being used. *Any* unit, in fact, will do, provided that it is applied to all the things whose values

are to be compared.[1] But in actual fact it is almost certain that the system of value measurement actually adopted will have a concrete basis and origin. In other words, just as the "foot", as a unit of length, began by denoting one material object (the human foot), and even now is legally defined with reference to another (an iridio-platinum bar in the possession of the Standards Office), so we may expect a unit of value to be derived from, and to be definable in terms of, the value of a specified quantity of one particular commodity. Moreover, it is natural that the commodity chosen for this purpose should be money: both because money enters far more frequently into exchange transactions than does anything else (and it is only with reference to exchange transactions that the comparison and measurement of values is of interest) and also because, as we already know, it can be said of money more than of any other commodity that what *matters* about it is the amount of its value. For both these reasons scales of value units are regularly constructed "in money terms"; that is to say, the units comprising them bear the names of particular pieces of money, and are as a rule definable as the amount of value which these pieces of money possess. So it comes about that when we wish to give numerical expression to the value of anything, the units we use are *called* "pounds", "shillings", and "pence" or pennies; or else they are *called* "dollars" and "cents", "marks" and "pfennigs", etc., according to the media of exchange with which we happen to be most immediately familiar. These words now stand not for commodities but for amounts of value, in the same sense in which a "yard" or a "foot" stands for an amount of length, not a thing possessing length. And just as the system of physical measurement in terms of yards and feet, or of metres and centimetres, is a device for "numerising" the dimensions of things with a view to their quantitative comparison, so the system of purchasing power measurement in terms of pounds, shillings, and pence, or of dollars and cents, is a device for "numerising" commodity values.

It follows that when we say that, for example, a Chinese

[1] That a pure unit of measurement can have an extremely shady ancestry and yet be perfectly competent at its work is shown by the case of the "metre", which is based upon a mistake as to the length of the earth's circumference. (It is, in fact, one ten-millionth of what was—erroneously—supposed in 1799 to be the length of the meridian quadrant through Paris.)

Chippendale chair "is worth £80", we do *not* mean—though we may imply—that we can buy or sell it, or one like it, in exchange for eighty pound notes.[1] £80 is not a set of exchange media but a quantity of value. It represents the expression of the chair's value in terms of a scale or system of pure value units. Nor need these units *necessarily* have an assignable connection with pieces of money in the concrete sense. It might still be important to know that a thing "is worth £80", even if money disappeared from circulation and all trade were carried on by direct barter. And the history of the post-war world has provided examples of value units which, though bearing monetary names, have yet had no more to do with the value of media of exchange than with that of any other exchangeable good.[2]

There are, then, two main methods of comparing and measuring commodity values. Either we may proceed concretely by means of a "representative exchange equivalent" or abstractly by devising a scale of pure value units. Both of them are likely to involve the use, in some sense, of *money*. For on the one hand it is natural, as we have seen, to choose money—the medium of exchange—as the "representative exchange equivalent"; and on the other hand our "pure value units" are likely to be given monetary names and to be determined with reference to the value of the pieces of money after which they are called. This being so, the distinction between them is in practice easily blurred and forgotten. It is improbable that many of the people who in the course of their everyday life compare commodity values in terms of pounds, shillings, and pence are completely clear whether they mean by these terms media of exchange, or pure units of value, or both. Nor does this matter, as a general rule. Under normal economic circumstances a pound note has the purchasing power denoted by £1, and a shilling piece the

[1] The truth of this latter statement will, of course, depend on how far the value of the commodity in question is *liquid*. See on this Chapter IV above, pp. 67 ff.

[2] Here again the German inflation period is instructive. While the value of money was changing violently from day to day it became common, as an alternative to using margarine, or some other such commodity, as a "representative exchange equivalent" (see note on p. 151), to express prices in terms of an imagined pre-inflation or "gold" mark, the amount of exchange media to be handed over in any particular transaction being calculated therefrom by means of a multiplier representing the current degree of inflation. Thus, a cigar might be priced at 15 (gold) pfennigs: if, then, the value of a mark-note

purchasing power denoted by 1s.; indeed these units of value are, practically speaking, definable as the amounts of value possessed by the corresponding pieces of money. And so long as this is so, judgments as to a commodity's money equivalent and as to the amount of its value "in money terms" will imply one another, and can without danger be expressed in the same or closely similar language. But in principle the contrast between them is fundamental. It is one thing to say that a commodity can be exchanged without residue against a pound note: it is another, quite different, thing to say that it has a value of £1. And correspondingly there is in logic a deep gulf between the two methods of comparing values. The first uses a particular concrete commodity, the second an abstract scale; the first compares things in respect of their value by relating them to some other thing, the second measures their values directly in terms of value units; the first is quantitative, the second numerical; finally, the first issues in propositions each of which states a rate of exchange between one commodity and another, and each of which is valid in its own right, while the second issues in propositions none of which has any significant content, except in conjunction with one or more of the others.

9. We are now at last in a position to decide in what sense money can be said to "act as" a standard of value. For it appears that the word "standard" is itself ambiguous. It may refer either (*a*) to a particular *thing* which is used as an intermediary for comparing and appraising other things—as when water is described as the "standard" for measuring temperatures, or a particular railway is given the name of "the standard railroad of the world"; or else (*b*) to a system or *scale* of measurement. Correspondingly, by a "standard of value"

was estimated on a given day (or at a given moment) at—say—one fifty-thousandth of a "mark", the sum actually payable for the cigar would be 7500 marks. The "mark", in other words, stood for a pure unit of value, in terms of which the value even of money itself had to be numerically expressed: just as the "foot" is a pure unit of length, in terms of which (or of the fractions of which) human feet are regularly measured. (Another common practice in Germany was to use *foreign* currencies—e.g. dollars or Swiss francs—as units of value. See Roll, *Money*, p. 32)

An example of the same sort of procedure nearer home is to be found in the practice, common since 1931, of quoting the pound sterling as being on a given day "worth" 15s. or 13s. 4d., or whatever the figure may be at which it happens to stand. Here again the units of value used may be definable with reference to gold—but not with reference to the current medium of exchange.

we may mean *either* what we have called a "representative exchange equivalent" *or* a scale of pure value units. Now, if we are using the phrase in the first of these two senses, then we are clearly entitled to say that money, the typical representative exchange equivalent, "acts as" a standard of value. But if—as is perhaps more likely—we mean by a standard of value an abstract scale of value units, then pieces of money *cannot* "act as" a standard of value. For they are things, whereas the standard of value is not now a thing, but a way of measuring things. The most we can say is that pieces of money are likely, as a matter of history but not of theoretical necessity, both to give their *names* to pure value units, and also to provide the base or criterion with reference to which these units are determined and defined. And if we call a unit of value a unit of "money", then we are using the word not in the first or second but in the last of the six main senses which this chapter has been concerned to disentangle. Money now is (or acts as) the standard of value simply because that is what we mean by "money". We must not be misled by a coincidence of name into supposing, as has sometimes been done,[1] that the functions of mediating in exchange and of providing a basis for value comparisons are inseparable, and that any commodity which fulfils the one must also necessarily fulfil the other.[2]

10. We have now completed the main part of our work on "money". Six typical meanings of the word have been distinguished; for we have found that it may stand for

(1) "pieces" of money (substantial reference);
(2) the medium of exchange and/or the store of value as such (functional reference);
(3) purchasing power—conceived quantitatively;
(4) liquid or short-term capital (the "financial" meaning);
(5) (liquid) resources in general (the "popular" meaning);
(6) units of value (the "abstract" meaning).

The relationships between these various meanings, we have seen, are close and intricate, and the unravelling of them has

[1] E.g. by Lehfeldt: see his *Money*, p. 48.
[2] See further on this, Supplementary Note 6, p. 380, and cf. for the whole of this section Simmel, *Philosophie des Geldes*, chap. ii, part 1.

been a tedious business. It is not surprising, then, that for the most part students of monetary theory, impatient to set to work on the many problems, both practical and theoretical, which they are called upon to solve, have shrunk from consuming their time and energy on an arid investigation of terminology. It has been usual, indeed (as we have already observed), to mark off the "financial" and "popular" senses of the word, emphasising—perhaps even over-emphasising—the gulf which separates them from the other four. But for the rest they have tended to be satisfied with the everyday level of analysis, and have been less than fully conscious of the multiple meanings inherent in the words they use. And this has brought their subject into difficulties from which it has only in the last few years begun to emerge. It may be worth while to conclude by noticing briefly what some of these difficulties have been.

(1) In the first place, the association of "money" with units of value has retarded the development of a theory of the value of money (i.e. exchange media) along the simple and straightforward lines of value theory in general. It is notorious how often writers on monetary theory have started by assuring their readers that "money is a commodity and its value is determined like that of other commodities" [1]—only to forget this principle as soon as they are well under way. The ostensible reasons are two: first, the difficulty which has sometimes been felt in interpreting certain of the fundamental concepts of value theory—notably those of utility, marginal utility, and demand—in the case of exchange media; and secondly, the important results which can be reached by other methods of approach—e.g. by constructing "equations of exchange". But we may accept and welcome the conclusions of these other methods without being convinced that they render an analysis along more ordinary lines superfluous or impossible. The medium of exchange *is*, after all, merely a particular kind of concrete commodity, and the nature of the forces which determine its value, though they sometimes assume a rather unusual guise, are yet essentially the same as those which determine the value of all commodities. And the unwillingness of economists to do full justice to this

[1] This quotation is actually taken from Mill, *Principles*, Book III, chap. vii, *sub fin.*

similarity in large part arises—so, at least, it can be argued—from the failure fully to disentangle the medium of exchange from the standard of value. Once we realise that the latter is in principle quite distinct from the former, being associated with it only by the accident of history and language, we shall find no insuperable obstacles to bringing money fully within the purview of ordinary value theory.[1]

(2) And this in its turn has interferred with a proper understanding of the standard of value itself. For it has given rise to the idea, prevalent among amateur economists at the present time, that by pursuing an appropriate monetary policy the currency authorities can so regulate the value of money as to ensure a "constant" standard of value. Just as it would be seriously inconvenient if the length indicated by a "metre" or a "foot" were to change arbitrarily from time to time or place to place, so, it is held, it is seriously inconvenient to have an arbitrarily changing unit of value. And to avoid this evil various methods have been proposed for "stabilising" the pound (or the dollar, or whatever the relevant currency unit may be). Into the merits of such proposals we need not enter. In principle it is no doubt possible—whether or not it is desirable—to secure that a given quantity of money shall always have the same purchasing power over a selected group or "basket" of commodities; and if this is done, then the prices of the commodities so chosen must on the average remain constant—i.e. we shall have achieved a stable price level. But all this concerns the value of *money*—the medium of exchange. What has it to do with the *standard of value*?

Let us once more—and for the last time—make use of the analogy of the measurement of spatial dimensions. A "constant" standard of length is desirable for two main reasons. First, it enables us to compare things in respect of their size

[1] In recent years much has been done to clarify the status of money as a commodity. As early as 1911, Mises in his *Theorie des Geldes und der Umlaufsmittel* embarked on what he called a "subjective", or "subjectivistic", account of the demand for money and its exchange value. And more recently Greidanus (*Value of Money*) has made a spirited attempt to treat the medium of exchange as simply a particular kind of production good, useful because of the "yield" or profit derived from its possession. Compare also Carver, "The Demand for Money", and Hicks "Simplifying the Theory of Money". But I am not convinced that even now all has been done that can be done to bring money into harmony with commodities in general for the purposes of value theory. And I hope that this chapter may have helped to clear the ground for the final steps which have to be taken.

and shape which are separated from one another in space; with its aid, for example, we can know that an iron rail in Great Britain will exactly fit into a given space on a railway track under construction in the Argentine, or that the top of the Eiffel Tower in Paris is 19¼ per cent higher than the top of Arthur's Seat in Edinburgh and 21¼ per cent lower than the top of the Empire State Building in New York. Secondly, it gives us a means of deciding, when one object comes to be longer, relative to another, than it was previously, whether it is the first object which has expanded or the second which has contracted; that is to say, it makes it possible to distinguish "absolute" from merely "relative" *changes* in length. With these ends in view we choose something—e.g. an iridio-platinum rod—which, we believe, will not itself vary in length, or whose length variations (as a result of changes in temperature, etc.) are quantitatively known and predictable; and on it we base our scale of measurements. We now have what we can claim to be not merely a constant but an *absolute* standard of length; and it becomes a completely trustworthy criterion both for comparing objects which are separated in space and for assessing alterations in length through time.

But all this depends on the fact—or the assumption—that the spatial dimensions of things are not affected by their being brought into, or removed from, physical propinquity with one another; that the iron rail in Great Britain, for example, will not become longer or shorter by the mere fact of being placed in position on its sleepers, and that the Eiffel Tower would be neither more nor less high than it is now if it were transported bodily to New York or Edinburgh. Length, in short, must be presumed to be an *intrinsic* quality of the things possessing it, if an absolute standard of length is to have any meaning.[1] Now, value is *not* an inherent quality of things, but a relation between them, even although (as we know) it is for certain purposes convenient to treat it—under the name of "purchasing power"—*as though* it were a quality. The value of any commodity is simply the ratio, or ratios, at which it exchanges with other commodities. It follows both that there is no meaning in comparing the values of things

[1] On "intrinsic" qualities see Chapter IV, pp. 62-3. In actual fact, of course, the concept of "absolute" length is one in which both philosophers and (in recent years) scientists have found considerable difficulties. But the practical usefulness of postulating it is unquestioned.

which cannot enter into exchange relationships with one another, and also that there can never be an "absolute" exchange value. Thus, on the one hand, no standard of value, whether "constant" or variable, will enable us to work out a ratio of exchange between (let us say) a gallon of mead in 1340 and a gallon of whisky now, or to compare the value of the modern bridge over Sydney Harbour with that of Xerxes' bridge over the Hellespont. And on the other hand, if of two commodities which formerly had the same value one is now dearer than the other, then to say that the first has risen in value is *the same thing* as to say that the second has fallen in value, quite irrespective of whether the former now possesses more nominal units of purchasing power or the second less. Relating commodity values to the standard of value let us insist once more, is *merely* a device for relating them to one another. It cannot help us to compare incomparables or to set up a norm of "absolute" exchange value behind the shifting exchange relationships of the actual world.[1]

For these reasons the quest for a "constant" standard of value is both less important and more hopeless than its advocates suppose. In so far as values do *not* change then there is a certain convenience in their retaining the same numerical expression. And in a completely static state it would be possible and sensible (though of no great moment) to ensure that "prices" as well as values remained constant. But where conditions are in perpetual flux, and the purchasing power of commodity over commodity is now rising, now falling, there is not merely no point, but no *meaning* in trying to achieve an invariable norm by which to measure value changes.[2]

(3) It may be worth noticing, thirdly, that a unit of value is sometimes known as a "unit of account". If the latter phrase is merely a synonym for the former, then the usage raises no new problems and need not be objected to. But it may mean rather more than this. For the word "account" is associated in ordinary language, not so much with the abstract comparison and measurement of values as with the contracting of a particular kind of short-term debt; as when we speak of having an "account" with a tailor or a bookseller,

[1] On this subject the observations of Mill (*Principles*, Book III, chap. xv) are still well worth study, as also is the magnificent analysis in Bailey's *Nature and Causes of Value*, chap. v.

[2] See further Supplementary Note 7, p. 380.

or of "opening an account" at a bank. Now, bank accounts—or "deposits"—are not merely loans to the bank from the person in whose name they stand; they may also come to represent an effective and important kind of medium of exchange. As such, they are fully entitled to be called "money", if not in the first, at any rate in the second of the six main senses of that word.[1] In consequence the word "account" comes to have a double connection with the word "money"; first because a particular kind of account (i.e. short-term debt) may come to be a particular kind of money (i.e. medium of exchange), and secondly because "money" itself may be called a "unit of account".

And this may conceivably be a source of confusion to the unwary. For since a unit of account is (as we have seen) something highly abstract the conclusion may be drawn that bank deposits are in some sense abstract also; that the contrast between "pieces of money" (that is to say, coins and notes) on the one hand and "bank money" on the other is between a concrete thing and an abstract substitute therefor. Such a view is, of course, a complete misunderstanding of the nature and status of bank money. A bank deposit is no doubt immaterial; but is is no less *concrete* than any other form of exchange medium. It is not a unit of value, or a multiple of such units, but a commodity possessing value. We must by no means allow ourselves to confuse the distinction between two *kinds* of money with that between two *senses* of "money".[2]

(4) Finally, we may remark upon the significance of what we have been saying for the content and scope of the "theory of money". For it appears that the word "money" in its

[1] See above, § 3.

[2] This may seem to be an unnecessary warning. But I cannot help feeling that the difficulties which have attached themselves to the understanding of the monetary status of bank deposits are in part at least due to the ambiguity of the word "account" here noticed. See p. 159, and Supplementary Note 5 on p. 379.

In passing it may be remarked that the first few pages of Keynes' *Treatise on Money* are rendered unnecessarily obscure by the assertion that "money proper" and "bank money" (defined as "acknowledgments of debt"), the two main categories or kinds of money, are both derived from a more fundamental concept "money of account". What this last phrase can mean is far from clear: in one place it is called the "description" of "title" of money proper, in another it is the system of measurement in terms of which debts are expressed. But whatever it is, it is clearly not money *in the sense in which* "money proper" and "bank money" are money. The point is of little importance, however, except to the pure logician; for so far as I have been able to discover no use whatever is made of the concept money of account in the body of the book.

fundamental, and much its most important, meaning stands for a particular kind of commodity—the medium of exchange.[1] And since economic theory as a whole is primarily concerned—we need not dispute it—with the problem of value, in all its ramifications, it is natural to suppose that the "theory of money" will deal with the problem of the value of exchange media—why they are demanded, how the ratios at which they exchange with other things are determined, what will be the effects of changes in the supply of them and the demand for them, whether, and if so how, the quantity of them in circulation should be regulated. These are large matters and nobody would claim that the last word has been said on them. But in recent times their number has been increased. For it is common nowadays to treat under the heading "monetary theory" of fluctuations in savings and investments; and from this the subject has broadened out still further until it has come to include the whole analysis of the trade cycle. Such an analysis represents, of course, one of the most important of all the tasks which the economist is called upon to undertake; and it is one on which enormous progress has been made during the last few years. But it is not in any natural sense a study of *money*[2]—though a full understanding of monetary theory is obviously an essential prerequisite of its successful prosecution. And it will be unfortunate if an absorption in the perplexities of industrial fluctuations prevents economists from paying due attention to the problems connected directly with the value of the media of exchange.[3]

[1] Wicksell, *Lectures*, vol. ii, p. 7. Roll, on the other hand, asserts that "the real significance of the use of money . . . is to be found in its standard of value function" (*Money*, pp. 32-3). But his book represents an effective disproof of this surprising proposition.

[2] Unless, indeed, we are using the word in either its "financial" or its "popular" meaning.

[3] See Supplementary Note 8, p. 381, and cf. Joan Robinson, "The Theory of Money and the Analysis of Output".

CHAPTER X

"SUPPLY AND DEMAND"

THE problems connected with supply and demand need not detain us for long. They are for the most part familiar to every student of economic theory, and need only be summarised here.

1. It is generally agreed that the forces determining the exchange value of a commodity must operate either through the supply of it or through the demand for it, and that in equilibrium demand and supply are equal. The picture which we have before us when we enunciate propositions of this type is of a market in which some people possess the commodity and are anxious to exchange some or all of it for other commodities (or money), whereas others do not possess it (or do not possess enough of it) and are anxious to acquire it. The former group constitutes the sellers, or suppliers, and the latter the buyers, or demanders. And its exchange value will be fixed at the point at which the amount supplied and the amount demanded are quantitatively the same.

In this picture the following points are to be observed.

(1) In the first place, to say that demand and supply are the forces determining value need not be inconsistent with any of the theories of value with which preceding chapters have been concerned. The classical economists attempted, indeed, to distinguish between the normal or long-run value of a commodity (as determined by its cost of production) and its short-run or market value; and they regarded the latter alone as being the province of demand and supply—at any rate in the case of goods the quantity of which "can be indefinitely increased".[1] But this view rests on a misunderstanding. When we say that demand and supply are the forces which

[1] See (for example) Mill, *Principles*, Book III, chaps. ii-iii. Marx went so far as to argue that precisely because in equilibrium demand and supply are equal and "cancel each other out" therefore they cannot be the determinants of equilibrium value: *Capital*, III, chap. x (p. 223).

determine value we do not mean that they are independent of cost, utility, and esteem; we mean merely that they are the channels through which these ultimate factors operate. Whatever in the last analysis fixes the value of things does so *via* its effect upon the quantities of them supplied and demanded.

(2) Both the demand for a thing and its supply are in the first instance to be conceived of subjectively. My demand for a thing is my willingness to buy it—i.e. to give up other things for it—and my offer or supply of it is my willingness to part with it in exchange for other things. But if any use is to be made of the concepts it is generally necessary to express them in quantitative terms. The demand for a thing then becomes *the amount demanded*, and the supply of it *the amount supplied*. Or alternatively the demand for a thing may be measured by the amount of *other* things given up for it, and its supply by the amount of other things received for it. In this way the supply of one thing becomes the demand for another, and *vice versa*.[1]

This objectification of demand and supply, however, has its dangers. For if we are not careful we shall tend to think that the amounts demanded and supplied are identical with the amounts bought and sold. Now, the latter amounts *must* be equal, at whatever price the commodity is exchanged; for nobody can buy a thing unless someone else sells it, nor can anybody sell a thing unless someone will buy it from him. But the amounts of a thing demanded and supplied are only equal *at the equilibrium price*. If the actual price is higher than this, then according to ordinary theory the amount supplied will be more than the amount demanded; and therefore either (*a*) the supply must be greater than the amount sold (i.e. sellers must part with less than they would like to part with at that price); or (*b*) the demand must be less than the amount bought (i.e. buyers must acquire more than they are anxious to acquire at that price).[2] Conversely, if the price is lower than the equilibrium level, then either the demand will be more than the amount bought or the supply less than the amount

[1] The latter alternative is never adopted (so far as I know) except when the commodity demanded is *money*. On the demand for money cf. Supplementary Note 9, p. 382 below.

[2] Or, of course, the amount bought and sold may lie between these limits, being more than buyers are willing to buy and less than sellers are willing to sell.

sold, or both. In all such cases, there will be a fringe of over- or under-satisfied persons. And it is of the essence of value theory that their dissatisfaction with the existing situation will tend to bring the price to the equilibrium point.[1]

If, then, we wish to express demand and supply in terms of the amounts of the commodity demanded and supplied we must define them as the quantities which buyers *are prepared* to acquire and which sellers *are prepared* to part with. It is only in equilibrium that these quantities are equal to the amount which actually changes hands.

(3) The amount I am prepared to buy or sell of a thing—that is, the amount I demand or supply of it—will in general be affected by the price I have to pay or can obtain for it. Economists are accustomed to assume, at any rate as a first approximation, that in accordance with the principles of diminishing utility and increasing disutility demand will be greater and supply less the lower is the price, while the higher the price the less will be the demand and the greater the supply. But whether or not this is always true, at any rate it is clear that *one* of the factors which will decide my policy with regard to the commodity in question is the existing ratio of exchange between it and other commodities.

And this means that we have to distinguish between a narrower and a wider sense in which the words "demand" and "supply" may be used. For they may refer to people's willingness to buy and sell a thing either (*a*) *at a particular price*, or (*b*) *at all possible prices*. The former will be expressed in an actual amount offered or asked for: the latter in a "schedule" of amounts, each corresponding to a different price. The relation between the two is that between a curve and a particular point upon it. The curve shows the *conditions* of demand or of supply—the series of relationships which hold between possible prices and the amounts which people would be prepared to buy or sell at each price. But if we know what the price is at any moment we can discover from the curve, or schedule, how much the "actual" demand or supply will be.

2. The above distinction is too well known to need elabora-

[1] In actual fact, of course, it is far more likely in cases of disequilibrium that one of the two parties will stop short of their desires than that the other will go beyond their desires. But the theoretical possibility of "under-supply" and "under-demand" in the above sense is perhaps just worth noticing.

tion. It at once resolves the apparent paradox that while (by the ordinary laws of supply and demand) a decrease in demand tends to lower price, a fall in price tends to increase demand. For the "decrease in demand" which lowers price is a decrease in the conditions of demand, whereas the "increase in demand" which results from a fall in price is an increase in the actual amount demanded. So, too, with supply. A fall in the supply schedule will be a force tending to raise prices; but a rise in prices may be expected to *increase* the actual amount supplied. Or we can put the same point in another way by distinguishing between changes in actual demand or supply which are, and changes which are not, brought about by changes in the corresponding schedules. The former type of change is the expression of alterations in the general desire people have either to gain possession of a thing or to exchange it for something else; the latter simply reflects alterations in the extent to which people find it worth while to satisfy that desire.[1]

There is one complication, however, which must be noticed at this point. Suppose that the conditions of supply of a particular commodity fall, in the sense that its sellers are generally prepared to accept less for any given quantity of it. Then in the first instance its value will fall and we may assume that the amount demanded will increase. But the story may not end there. For the fall in value may affect not merely the actual demand but also the conditions of demand themselves. Thus it may induce in the buyers the habit of consuming the commodity and so make them more dependent upon it and more anxious than they were before to obtain possession of it in adequate quantities. Alternatively, if the commodity is one which is desired primarily by reason of its scarcity and of the prestige which it confers upon its owners, then an increase in its supply and a fall in its value may reduce its attractiveness as a possession and make people *less*

[1] On all this see Henderson, *Supply and Demand*, pp. 24 ff. Sidgwick, we may note, proposed to express the distinction by speaking of demand (or supply) as "rising" and "falling" when the schedule—called by him, for some reason, the "law" of the demand (or supply) in question—changes, and as being "extended" and "reduced" when the amounts demanded (or supplied) change without alteration in the "law" (*Principles*, pp. 189-90). Most economists, however, have preferred to indicate it in the substantive phrase, rather than in the verb. As a rule, indeed, the context makes it perfectly clear which of the two senses is intended, even if they are not formally distinguished.

anxious to acquire it. In the former case the demand schedule for the article is raised in consequence of the changed conditions of supply: in the latter case it is lowered.[1] And when influences of this kind are present, then the distinction between actual demand and demand schedule becomes blurred: or rather, it is not possible to construct a proper demand schedule at all. For such a schedule is only intelligible on the assumption that variations in price originating on the supply side will not affect the *conditions* of demand, but merely the actual amount demanded.

Conversely, a supply schedule can only be constructed if it can be assumed that variations in price which originate from the side of demand will not affect the *conditions* of supply, but only the actual amount supplied. This assumption is in fact far from valid universally. Thus if the commodity supplied be labour (or for that matter any other factor of production) it will certainly *not* be true to say that changes in its value have no effect on the conditions of supply. A change in the unit rate of wages will not merely affect the actual amount of labour supplied it will also alter people's general willingness to work. For if their wages rise they will in general attach greater importance to having an adequate amount of leisure in which to spend their increased incomes. Hence the relative disutility of work will increase—i.e. there will be a fall in the conditions of supply of labour. And this fall may be sufficient to bring it about that an increase in wages will *reduce* the actual amount of labour supplied just as, conversely, a reduction in the rate of wages may decide people to work harder than before, so *increasing* the actual supply of labour. Such changes as these represent the superimposition of a fall (or rise) in the conditions of supply upon an "extension" (or a "reduction") in the amount which would have been supplied if the conditions of supply had remained unaffected. And it is only when the former influence is not present, or can be neglected, that we can construct a supply schedule in the proper sense.[2]

[1] Cf. on the second case Chapter VII above, p. 112.

[2] The argument of these two paragraphs is perhaps too compressed to be fully intelligible. An adequate discussion of the issues involved would take us far beyond the limits of the present work. It may be worth while, however, to add the following remarks:

(1) It is always possible *in a sense* to construct demand and/or supply schedules

3. In what has been said so far it has been implied that the two concepts under discussion can be treated symmetrically—that whatever is true of the one is also true, *mutatis mutandis*, of the other. The idea of a symmetry between the forces of supply and the forces of demand is, indeed, important and valuable, and has played a considerable part in the development of economic theory. But we have no right to take it for granted. And in what follows some attempt will be made to examine its validity and its limitations. At the same time we shall be concerned with the exact scope of the two concepts themselves and with the various forms which they assume under different economic conditions.

In the first place it is to be observed that supply and demand are properly *market* phenomena. They lose their meaning when there is no buying and selling. For example, we cannot analyse the problem of value as it presents itself to a Robinson Crusoe in demand and supply terms. For as we already know, that problem rests in equating esteem ratios, not with exchange ratios but with cost ratios. He neither buys nor sells, but merely decides how to distribute his available resources among different possible ends. And while it is often possible to distinguish two contrasting moments in his choices, a utility moment and a disutility moment—as when he weighs the attractiveness of cocoanuts against the fatigue of searching for them—it would be unnatural to express this contrast in terms of demand and supply.[1]

Moreover, even in an economy in which commodities and services are regularly bought and sold it is by no means

for the cases under consideration, and to represent them graphically in more or less oddly shaped demand and/or supply curves. But these cannot have more than a merely statistical significance. They are useless for the theoretical analysis of the forces determining the value of the commodity in question, in that they do not represent channels through which these forces operate, being in part determined by the value itself. That is to say, we cannot in these cases exhibit the process of value determination by the familiar diagram of intersecting supply and demand curves, since the shape of one (or both) of the curves is affected by the various possible positions of the other, and the two are not, therefore, genuinely independent.

(2) It is not *certain* in the case of factors of production that the supply will vary in the opposite sense as the value. For the "extension" (or "reduction") in the actual amount supplied under given conditions of supply may be more than enough to offset the fall (or rise) in the conditions themselves. See on this Robbins' "Demand for Income", especially pp. 126 ff.—in opposition to Knight, *Risk, Uncertainty and Profit*, p. 117.

[1] It may well be described in terms of consumption and production. See below, Chapter XI, pp. 180-81.

always possible to establish a simple and symmetrical contrast between supply and demand. For we have been assuming that the suppliers and demanders of any particular commodity are two independent groups of people, and that neither the former are anxious to consume it nor the latter willing to produce it. The best illustration of such a situation is perhaps to be found in the case of the commodity *labour*. If we imagine the hiring of a workman by an employer, and allow ourselves to assume both that the former cannot use his own labour as an independent producer and that the latter is under no circumstances prepared to do a labourer's work himself, then the influences determining the price of the labour are sharply divided between the supply side and the demand side, and it will be natural to analyse them in terms of intersecting curves, the one determined by utility, the other by disutility. Now even the simple barter transactions with which expositions of value theory often start do not as a rule satisfy these conditions. Suppose we envisage a community in which only oranges and nuts are produced for exchange. It may be true that the growers of oranges and nuts form two distinct groups, and that nobody produces both at the same time. But it is not at all likely to be true that they will be distinct *as consumers*. For that would imply that the oranges were consumed exclusively by nut-growers, and the nuts by orange-growers.[1] In actual fact we may be quite certain that under the conditions supposed the two groups of producers will be prepared to consume some of their own produce, and that the amount so consumed will in part depend upon the ratio at which they can exchange it in the market.

But this means that the supply schedules of nuts and oranges cannot be regarded as independent of the demand for them or as expressing simply the disutilities involved in their production. For the producers themselves constitute a part of that demand. Thus the choice before nut-growers rests in balancing the utility of consuming oranges, not merely against the disutility of producing nuts, but also (like that of Robinson Crusoe) against the *utility of consuming* nuts. Indeed, if—as is quite conceivable—the actual output of nuts in any

[1] The required conditions might be realised with less violence to probabilities if we could suppose that each producing group laid aside a certain, *absolutely fixed*, volume of produce for home consumption.

one year is fixed within narrow limits by technical considerations (the number of nut-bearing trees, the weather, etc.) then the *only* effective choice before nut-growers is between the utility of nuts and the utility of oranges. Under these circumstances the value of nuts is really determined, not by the interactions of a demand schedule with a supply schedule, but by two *unsymmetrical* factors: (1) the total available stock of nuts; and (2) the *total* demand schedule for nuts (including the demand of the nut-growers themselves).[1]

4. The situation is even worse in those cases in which the same person may be *either* a buyer *or* a seller. Suppose that I have been living in a hotel and now decide to rent or buy a house of my own. I come into the house market on the side of demand, and it is reasonable to say that my decision has increased the total demand for houses and will bring with it (so far as it goes) a tendency for the value of houses to rise. But it may be that after a year or two I tire of the loneliness of living by myself and wish to return to a hotel. I now come on to the house market on the selling side. And my action will lead to an increase in the number of houses for sale or to let—and will tend, *pro tanto*, to reduce their value. Does it then constitute an increase in the *supply* of houses? We shall have to agree that it does if we mean by the "supply" of houses the number of houses which people possess and are anxious to dispose of. But if we choose we can take a broader view and say that my ceasing to have a house of my own represents not an increase in the supply of houses but a decrease in the demand for them. The supply, we shall then say, has remained constant—for we are assuming that no builder has stepped in and built an extra house in consequence of my temporary abandonment of hotel life.[2] All that has happened is that the demand for houses has first risen and then fallen back to its original level. The "demand for houses" now means, not people's willingness to rent or buy them, but their willingness to occupy or own them. And from this point of view *everybody* who wants a house must be included on the demand side, irrespective of whether he already possesses one or not.

[1] See for an exhaustive discussion of this point Wicksteed, *Commonsense*, Book II, chap. iv.

[2] The consequences of abandoning this assumption are examined in § 5 below.

Of these two ways of describing the situation the second is for more than one reason the more satisfactory. If we say that the demand has first gone up, and then, at a later date, the supply has gone up correspondingly, we are obscuring the fact that the position after I have returned to my hotel is precisely the same, so far as houses are concerned, as it was before I ever thought of leaving it; we are in fact suggesting the obvious absurdity that by the mere process of moving back and forward between hotel and private house I can jack up the total demand and the total supply of houses indefinitely. Moreover, what is more important, the value of houses is in the long run dependent just as much—and for precisely the same reasons—upon those who already occupy houses and wish to continue in them, as upon those who, not possessing houses, wish to acquire them. Both groups are equally influenced by the utility of houses as compared with the other things which might be substituted for them. And to attach importance to the distinction between house-occupiers and house-seekers (as Wicksteed pointed out) is to confuse the process whereby the value of houses is *discovered* with the forces whereby it is *determined.*[1]

But if we adopt the second view, then—assuming still that the total stock of houses remains constant—the symmetry between demand and supply breaks down completely. The forces determining value (as in the case of the nuts and oranges) are, first, a total composite demand schedule, showing the number of houses which will be occupied at different prices; and secondly, the number of houses in existence. We can, if we choose, call this latter quantity the "supply" of houses. But if we do this we must remember that "supply" is now a given technical fact, and not a schedule of people's willingness to offer houses for sale at different prices.

This conclusion holds for all cases in which the available stocks of the commodity in question may be taken as fixed, and in which the producers of the commodity are themselves consumers of it to any considerable extent. And it applies in particular to those commodities which are liable to change hands more than once, so that the seller in any given transaction is not necessarily the "producer" (in any ordinary sense

[1] *Commonsense*, p. 507.

of the word) but merely someone who has ceased to be a "consumer".[1]

5. But suppose that the total stock of a commodity is variable: suppose that (to continue the last illustration) my buying a house makes it just worth somebody's while to build an extra house, and/or that when I give my house up the consequent drop in house values makes it just worth while to demolish one of those now in existence: are we not then back again to the old dichotomy between demand and supply? Is not the supply of houses the willingness of builders to construct them; and is it not possible to envisage a supply schedule which is independent of, and symmetrical with, the demand schedule of those who wish to occupy houses? In order to answer these questions we must distinguish between two possible cases, in practice differing from one another only in degree, but theoretically quite separate.

First, there is the case of those commodities the stocks of which can be increased or decreased, but for which an upper limit is in practice set by the productive capacity which is available for its manufacture. This is the situation with regard to many of the products of modern industry. Plant is available for considerable additions to the existing output at comparatively low cost. But increases beyond the existing capacity can only be secured by large overhead expenditures, which will not be worth while unless demand rises to a very large degree. Under these circumstances the determinants of value are, first, the total demand schedule, and, secondly, the existing *productive capacity*. Here, therefore, as before, there is no symmetry between demand and supply. The position is fundamentally the same as if the stocks of the commodity were absolutely fixed. Indeed, it will be precisely the same if market conditions are such as to make it worth the while of each firm to produce up to the limits of its productive equipment; for in that case actual production and potential production will coincide and the available stocks of the product will be for practical purposes fixed.[2]

Secondly, however, an increase in the available stocks of the commodity may only be possible by the use of a corre-

[1] On the relevance of this discussion for the case of *money* see Supplementary Note 9, p. 382.

[2] On this case cf. J. M. Clark, *Overhead Costs*, p. 464.

spondingly larger quantity of original resources, such as labour and land. In this case the symmetrical contrast between demand and supply reappears; for it is reasonable to suppose that the owners of these original resources will only be willing to supply them in amounts which will vary with the prices that are paid for them; in other words, they will have supply schedules corresponding to, and similar in kind with, the demand schedules of the consumers.

Now it is in principle possible, even in this case, to argue that the supply schedules of labourers, landlords, etc., are no more than disguised demand schedules: that just as a house-owner's willingness to sell his house represents the giving up of one utility for another (presumably greater) utility, so the willingness of a labourer to work is simply the expression of a choice as between the utility of rest and leisure on the one hand, and the utility of the things which his wages will buy him on the other. And we need not dispute that for the purposes of value theory in general this is the most satisfactory way of describing the position in which owners of original resources find themselves.[1] But let us observe that this conclusion is reached by means of a shift in the plane of discussion. We are concerned now, not with the value of a particular product as determined by *its* consumers and producers, but with the value relationships between it and the other ends to which the resources embodied in it *might* have been devoted. We have, in fact, left the market-place and are investigating the subjective choices of the owners of these resources. And our conclusion does not invalidate the proposition that *so far as this particular product is concerned* the supply schedules of its original producers and the demand schedules of its consumers are independent and coequal factors which between them fix its value. In this limited sense the symmetry between demand and supply must be allowed to stand.

Nevertheless, its importance for economic analysis is not great. In the first place, the construction of supply schedules for such things as labour and land is likely to be impossible or misleading on quite different grounds. For as we have already seen, the rate of return on factors of production will, as a rule, affect their owners' general willingness to supply them.[2] Secondly, however—and this is more immediately

[1] See above, Chapter VII, p. 117. [2] Above, p. 167.

relevant here—what is "supplied" in the cases under consideration is not the same as what is demanded. The demand schedule is concerned with a finished product, the supply schedules with the resources which go to produce it. In between them lies the process of production itself. And it is only when that process is non-existent or can be neglected—as in the illustration given above in which an employer buys the services of a labourer for its direct usefulness to him—that the scheme of intersecting supply and demand curves can claim to provide a reasonably accurate picture of the forces determining value.[1]

6. The problems connected with "original resources" and the productive process will be discussed in subsequent chapters. Meanwhile we must conclude that the idea of a symmetry between the two sides of the price bargain is largely illusory. By the "supply" of a commodity we may mean (*a*) the willingness of people to sell it at a given price, or more widely (*b*) the schedule showing the various amounts which people will sell at different prices. More commonly, however, the word denotes simply (*c*) the stocks which are available—either actually or potentially—for distribution among all would-be consumers. The first two interpretations maintain the symmetry with demand, the third destroys it. But in general, and except when the commodity in question happens to be a form of original resources, such as labour and land, the third interpretation is to be preferred.

[1] The symmetrical treatment of the demand for consumption goods on the one side, and the supply of (not these goods but) the productive resources which have gone to make them on the other side, is, as we shall see, of importance both for the *production-consumption* relation (Chapter XI, pp. 195-6 below) and also still more for the interpretation of "enterprise" (Chapters XV, pp. 325-6, XVII, pp. 354 ff.). The point here is simply that it is not usually expressed in terms of the contrast between "supply" and "demand".

CHAPTER XI

"PRODUCTION AND CONSUMPTION"

THE discussion of the last few pages has brought us well within the subject-matter of this chapter. Just as the contrast between demand and supply is connected with that between utility and disutility, so it is closely bound up with the contrast between consumption and production. Here again we are faced with the difficulty which occupied us during the last chapter—the difficulty that while there is an apparent symmetry between the two contrasted concepts, so that one expects to be able to argue by analogy from the one to the other, the meanings most naturally attached to the words are such as to make this symmetry unreal.

1. First of all let us note that the words "production" and "consumption" are subject to a form of the "ing and ed" ambiguity described in Chapter I. Thus "production" may be used either of the producing process or of its results. The most obvious example is to be found in the dramatic world, where people often call a play or revue a "production", and then add that its "production" is in the hands of such and such a person. In the first case the word refers to the *thing produced*, in the second to the *producing* of it. This is not, perhaps, a misleading ambiguity. And as it happens it is not an *economic* ambiguity at all; for economists are accustomed to describe the "thing produced" as the "product", or (in the case of agriculture) "produce", and to use "production" in the first instance solely of the process of producing.[1] Nevertheless, in its "extended" form the ambiguity is present even in economic writings.[2] For the word is sometimes used quantitatively of the amount produced; as when we speak of the wheat production of the United States, meaning the volume of wheat grown, or of steel production, meaning the output of steel—not the process of manufacturing it.

[1] See Robbins, "Production" *ad init.* [2] See Chapter I above, pp. 19-20.

So, too, "consumption" in the first instance means the process or activity of consuming; but it may also refer to the *amount* of that activity, as when we say that between 1933 and 1936 the consumption of beer in Germany rose by 23 per cent.

This distinction is precisely the same as that noticed in the last chapter between the qualitative and quantitative references of "supply" and "demand".[1] There need be no more danger here than there of its giving rise to confusion.

2. Secondly, it must be noted that "consuming" and "producing" very commonly—though by no means always—have a rather different sense in economics from that which they bear in ordinary language. Let us start with "consumption". If we are asked what it is that is consumed—what is the "object" of consumption in the grammatical sense—we shall almost certainly reply, if we are not economists, that it is some kind of *thing*: not necessarily a physical or material thing, but a thing which has an existence and status independent of the act of consuming it. The obvious example is food and drink. Both of these are "objective" in the sense that we can conceive of them apart from their being consumed. So, too, with all the other things which would ordinarily be described as consumable or consumed; they are essentially external to the act of consumption and independent of it.

But the economist is not so much interested in the fact of consumption, so understood, as in the economic reason for it. Why, he asks, are food and drink consumed? And his answer is clear: because they are capable of affording satisfactions to their consumers: because, in other words, they have (absolute) *utility*, and contribute to welfare. Moreover, as we know, it is a fundamental postulate of value theory that people choose rationally; that they do not make mistakes or consume things which fail to yield the satisfactions expected. This being so, we may lay it down as a universally true proposition that *all* consumption is directed towards the utilities which it involves.

It is, then, an easy transference to regard the grammatical object of the verb "to consume" as being not things but their utility. And this transference is regularly made in economics.

[1] Above, p. 164.

In discussions of the value problem consumption means the consumption of *utility*.

For the economist, therefore, "to consume" and "to use" a thing are for practical purposes identical. They *may* involve consumption in the ordinary sense: viz. when the thing in question only yields up its utility by being physically destroyed, so that it cannot be "used" without being "used up". But this need not be so. For economic purposes I am "consuming" a picture when I look at it as it hangs on my wall—or even when I remember it with pleasure during office hours or on holiday. For these are the ways in which I derive utility from it.[1]

3. We can now see clearly the relationship between consumption and demand. Demand means in the first instance the willingness of people to acquire and pay for things. But this willingness depends upon the utilities which they yield; that is to say, upon the prospect of consuming them. Consumption is the end and purpose of demand.

Or if we prefer we can state the relation in objective terms. What is demanded is demanded in order that it may be consumed. Demand (= the amount demanded) is the means to consumption (= the amount consumed).

This relationship holds, evidently, whether the things in question are consumed in the ordinary sense or not. My demand for bread is my willingness to acquire bread (or the amount of bread I am willing to acquire); and I demand bread in order that I may "consume" it in both senses. A house, on the other hand, is a thing which is not "used up" all at once, and for economic purposes I am consuming it so long as I live in it: correspondingly, my demand for a house is my willingness to acquire *and retain* it.[2]

4. It is time to leave "consumption" for the moment and

[1] Cf. Clark, *Essentials*, p. 25 n. If we wish, we can put the point by saying that "consumption" in economics is concerned not with things but with *commodities*; a commodity being defined here, functionally, as any thing material or immaterial in so far as it possesses *utility* (cf. Chapter VIII, p. 124 above).

Notice that as a matter of linguistic convenience it is usual to give the verb an "external" object even when what we are interested in is really the "internal" object. "I am consuming a pint of beer" is for the economist (*qua* economist) merely an elliptical way of saying "I am consuming the utility yielded by a pint of beer".

[2] Cf. above, p. 125 n. The distinction between goods which are, and goods which are not, "used up" when they are consumed will be examined further at a later stage (see below, Chapter XIV, pp. 256 ff.).

turn to the more troublesome word, "production". If "consuming" means "extracting utility from" then we may expect, by symmetry, that "producing" means "putting utility into". That is to say, production for economic purposes must on the face of it consist, not in making or creating *things* (which is perhaps the meaning usually attached to the word in ordinary language) but in creating utility.[1] Production in this sense *may*, of course, involve creating "things" —as when a manufacturer converts cotton thread into shirts, or gold ingots into pen nibs and wedding rings. But the making of things is as such irrelevant to economic production. For the economist all activities must be included which yield useful results, whether they are embodied in material objects or not. The boot-black who cleans my shoes is as much a "producer" as the cobbler who mends them or the manufacturer who makes them; the man who works in my garden is "producing" when he mows the lawn or weeds the borders no less than when he grows strawberries for my tea. In one way or another all these forms of labour create *utility*.[2]

5. This brings us to the threshold of a problem which has bulked large in the history of economic theory—the problem of distinguishing between "productive" and "unproductive" labour.[3] The earlier economists believed it to be both possible and desirable to make a sharp division between those forms of labour which contributed to production, and those which

[1] On the meaning of "production" in ordinary language, however, see Supplementary Note 10, p. 383.

[2] Clark distinguishes four main types of (economic) production (*Philosophy of Wealth*, pp. 25 ff; *Essentials*, pp. 11 ff.); the creation of (*a*) "elementary" utility—e.g. the work of a farmer who has something material to show for his pains; (*b*) "form" utility—e.g. industrial manufacture, which changes the physical qualities of things so as to make them more useful; (*c*) "place" utility—e.g. transport, or the conveyance of things to a place where they will be more useful; and (*d*) "time" utility—e.g. the storing of crops, etc., so that they may be available at a *time* when they will be more useful. Only the first two of these types fall within "production" in the technical sense. (Perhaps a fifth type should be added, namely "exchange utility"—the transference of a good to a person *in whose possession* it will be more useful. See on this below, Chapter XIV, p. 254 n.) Adam Smith, we may note, had suggested practically the same quadripartite classification as Clark, though with reference to capital rather than to labour, and with the substitution of what we may call "division and opportunity" utility (the function of the retailer) for Clark's "time utility" (*Wealth of Nations*, Book II, chap. v. *init.*).

[3] Perhaps the best readily available account of this controversy is to be found in Gide, *Cours* (or *Principes*), Book I, Part I, chap. ii, § 3. Cf. also Cannan, *Production and Distribution*, chap. iii, § 2; Davenport, *Economics of Enterprise*, chap. ix, etc.

—however estimable in other ways—were not in the strict sense "productive". "Productive", however, of what? On this question they were formally unanimous, but at variance in fact. Labour, they held, to be productive must create, or assist in creating, *wealth*. But they differed widely in their interpretations of "wealth". And these disagreements led to corresponding divergences in their treatment of productive and unproductive labour. The Mercantilists, who in effect identified wealth with *money* (i.e. gold and silver) regarded all labour as unproductive which failed to add to the country's monetary stocks, or "treasure". The Physiocrats, believing as they did that wealth consists in natural resources—that is, in the produce of the earth—held that only labour in the agricultural and extractive industries was properly speaking productive, manufacturing being in their view merely "transformative". Adam Smith, who conceived of wealth in terms of material consumption goods and equipment, maintained that *all* labour was productive which ended to "fix or realise itself in some permanent object or vendible commodity", thereby including in the term not merely agricultural and mining labour but also all normal manufacturing and even commercial activities (though it is doubtful whether on his own definition he ought to have admitted the last); on the other hand, he regarded as unproductive all "services"—e.g. the services of doctors, lawyers, and domestic servants. Since his time, however, economists have come more and more to the view that no profitable line of demarcation is to be arrived at in any of these ways, and that if "productive" is to mean anything at all it must mean simply "useful". Labour is, in fact, productive when it satisfies a demand—when people are willing to pay for it. Here again the shift in the distinction corresponds to an altered definition of wealth; for, as we know, "wealth" is not now understood in an exclusively material sense, referring rather to useful resources of all kinds.[1]

But on this last definition what becomes of unproductive labour? It can only be labour which satisfies no demand—labour, that is to say, for which nobody is prepared to pay. Now as a rule this is taken to refer exclusively to *misdirected* labour—to labour which has been devoted to providing some

[1] Chapter II, pp. 24-6 above.

product or service which possesses no utility. In other words, labour can only be unproductive if someone—either the labourer himself or his employer—has made a mistake. From which it would seem to follow that the distinction between productive and unproductive labour is of no theoretical importance at all. As we know, value theory must abstract from mistakes and irrationalities. Therefore labour must either be productive, i.e. must issue in some utility, or else must fall outside the province of the economic theorist.

6. This conclusion is perfectly consistent with what has so far been said as to the nature of economic consumption and production. And it would probably be accepted in principle by the great majority of living economists. It is, indeed, a satisfying conclusion, in that it relegates into past history a controversy which has been prolonged and troublesome. Unfortunately it has to be qualified in three ways before it can be finally accepted.

(1) In the first place, to define productive labour with reference to the *demand* for it, or its product, implies that economic production can only take place in an exchange economy; for as we have already agreed, it is only in an exchange economy that the concept of demand is properly applicable. On this definition, then, labour is only productive if it creates a utility which somebody other than the labourer is to consume. There is, however, no good reason for limiting the concept in this way. When Robinson Crusoe builds a house, or weeds his garden, he is a "producer", for he is creating a utility which he *subsequently* consumes. So, too, a cook is "productive", not merely when she prepares her employer's lunch, but also when she prepares her own. The distinction between production and consumption is not destroyed by the coincidence that in such cases as these the producer and consumer are the same person. And any activity must be regarded as productive which yields a useful result, whether or not it arouses demand from someone else.

(2) On the other hand, there are many activities which create a utility in a sense, but which yet would not naturally be regarded as constituting forms of economic production. An artist may draw a picture, not because he thinks it will give pleasure when drawn even to himself—still less because he hopes to find a buyer—but simply from an urge to self-

expression. Similarly, people often take physical exercise, not for any useful result which it may yield, but because they find it enjoyable in its own right. Such activities as these are "useful", but they are not in any natural sense "productive". They are, in fact, as much a form of consumption as of production. And unless we are prepared to make "producing" an intransitive verb and define it as "acting usefully", we must regard them as unproductive—or at any rate as "not productive". For production consists in yielding useful *results*.[1]

(3) These are academic and perhaps uncontroversial points. We come now to a matter which is of real importance for economics in the wider sense. The examples of Crusoe and of the servant who serves herself have shown that the contrast between production and consumption does not disappear merely because the same person is both producer and consumer. What we have now to observe is that even in an exchange economy the distinction can always be interpreted in terms of the activities of one person only. For why are people prepared to produce what others will consume? Obviously because it is made worth their while; because they are paid for their products or services. So far as the producers themselves are concerned, the production-consumption relationship is a contrast not between the providing of a useful service and the enjoyment *of that service*, but between the providing of the service and the enjoyment of the wages paid for it. That is to say, just as Robinson Crusoe builds a house in order that he may use and consume it, so the modern bricklayer helps to build a house because *he* will gain a revenue therefrom and will be able to use and consume the goods which that revenue will buy him. From his own point of view, therefore, his labour is productive, not because it contributes to the making of a useful object, but because, and in so far as, it yields him an income.

[1] This last type of activity is, of course, only the limiting case of that considered under point (1) above. Its essential feature is that production and consumption are not merely undertaken by the same person but are also *simultaneous* —for practical purposes at least. We can even here in strict theory distinguish between them as contrasting *elements* or *moments* in the activities under consideration. Thus in the case of the artist we might draw a line between the satisfaction of the urge to self-expression (the consumption element) on the one hand, and the physical and mental efforts which this requires (the production element). But this would probably be bad psychology, and is in any case a totally unnecessary subtlety.

But this means that there are two ways in which "productive" labour may be defined. Either we may think in terms of the community as a whole, in which case we shall define production as the yielding of a useful product or service; or else we may think in terms of the individuals within the community, in which case we must say that all labour is productive *which yields an income to the labourer.*

At first sight it might seem as though these two definitions were interchangeable. So they would be if it could be assumed that all work which brings in an income to the worker is necessarily a source of utility—mistakes apart—to the persons paying the income. Unfortunately there is no warrant for this assumption.

Suppose that I am sitting in my study revising the manuscript of my book. And suppose that an organ-grinder comes under my window and plays a selection from an Italian opera. It may be that I find the music restful or even enjoyable. But it is also possible that I shall be so seriously distracted by it as to be unable to work effectively while it continues. If so, I shall probably give him sixpence or a shilling in order to induce him to leave me in peace. On receipt of my money he removes his organ to the next street and repeats his selection there—until again he is persuaded, for the same reason and by the same means, to take up a stance somewhere else. By passing from street to street, always playing his opera until he is paid to move on, he may collect a fairly substantial daily income. Can we say, then, that his is "productive" labour?

From his own point of view it clearly is, for it yields him a revenue. And the labour of pushing the organ through the streets and turning its handle at appropriate places is the essential condition of acquiring that revenue. If, therefore, we define production in individualistic terms we must call him a producer in the economic sense.

On the other hand it is *not* true to say that there is a "demand" for his labour—that that is what he is paid for. The people who pay him do so, we have assumed, not because they enjoy the music he is playing, nor because they feel charitably disposed towards him, but because they want him to *desist.* The utility for which they are looking is negative, not positive: it rests not in anything pleasing which he is

doing for them, but in the prevention of something displeasing; not in a service but in the elimination of a disservice. In short, he is paid not to "labour", but to stop labouring. What he does is to create a disutility, or nuisance; and he is then paid in order to induce him to remove it. And if "productive labour" is to mean labour which creates utility (as opposed to labour which yields an income to the labourer) then his activities must be regarded as being not merely unproductive, but destructive or "*disproductive*".

Now in the modern world there is a large range of activities which are "disproductive" in this sense. They are to be found not merely in such obvious forms as racketeering and blackmail, the essential profitability of which rests in their creating a nuisance which people will pay to have removed, but also in lines of business which are in general thoroughly reputable and useful. The work of a speculator is presumably productive from the community's point of view when it takes the form of smoothing out price fluctuations by buying stocks or commodities when they are under-valued and selling them when they are over-valued: it is disproductive if he causes or exaggerates price fluctuations (by the creation of rings or corners, by the spreading of false rumours, etc.), in order that he may be able to step in after prices have been artificially altered and bring them back to their proper level. The manufacturer is acting disproductively if he endeavours to increase his income, not by improving the services he renders to his customers, but by forming a monopoly with a view to getting a larger return for a smaller output, or by lobbying for tariffs which will benefit him at the cost of a more than corresponding loss to the rest of the community. In a rather less direct way, moreover, all illegal or criminal pursuits are disproductive. The thief may have to work hard for his income. But those who pay the income—viz. the people whose goods he steals—so far from deriving a utility from him in general lose far more than he gains. Not merely that, but society spends a considerable volume of resources with a view to preventing his and his fellows' activities—much as if instead of paying sixpence to the organ-grinder to get him to move away I were to employ someone to prevent him, by threats or by force, from approaching my study window.

This is not the place to discuss the problems to which the

concept of disproductive activities gives rise. They belong to the theory of economic welfare. And perhaps for that reason they have not received as full attention as they deserve. One point, however, may be noted here. To describe any activity as disproductive in the above sense does not as such involve any *moral* judgment. All that it implies is that the activity in question involves the destruction, rather than the creation, of utility to those who pay for it. And this is a proposition which is strictly economic, both in form and in content.[1]

So far as value theory is concerned, however, these matters are irrelevant. And we are perfectly entitled, if we choose, to by-pass the concept of disproduction by defining as productive all activities which yield a balance of utility *to the agent*, irrespective of whether they are a source of utility to other people. With this conclusion we may take our leave of the problem.

7. We mean by a "producer", then, a person who creates utilities. Broadly speaking, and with the exceptions noted in previous sections, he does this by putting his resources at the disposal of someone to whom they are serviceable, whether directly—as when an employer hires the services of a labourer —or in the form of a product, or useful *thing*. In the latter case, but not in the former, economic production involves production in the ordinary sense. And on the understanding that we are using the word in this wider sense we can say that it lies behind, and is correlated with, supply in the same way in which consumption lies behind and is correlated with demand. For people will not "produce" unless they have the prospect of selling what they produce for an adequate reward. That is to say, the immediate stimulus to production is *supply*—the willingness of people to sell things. The symmetry with the opposite side of the exchange relationship is complete. We "demand" with a view to "consuming": we "produce" with a view to "supplying".

From this point of view, therefore, the difference between

[1] *Normative* implications are, of course, present. For disproductive activities involve a loss of welfare to the community as a whole. And if we believe that economic welfare "ought" to be maximised we shall conclude that disproduction is undesirable—which is a normative judgment. But as we already know, that is no reason for regarding the concept as belonging to ethics rather than economics—or even to applied economics rather than to pure economics (see above, Chapter II, pp. 39-41).

the production-consumption nexus and the supply-demand nexus is simply that the former is wider and deeper than the latter. It is wider because it is found in *all* economic life, and not merely in the market-place. And it is deeper, because it is concerned not with selling and buying but with their *raisons d'être*—the creation and absorption of utilities.

8. Two further consequences of the above definitions must be pointed out.

(1) If to produce means to create utility and to consume means to absorb utility, then the production-consumption relationship is one which is present at all points in the process whereby goods are made and sold. When a machine is supplied to the maker of some finished commodity, the machine manufacturer is the producer, and the commodity manufacturer is the consumer. The former produces and is paid for it because the latter finds it useful and is anxious to consume it. This is true, even though it is also true that from the point of view of the *community* the utility of the machine is "derived", in that its being demanded depends upon the utility of the things which it helps to make. This latter fact is of the utmost importance for a final explanation of how the value of machines—as also of labour and other original resources—is determined. But for the understanding of the consumer-producer relationship as we have been stating it, it is irrelevant. A consumer is simply a person who demands a commodity because it is useful *to him*. And a machine has a real and immediate utility to its user—in that it helps him to make a profit. There is no sufficient ground for confining either "consumption" or "utility" to the case of final goods.[1]

(2) The concept of a producer here developed applies to *all* those who supply utilities. Suppose that I am a farmer and wish to grow wheat. For this purpose I shall require the assistance of at least three people or groups of people: a landlord who will allow me the use of his land; labourers who will supply me with their services for ploughing and sowing, reaping and gathering; and merchants who will sell me seed and implements. So far as I am concerned *all* these people are producers; for all of them are making their resources available to me and are thereby yielding me utility. It has

[1] See on "Final goods" pp. 188-9, and cf. Chapters XIV, pp. 261-3, XVII, pp. 354-6.

sometimes been supposed that a distinction should be drawn between, for example, landlords and labourers on the ground that labour is an "active" participant in production whereas land is purely "passive".[1] And this corresponds with the popular doctrine that labourers are productive in a sense in which landlords are not. It involves, however, a gross confusion between the ordinary and the economic senses of "production". If the word is used in the sense in which it has so far been understood, then, as we have just seen, both labourers and landlords are equally "producers". If, on the other hand, it is used in reference to the actual processes of industry and agriculture, then though landlords may be unproductive, yet *land* is not; for it, like labour, is one of the indispensable elements for the carrying on of production in this sense. From the second point of view, even labourers are not strictly speaking productive; since it is their *labour*—their efforts and energies—which co-operates in the process whereby goods are made. And if it be rejoined that this involves *their* taking part in this process, then by the same token it must also be admitted that landowners are taking part in the production of wheat or manufactured goods when they allow their property to be used for farms or factory buildings. No doubt the part played by the landowner is less exacting and tiresome than that played by the labourer. But this is quite irrelevant for the purposes of value theory, interesting and important as it obviously is for various questions of social policy. And in the present context we must understand by the word "producer" a person who has resources—*of whatever kind*—and who is willing to supply them to some "consumer" in return for an adequate reward.[2]

9. We have now arrived at a clear conception of what is meant by "production", and of its relation to consumption on the one hand and to supply on the other. Our definition turns upon distinguishing sharply between the creation of utilities, which is an *economic* phenomenon, and the technical processes to which "production" in ordinary language usually refers. And if the word were always used by economists in this special sense our difficulties would now be over. Un-

[1] See (for example) Gide, *Cours*, Book I, Part I, Introduction.
[2] See further Supplementary Note 11, p. 384.

fortunately this is not so. Examples are constantly to be found in economic writings in which it bears an industrial rather than a strictly economic meaning. The word "product", though it is not unambiguous (as we shall see in a moment), is yet generally thought of as denoting a commodity which has been made or manufactured. By a "factor of production" we are at least as likely to mean an agent which co-operates in the process of making *things*, as a source of a particular type of *utility*. And it is common to speak of the "productive process", or of "methods of production", with a purely industrial reference. There have, of course, been good grounds for this. It is not easy for an economist to deny himself the use of a convenient everyday word; and in any case the processes of industrial production are matters which lie close to the economist's subject and in which he is bound to be interested. Nevertheless, the ambiguity has had serious consequences for the development of economic theory.

10. In the first place, let us observe that it is an ambiguity which corresponds closely to that already noticed in the meaning of "supply". By "supply" we may mean, not merely people's willingness to sell things (or the amounts they are willing to sell) but also—and perhaps more naturally—the stocks of a thing actually or potentially in existence.[1] In this latter sense it also is a technical, and not an economic concept. And if we understand both words in their technical reference we can still say that production "lies behind" supply. What that means is now simply that the technique of making a thing is an important factor in determining how much of it will be (actually or potentially) available. This judgment is, of course, of great importance for economic reasoning. But it is not the same as the judgment that production (in the *economic* sense) lies behind supply (in the *economic* sense); for it states a fact about industry, not about the value relationship. And between it and the assertion that consumption lies behind demand there is no symmetry or parallel.

11. Secondly, however, the shift in the meaning of "production" carries with it a consequential shift in "consumption". If the former refers to the processes of industry, then it is natural to think of the latter as referring to the results of

[1] Chapter X, pp. 171-2.

these processes. That is to say, consumption consists in the using of "finished" goods.

But the term "finished goods" is itself ambiguous. It may refer broadly to all products which are wholly manufactured and have reached their final physical form; or more narrowly to those products only which, once completed, pass finally out of the world of industry. Thus, machines and tools are finished goods in the first sense, but not in the second; since though the process of manufacturing *them* is completed, they remain a part of the productive process, being used solely to assist in the production of goods of other kinds. Now if when we speak of "production" we are thinking of the whole series of activities whereby goods are made and manufactured we shall naturally tend to adopt the second, rather than the first, of these two standpoints. We shall regard machines, etc., as representing *agents* in the productive process, but not as belonging to its ends or results. And "consumption" will come to be confined to the use and enjoyment of those goods only which represent the *final* goods which are desired for their own sake, and not merely as a means to further production. By "consumers", in fact, we shall mean those who consume final goods, so understood, and by "producers" those who are concerned, directly or indirectly, in the making of such goods.

Economists have been accustomed to mark the distinction between products which are useful in their own right and products which are useful solely as a means to further production by calling the former "consumption goods" and the latter "production goods".[1] The problems to which the distinction gives rise will be dealt with later on.[2] For the moment two points only need to be noticed.

(1) "Consumption" in the present context does *not* bear the meaning which is attached to it in ordinary language. The essence of "consuming" a thing in the usual sense rests, as we know, in so using it as to destroy its physical identity. We consume food and drink when we absorb it into our bodies so that it becomes part of our tissues; a fire or furnace

[1] Production goods are sometimes also called "capital" or "investment" goods. At times, also, the term is used not merely of finished goods useful in production but also of goods *in process of* production. But these points need not detain us for the moment.

[2] See below, pp. 194-5; Chapter XIV, pp. 251-4.

consumes coal when it causes the carbon in the coal to unite with oxygen so that it ceases to be an independent material object. This last example is of itself sufficient evidence that not all goods which are consumed in the physical sense are "consumption" goods; for from the industrial point of view coal is evidently an agent in the productive process—not one of its final results. On the other hand, *all* final goods are consumption goods in the present sense, whether or not they are physically destroyed. What matters here is simply that they are used for their own sake and not as a means to the production of something else.

(2) The difference between "consumption" in its present meaning and "economic" consumption, as defined in the early part of this chapter, is simply that the former is a particular species of the latter. Consumption in the earlier sense is the absorption of utility, whatever the nature of the utility, and every useful commodity, or service, is therefore consumed when and in so far as it is used. In the present context, on the other hand, only those goods are consumed which have a *direct* utility—i.e. which are desired for the immediate satisfactions which they yield their owner or user, and not for any indirect advantages which he may gain with their assistance. Consumers, in short, are the users of consumption goods.[1]

12. It will be worth while to dwell for a little on the significance of the producer-consumer relationship at which we have now arrived; for it plays an important part in current discussions of economic theory and policy. So long as we confine our attention to one particular consumption good, or to a set of closely related consumption goods, the distinction is clear and straightforward. There is no difficulty about the contrast between (for example) the makers of chairs and their users, or between the growers of fruit and the eaters of fruit. No doubt the two groups are not *completely* exclusive; chair-makers are themselves chair-users, and fruit-growers probably eat at least as much fruit as other people. But in any economy with a high degree of industrial specialisation the number of

[1] Cf. § 8, point (1) above, p. 185. It may be added that since the present meaning of consumption depends upon the contrast with production in its industrial sense it tends, like production, to be associated with *material* commodities. It would not be usual to speak of services and other immaterial forms of wealth as consumption goods.

people producing any commodity is likely to be very small in comparison with the number of people consuming it. And each producer will be far more important as a producer than he is as a consumer of his own product; that is to say, the fact that he is a consumer can be neglected when we wish to divide the community into those who make, and those who use, the commodity in question. Thus, when we say that the imposition of a tariff on foreign fruit will as a rule benefit fruit-growers and hurt consumers of fruit we are perfectly entitled to take that as meaning that it will benefit one group in the community and hurt another, different group.

The difficulties arise when we try to generalise this result. Every producer of one commodity is a consumer of other commodities, and most consumers are producers of *some* commodity. And if we wish to divide the community into two groups with reference to the production and consumption not of this or that particular product, but of consumable goods *in general*, we can no longer disregard the fact that each producer is also a consumer. For the producers as a whole constitute a very large proportion of the consumers, and our classification will be useless and misleading, at any rate for most purposes, if we confine the scope of the latter to that minority of persons who play no part whatever in the productive process.

This being so, we must now interpret the distinction as being first and foremost one between *two ways of looking at* people—not between two different *sets* of people. The same person is now at once a producer, in so far as he assists in the making of one or more types of commodity, and a consumer, in so far as he uses these and other commodities. "Consumers", then, are people *in their capacity as* consumers, and "producers" are people *in their capacity as* producers. The words have discarded their substantial reference and have become functional.[1]

In this form, indeed, the distinction, though analytically interesting, is of no great practical value. But under certain circumstances it may be modified still further in such a way as to make it really important. Take the case of a rise in prices which is not confined to one commodity but affects all con-

[1] See Chapter I, pp. 17-18.

sumption goods alike. If we say that this will benefit producers and hurt consumers, that in the first instance means simply that each individual is benefited *as* a producer, and hurt *as* a consumer—and also, of course, that those individuals who are consumers without being producers are hurt with no offsetting benefit. But it can mean more than this. For producers will not all be benefited *equally* by the rise in price. At first entrepreneurs only will gain, since for a time they will continue to pay the same price for the labour, land, etc., which they employ in the productive process. Later on, however, the rate of wages will rise, as also will the prices of raw materials and possibly also the rents paid for the use of land and other forms of property; so that ultimately *all* incomes may climb up to correspond with the new level of commodity prices. Now when this process is completed—if it ever is—each individual gains as a producer to exactly the extent to which he loses as a consumer, and nobody is either better or worse off than he was at the beginning. But until then the community is divisible into two clearly contrasted groups: the first comprising all those whose incomes have either not risen at all or have risen less than proportionately to the rise in commodity prices, the second comprising those whose incomes have risen *more* than proportionately to the rise in commodity prices. The former group has been hurt on balance by the change, the latter benefited. And this is so because the former group has suffered more on the consumption side than it has gained on the production side, whereas the other group has suffered *less* than it has gained. In the one case the consumer aspect is dominant, in the other the producer aspect. Since, then, it is perfectly natural and reasonable to describe each group by its dominant aspect, the contrast between them comes to be described as a contrast between "consumers" and "producers". "Consumers" now means people with fixed, or relatively "sticky" incomes (rentiers, teachers, and the like, also wage-earners in the *early* stages of the process), while "producers" means people with relatively variable incomes (entrepreneurs and profit-makers generally, perhaps also wage-earners in the *later* stages of the process). With these definitions it is both accurate and important to say that a rise in the prices of consumption goods will tend to benefit producers and hurt consumers. Con-

versely, a fall in the prices of consumption goods will tend to hurt the former and benefit the latter.[1]

It is clear, then, that we can attach a practically useful significance to the consumer-producer relationship, even with reference to production in general, if we first "functionalise" it into a distinction between two aspects of the same individuals, and then "substantialise" it again by dividing the individuals into two groups according as the one aspect or the other is dominant.

13. Two further points remain. (1) The contrast between the production and consumption of *consumption goods* is unlike that between the production and consumption of *utilities* in being wholly unsymmetrical. Production is now a matter of industrial and manufacturing technique, while consumption is the final use which is made of the results of that technique. Both, indeed, have their economic aspects; but neither are *essentially* economic in interest. We shall expect the former to be studied at least as closely by the technologist, and the latter by the sociologist or the psychologist, as by the student of economics. And there is no ground whatever for supposing that in so far as they do come within the province of the economist there is any analogy or parallel between them.

This has not always been remembered. Thus, many economists have believed that because one of the traditional sections of books on economic theory is devoted to the exposition of the "theory of Production" there ought also to be a section of equal status entitled "the theory of Consumption". This might be a legitimate conclusion if the Theory of Production were concerned with the production of utilities; for if one aspect of economic choices and of exchange transactions is worth treating separately, then so presumably is the other. But in fact the subjects dealt with under this head are connected by their all having to do with economic aspects of

[1] The subject-matter of this paragraph is thoroughly familiar to all students of economic problems, and most post-war textbooks discuss its significance. (See, for example, Taussig, *Principles*, chap. xxii, Gide, *Cours*, Book II, chap. iv. § 3.) It may perhaps be worth while adding that the conclusion reached in the text sheds as it stands no light whatever on the question whether a rise or a fall in the prices of consumable goods will benefit the community *as a whole*, or will hurt it. We cannot draw from it arguments in favour of, or against, either inflation or deflation—any more than we can show the desirability or undesirability of Protection for home-grown fruit merely by drawing attention to its advantages for fruit-growers on the one hand, or to its disadvantages for fruit-consumers on the other.

technical production; they include such topics as the classification of the various elements which co-operate in the productive process, the nature and growth of capital, the tendency of agriculture to diminishing returns, and so on. And whatever we may think of the merits of arranging such subjects together in one section or division,[1] it is at any rate clear that from the existence of a theory of Production *in this sense* no case whatever can be made out for a corresponding theory of Consumption. If there *are* subjects which can suitably be assembled under the latter head that is an independent and fortuitous circumstance.[2]

On the other hand, the theory of co-operative enterprise has sometimes been unnecessarily obscured by the opposite confusion. When we distinguish between consumers' and producers' co-operative societies we should understand the words in their economic, not in their technical reference. The essence of the consumers' co-operative movement is *not* that it is a way whereby the buyers of *consumption goods* organise their own supplies of these goods, but that it is a device for transferring the control of *any* commodity or service away from an independent entrepreneur or middleman into the hands of the users of that commodity. It is from the theoretical point of view a pure accident that the outstanding example of consumers' co-operation started with the elimination of the retail trader in final consumption goods. Theoretically speaking co-operative banks are *consumers'* societies: for the members of such societies, though in the industrial sense producers, are yet consumers in respect of the services with which they are providing themselves. Producers' co-operation, on the other hand, arises when the entrepreneurial function is taken over by a group of *sellers*—i.e. of individuals —labourers, farmers, or whatever they may be—who formerly sold their services to an independent entrepreneur or middleman, but who now replace the latter with their own organisation. The arguments for and against both types must run on

[1] Its disadvantages have been emphasised by (for example) Robbins, *Nature and Significance*, pp. 63 ff. Cf. also below, Chapter XVII, p. 351 and n.

[2] The Theory of Consumption has been held by various writers to comprise the following topics (among others): the nature of utility, the economic consequences of inequalities of incomes, the social significance of economic progress, the economics of advertising, the supply of savings, and the significance for economic theory of pawnshops and drunkenness.

the same broad lines: whether or not it is desirable, in the interests of the persons concerned—the "consumers" or the "producers"; that is to say, the buyers or the sellers—to act as their own entrepreneurs. The case in favour of so doing rests on the likelihood of inefficiency or exploitation on the part of independent entrepreneurs or middlemen; that against rests on the argument that enterprise has a function of its own in the economic system, and that specialisation as between it and other forms of economic activity is likely, here as always, to be in the interests of all concerned. This issue is a clear one, so stated; but it is concealed and lost if we assume that the essential distinction among co-operative enterprises turns on the contrast between workers, farmers, and small business men, on the one hand, and the consumers of consumption goods on the other.

(2) The distinction between production goods and consumption goods, we have seen, is fundamentally one between means and end. Production goods, that is to say, include all those goods which are not useful in their own right, but which may help towards the making of goods which *are* so useful. This is a negative definition, however. It amounts simply to saying that a production good is a non-consumption good. And among non-consumption goods must be included *all* the things desired and purchased by manufacturers and dealers—their raw materials, their factories and machines, the services of their employees, and so on. Not merely that, but if we are consistent we must count as non-consumption goods much that lies outside the productive process in the narrow sense. Thus, finished articles in the hands of a wholesaler or a speculator are still "production" goods, since they are not by the present definition "consumed" by their owner, being useful to him simply because he hopes to be able to pass them on, at a suitable time or place, to some other person.

So heterogeneous an assortment of goods and services cannot be regarded as forming a satisfactory "class"; and it is only natural that we should subject the concept of a non-consumption good to further analysis. It can be seen to comprise two main commodity groups: first, what may be called the "original elements" in the productive process, and secondly, such commodities as emerge during the course of

that process. Production, we know, involves the co-operation of various types of agency. If the product is material there must be a material basis on which to start; almost certainly human labour will be required for converting that material into its finished form; natural forces, such as wind or water power, may also be necessary; a knowledge of productive techniques must be present. These and other such agencies represent the *data*, or prerequisites, of production. They are what must be available if the final product is to come into being. And there is a clear, if provisional, distinction between them and such things as tools, or half-finished goods, in that the latter represent not *prerequisites* of production but *stages* in the productive process itself.

We thus have a tripartite classification of commodities. At the one extreme are the final goods, which represent the *end* of production; at the other extreme are the original elements, which represent the *data* of production; and in between them are interim products or "intermediate goods"—goods which though themselves produced are not intended, or are not yet ready, for consumption in the narrow sense.

The contents of these three classes will be examined in subsequent chapters.[1] What concerns us here is to observe their relevance for the understanding of the producer-consumer relation. If we think of the consumer *par excellence* as being the user of final or consumption goods, then it seems reasonable by analogy to think of the producer *par excellence* as being the person who provides the "original elements" of the productive process. Those who deal in intermediate goods are in the wide sense both producers and consumers, since they provide things which are useful (in one way or another) to those who buy them, and also acquire and use things which have a utility to themselves. But just as the productive process ends with consumption goods and the "final" consumer, so it begins with original resources and the "initial" producer. In this way we arrive at a third—and last—way in which the contrast between production and consumption can be understood. In a sense it is a synthesis between the other two. For just as the final consumers are consumers in both the "economic" and the "industrial" senses of the word, so the initial producers are in both senses producers. The

[1] See below, Chapters XII, pp. 204 ff., XIII, p. 230, XIV, pp. 251 ff.

two groups represent the extreme poles of the productive process.[1]

Here, once more, there is a close parallel with the contrast between supply and demand. We saw in the last chapter that a measure of symmetry could be discovered between these concepts *if* supply were understood of the willingness of people to part with "original resources" and demand of the willingness of people to acquire the finished goods which these resources could yield. But just as the "demanders" in this sense are the final consumers, so the "suppliers" are the initial producers. The one contrast lies behind the other, as before; and as before the difference between them is simply that the first is concerned with selling and buying in the market-place, whereas the second is concerned with the creation and absorption of utilities. In the first the emphasis is on exchange, in the second upon the reasons why exchange and production are worth while.

14. Let us now summarise the main results which this chapter has yielded.

(1) We start with the production and consumption of *utilities* (the "economic" sense of the words). On this basis the contrast can be interpreted in *two* ways:

(*a*) When it refers to one individual who is working for his own personal consumption it is a way of expressing the distinction between those activities which *create* utility (to be enjoyed subsequently) and those activities which represent the enjoyment or *absorption* of utility.

(*b*) In an exchange economy people are producers when they provide useful commodities, and consumers when they receive them. This distinction applies to *all* exchange transactions, regardless of whether the commodity exchanged is a consumption good or anything else.

(2) When production is used in its technical or industrial

[1] To speak of "original" elements and of "initial" producers does not, of course, mean that all the prerequisites of production have to be in existence before the productive process begins. On the contrary, original resources are regularly employed throughout its whole course—in the form, e.g. of the labour of factory workers, transport agents, shop assistants, and possibly domestic servants. The distinction between them and intermediate goods is analytical, not temporal. It is that between the resources which have to be available (at whatever time) for production to be carried through to its end, and the resources (or goods) which *emerge* during its course.

The distinction is not an absolute one, however; see below, Chapter XIII, p. 230.

sense, consumption comes to be used solely of the using of final or consumption goods. We then have the following possibilities:

(*a*) With respect to any one consumption good the producers are those who make it, or assist in making it, while the consumers are those who buy and use it. It is presumed that these two groups can in general be treated as being mutually exclusive.

(*b*) With respect to consumption goods in general the distinction becomes functional in reference, indicating a contrast between two different aspects, or capacities, of the same persons.

(*c*) We may understand by the consumers those persons whose incomes are relatively unchangeable, and by the producers those persons whose incomes are relatively changeable, in response to a rise or fall in the prices of consumption goods.

(3) Finally, the distinction may be understood with reference to the contrast between final goods and original resources. Producers are then the owners of such resources, and production consists in making them available, in the productive process, for the creation of final goods and utilities.

CHAPTER XII

"FACTOR OF PRODUCTION"

1. THE concept of a factor of production arises when we try to give precision to what in the last chapter were vaguely described as "original resources" or "original productive elements". We have seen that they represent the *data* or prerequisites of the productive process, and that they are to be distinguished both from final products and also—at least provisionally—from intermediate goods; since these categories constitute respectively the results of, and the stages in, that process. Now this by itself does not carry us very far. For most purposes we shall want to know not merely that there are such things as original elements of production, but also wherein they consist. And since we cannot compile an exhaustive catalogue of them, this must mean sorting them out into groups or types. That is to say, we have to enquire what main *kinds* of agency or element are involved in the production of final goods.

There is, of course, no *a priori* certainty that such a classification will be helpful, or even possible. But in general economists have considered it to be worth attempting. Not merely that, but they are to a large extent in agreement as to the actual groups to be distinguished. In the early days of the science there were three such groups: "land", "labour", and "capital"; to which in more recent times a fourth, "enterprise", has been added. Each of these types is called an agent or "*factor* of production". And we may thus define a factor of production as a group or class of original productive resources.[1]

[1] The term "agent of production" is now tending to go out of use. It would have been convenient to be able to apply it, not to the productive elements themselves but to their owners. In that case we might have contrasted (e.g.) labour and enterprise, the "factors", with labourers and entrepreneurs, the "agents". But such a usage is not recognised at present and there is no point in trying to introduce it. In what follows we shall speak of labourers, etc., either as "factor owners" or simply as (initial) "producers".

2. Let us examine the concept, so defined. Two points are worthy of attention.

(1) In the first place the distinction between a "factor of production" and a "productive element" is essentially the same as that which we found occasion to draw between a commodity class and a commodity unit.[1] On this point linguistic usage is a little misleading; for whereas (as we saw) the term "commodity" may be used either of a *class* of goods or of any particular member of such a class, it is almost invariable to confine "factor of production" to the former denotation, the individual members of each factor being known as "units" of the factor, or more vaguely as units of productive resources. But if we are prepared to talk not simply of "commodities" but of commodity classes and commodity units, then it is natural to talk also of factor classes and factor units. For factors of production are themselves simply commodities of a particular kind. They are things which are bought and sold, which have a utility and a cost, and whose value needs investigation in the same sort of way as does the value of all other commodities.

(2) The concept of a factor of production has in the last analysis a functional, not a substantial, reference. Units of labour or land, for example, are only factor units in the strict sense in so far as they are used for productive purposes. If they are not so used—if the worker devotes his time and energies to exercise or amusement, or if the landowner uses his land as a private garden or park instead of leasing it to a farmer—then they are not factors of production but consumption goods.[2] Not merely that, but units of resources may be production goods and consumption goods *at the same time*: as when a labourer enjoys his work or a landlord hunts foxes over his tenants' fields.[3] When we speak of resources as constituting "factors of production", therefore, it must be understood that we are abstracting from the direct utilities which they may occasionally or indirectly yield. We are concerned with them, in fact, *in their capacity as* contributing to the productive process.

Even so, however, the concept is not wholly unambiguous. For how are we to treat resources that are *unemployed*—i.e.

[1] See above, Chapter VIII, pp. 126-7. [2] See, however, next paragraph.
[3] Cf. Chapter II above, p. 27, Chapter XIV below, pp. 247-8.

that are not used for productive purposes without being in any natural sense valued as consumption goods.[1] If we are strictly functional we must exclude these from our catalogue of factor units; and we shall then refuse to discriminate, so far as the definition of productive resources is concerned, between the labour power of an unemployed worker and that of a gentleman of leisure, or between a piece of waste land in the centre of a city and a country estate or a deer forest. Under some circumstances this is perhaps a legitimate point of view. But for discussions of economic progress and policy it is obviously inappropriate. "Unemployed" resources are important as being *potentially* productive. And if we are interested, not simply in the situation as regards production and consumption at a given moment but also in the possibility of *expanding* production and of overcoming unemployment, then we shall naturally revert to a "substantial" interpretation of factors of production; "land" and "labour" will include the human and natural resources which are *available* for production, as well as those which are actually engaged in productive employment.

3. These preliminaries being completed, let us turn to a more concrete examination of factor units and factor classes. It will be convenient to start with the units. How are we to fix on a unit for measuring and computing amounts of factors of production? This is really a double problem; since it involves the questions, first, what *system* of measurement is to be adopted, and secondly, what is to be the actual unit within the system chosen.

(1) The former question is not so simple as it looks. In the case of consumption commodities it was obvious and natural, we saw, to think in terms of physical quantities—bushels of wheat, tons of coal, braces of partridge, and so on.[2] Correspondingly we may try to think in terms of "amounts" of the factors of production—acres of land, numbers of labourers, etc.[3] But there are two grounds on which these "natural"

[1] "Unemployment", as the word is ordinarily understood, is simply involuntary and wasteful leisure.

[2] Chapter VIII, p. 127.

[3] We must confine ourselves for the time being to the two factor classes, land and labour, since nothing can be said specifically about the others until we have discovered more precisely in what sense they are factor classes. Most of what is said in this chapter, however, about any one factor class applies also, *mutatis mutandis*, to the others.

units may turn out to be unsatisfactory. In the first place, factors of production are generally made available to industry for a longer or shorter period of time, and the amount actually bought will vary accordingly. Thus a farmer who employs two men for three hundred days consumes no less labour than a contractor who employs ten men for sixty days or a hundred men for six days. We must therefore correct our natural units in terms of time, and speak of man-days of labour, acre-years of land, and so on.[1] Secondly, however, resources may differ in *efficiency*. One acre of land may be more fertile, one labourer more able or hard-working than another. And it may be necessary to allow for these differences too. If so, we shall try to measure labour in terms of work done; so that if of two labourers one can do twice as much work as the other in a given time, then the more efficient will be treated as possessing twice as many units of labour as his less efficient rival. In the same way units of land will be calculated in terms not of acres but of *produce yielded* per acre. But "efficiency units" of this type are as a general rule not at all easy to work with, at any rate when we are considering the productive process as a whole; and so far as elementary expositions of value theory are concerned it is usually best to think in terms of "natural" units, corrected for time alone.[2]

(2) Once the system of measurement is decided upon, it is a matter of pure convenience what quantity or amount is chosen as the actual unit. Labourers are usually employed as individuals, and by the day or week; so it may be natural to regard a man-day or man-week as the standard unit of labour. For many purposes, however, a smaller unit, such as a man-hour, may be desirable. So, too, with land: we may

[1] This correction, it may be pointed out, is also necessary for consumption goods which are *long-lived*—at any rate when they are not owned but hired or rented by their consumers. See on these below, Chapters XIV, pp. 263-4, XVI, p. 334.

[2] The problems connected with "efficiency units" are extremely complicated, but lie well outside the scope of the present book. It will perhaps be sufficient to have called attention to the distinction between them and "natural" units. (Cf. also Robinson, *Imperfect Competition*, pp. 19, 332. Mrs Robinson gives the name "corrected natural units" to what we have called "efficiency units", reserving the latter title for a special kind of unit which is designed to impute to any one factor class the results of economies (or diseconomies) brought about by changing the scale of production (*ibid.* pp. 343-5). It is, however, highly doubtful whether such units as these are in any proper sense *factor* units.)

On units of labour see (for example) Douglas, *Wages*, pp. 14-16.

think in terms of square miles or acres or square yards, and in terms of months or years or even centuries, according to the purpose in hand. Broadly speaking, the unit for factors, as for consumption goods, will tend to be the smallest amount that is regularly bought and sold in the market under consideration.[1]

4. Let us turn now to the concept of a factor class. It is obviously an aggregate of factor units; and the units comprising it must be like one another, and unlike the members of other classes in having a common property or "class differentia". Thus, if labour and land form two distinct factor classes, that is because every unit of labour is in a more or less clearly definable sense like every other unit of labour and unlike every unit of land. Moreover, if our classification of factor units is to be satisfactory it must be both exhaustive and non-overlapping; that is to say, every factor unit must fall into one, and no unit into more than one, of the classes distinguished.[2]

What, then, are the specific attributes with reference to which the classification is to be constructed? What, in other words, is to be the *fundamentum divisionis* of the genus "productive element" into the various species of factors of production?

The answer to this question on the face of it follows immediately from what has already been said. If factors of production are kinds of commodities, and if our interest in them turns upon the forces determining their value, then the same principle of classification must apply as is economically relevant in the case of consumption goods. That principle, as we know, is *substitutability*. A true factor class, like a true commodity class, must be composed of members which are for practical purposes interchangeable or "substitutable"—which are, in fact, identical in all relevant respects. And the members of any class will possess a relatively low degree of substitutability with the members of every other class. This must be the criterion of the extent to which any scheme of

[1] Cf. above, Chapter VIII, p. 127.

[2] This last condition, of course, must be understood functionally, not substantially (in the light of what was said in § 2); that is to say, we do not mean that a given unit must be incapable of falling into more than one class at the same time, but merely that *in so far as* it belongs to one class it is *to that extent* excluded from all others.

factor classification—whether the conventional quadripartite scheme or another—is genuinely satisfactory for the purposes of value theory.[1]

This point is so important as to be worth dwelling on for a little time, even at the cost of some repetition and anticipation. The essential problem which leads economists to enquire into the nature and main types of productive resources is the problem of value. Their object is to ascertain the principles on which the ratios of exchange of factor units, both with one another and with consumption goods, are determined. The interest of this enquiry is a double one. On the one hand it is part of value theory in general—both because factors of production are themselves commodities and also because upon them depend the costs of production of consumption goods. And secondly, it provides the main part of the answer to the problem of *distribution*; for in an industrial economy the prices paid for factors of production are the chief source of *incomes*, and when we have explained how these prices are determined we have gone a long distance towards accounting for the way in which the community's wealth is shared among its citizens. Now, as we have seen, the theory of value in the narrower sense is enormously simplified if it can be assumed that consumption goods form a series of "commodity classes", each one consisting of completely substitutable units; indeed it is only on this assumption that the concept of marginal utility is properly intelligible. It is reasonable to hold that the same conditions will hold for factors of production; that they too must be capable of being treated in this way if we are to make much headway in discovering the forces which determine their value.

Moreover, there is a *prima facie* case for supposing that no great violence will be done to the facts by such a procedure. For just as the value of any one cigarette or apple is influenced by, and tends to equal, that of other cigarettes or apples, so the wages paid to any labourer will tend to be the same as those paid to other labourers in the same economic position. Similarly, with other types of productive resources; we are accustomed to talk of the "capital market" and of "markets" in real property and land. And it is therefore natural, and

[1] On "substitutability" see above, Chapter V, pp. 82-3, Chapter VIII, pp. 127 ff.

indeed inevitable, that we should found our theory of factor values on the postulate that productive resources fall into groups, or classes, each with a "perfect" market and a single price. This, of course, will not solve the whole problem, however accurately it corresponds with facts; for we shall still have to explain the *differences* in the values of different factor classes, and to show how, for example, a rise in rents will affect the value of labour, or a rise in wages that of land. But at least it will give us a starting-point. We shall have succeeded in dividing the problem into stages. And once so divided it need not be unconquerable.

For the purposes of value theory, then, a factor class must be a group of mutually substitutable units. This provides us with a double criterion whereby to judge the economic fitness of any scheme of factor classification which is actually adopted or proposed. On the one hand the classes in which it issues must each have a single price; and on the other hand the units of *different* classes must be substantially different from one another and their values must be capable of diverging. Or in other words, each factor class must be characterised by a high degree of *internal* substitutability and a relatively low degree of *external* substitutability.

5. How far is the orthodox classification adequate, judged by these tests? The answer is obvious: it is not adequate at all. None of the four traditional classes (with the possible exception of capital) remotely resembles a "group of mutually substitutable units". Not merely are their members heterogeneous in nature and divergent in value; but it is also not uncommon for units belonging to one class to be more readily interchangeable with units belonging to another than with its own fellows. Alike in respect of "internal" and of "external" substitutability the analysis of productive resources into land, labour, capital, and enterprise is unsatisfactory and misleading.

It is not necessary to labour these points, both because they are sufficiently familiar to all students of economics, and also because any discussion of them must follow closely the line of argument already developed in connection with consumption goods.[1] Thus, if it is difficult to regard "cigarettes" as forming in the strict sense a commodity class, it is not less difficult to

[1] Chapter VIII, pp. 128-31.

regard "land" or "labour" as forming genuine factor classes. The former, though its precise meaning is not always completely clear (as we shall see in due course) is yet wont to include *all* natural resources—not merely fields and urban sites, but also mines and forests, lakes and oceans, waterfalls, even weather and climate. Similarly "labour" includes *all* expenditure of human efforts and energies, and not merely do the "labourers" of the world fall into a number of big economic groups between which no effective interchange is possible, but within each group there is a wide diversity of talents and special skill.[1] All this is sufficiently obvious. But it means that land and labour are not factor *classes* in the strict economic sense. At best they are groups or aggregates of a large and varied assortment of such classes.

So, too, with the other side of the problem. It is a commonplace of economic theory that one factor of production may often be substituted for another which is from the physical point of view totally dissimilar to it. The same volume of wheat can be raised from a large area of land with a small labouring force as from a small area of land with a large labouring force; a small fall in the rate of interest (i.e. the value of "capital") may lead to extensive substitutions of capital for labour; and so on. Indeed, one of the main problems confronting an entrepreneur—as has constantly been pointed out since the time of Marshall[2]—is the adjustment of his demand for productive resources in the light of their current values, and the substitution of one factor class for another (or of a sub-group of one for another sub-group of the same class) whenever a shift in their prices makes it worth while. Judged by this test no less than by the other, the orthodox classification of factors of production fails miserably if it is intended as a device for investigating the value of productive resources.

6. From this conclusion two further questions emerge. First, why do the four factor classes retain their place in economic analysis? Given that they do not consist of genuinely substitutable units, is there any *other* purpose which they may serve, and which justifies the attention they continue to

[1] This fact was of course known to the earlier economists, but was not formally admitted until Cairnes enunciated (without elaborating) his famous principle of "non-competing groups". See his *Leading Principles*, pp. 65-8.

[2] *Principles*, p. 170 and n. etc.

receive? And secondly, is any alternative scheme of classification available which would be more successful in satisfying the needs of value theory?

7. To the first question no finally adequate answer can be given—except perhaps by a psychologist. To some extent, no doubt, it can be explained in terms of inertia or conservatism: the grouping of factors of production dates from the birth of economics as a science, and its abandonment would entail a radical reorganisation of the vast body of material which economic theory now comprises. To some extent, also, it is due to considerations of exposition: the concepts of labour and land are easily grasped by the student, whereas that of a class of perfectly substitutable units is not, and it is a matter of obvious common sense to start with simple concepts, modifying them progressively as the exposition proceeds.[1] Moreover, it may be felt that though defective the traditional classification provides at least as close an approximation to the ideal as any other equally intelligible one that might be devised. This last point we have promised to consider in due course. Meanwhile let us merely note that if it is true, it provides a complete justification for allowing considerations of conservatism and expository convenience to be decisive.

In addition, however, there are at least two grounds on which economists may feel inclined to defend the traditional classification, altogether independent of its status in respect of substitutability. In the first place, it seems to correspond reasonably well with the *technical* facts of the case; and secondly, it issues in a classification of *incomes* which has every appearance of being important and illuminating. Let us examine these two lines of defence.

(1) We saw at the beginning of this chapter that the concept of a factor of production arises from the contemplation of the productive process; that in the first instance it refers to the "original elements" which make production in the technical sense possible. This being so, it may be argued that we are distorting and abusing it when we press it into the service of value theory and treat a factor class as though it were simply a particular kind of commodity class. Ought we not to

[1] Cf. Wicksell, *Lectures*, vol. i, p. 124: "'Land' and 'labour' are only to be taken as *types* [my italics] of two independent factors of production". Cf. also Knight, *Risk, Uncertainty, and Profit*, p. 105.

judge the four orthodox factors by technical, rather than by strictly economic standards? What right have we to reject a system of classifying productive resources merely because it does not satisfy the tests of substitutability? If it is adequate on technical grounds—if it represents a satisfactory account of the various types of agency, distinguished on physical and industrial grounds, which enter into the process whereby goods are made—then it is surely doing all that can legitimately be expected of it.

This is, of course, a perfectly tenable point of view, provided that it is really adhered to. If economists believe that it is important for their purposes to analyse the productive process in its technical aspects and to classify the elements which co-operate therein, and if they are also satisfied that the four orthodox factors of production meet their needs in this respect, then there is no more to be said. But *is* the traditional classification satisfactory from the technical standpoint? And *do* economists really want it, not for value analysis but simply as a means of exhibiting the main physical types of productive agencies?

Half a century ago it might have been plausible to answer these questions in the affirmative. At that time there were only three generally recognised agents or factors of production—land, labour, and capital. The first covered natural resources and raw materials, the second, human energies and efforts, and the third, the tools and equipment necessary to give full effect to the other two.[1] Now there is a good *prima facie* case for regarding this list of factors as being thoroughly satisfactory from the technical point of view. Each item is both intelligible in itself and readily distinguishable from the other two; between them they seem to cover all the agents which can be regarded as actively participating in the processes of production; and while the third is in a sense derived from the other two, in that tools and equipment are themselves the product of labour and natural resources, yet its specific function in any given piece of productive work is sufficiently well defined and distinct to justify its inclusion as a separate and independent agent. No serious qualms need

[1] As we shall see in Chapter XIV, Mill and his allies did not *confine* the scope of "capital" to productive equipment. But for the moment it is with productive equipment that we are concerned.

therefore be felt in accepting the tripartite classification of the earlier economists on its *technical* merits; though we are of course still entitled to doubt whether it is not confusing and dangerous for the purposes of value theory.

Since that time, however, two significant changes have taken place in the general treatment of the problem. In the first place, "capital" as a factor of production has come to be associated, not with tools and machinery but with the function of "waiting" or accumulating; and secondly, "enterprise", the function of initiating production and/or of bearing the risks and uncertainties connected therewith, has acquired the status of a fourth factor, independent of the other three, at least in theory, and co-equal with them. And these corrections have altered the scope and meaning of the concept of a factor of production to an extent which has not always been fully realised. For neither "waiting" nor "uncertainty-bearing" are in any natural sense active participants in the productive process. They are important—and indeed indispensable—*conditions* of that process; for little if any production could take place without them. But they are not *parts* of it, nor elements in it.[1]

It may be held, however, that if our analysis of the factors which co-operate in production is to be complete it must include passive as well as active factors; that we have no right to refuse to waiting or uncertainty-bearing the name "factor of production" merely because they happen not to be so intimately bound up with the actual technical processes whereby goods are made as are labour and natural resources. And we do not need to quarrel with this contention; indeed, the distinction between active and passive factors, between "conditions" and "participating agents" is at best one of degree, and would hardly stand up before a rigid logical analysis. But what happens if we adopt this wider point of view? Everything is now to be regarded as a factor of production the presence of which is indispensable if production in the industrial sense is to be carried on. Capital (in the sense of "waiting") and enterprise are therefore factors no less than land and labour; for without them no production

[1] Pigou therefore describes them as "sources" of factors of production (*Stationary States*, p. 26). On this matter see further below, Chapters XIV, pp. 135-7, XV, p. 319 n.

could be carried on except of the simplest and most primitive kinds. Unfortunately, however, we cannot stop there. Our list of "indispensable conditions" will not be complete without the addition of at least three further items. First, there must be available the knowledge of technique—of how to apply labour to material resources so as to yield the desired product. Secondly, there must be some guarantee that the productive process can be carried on in peace and security, and that any contracts entered into by the persons concerned in it will be observed and can be if necessary enforced—in other words, there must be some degree of law and order. Thirdly, there must be someone who will consume—or at any rate pay for—the product. Without the presence of these conditions production on any large or elaborate scale will be impossible; and in any scale at all it will be difficult and wasteful.[1] From the present point of view, therefore, technique, law and order, and consumers, are all "factors of production".

The first two of these "extra factors" (as we may call them) are, indeed, interlocked with the traditional four in the most complicated ways. Thus, an advance in technique may reduce the amount of labour, or land, or capital, required to yield a given product; or on the contrary it may make it worth while to *increase* the amount of capital employed with a view to bringing about a more than proportionate decrease in labour (or land). Again, the greater is the political and social security in any community, the less hazardous will the productive process tend to become; that is to say, the factor-class "law and order" may to some extent be substituted for the factor-class enterprise. But they are physically quite distinct; technique is not a *kind* of waiting, nor law and order a *kind* of uncertainty-bearing.[2] In this respect the third extra factor might seem to be in a somewhat different position

[1] Perhaps we ought to add as a further "indispensable condition" the existence of a monetary system—without which, as we already know, no large degree of industrial specialisation could take place.

[2] It might, indeed, be claimed that law and order is derived from a certain kind of *labour*—viz. the labour of statesmen and lawyers, soldiers and policemen. But this will not do. Law and order primarily depend upon the law-abidingness of the citizens in the community—so, at least, most political philosophers would hold—and this is a habit or disposition which is certainly not reducible to any of the orthodox factor classes.

So, too, with technique. We can no doubt regard this as a form of "capital" if we mean by that word productive equipment—but not if we associate it with "waiting".

from the first two, in that it is so completely distinct from all other factors of production, being, in fact, the end, or "final cause", of production, and not in any sense its means. Even this, however, is not quite correct; for we are perfectly at liberty, if we choose, to treat expenditure on advertising as a way of purchasing the factor-class "consumption"; or to say that if with increasing sales the efficiency of the productive process rises that represents a "substitution", of this factor class for one or more of the others.[1] In any case, however, there can be no doubt that on the definition at present under consideration, consumption is no less a factor of production than is technique or law and order. All three must be included in any list which claims to be a complete account of the agencies whose co-operation make the productive process possible.

Why, then, do economists as a rule refuse to recognise these further elements as constituting "factors of production"? The answer is obvious; because they are *not* interested in analysing technical processes as such. The investigations into production in the industrial sense occupy a strictly subordinate place in the corpus of economic theory. Factors of production are examined and classified not for their own sake but simply and solely for the light they may throw on the problems of value and distribution. And from this latter point of view the three extra factors seem to be of little importance. Technical knowledge is either a "free good" (viz. when it is part of the general heritage of the community), or else its cost falls under those of either labour or capital (viz. when it is the private equipment of specially trained and highly paid workers, or when it has to be acquired by the buying up of patents or the institution of research laboratories). So, too, law and order is in general a free good, in the sense that any payment which must be made for it will presumably come out of general taxation and will not be counted as a specific expense of production at all.[2] Finally, consumers are treated

[1] This point of view was in effect adopted by Wicksteed in his *Co-ordination of the Laws of Distribution*. As regards the treatment of advertising there is still much divergence of opinion among economists. For our present purpose all that is necessary is to note that it *can* be regarded as the cost of the factor-class "consumption". In the same way tax payments can—and perhaps should—be regarded as the cost of the factor-class "law and order" (see next note).

[2] This is only true on the assumption that the entrepreneur will not be able to vary the *amount* of "law and order", or security, by variations in the taxes he

fully by economic theory in their capacity as buyers of the product. They, too, represent no part of the expenses which the entrepreneur has to incur, except (as we have seen) in so far as their custom has to be acquired and maintained by advertising or by the various devices of salesmanship; and these expenses, like those connected with technique, can always be regarded as falling under the head of labour or capital. The rationale of all this rests precisely in the fact that the classification of factors of production is believed to have an *economic* significance; that its purpose is to further the solution of the fundamental problems of value and scarcity. And a defence of the orthodox classes on the ground of their industrial or *technical* significance is not merely weak in itself (as the last few paragraphs have shewn) but is also irrelevant to the uses to which they are in fact put.[1]

(2) Can we then defend the traditional classification on *distributional* grounds? We have seen that the interest of the problem arises in part from the fact that the value of productive resources determines the incomes of the producers. And the most important single consequence of dividing these resources into the factor classes land, labour, capital, and enterprise, is that they indicate four types of income—rent, wages, interest, and profit. If, therefore, it is held that this fourfold classification of *incomes* is helpful and illuminating for economic purposes, then here is a further ground for retaining the corresponding classification of factors, quite apart from whether they are adequate either technically or from the point of view of value theory in the strict sense.

As before, we need have no complaint against this procedure on logical grounds, so long as its significance is clearly grasped. It might, indeed, be felt that if the four factor classes are distinguished with reference purely to the types of income

pays. If this assumption is invalid—if, for example, he has to bribe racketeers to prevent their interfering with his work, or has to hire a private militia to guard his factory—then law and order might have to be included, even for economic purposes, among the list of factors of production. And it can be argued that the development of the theory of Public Finance has been seriously impeded, at any rate in Great Britain, by the assumption that tax payments are wholly "unproductive"—i.e. that the State is not in any relevant sense a factor of production. (See on this De Viti De Marco, *Economia Finanziaria*, especially chap. i.)

On "free goods" see Supplementary Note 3 on p. 378.

[1] For a vigorous attack on the traditional factor classification on the ground of its technical inadequacy, see Davenport, *Economics of Enterprise*, chap. xxii.

which they yield, they ought to be called factors of *distribution*, rather than of production.[1] But this is merely a question of terminology. Provided it is clearly realised that we are not analysing the productive process and that our results have no place in the theory of production, it does not in the least matter what name we apply to the classes we distinguish. But there are at least three dangers against which we must be on our guard, if we decide to retain the orthodox factor classes for their distributional relevance.

In the first place, the factor classification is now being defended because it issues in a useful classification of incomes. And we cannot therefore justify the latter on the ground that it follows from the former. If it is true that the analysis of incomes into rent, wages, interest, and profit contributes to an understanding of the economic world in which we live, then that is something which must be capable of being established on its own merits. We must be able to shew, for example, that it corresponds broadly with the main economic classes into which society is divided—that it has a social or political reality of its own which entitles it to be treated as a "significant generalisation" for economic purposes. Or we must be satisfied that, for example, the receivers of "wages" have economic interests in common, distinct from, and perhaps in conflict with, the economic interests of those who receive "rent" or "profit". How far a convincing case can in fact be made out along these lines for the conventional classification of incomes is a question which need not be discussed here. The point is simply that its economic importance must not be taken as self-evident, or as flowing directly from the accepted classification of factors of production.[2]

[1] Pigou describes them as "factors of production of income" (*Stationary States*, p. 23).

[2] In Ricardo's day the then current tripartite division of incomes—into rent, wages, and profit—seems to have corresponded closely with a genuine cleavage of economic interests as between landowners, labourers, and manufacturers. At the present time the situation is by no means so clear. For some purposes (e.g. in particular, the issue of capitalism versus socialism) the division seems to fall between *small* labour incomes on the one hand, and large labour incomes plus all non-labour incomes on the other. For the most part, however, conflicts of interest tend to cut across the accepted income groups, running as they do in terms of sheltered versus unsheltered trades, fixed incomes versus variable incomes, skilled work versus unskilled work, town dwellers versus country dwellers, and so on.

In any case it should be noted that the most important cleavages among income receivers will almost certainly change from decade to decade, and that

Secondly, we have no ground for assuming that the relationship of factor to income is the same for all four classes. So far as the first three are concerned it is plausible to conceive of the relationship in terms of price or "reward". Units of land, labour and capital, however they are understood and distinguished from one another, are at any rate all of them *commodity* units: and each producer of them will find that if he supplies more of them for productive purposes—if he works harder, saves more, or hires out more of his property—the income he receives will rise correspondingly (unless the market value of his resources should change at the same moment). In recent years, moreover, economists have tended to suppose that what is true of labour, land, and capital is also true of enterprise; that it too is a commodity and that profit is its price or reward. The specific problem of profit consists, then, in deciding first, wherein "enterprise" consists —i.e. what is the function of which profit is the reward—and secondly in investigating the quantitative relationship between "amounts" of enterprise and "amounts" of profits—i.e. in trying to discover what is the *rate* of profit. We are not concerned here to examine the answers which these questions receive: though it is perhaps significant that the theory of profit is by common consent the most recalcitrant element in the whole structure of value and distribution analysis. What is important for our present purpose is to note that it is not *self-evident* that profit can best be treated as the "reward" of the factor of production "enterprise". And we shall avoid the error of so regarding it if we bear in mind that any parallelism or symmetry which may seem to exist between the four factor classes and the four types of income is due merely to the fact that we have derived the former from the latter.[1]

Finally it is worth while to insist, once more, that a classification of factors which is based upon distributional considerations is *not* necessarily the same as the classification which we should adopt if substitutability were our main criterion. We have already seen the shortcomings of the accepted analysis

the accepted classification of incomes cannot have more than a provisional and historical validity. It appears, therefore, that the defence of the fourfold factor classification for its distributional significance is at best inductive and temporary. But we cannot pursue this question.

[1] We shall examine this subject in some detail in Chapters XV and XVII below (pp. 323-4, 361 ff.).

of factors of production, judged by this latter test—shortcomings of which, as we also know, economists are in general fully aware. And yet it is common to talk of a "rate" of interest, of wages, and even (as we have just noted) of profit —concepts which can only have validity if labour, capital, and enterprise represent homogeneous groups, all the units in which have the same market value. For purposes of elementary exposition these concepts may have some usefulness; they may even be capable of playing some part in the service of abstract analysis.[1] But if the argument of the last few pages is substantially correct, they are not entitled to any significant place in the completed structure of economic theory.[2]

8. This brings us to the second of the two questions which were raised on pp. 205-6. We have seen the inadequacies and limitations of the orthodox analysis of factors of production: can we put anything better in its place? If we cannot, then either the traditional classes will have to do, or else we must abandon the concept of a factor class altogether and talk simply in terms of factor units or "productive resources", at any rate when we are trying to arrive at a precise solution of the problem of value.

Now there are two main reasons why it is difficult, if not impossible to formulate a satisfactory series of factor classes. First of all, such a series would be very long indeed; for the argument has shewn us that judged by the test of substitutability the number of factor classes which play their part in the making of consumption goods is far larger than at first sight it appeared; in that of the four traditional groups two at any rate—land and labour—contain a huge variety of "non-

[1] In particular, it is often quite legitimate to talk of "a" rate of interest—since capital comes much more nearly to satisfying the test of substitutability than any of the other three factor groups.

[2] This paragraph raises issues to which we cannot do justice within the limits of the present work. It is my belief, indeed, that to postulate a "general rate of wages" is both unnecessary and misleading, even in elementary expositions of the problems of distribution. It is unnecessary, because precisely the same principles determine the value of any one type of labour as of any other—provided always that the "types" in question constitute, or approximate to, true commodity classes. And it is misleading because it suggests that the incomes of (for example) professional or executive workers are fixed in two stages—first by the influences determining the wages paid to unskilled manual workers (the "general" rate of wages) and then by special factors associated with the differences between the two types of work. Moreover, while there may be a *tendency* towards uniformity of incomes among unskilled manual workers, it is so far from being realised, at any rate in post-war Britain, as to make it very doubtful whether postulating its full realisation is a really useful expositional device.

competing" sub-groups, each of which is a distinct commodity class and has its own value. Secondly, however, we have no ground for hoping that even if we were to compile a complete list of factor classes it would have any permanent validity. On the contrary, as economic conditions change—as technique advances, as the organisation of labour and the distribution of the population alters, as markets extend or contract their scope—the dividing lines between the various classes shift and change. Thus, the more mobile labour is, whether as between occupations or as between districts, the more will it tend to form one enormous commodity class with a single rate of wages. Again, the more specialised the operations of industry become the more difficult will it be for resources which have been adapted for one use to be transferred to another, and the larger will be the number of distinguishable factor classes into which they must fall. Not merely this, but—what is more serious still—factor units which are wholly unsubstitutable for one another at a moment's notice may yet become less so after a period of time. It may be true that the possibility of transferring units of labour or of land from one use to another—say from mining to the making of cars, or from arable farming to market gardening—is extremely limited as between to-day and next week. And yet we need not doubt that *given time* such transferences can, and perhaps will, take place. So that our classification of factor units will depend, among other things, upon the length of time with which our analysis is concerned. All this is extremely familiar to readers of economic textbooks, and need not be elaborated here. But it shews that *no* classification of productive resources can have an ultimate and permanent validity.[1]

Nevertheless, we do not need to abandon the concept of a factor class altogether. As we have already seen, markets do in fact exist for factors of production no less than for consumption commodities. And we are perfectly entitled to postulate, as a tool of analysis and exposition, that the productive resources of the community can be grouped into classes of homogeneous and substitutable units. What the discussion of the last few paragraphs has shewn is simply that we cannot specify what, or how many, these classes are.

9. And so we return once more to the argument that was

[1] Cf. Knight, *Risk, Uncertainty, and Profit*, p. 124, n. 2.

developed in connection with commodities in general. We saw that substitutability as between one commodity unit and another is a matter of degree; that we cannot hope to divide up the immense variety of valuable goods into a series of watertight compartments, and that if we wish to talk of commodity *classes* we must do so in the full consciousness that our classification is provisional and variable. This conclusion applies even more forcibly to factors of production than to consumption goods. The possibilities of confusion here are greater, and their consequences more serious, because of the tendency to think of factor classes not merely as commodity classes of a particular kind, but also and at the same time as throwing light upon the technical processes of production and the analysis of incomes. But these confusions are avoidable; and if we can keep clear of them no harm need come from the concept of a factor of production.[1]

10. We are now almost at the end of this somewhat involved discussion. We have seen that the elements contributing to production may be arranged in classes on any one of three main principles. If we are interested in studying their value as commodities we shall try to distinguish classes according to the test of substitutability; if our concern is with the productive process as such we shall classify factor units in terms of the kind of function which they fulfil in that process, contrasting them in respect of their physical properties and powers; if, finally, our object is to throw light on the problems connected with the distribution of wealth, then we shall make them correspond with the main types of income which flow to producers. We have found, furthermore, that the accepted

[1] The fact that substitutability is a matter of degree has in recent years come to play an important part in economic analysis. In particular it has given birth to the concept of "elasticity of substitution"—the proportional relationship between a change in the value of one commodity or factor and the consequential change in the amount of some other commodity or factor demanded. This concept is not merely useful in the theory of imperfect or monopolistic competition with regard to consumption goods; it also opens the way to the application of that theory to factors of production themselves. And it is conceivable that ultimately we may be able to abandon the hypothesis of perfect competition altogether, except as an interesting limiting case (viz. of infinite substitution elasticity) and possibly as a suitable illustration for the initiation of students. By the time we have reached that stage, however—if we ever do—most of the material in this book will be hopelessly out of date. On elasticity of substitution, see (for example) Hicks, *Wages*, pp. 117 ff., 242 ff.; "Notes on Elasticity of Substitution" in the *Review of Economic Studies*, vol. i, Nos. 1 and 2. We return to this matter in Chapter XVII below, pp. 358-9.

classification is unsatisfactory whichever of these points of view we adopt. It does *not* issue in a list of homogeneous commodity classes; it does *not* provide an exhaustive account of the agencies whose co-operation makes the productive process possible; and it is *not*—or at any rate it has not been proved to be—an especially illuminating way of indicating economic cleavages and conflicts of interest among income-receivers.

And yet it survives and continues to reappear in almost every standard work upon economic theory.

Some of the reasons for its retention have already been noted. It dates back in its original form to the birth of economics as a science; it is convenient for purposes of exposition and illustration; and it is not so glaringly inferior to other possible schemes of classification as to be obviously worthless. But perhaps the main ground for the reluctance of economists to discard it is aesthetic. There is, in fact, a considerable beauty in the structure which can be built up round it. We start at the one side with an analysis of production which if incomplete is at any rate not ridiculous, and on the other side from an analysis of income classes which whether or not it accurately expresses the most fundamental economic cleavages in the community yet does not grossly and shockingly misrepresent them: and in between these we arrive at an analysis of commodity classes which though once more far from ideal is yet perhaps as accurate as we need for expositional purposes. All these three lines of classification dovetail perfectly into one another, once we disregard their several shortcomings; indeed they readily lose their separate identities and become *one* classification of factors of production. And this one classification is the thole-pin on which the whole traditional arrangement of theoretical economics turns. No wonder, then, that we are loth to let it go.

Nevertheless if we retain it we must be alive to its dangers. Some of these dangers have been noticed during the course of this chapter—the tendency to attach excessive weight to the concept of a general rate of wages, the assumption that every income can always best be treated as the reward of a factor of production, an excessive attachment to the grouping of incomes into the four classes rent, wages, interest, and profit. And it can be argued that the whole analysis of the forces

determining factor values is simplified and made clearer if in the first instance at least it is made wholly independent of technical production on the one hand and the distribution of incomes on the other. This matter must, however, be postponed to a later chapter. For the moment it is enough to insist that the symmetry between the three planes on which factors of production may be analysed is achieved at the expense of distortions and over-simplifications on each plane, and that we must beware of being blinded to its manifold shortcomings by the boldness and beauty of the generalisations to which it seems to lead.

CHAPTER XIII

"LAND": "LABOUR"

THE last chapter has shewn us the status and limitations of the current division of productive elements into land, labour, capital, and enterprise. Our next task must be to examine and interpret these four terms individually. We know that they are *class* terms; that they represent groups of resources, the members of each of which possess certain characteristics, physical, economic, or social, in common. But we have not asked in detail what these common characteristics are. And since this latter question presents many problems of logical as well as of economic importance, some consideration of it must be attempted here.

In the present chapter attention is confined to land and labour. We start with the latter, as being much the easier of the two.

1. By "labour" economists have come to understand all human activities or actions which are devoted to the production of utility. Its meaning thus differs from that of ordinary usage in two respects. First, it is wider, in that it includes mental as well as physical, and skilled as well as unskilled activities. For the purposes of economic theory doctors and clerks are "labourers" no less than machine workers and navvies. Everybody, in fact, is for economic purposes a labourer who can be said to "work for his living". This definition presents some difficulties, as we shall see in a later chapter, for the interpretation of the fourth factor class, enterprise. Thus speculators in stocks and shares or in produce are normally regarded as being more akin to entrepreneurs than to labourers, and any income they may make is usually treated as profit rather than as wages. And yet they as a rule have to "work for their living"; for sound judgments as to the course of future prices (on which all successful speculation must rest) can only be achieved by careful research and

investigation—i.e. by "labour" of a high degree of skill. So, too, the industrial entrepreneur—the manufacturer or business man—can rarely hope to make his business profitable except at the expense of considerable personal exertions. These points, however, need not concern us here.[1] For the time being let us take it for granted that in economics a labourer is a person who contributes his personal energies and time to the production of useful things, no matter what specific form this contribution may take.

Secondly, "labour" and "labourer" are apt to be understood functionally rather than substantially in economic analysis. In ordinary language it is rare for the words to have any other than a substantial reference. "Labourers", that is to say, are particular individuals; they form a fairly clearly defined social and economic group in the community; and anybody who belongs to that group is by definition excluded from all other groups—as a labourer he cannot be a landlord or a capitalist or an entrepreneur. Correspondingly, "labour" would generally be thought of as standing simply for the activities of "labourers", so understood. For economic purposes, on the contrary, the fundamental concept is the factor-class labour; and "labourers" denotes people *in their capacity as* contributing this factor class to production. From this point of view the same individual may be a capitalist or landlord as well as a labourer—if, namely, the part he plays in the productive process includes the supplying of "capital" or "land" as well as of his personal energies.[2]

2. The concept of *land* is more troublesome. Like labour it is a "factor of production". But as we saw in the last chapter this term is by no means unambiguous; and the interpretation of "land" as a particular factor class is liable to vary according to the precise point of view from which factors of pro-

[1] See Chapters XV, p. 320, XVII, pp. 363-4, Supplementary Note 23, p. 394.

[2] See on this (for example) Mill, *Principles*, Book II, chap. xv, § 5. Mill's discussion of the case in which a person works upon his own land with his own tools aroused great indignation in Marx (*Capital*, vol. i, chap. xiv *fin.* (pp. 561-2). But the latter's strictures are ill-founded; for all that Mill wished to shew was that *labour* would still differ from *capital* and *land*, even when the same individual was at once labourer, capitalist, and landlord. For Marx's purposes this point was no doubt unimportant; but it is nevertheless true, and may be of great interest for pure value theory.

For another sense in which "labour" may have to be understood functionally, see Chapter XII above, p. 199.

duction are classified and analysed. Let us endeavour to distinguish the main meanings which the word may bear in economic discussions.

(1) If we are interested, for whatever reason, in analysing in physical terms the elements whose co-operation make the productive process possible, then "land" includes all natural resources. It represents the original raw material on which men work in order to produce material things; indeed all material production ultimately consists in converting material resources from the form in which they were first given into the form in which they are ready for final consumption. Not merely fields and forests, therefore, but also mineral deposits and fishing banks are land; as are the sea itself, the air, climate, even the sun, moon, and stars. For all these contribute, in an enormous variety of ways, to the production of consumption goods. *Everything*, in fact, which is a gift of Nature, and which is useful to man, must be included under "land" in this sense.

(2) For the specific purpose of value theory, however, so wide an interpretation of the concept is obviously unsatisfactory. In the first place, the various objects covered by it conspicuously fail—as we have already had occasion to remark—to form a "commodity class". Moreover, many of them have no importance in the analysis of value at all. A large proportion of the gifts of Nature is free to men not merely in the sense of being provided without efforts or exertions on their part, but also in the sense of being available without cost to all individuals who are in a position to make use of them. They are, in fact, "free goods" in the generally accepted sense of that term.[1] Resources of this type can as a rule be safely ignored in discussions of land as a factor of production in the economic sense; and the word therefore comes to have special reference to natural resources which are *scarce*, and which may be bought and sold, or lent and borrowed. Now, the outstanding examples of resources which satisfy this further criterion are territorial and mineral. Consequently, the word is frequently used to cover *two* main types of commodity: territory—i.e. land in the ordinary or geographical sense—and mineral deposits. In addition it would be natural to include within the denotation of the

[1] On "free goods" see Supplementary Note 3, p. 378.

term other forms of natural resources if and when they too have exchange value; for instance such parts of the sea as are controlled by a country or local community, which levies a toll for their use.

(3) Secondly, however, not all the territory and mineral wealth of the earth has a value. Many tracts of land are for various reasons not worth cultivating; many seams of coal or ore are too poor or too inaccessible to be worth working. Such resources as these are not strictly speaking commodities, and it might seem that they should be excluded from "land" as a factor of production. If we adopt this view we shall then define the word functionally as covering natural resources *in so far as* they are both useful and scarce. Such a definition, however, though in principle unexceptionable, is likely under certain circumstances to be seriously misleading. As economic conditions change the dividing line between resources which are and resources which are not worth using may shift in one direction or the other. Hitherto uncultivated territory may be brought within the productive process, formerly profitable mines may have to be shut down, and so on. And if we are interested in the problems of economic development and change we cannot afford to ignore the existence of natural resources which though valueless at the present moment may yet have played a part in production during past years or may come to do so in the future. We must, in fact, take into account *potential* as well as actual sources of wealth. And so we arrive at a still further definition of land as a factor of production. It now represents those natural resources which are useful and scarce, *actually or potentially*.[1]

3. Most economists would probably prefer this last interpretation of the concept to any of the others we have noted so far. It has the advantage of combining usefulness for economic analysis with some degree of approximation to the usages of ordinary speech. For clearly by far the most part of the resources to which it refers consist of "land" in the everyday sense of the word; and on the other hand little or no land in the everyday sense is so obviously barren or inaccessible as to have no *potentialities* of utility in the economic sense. To a large extent, then, the word seems to denote the same set of things whether we use it as economists

[1] See also on this point Chapter XII above, pp. 199-200.

or not; indeed, had it not been for the fact that land in the ordinary sense represents the outstanding "gift of Nature" to men, it would never have given its name to natural resources as a factor of production.

But this raises a very serious, if familiar, difficulty. We naturally tend to think of the fields and meadows which are used for raising corn or pasturing cattle as though they represented units of land in the economic, no less than in the ordinary, sense of the word. And in fact they represent natural resources which are both useful and—in general—scarce. But in what sense are they "free gifts of Nature"? Many of the most fertile areas in the British Isles were either forests or marshes when they first came to be drawn into productive use. In order to make them fit to bear crops they had to be drained and cleared, hedged and ditched, weeded and manured. And all these operations involved the application to them of productive resources—of labour, capital, and other kinds of natural wealth. In their present form, therefore, they are "products" of man working upon Nature, no less than are machines and tools and all other kinds of productive equipment. Indeed, for economic purposes a field is itself simply a piece of productive equipment. Like a machine, it is the synthesis of a particular piece of raw material (viz. the land as it was before men started to cultivate it) and the various technical processes to which that raw material has been subjected. No doubt the raw material of a piece of fertile agricultural land is different in kind from that of a sledge hammer or of a motor van; so, also, are the technical operations which have been required in order to produce the final result. But this does not alter the fundamental fact that field and machine are alike in being the *results* of applying technical processes to a given material.[1]

From which it follows that fields are not "land" in the strict economic sense at all. For all the various definitions of land as a factor class which were suggested in the last section have at least this in common that they confine the concept to what is "given" by Nature; and the land on which farmers grow their corn and raise their cattle, or on which roads and cities are constructed, is *not* "given" by Nature, being itself

[1] The parallel between fields and machines is examined further in Supplementary Note 12 on p. 385.

the product of past labour and capital. It is in fact not an original productive element at all, but a form of "intermediate good"; not a prerequisite of production so much as a stage in the productive process.[1]

4. This being so, we have to choose between two alternative ways of interpreting land as a factor of production.

(1) We may accept and embrace the conclusions of the foregoing argument. Fields in their present form, we may admit, are no more "land" than are machines. But both *contain* land; for both are the result of applying capital and labour to "given natural resources". And it is these "given natural resources" which constitute the factor of production, land. They comprise the surface of the earth, with its covering of trees and shrubs and the mineral deposits below it, *as all these things were before men started to alter and adapt them.*

This is approximately the conception of land which found favour with the classical economists and their followers. It is well known that Ricardo defined rent as the payment for the "original and indestructible powers of the soil"; and both he and the writers of his school were accustomed to lay great stress on the distinction between pure rent, representing payments for land as such, and the interest chargeable on such capital as had been invested therein. In more recent times, however, the usefulness of this distinction has come to be questioned. If we are to be consistent we must include as part of the capital invested in a given piece of land *all* the work which has been done upon it since the prehistoric days when first men started to cultivate it. And not merely is it quite impossible for us to know in detail what that work has been or how great a part of the land's present value is due to it; but as economists we should not be in the least interested in such knowledge could we obtain it. For the value of the land and the income which its owner derives from it depend upon what it is like *now*; upon the willingness of people to pay for its use or acquisition, on its ability to serve different productive ends, on the sacrifices involved in allowing it to be used by farmers or manufacturers, and on the availability of other pieces of land which may be substituted for it. And none of these factors are on the face of it affected by how it

[1] On the distinction between original productive elements and intermediate goods see Chapter XI, p. 194-5; below, p. 230.

has *come to be* what it is. If two fields are identical *now* in their ability to satisfy men's desires their value will be the same, and it will make no difference to their economic status if we learn that one of them was originally water-logged or overgrown with weeds, and has therefore required far larger investments of capital and labour than the other in order to bring it to its present state. In short, the distinction between land as it originally was and as it is now may be of interest to historians or antiquarians, but can contribute nothing to the solution of the problems of value and distribution.[1]

In a rather different form, however, the concept of land as denoting what has been given by Nature may yet be of some importance for economic thought. If we cannot separate in reality that part of a field which is the free gift of Nature from the investments of capital and labour which have been made in it, we can yet distinguish the two in thought; we can recognise them as different *elements* in, or aspects of, the field as we know it. Land is now essentially abstract; it is something which plays its part in the productive process, but it does not exist independently and in its own right, except, indeed, in such pieces of virgin territory as still survive in the world, and in untapped mineral wealth.

On the other hand, it is an element which enters into *all* material commodities, whether "intermediate goods", like fields and machines, or products which are ready for final consumption. We cannot use it as a basis for distinguishing between territorial resources and manufacturing equipment, or between agriculture and industry. Factories have their "land" elements no less than farms—in the site on which they are built, the materials from which they are constructed, the ores which have gone to make their machines and so on. So, too, there is "land" in every material consumption good; we must not imagine that there is any essential difference in this respect between food or clothing on the one hand, and the fields on which the food is grown or the workshops in which the cloth is woven on the other. Land is, in fact, not a commodity at all; it is not something which is bought and sold or which has any assignable value; it is merely an abstract but omnipresent part of material wealth in general.

[1] We return to this matter from the "capital" side in the next chapter, pp. 246, 298-9 below.

Whether such a concept is of any great use for an understanding of economic theory need not concern us here. It evidently relates rather to the production of things than to the production of utilities, and is therefore technical rather than strictly economic in scope. But it is at least clear and unambiguous and there can be no logical objection to its employment by any economist who finds it helpful—provided always that he does not suppose it to be in some way peculiarly associated with agricultural and territorial resources as compared with other forms of material wealth.[1]

(2) The alternative is to reinterpret the phrase "gift of Nature". Suppose we admit that most if not all of the material resources at our disposal are themselves the product of past labour and capital as well as of "land" in the narrower sense; it may nevertheless be true to say that *for us* they are "given". They are what *we* start with when we decide to initiate any productive activity. And precisely because we cannot ascertain the extent to which they were themselves produced by former generations we shall tend to think of them as constituting "free gifts of Nature" so far as we are concerned. They represent the heritage of equipment with which past generations have provided us, and we must take them as they are, with their existing properties and potentialities. Moreover, it is natural to regard these "given natural resources" as forming one distinct group of productive elements; they represent, in fact, a "factor of production"—the factor known ordinarily, after its leading constituent part, as "land".

This second interpretation of land escapes the suspicion of futility and irrelevance which clings to the first. Land is now concrete, not abstract; it denotes a group of "things", whereas in the view just considered it referred merely to elements in things or aspects of them. And while we cannot assert that it is in the ideal sense a "factor class"—for the commodities comprising it are enormously different from one another both physically and in their abilities to satisfy men's desires—yet

[1] We might of course argue that in some sense the "land" element is more important, compared with the other prerequisites of production, in agriculture than in industry. But it is difficult to see how such a comparison could be quantitatively verified. The only obvious test would be if it could be shewn that rent payments bulked larger in the expenses of a farmer than in those of a representative manufacturer. And this will not do; for as we know rent is in fact paid for land *as it is*, with all the capital and labour that have been invested in it throughout the ages.

it is on technical grounds quite distinct from labour as also from capital (in most of its possible meanings) and enterprise. But it is not without difficulties of its own. Let us examine it further.

5. In the first place, it involves no less fundamental a break with ordinary linguistic usage than does the abstract definition which we have just considered. If "land" means "given material resources" it must cover *all* such resources, whether territorial or not. The heritage of equipment which any generation receives from its predecessors includes much that is not land in the everyday sense of the word—houses, roads and railways, docks and harbours, factories and machines, not to mention a host of finished and semi-finished goods of all sorts and descriptions. All these must be counted as "land" if we are to be consistent in the standpoint we have adopted; for all of them are "free gifts of Nature", so far as the generation under consideration is concerned. If we think of the earth's surface and its mineral deposits as being "given" in some special and peculiar sense which does not apply to these other forms of wealth, then we are either allowing ourselves to be influenced by the original implications of the phrase "free gifts of Nature" and are introducing an antiquarian bias which has no place in the concept of the resources which are available *to a particular generation*; or else we are once more giving the word some of the geographical significance which it possesses in ordinary speech. From the present point of view, land in the territorial sense is *merely* the leading species of a large genus; it is the outstanding example, but not the only example, of the kind of wealth which may be handed down from one generation to the next.

6. The next point is extremely tricky. The new definition of "land" treats it, we have seen, as what is "given" to, or inherited by, *the present generation*. We must now try to see what is involved in this last phrase.

It has already been remarked that broadly speaking the value of a thing is not affected by how it has *come to be* what it is; that what affects its purchasing power over other things is its *present* qualities and the extent to which they are capable of arousing demand, rather than the sources, human or otherwise, from which these qualities originally sprang. And all students of value theory are familiar with the principle (first

enunciated by Jevons) that in economics the past is for ever past—a principle of inestimable importance for the whole structure of value theory. Nevertheless, it is difficult, if not impossible for economists to ignore altogether the past processes whereby existing material wealth has been made or produced. For in the first place, provided they are sufficiently recent to be within the memory of living consumers and producers they may still retain some power of affecting the attitude of these people to their products.[1] And secondly, the process of production is something which continues from the past into the present and future, advancing without a break, or turning back and repeating itself; so that a discussion of how existing wealth has come into being may be an essential step towards the understanding of how new wealth may be produced in the future. For these and other reasons economists have never interpreted the principle that the past is for ever past as precluding them from taking an interest in the origin and causes of the commodities whose value they are concerned to explain. On the other hand, they have not felt it necessary, at any rate in their capacity as exponents of value theory, to trace the productive process from its first beginnings—indeed such a study, as we have seen, belongs to ancient history, not to economics. All that has been done is to take into account the *recent* past—to regard as being relevant for the study of present values only such time, perhaps, as has fallen within the lifetime of their own generation. Within this somewhat vague period production has proceeded in all sorts of ways; commodities have been made and consumed, new equipment has been constructed, previously existing equipment has been improved and repaired. And since these changes have been recent it is not unnatural to regard them as being worthy of special treatment. Hence there arises the tendency to separate off, at least provisionally, that part of the total material resources now available which came into existence during

[1] Thus, a landlord will certainly tend to distinguish in his mind between his property as it was when it came into his possession and any improvements in it for which he has himself been responsible. The former he will regard as "land", the latter as capital invested or "sunk" in it. And the price at which he will be willing to sell or lease it may be decisively affected—whether rationally or irrationally—by the desire to get a fair return on his capital expenditure (cf. Chapter IV above, p. 68 n. *sub fin.*). Once the property passes into other hands, however, the distinction will lose its importance—at best a matter of psychology rather than of economics—and in due course it will be forgotten.

the fairly recent past, distinguishing it from more venerable forms of wealth. The latter only is held to constitute original productive elements, the former being regarded rather in their capacity as *products*, intermediate or final.

We need not here concern ourselves with the legitimacy of this type of procedure. It might perhaps be defended on the ground that the immediate and recent past enters so intimately into present experience as to be effectively part of the present for psychological purposes.[1] No doubt, also, it is associated with the interest which, as we have already seen, economists regularly take in the technical processes of production. But whatever its explanation, there can be no doubt that in general economists are not prepared to adhere rigidly to the principle that all material wealth is "given", and is therefore entitled to a place within the factor of production "land", so soon as it is available for use. A decent interval—though one of no clearly defined length—must elapse before any product can qualify for this status. And the existence of this interval, or rather, its admission as a standard part of the equipment of economic analysis and exposition, has involved at least two consequences which must be noted.

7. In the first place it introduces a new definition of land as a factor of production. The word now denotes material resources as they were in the *relatively* distant past—not, indeed, in the remote period before men first started to make use of them, but at a time which is by now too distant for us to be greatly interested, at any rate as students of value theory, in the productive activities which characterised it. This concept, it will be observed, approximates in some degree to the ordinary meaning of "land". For the most venerable of the resources which have been handed down to us by previous generations are territorial (and mineral); and the further we are prepared to delve into the past in our investigation of the productive process, the more precisely will our factor of production "land" confine itself to land as usually understood.[2] Conversely, the more strictly we adhere to the view that what is past is done with, the wider and more varied will be the

[1] It is well known that psychologically "the present" always means the more or less immediate past. See the discussion of the "specious present" in William James, *Principles of Psychology*, vol. i, pp. 608-10.

[2] It is possible, indeed, that this fact is one source of the desire of economists to delve into the past at all.

resources which we shall treat as "given"; and in the limit it will come to stand for *all* the material equipment which is available at the present moment. In this latter sense it is hardly distinguishable (as we shall see) from "capital" in one of the main senses of that word. In general, however, we may expect to find that "land" conveys *some* suggestion, even if of an uncertain and shifting content, of equipment which is of a reasonable age or antiquity. Land, in fact, represents material resources which are given "to the present generation".

Secondly, however, the foregoing discussion raises a serious doubt as to the validity of the distinction between original productive elements and "intermediate goods" on which the whole discussion of factors of production has so far been based. For as we now learn, the question whether a given unit of material equipment is to be treated as falling into the category of land and as constituting a "factor" unit, or whether, on the contrary, it is itself to be analysed into the productive elements which have gone to make it, can only be given a definite answer when we know at what point our researches into past production are to stop. And as we have also seen, this latter matter is not one on which definite knowledge is possible. If we are prepared to go sufficiently far back, then practically all our wealth—our fields and meadows no less than our machines and semi-manufactured goods—fall into the category of intermediate products, and land as a factor of production becomes something of which we can have no direct knowledge; it is either a mere abstract "element" in things or else it is something which belongs to the remote and prehistoric past. On the other hand the further forward we bring the zero line of our historical interests, the larger will be the concrete resources which count as factor units, and the smaller correspondingly will be the scope of intermediate products. Everything turns, in fact, upon the period of time with which our investigations are concerned. If, then, we continue to contrast "original factors" with "intermediate goods"—and it is obviously convenient for many purposes that we should—we must always remember that there is no hard and fast line between them. Pieces of productive equipment are land *in so far as* we are not interested in the manner whereby they came to be what they are, and are intermediate

goods *in so far as* we wish to examine the various agencies which co-operated in their production.

8. One further point is worth mentioning. Within the group of "given natural resources" we can distinguish two main sub-groups: resources which are permanent or long-lived, and resources which are liable to be used up and to lose their productive power. The former category includes land in the territorial sense, except, indeed, in so far as constant cultivation or the ravages of the weather are capable of destroying its fertility; the latter includes, outstandingly, mineral wealth—coal, metals, and oil. The distinction between them is not of course absolute. Some things may remain in productive use for millennia or centuries, others for decades, others are used up as soon as they are used at all.[1] Not merely that, but the length of life of any given source of utility may largely depend on its treatment at the hands of men—thus supplies of timber may be made virtually inexhaustible by constant reafforestation and the establishment of "close seasons" in the hunting of various types of wild animal may prevent their extermination.[2] Nevertheless the contrast between destructible and indestructible resources is both reasonably clear in itself and also of considerable importance for the theory of value. And we may if we choose mark it by confining the word "land" to the long-lived group—to those given resources which either are in fact inexhaustible or may be treated as such when our interest is in the forces which determine their present value. Short-lived resources will then form an independent factor group of production—a group to which we may give the name of "Natural products". The desirability of analysing productive resources in this way need not be discussed here.[3] But it yields a fourth possible definition of "land" which must be noticed. The word now stands for given material resources in so far as they may be accounted indestructible and inexhaustible.

9. It is now time to sum up the results of our analysis.

[1] See on this Chapter XIV, pp. 256-8.

[2] The point here turns on the distinction between the gross yield of a group of productive resources and its "net income"—the latter being what is left after deducting from the former enough to maintain the efficiency (and/or the value) of the resources themselves. See on this matter Chapter XVI below, pp. 335-6.

[3] See on this Cassel, *Social Economy*, chap. vii, especially pp. 268-9; Wicksell, "Cassel's System", pp. 244-5.

"Land" in economic terminology, we have discovered, may bear any one of four meanings, all of them distinct from what would be understood by the word in everyday language. It may denote (1) the resources of Nature as they were before any human agencies altered or adapted them: (2) the "natural" as opposed to the human *elements* in existing resources: (3) the material resources which are available to a particular group or generation of people and which may be regarded by these as "given"; and (4) resources which are not merely given but are also in some sense inexhaustible. Of these four senses only the third and fourth seem to be of any specifically economic usefulness. But neither of them are clear-cut. Not merely do they depend upon somewhat arbitrary decisions as to what is, and what is not, to be taken as "given" and as "inexhaustible", but they shed no direct light on the problems generally associated with land in its everyday meaning. Economists have not always treated the word with the caution which it demands. The connection of land with agriculture has been a constantly recurring theme in their writings: they have found it almost impossible to avoid thinking of the factor of production land as composed of a particular group of productive instruments—namely, those especially associated with the earth's surface; and they have contrasted land so regarded with "capital goods"—viz.: machines, buildings, etc.—which they have thought of as representing a *different* factor of production, capital. Such a view is not merely disastrous for the understanding of the problem of "rent"—the income derived from the ownership of land: it also raises desperate difficulties to a proper understanding of "capital". With these latter difficulties we shall be concerned in the next chapter. For the moment we are left with the conclusion that it might have saved much time and trouble if the word "land' had never come to be used as the name of a factor of production in economic theory.[1]

[1] See Supplementary Note 13, p. 386.

CHAPTER XIV

"CAPITAL"

THE concept of capital has given much more trouble to economists in search of clear and helpful definitions than any of the other three factor classes of production; indeed, it is not too much to say that it is the most difficult term in the whole range of elementary economic analysis. The cause of this is largely to be found in the nature of the strictly *economic* problems into which it enters. For capital theory is notoriously a desperately intricate subject, and economists are still far from having reached unanimity as to its scope and content. To some extent, however, the difficulties are logical and even terminological in character. The word "capital" is used in a great many senses, and students of economics have not always realised the full importance of disentangling these senses and establishing the exact relationships between them. This task will be attempted in the present chapter. We cannot hope, of course, that our discussion will throw much light on the *economic* problems, properly so called, connected with capital. But it may help to clear away some of the confusions which still obstruct the search for their solution, and at the same time may draw attention to certain matters which perhaps deserve more attention from economic theorists than they have so far received.

1. In the first instance, capital is always thought of as a factor—i.e. a factor class—of production. It is an agency distinguishable from other agencies in the processes whereby wealth is created, and as such it has a value and is capable of yielding an income to its owners or users.

We have seen, however, that a factor of production may be regarded in any one of three ways. It may be an agent in, or a prerequisite of, the productive process; it may be a particular kind of commodity, characterised by the fact that it is useful not in its own right but as contributing to the making of

other commodities; or it may be the source of a particular kind of income. Correspondingly, capital as a factor class has acquired at different times a technical, a commodity, and a distributional significance.

(1) From the first point of view it has been usually thought of in terms of *equipment*. The processes of production depend not merely upon labour and Nature, but also upon the existence of material aids to production such as machines and tools. These are different in kind from both "labour" and "land"; from the former in that they are dead, not living, and from the latter in that they are not "given by Nature" but are themselves the product of past labour. In these respects they are similar to consumption goods; but unlike consumption goods they are useful merely because they assist in the productive process. They are, in short, "produced means of production".

(2) But "produced means of production", though they may constitute an important element in the productive process, are yet not a factor of production in the sense of the phrase which is primarily relevant for economic theory. Not merely are they multiform and heterogeneous in themselves — including as they do instruments of production of all kinds and in addition (as we shall find) raw materials, semi-manufactured goods, and even a good deal that is usually thought of as "land"—but they are also essentially *derivative*. They are, in fact, the result of past labour and land—and (we may add) of past capital—and as such represent what we have learnt to call "intermediate goods", rather than original productive elements.[1] Wherein, then, does capital as a factor class (or group of factor classes) consist?

In order to answer this question it will be necessary to make a brief excursion into elementary capital theory. The reason why we make tools and machines is that we hope by their means to make production more efficient; that we

[1] See above, pp. 194-5. The line between capital goods and "land" depends on what resources may, and what resources may not, be taken as "given". This distinction is not an easy one (as we saw in the last chapter, pp. 227-31), and the fact that it cannot be made hard and fast throws doubt on the contrast between original productive elements and intermediate goods (p. 230). But the point is that *if* and in so far as a particular piece of equipment is "given" then it belongs to the factor group "land"; while if and in so far as it is *not* "given" it is not a factor unit of production at all, at any rate in the sense which is here relevant.

expect a given amount of labour and natural resources to yield more utility if some of it is devoted to the construction of instruments and other forms of capital equipment than if the labour is applied directly to the land without their aid. Other things being equal, then, the best methods of production will be "roundabout"; that is to say, they will involve the use of more or less complicated machinery, etc. In general, however, other things will *not* be equal. For production takes time, and the more complicated and roundabout any particular productive process is, the longer—commonly (though not, of course, necessarily)—will be the interval between the first application of labour to land and the emergence of the final product. The adoption, therefore, of the technically most efficient methods of production will mean that people must *wait* longer for the enjoyment of the ultimate product. And this is of vital importance in determining whether any particular method of production is really the most desirable from the economic point of view. For people tend not to *like* waiting. They would in general prefer to have less now than more in the future. And it will only be worth while to introduce a new and more complicated method of production if the benefits it yields (in the form of increased quantities of the product) are sufficient, or more than sufficient, to outweigh the unpleasantness of the increased "waiting" which it requires.[1]

"Waiting", then, is something which, though disagreeable in itself, may yet be worth enduring for the sake of increased productive efficiency. But it is also something which in an exchange economy can be transferred from one person to another. An entrepreneur who borrows in order to construct or equip a factory is in essence doing no more than getting somebody to do his "waiting" for him. He is able to buy raw materials, to hire labourers, and to set up machinery, without having himself to undergo the discomforts of reducing or postponing consumption; indeed, he may be in a position by securing loans to gather together resources to an amount far beyond what he himself could have put into his business even by the most stringent personal abstinence. From his point of view, therefore, those who are prepared to lend to him are

[1] On the relation between increased productivity and increased "waiting" see further Supplementary Note 14, p. 387.

performing an important productive service, in that they are making possible a higher degree of "roundaboutness" in productive technique than he could have introduced on his own account. And we may conclude that "waiting" represents one of the essential conditions which must be fulfilled if efficient and "roundabout" production is to be undertaken, and that the payment for waiting—viz. the interest which the entrepreneur will have to pay on his loans—is a charge which may be worth incurring for the sake of the increased production which these loans will initiate.[1]

But though "waiting" is a prerequisite of efficient production, and has therefore some claim to be regarded as a factor of production in the *technical* sense, it is yet not a factor class from the point of view of value theory.[2] Nor is it itself "capital"—unless, of course, we feel disposed to define the latter word in this way. In economics, as we know, a factor of production is first and foremost a *commodity*, or a group of commodities; it is something which is either supplied by the entrepreneur himself or else is bought by him from a "producer".[3] And it would be unnatural and misleading to describe anyone as buying or selling a quantity of "waiting". What the entrepreneur buys from the lender is not "waiting" but its result or product—the use of the resources lent. He temporarily acquires the right to consume and control wealth which does not belong to him. And it is in this "control over resources" that the economic factor of production consists. It is a type of commodity in the widest sense of that term;[4] it is different in kind from both land and labour; and while it would not naturally be thought of as an element in the technical processes of production themselves, it yet plays an essential part in making complicated and roundabout production possible. Moreover, it is something to which the

[1] The above paragraphs are not of course intended to give a complete account, however summary, of the problems connected with "waiting". But they may perhaps be sufficient to indicate its relevance for the theory of value.

Some writers prefer to use other terms instead of "waiting"—itself due, I believe, to Marshall—e.g. "abstinence", "lacking", "doing without". All these may be taken as synonyms for it. On the other hand, "saving" and "accumulation", which have also been employed in similar contexts, have an essentially different connotation (see below, Chapter XVI, pp. 340-43).

[2] See Chapter XII above, p. 208.

[3] "Producer" here simply means the owner of original productive elements (cf. above, pp. 195, 198 n.).

[4] See Chapter VIII, p. 125.

name "capital" is regularly given. Here, therefore, we have a second main meaning of that term. As a factor of production in the "economic" (as opposed to the "technical" and "distributional") sense, "capital" stands for what we have called the "control over resources". It is what the entrepreneur buys from those who are willing to do his waiting for him and who lend him the use of some part of their wealth or income in exchange for his promise to return it to them with interest at some future date.

It may be added that in a money economy loans of this kind will in all probability be effected by the handing over of a quantity of *money* (i.e. media of exchange). The entrepreneur requires money because it represents control over resources in the purest and most liquid form—because it gives him immediate purchasing power over all the things of which he stands in need. It is natural, therefore, to envisage capital in this sense as consisting of a "sum of money"; that is to say, as a quantity of purchasing power in money form. Let us therefore give the concept the name of "capital purchasing power"—to distinguish it from the technical concept of capital equipment.[1]

(3) Thirdly, we may regard a factor of production from the distributional side as the source of a particular kind of income. And if we consider "capital" from this point of view, a further modification in its meaning is necessary. For the lender, the person who has supplied someone else with capital purchasing power, will (as we know) expect to receive a return for his services in the form of interest on his loan. Indeed, the loan itself constitutes a claim against the borrower—a claim not merely to repayment at some future date but also to periodical interest payments so long as it is outstanding. And if we choose we can describe claims of this type as constituting "capital". Their possession by a lender provides him with the expectation of a particular type of income; they represent what we may call his "capital claims".

2. We have now discovered three main senses in which the word "capital" is liable to be used. It may stand for productive equipment, for the use of purchasing power and the control over resources, and for claims to, or expectations of,

[1] The full implications of the above analysis will not emerge until the end of this chapter. See, however, Supplementary Note 15, p. 387.

that kind of income which goes by the name of "interest". Each of these three senses (or groups of senses) will require detailed examination. But before we proceed to this, it will be well to add a few observations on the significance of the tripartite classification as a whole.

In the first place, it is a classification not of *kinds* of capital but of *senses* of "capital". There is no generic concept capital *an sich* of which capital equipment, capital purchasing power, and capital claims are the constituent species. We may find, it is true, that certain characteristics are common to all three —for example, that they are all in one way or another forms of wealth, or that they are capable of being contrasted in similar ways with the correlative concepts of income and expenditure. Indeed, the fact that they have all acquired the name "capital" is largely to be explained by the belief of some economists that a fairly close quantitative and causal relationship between them can be shewn to exist. But though considerations of this kind are relevant if our task is merely to estimate the danger of being led into error by using the same term for all three concepts, they do not in the least shew that the concepts are co-ordinate with one another in the sense in which, for example, skilled labour and unskilled labour, or arable land and pasture land, are co-ordinate as *types* of labour and land. We are concerned here, not with an entity which may take various forms, but with a word which may bear various meanings.

Nevertheless it is worth while emphasising that the relation between the three things denoted by "capital" *may*, under certain circumstances, be very close indeed. I "save" some of my income; that is to say, I postpone a part of the consumption I might have enjoyed at once, and so accumulate a quantity of capital purchasing power. This I use to buy the bonds of a newly started manufacturing concern; in other words, I transfer it to the control of an entrepreneur, receiving in return claims upon the enterprise for interest payments, and possibly also the right to the restoration of my capital purchasing power after a certain period of time. The entrepreneur then proceeds to invest the purchasing power in machines or factory buildings; i.e. he converts it into capital equipment. Here we have an original decision to "wait" giving rise to capital in all three senses — first, to

capital purchasing power, and thence to a capital claim and the construction of a piece of capital equipment. Moreover, there may be an exact quantitative equivalence between them. In general I may expect that my capital claims will be the same in value as the purchasing power which I gave up in exchange for them. And the entrepreneur in his turn may find that the value of his new equipment is exactly equal to the liability which my claim against him represents.[1] True, in a changing world this quantitative congruence may at any moment be disturbed. On the one hand, a fall, or a rise, in interest rates will cause the value of capital claims to exceed, or to fall short of, the amount of purchasing power originally spent upon them; and on the other hand, any alteration in the demand for the entrepreneur's products will change the value of his equipment without affecting the claims to which its construction has given rise.[2] But economists have always felt themselves entitled to ignore the effects of such shifts as these, at any rate in the earlier stages of their analysis. And given static conditions, there is no reason to doubt that in the illustration here under consideration the value of the entrepreneur's capital equipment will be equal both to that of the capital claims outstanding against him and also to the amount of the purchasing power which changed hands in the first instance. This being so, both capital claims and capital purchasing power seem capable of being treated as merely ways of expressing the value (or cost) of capital equipment. And we may feel inclined to suppose that no great harm will be done if we think of capital indifferently in physical, value, and money terms, according as it suits our immediate purpose. Equipment, claims, and purchasing power, it appears, are not so much three different things as three equally legitimate ways of expressing the *same* thing.

The trouble arises when we try to apply this result to cases which are less simple, though not less realistic, than the one we have just been examining. In the first place, there is no certainty, even under the most rigid static conditions, that

[1] This will only be the case, of course, if he can regard his loan from me as having been "marginal". But he will certainly be entitled so to regard it if (as is likely) the market in capital purchasing power is highly competitive, and if (as is also likely) he is borrowing neither more nor less than, at current interest rates, is worth his while.

[2] These propositions are too familiar a part of elementary capital theory to need explanation or proof here.

those with capital purchasing power at their disposal will supply it to entrepreneurs in exchange for capital claims On the contrary, they are in principle just as likely to invest it in real property, or even in long-lived consumption goods, such as a dwelling-house or furniture and pictures. And secondly, the borrower may not wish to use such purchasing power as he is able to acquire for buying or constructing new equipment. He may not be an entrepreneur at all, but merely a private person who wishes to live temporarily above his income. And even entrepreneurs and manufacturers may borrow, not in order to add to their machinery or plant but for all sorts of other purposes—for buying up a new patent, for conducting an advertising campaign, for financing the organisation of a monopoly, for bribing government officials so as to secure the benefits of a tariff, for building up an adequate bank balance, and so on. Thus the using of capital purchasing power does not always give rise to capital claims (at any rate as ordinarily understood), and even when it does it need not bring about the construction of an equivalent amount of capital equipment. It is, in fact, a complete delusion to suppose that there can ever be any close quantitative correspondence between them.

3. These considerations have, of course, for long been the common property of students of economic theory. And in the light of them many economists have been careful to insist upon at least one or other of the distinctions indicated above. Thus, Professor Cannan has urged the importance of using language which will differentiate between accumulated material equipment (or what he calls the "heritage of improvement") on the one hand, and claims to future income (in the form of bonds, stocks, IOU's etc.) on the other.[1] Again, Professor Cassel distinguishes between "capital" (in the sense of the value of capital goods) and "capital disposal", or the purchasing power which is available for new investment,[2] and Professor J. B. Clark between "capital", which is a permanent stock or "fund" of productive wealth, and the concrete "capital goods" in which it is embodied.[3] But

[1] *Review*, chap. vi; "Capital and the Heritage of Improvement", etc.

[2] *Social Economy*, pp. 28 f., 51 ff., 197 ff.; cf. Menger, who speaks of "capital-using" (Capitalnutzung)—see his *Grundsätze*, pp. 132-3, etc.

[3] *Essentials*, chap. ii, especially pp. 28 f. Professor Irving Fisher goes further and admits *four* senses of the word: (*a*) "wealth capital", the community's

in general writers on capital have been perhaps excessively anxious to believe that the concepts they distinguish in these ways are nevertheless closely and inevitably related to one another. And this has affected their interpretation of each taken separately. Views as to what things are legitimately to be included in capital equipment have been coloured by the desire to make it correspond with "property capital", or capital claims; capital purchasing power has been thought of as that part of the community's resources which is actually or potentially available for the acquisition of capital equipment: and so on. In short, just as the generic concept of a factor of production tends (as we have seen) to become an amalgam of technical, value, and distributional elements, each tending to affect and distort the others, so "capital", as a particular factor class on any one of the three possible levels, has had its range of denotation on each level in part determined by considerations which emanate from one or both of the other two. The result has been the emergence of an artificially high degree of correlation between them—a kind of spurious harmony in their scope and content—at the cost of much confusion and misplaced emphasis. It is true of too many discussions of the nature of capital that they stress unreal distinctions and overlook real and important ones. And for this reason the main task which lies ahead of us is to take each of the three main concepts by itself, to treat it individually and as far as possible without reference to the others, and so to try and discover precisely what interpretations *it* may legitimately bear, and what functions of economic analysis it can be called upon to fulfil. Once we have done this it will be a relatively easy matter to bring the three together again and to note their mutual relationships and interconnections.

I. Capital Equipment

4. We may start with "capital equipment", both because it is on the whole the oldest of the three main senses of capital so far as economic theory is concerned, and also because an

material equipment; (*b*) "wealth capital value", the value of (*a*); (*c*) "property capital", the community's wealth capital regarded as being owned by its various members; and (*d*) "property capital value", the value of (*c*). On these see below, pp. 250, 290-92, 304, and on Clark's "permanent fund", pp. 300-302.

understanding of its content will be of great assistance for the examination of the other two.

We have already reached a provisional idea of how capital as an element in the processes of production is distinguished from land and labour. On the one hand it is itself produced; it embodies the results of past labour and land—and, we may add, of past capital. On the other hand it is material, not human: dead, not living. How far does this information carry us?

5. In the first place, we saw in the last chapter that if by "land" we are to mean what is "given by Nature" in any ultimate sense of that phrase, then a very large part of our existing territorial resources is not "land" at all. A field which has been drained, cleared, and manured is in its present form as much the product of past labour as is a machine or factory building. We can, of course, as we already know, still identify a "land" *element* in territorial resources, in that they all have a "given" physical basis. But in that too they are in the same position as machines and tools, whose existence depends no less than theirs upon materials provided by Nature. It follows that we can only exclude them from the scope of capital if we are prepared to define the latter, not as "produced means of production", but as "portable" or "*non-territorial* produced means of production"—a modification of the concept which does not seem to be of any value for economic theory, however significant it may be for the purposes of the Law,[1] and even of social policy.

Secondly, what precisely do we mean by "means of production"? We have so far discussed capital equipment in terms of such things as machines and factory buildings (to which have now been added land and other natural resources, except in so far as they have been wholly untouched by man). But obviously an important part of the resources of any manufacturing establishment is its stock of raw materials awaiting, or in process of, manufacture. How can we refuse these the title of capital equipment? They are indispensable elements in the productive process, they are themselves "produced" in the sense of being the result of past labour on natural resources, and they are useful not in their own right but merely as a means for the making of consumption goods.

[1] Cf. Supplementary Note 12, on pp. 385-6, *sub fin.*

It is not, then, surprising that economists have regularly recognised them as constituting a form of capital. Ever since Adam Smith it has been common to distinguish two main types of real capital—"fixed" capital, consisting of machines, etc., and "circulating" capital, covering precisely the type of commodity now under consideration. As we shall see later, the distinction between the two is a troublesome one; for not merely have economists tended to think of "circulating capital" in monetary rather than in real terms, but even those among them who have been most determined to identify it as a particular kind of material wealth have sometimes failed to see wherein exactly it consists.[1] But however this may be, nobody would seriously dispute the claim of raw materials and semi-manufactured goods to be included among the community's stock of "produced means of production".[2]

Moreover, if goods in process of manufacture are capital goods, so also must be a great many goods which are in the technical sense finished, and are ready for consumption. For the purposes of economic theory, we have agreed, production does not stop with manufacture, but continues up to the moment at which the finished good is delivered into the hands of its ultimate user.[3] It follows, then, that all products which are in the hands of merchants and traders, or are in course of being transported from the factory to the warehouse, or from the warehouse to the retail store, are as much "means of production" as are the raw materials out of which they have been made. To deny this would be to adopt the now wholly discredited view that commerce and transport are "unproductive" forms of economic activity. Let us agree, therefore, that "circulating" capital equipment covers the "raw material" of the wholesalers, carriers, and shopkeepers, no less than that of craftsmen and manufacturers.

Thirdly, we have been assuming so far that "produced means of production", whatever their characteristics and

[1] See below, pp. 300, 312 ff.

[2] In so far as raw materials are *genuinely* "raw"—i.e. have had nothing done to them at all by man, they are presumably still "land", rather than capital. But it is doubtful whether the term is ever used in this rigid sense. A thing does not become a raw material until it is in the hands of the person who is going to work upon it. And that implies at the least that it has been transported to a workshop or factory, and has been to that extent "produced" (in the economic sense of the word). Cf. on this Marx, *Capital*, I, chap. v, § 1 (p. 170).

[3] Chapter XI above, pp. 178-9.

functions in detail, are at any rate *material*. But have we any right to make this assumption? What, for example, of technical knowledge? Not merely is this an essential element in the productive process (as we have already had occasion to point out[1]) and as such a "means of production" in the wide sense; but it is also itself "produced". Knowledge is not given freely by Nature. It has to be won by observation and experiment, its acquisition requires time, labour, and the using up of material resources. In advanced communities enormous importance is likely to be attached by entrepreneurs to technical progress—to the invention of methods and processes which will improve the efficiency of production of commodities already known or will open up the way to new forms of wealth. And the knowledge of how to make things—of how best to apply the available labour and machinery to the available raw materials—is a wholly indispensable part of the community's productive equipment.[2] Unless, then, we are prepared once more to alter our definition and say that capital equipment means "*material* produced means of production"—an emendation which, like that designed to exclude territorial resources, does not seem to have any great merits from a purely economic point of view—we must admit the knowledge of technique as forming a part of "capital" in the sense here under discussion.[3] Nor is this all. If knowledge of technique is a part of capital equipment, so also, we shall expect to find, is the skill and experience of the labourer who has to fashion useful commodities out of the resources at his

[1] Chapter XII, above, p. 209.

[2] It can be argued, indeed, that technical knowledge is as a matter of fact relatively *less* important in advanced communities than it is among primitive peoples whose material possessions are few and who rely for their survival primarily upon their inherited knowledge of how to make use of the natural resources with which Nature has provided them. See on this Veblen, "Capital", pp. 324 ff., especially p. 330.

[3] Probably the main reason why economists have as a rule excluded technical knowledge from the domain of capital is to be found in the fact that it tends to be the heritage of the community as a whole, instead of passing into the hands of private owners who can derive a revenue from its possession. In an age of specialised knowledge, patent rights, and secret processes this is not so plausible a ground for exclusion as might at first sight appear. And even in primitive communities it is common for technical knowledge to reside in the minds of a few "wise men", who owe much of their social position, and indeed of their income, to its possession. But in any case the question of whether or not a thing can be appropriated, and made to yield a revenue, has nothing to do with whether or not it is a form of equipment. We must not allow our conception of what constitutes capital in the technical sense to be twisted by considerations which properly belong to the analysis of capital *claims*.

disposal. For technical ability and craftsmanship, though it is sometimes, no doubt, a direct gift of Nature, is yet in general a matter of training and practice. Thus it, too, is both "produced" and a "means of production". Why, then, should we refuse to include among a community's capital the acquired skill of its workers?

Economists have in general been fairly willing to regard it as such; though they have tended to express their assent rather by saying that "capital" (in this context presumably capital purchasing power) "has been *invested*" in people during the process of training, than by describing the skill in which the training results as itself a *kind* of capital (equipment).[1] But clearly skill and experience *is* a form of capital equipment—we can call it "personal" capital if we choose—and has every title to be counted as a form of "produced means of production".[2]

It appears, then, that capital in its "technical" sense includes everything which is capable of being regarded (in the language of a previous chapter) as an "intermediate product".[3] For all intermediate products, whether mobile or territorial, fixed or circulating, material or mental, are at once "produced" and "means of production". It follows that resources which are *not* to be treated as capital must fall into one or other of two categories. Either they are "original productive elements", or else they are "final consumption goods". The former group covers pure "labour" (that is to say, the time and energies of labourers—but not their acquired knowledge and skill) and pure "land" (natural resources on which no work at all has been done). The latter covers those final products only which are actually in the hands of their ultimate consumers. In this way we arrive once more at the tripartite classification of wealth which we have already encountered:[4] (1) commodities which are not produced; (2)

[1] In the same way fields, etc., would by usual practice be regarded as "containing" capital, or as having had capital "sunk" in them, rather than as constituting capital in their own right. On the meaning of "sunk" capital, etc., see below, pp. 298-9 *et seq.*

[2] The ambiguous position of personal capital in economic writings is due, once more, to the intrusion of considerations which do not strictly belong to this plane of analysis. In so far, namely, as personal capital yields an *income*, that income can as a rule be more conveniently treated as an element in wages than as a form of interest. But that is no ground for denying that it itself is a kind of capital *in the sense of the word here under consideration.* Cf. on this matter below, Chapters XVI, pp. 336-8, XVII, pp. 360-61. [3] Pp. 194-5, above. [4] *Ibid.*

commodities which are not means of production; (3) commodities which are both produced *and* means of production.[1]

6. But is even this classification satisfactory? How far can we maintain the ultimate validity of the distinctions between capital on the one hand and these two classes of non-capital goods on the other?

So far as the contrast between capital and "original productive elements" is concerned little need be said. We saw in the last chapter that if land is thought of as the free gifts of Nature—as material resources in so far as they have never been touched by man—then it is a concept which is of no great importance for the purposes of economic analysis.[2] And if we once agree to include all intermediate products within capital equipment, there seems little point in refusing to include the negligible category of "pure land" as well; though it must be remarked that this addition prevents us now from defining capital as *produced* means of production. The position as regards labour is slightly more complicated. But here, too, there is little room for controversy. For it would be generally agreed that though we are no doubt *entitled* to say that a nation's labour power is part of its capital equipment—and language of this kind does not sound at all absurd when, for example, we are considering the possibility of international rivalry or war—yet the efforts and energies of living men are so different from resources of all other kinds that only a pedant would insist on their being described as a form of capital.[3]

[1] In strictness, as we can now see, there should be a fourth category, consisting of commodities which are *neither* produced *nor* means of production—viz. pure land which is enjoyed for its own sake, time spent in idleness, energies devoted to leisure pursuits. But "commodities" of this class lie right outside the field of production, even in the economic sense of that word. (Cf. Chapter XI, above, pp. 180-81).

[2] Pp. 224-5 above.

[3] Notice, however, that the exclusion of labour power from the domain of capital equipment—as also its exclusion from that of wealth (see Chapter II, pp. 23, 26)—is simply a concession to non-economic ways of thought; a concession, moreover, which under circumstances we must be prepared to withdraw. We may disapprove of the entrepreneur who thinks of his employees as *merely* means of production, or of the general who regards soldiers as *merely* cannon-fodder. Nevertheless, labourers *are* instruments in the productive process, and armies *are* instruments of war; and they are properly regarded as such by the entrepreneur qua entrepreneur, and by the general qua general, even though both these individuals *as men* ought to have a wider vision than this implies.(Cf. on this Chapter VIII, p. 125 n. The relevance of this point for the problems of incomes and distribution is examined in Chapters XVI and XVII below, pp. 337-8, 344-9 *et seq.*)

What, then, of consumption goods which are in the hands of the final consumers themselves? At first sight it seems as though they at least could be excluded from the category of capital equipment. But at least two considerations may be advanced against even this conclusion.

In the first place, many of the goods which we consume are required by us not because of the direct satisfactions they yield but because they are expected to maintain or increase our productive efficiency. This is true, for example, of the books and journals which the professional man must buy if he is to keep himself abreast with current work in his subject. For clearly these are in a sense the tools of his trade. But having once admitted them into the domain of capital equipment, where are we to stop? If an intellectual worker requires books to enable him to be efficient at his work, a heavy manual worker by the same token needs an adequate supply of physical nourishment. What he eats and drinks in order to maintain his strength is just as important for his productive efficiency as are the tools he uses. And the same is true of *all* "labourers". We must each of us eat in order to live; and in so far as our productive activities depend upon our being alive—and they do not only if we are capitalists or landowners—then the food we consume (or at any rate that portion of it which our systems really require) must be counted part of the equipment of the community to which we belong. So, too, with our recreations. Some exercise and amusement is necessary if we are to maintain full health and efficiency; and from this point of view a summer holiday or a bag of golf clubs has an indisputable claim to be regarded as a means of production. Indeed, *every* commodity whatsoever can be so regarded in so far as its consumption contributes to the productive capacities of the consumer.[1]

This argument must not, of course, be taken as shewing that there is no such thing as a final consumption good, or that only those things are genuinely consumption goods which make no contribution whatever to the productive abilities of their consumers. Such a conclusion would be a quite absurd distortion of the natural meaning of "consumption good".

[1] Some forms of consumption, of course, *detract* from productive capacity and must be counted from the present point of view as negative means of production —or, if we prefer, as means of *dis*production. (Cf. Chapter XI, pp. 182-4, and also Supplementary Note 16, p. 389).

For a consumption good is a good which is consumed for its own sake, and for the direct utility which it yields. And in so far as anyone buys books or golf clubs because of the immediate enjoyment which these things afford him—in so far, that is to say, as he would not be deflected from their purchase even if he knew that they would add nothing to his efficiency as a worker—then these commodities are quite clearly consumption goods. But the point is that they may also and at the same time be means of production. And to the extent that they fall into the latter category they are as much a form of capital equipment as any machine or field or industrial raw material.[1]

A second line of argument is as follows. Suppose I buy and furnish a house; and suppose also—what is, of course, extremely unlikely—that my purchases do not in any way affect my productive efficiency and are therefore *purely* consumption goods. I may nevertheless tend to regard them as part of my capital. For such commodities as these are consumed over a long period of years. And in spending money on them now, I am purchasing not an immediate utility but the prospect of a series of utilities extending into the distant future. I have, therefore, to "wait" in order to get the full return on my expenditure. Nor is the situation altered for the present purpose if instead of buying outright I rent the house and hire the furniture. For in that case I am merely getting somebody else—the owner of the house and furniture, or a third person from whom he has borrowed—to "wait" for me. It is only because *someone* is prepared to wait that the house is built and the furniture manufactured at all. Since, therefore, as we know, the notion of capital is closely connected with that of waiting, it is plausible to regard these commodities as capital goods—as coming under the general head of capital equipment.

Hence arises the concept of "consumers'" or "consumption" capital. During the last fifty years it has acquired an assured place among the tools of economic analysis. The essential characteristic of a consumption capital good is that while it is valued (primarily, at least) for its own sake, rather than as means to further consumption, it is yet "long-lived",

[1] See further on this below, p. 252, and also Chapter XVI, pp. 336-7, Supplementary Note 28, p. 397.

so that a period of waiting must intervene between the time when its production is completed and the end of the process of consuming it.

We need not stop at this stage to investigate the exact content of the concept of consumption capital. One thing, however, must be noticed about it. Long-lived consumption goods are not "means of production"; or rather, while they may in fact be means of production in so far as they contribute to a greater or less extent to the productive efficiency of their consumers, yet it is not in virtue of this, but merely because they are long-lived and involve "waiting" that they are held to constitute a form of capital. Their inclusion, therefore, within the range of "capital equipment" means that we can no longer define the latter in terms of intermediate goods or "means of production". Just as the concept of capital tends to swallow up much that would naturally be regarded as land or even as labour, so it absorbs final products and ultimate consumption goods.

Moreover, if we once grant that "long-lived" consumption goods are capital goods, to what consumption goods can we refuse this name? In the first place, many commodities which would not normally be regarded as long-lived in the sense so far understood are yet frequently bought by their consumer well ahead of the actual moment of consumption, being kept by him in storage until the actual moment of use. An example of this is to be found in the case of coal, which may be bought in the summer, when it is cheap, for use in the following winter. If stocks of coal in a coalyard or at the pit-head are capital goods, so also, on the face of it, are stocks of coal in my cellar. Secondly, however (what is of more far-reaching importance), in so far as *any* time lag intervenes between the moment at which a commodity is purchased and its full and final consumption—and such a time lag is presupposed when we speak of commodities being "in the hands of" their ultimate consumers—then there is *some* degree of waiting for the enjoyment of their utility. And to the extent that this waiting is present, then the goods whose consumption is thus postponed are entitled to be called "consumption capital".[1]

[1] A further ground on which consumption goods—even short-lived ones—have sometimes been included within the scope of capital (equipment) is examined in the Appendix to the present chapter (pp. 312 ff. below).

Thus we are driven to conclude that capital equipment must include *all* the wealth of the community, whatever physical form it takes, and for whatever reason it is valued.

7. At first sight this result seems to make nonsense of the whole concept. And it may be felt that since capital equipment is coterminous with wealth in general it can have no independent significance for economic analysis, and that we can without loss refuse to use the word "capital" in the sense now under discussion. But this would be a mistake. Though "wealth" and "capital (equipment)" have the same range of denotation, they yet do not mean the same thing. For capital is wealth *looked at from a particular point of view.* It stands for the resources of a community—its land and machines, its consumption goods, at whatever stage of production (or consumption) they may be, and the knowledge, skill, and abilities of its labourers—as all these things are *at a given moment of time.* It represents, so to speak, a cross-section of the whole flow of production and consumption. Now if we change our standpoint and consider a community's wealth over a *period* of time, then we shall include within our view not merely the *amount* of resources available at a given moment, but also the changes which take place in these resources as time passes. We shall observe how new goods are created and existing goods are used up and consumed, how instruments of production decline in efficiency through physical deterioration and are repaired or replaced, how technical knowledge advances and craftsmanship rises or falls—in a word, we shall take into account the community's income and its consumption or *outgo.* And the concept of capital thus falls into its place as the correlative of income and outgo. It is the fund of wealth which is available at a given moment, as opposed to the flow of wealth produced and consumed during a given period.[1]

But important as the concept of a "fund of wealth" may be for various purposes, it may yet be felt that to define capital equipment in this broad and all-inclusive way involves on the whole more loss than gain. Capital is now no longer a

[1] The concepts of income and outgo present certain problems of their own; and these will be examined in Chapter XVI. On the general notion of capital as a "fund" of wealth and its relation to income see in particular Fisher, *Capital and Income,* especially pp. 51 ff.; Cannan, *Review,* p. 150.

factor of production in *any* accepted sense of that term. It has no specific connection either with the technical processes whereby goods are manufactured or with "waiting" and the provision of liquid purchasing power; and instead of being the source of a particular type of income (namely, interest) it has become a correlative to income in general. While, therefore, it may be agreed, in the light of the arguments of the last few pages, that any classifications which may be introduced into the sum total of the community's resources must be at the best provisional and uncertain, yet that does not prove that no classification is worth attempting. In other words, even if we admit that in the last resort "capital equipment" must be broadened to include all wealth, we may nevertheless find it convenient and illuminating to designate certain kinds of wealth as representing "capital" *par excellence*.

8. Can we agree, then, upon the characteristics which are to distinguish "capital *par excellence*" from other forms of equipment? What is to be the *fundamentum divisionis* between capital goods (as we may call them[1]) and goods which fall outside the scope of capital in its restricted sense? This question admits of various answers. At least three different and conflicting criteria have been proposed at different times for differentiating capital from non-capital goods. And it will be necessary to disentangle these from one another and to study the exact implications of each.

For the present purpose we may confine ourselves to material commodities, leaving on one side immaterial equipment of whatever kind. And we may also exclude those things which can be accounted as the free gifts of Nature. We are left, then, with material products of all sorts—cultivated land, instruments of production, raw materials and goods in process of manufacture, consumption goods in the hands of manufacturers and traders, and the same goods in the hands of their final consumers. Within this aggregate the following distinctions may be drawn, each of them claiming to yield a contrast between what is and what is not to be given the name of "capital".

(1) We may divide goods according as their utility is immediate or derived. The former are consumption goods, in

[1] "Capital goods" is said to be due to J. B. Clark (see his *Essentials*, p. 16, etc.).

the ordinary economic sense of the phrase. The latter are (capital or) production goods; they are valued merely because they assist in the process whereby consumption goods are brought into being.

Note the following points about this classification:

First, it is "functional" rather than substantial. We have already seen that a great many goods which are primarily valued for their own sake may yet make important contributions to further production.[1] Conversely, many things which are usually thought of as production goods may yet be capable of yielding a direct utility to some of those who come into contact with them—for example, a beautiful piece of machinery, or a stretch of farming land which affords an opportunity of exercise and enjoyment to walkers. The distinction between production and consumption commodities, then, is not between two mutually exclusive sets of material things, but between two elements in, or ways of looking at, the same material things. Goods belong to the former category *in so far as* they yield a direct, and to the latter category *in so far as* they yield a derived utility.[2]

This does not mean, indeed, that the distinction has no "substantial" importance. For we can still say that those things are production goods *the main importance of which* rests in their power of assisting in the production of other goods, while those things are consumption goods *the main importance of which* rests in the direct utilities they provide. Machinery, then, falls into the former category because even though it may be beautiful it would never have been constructed for that reason alone; whereas such things as, for example, cigarettes fall into the former category, because even if they happen in some cases to contribute to the productive efficiency of their consumers, yet it is not for that reason but because they yield a direct enjoyment that they are in fact consumed. But the point is that the distinction in this form is essentially one of *degree*. And it may be a matter of some doubt where precisely to draw the line between the two groups.[3]

[1] P. 247 above.

[2] It may be added that just as some consumption goods have a *negative* derived utility (cf. above, p. 247 n.), so some production goods—e.g. a steam drill—have a negative direct utility, being from the latter point of view consumption *dis*commodities.

[3] Cf. above, Chapter II, p. 27, and also the similar situation with regard to the terms "producers" and "consumers" examined in Chapter XI, pp. 190-92. It

Secondly, the same type of commodity may be a consumption good under some circumstances and a production good under others. The usual example of this is the distinction between a diamond as worn in a brooch or ring, and a diamond which is employed as a glazier's tool. Here, once more, the classification is essentially functional; it contrasts two different ways of using the same things. If we wish to understand it substantially, therefore, we must recognise that it is provisional rather than absolute. Production and consumption goods, that is to say, comprise those commodity classes which are *generally*, or *in the first instance*, used as such.

Thirdly, production goods must be understood to include *all* goods the utility of which is derived from what they help to produce, whatever their physical relationship to the product may be. The raw cotton from which a shirt is made is a production good; so is the thread into which it is spun and the cloth into which the thread is woven. It is, indeed, possible, as we shall see shortly, to make a provisional distinction between means of production of this type and means of production (such as machinery, fuel, etc.) which are physically independent of the product. But this is a distinction which lies wholly *within* the field of production goods.[1]

What then of goods which have reached their final form, and represent the finished products of the industrial process? It is natural to count them as consumption goods; and we shall be entitled so to treat them if we are thinking of "production" from the technical point of view. But we have seen that in economics production does not end with manufacture; the word covers all activities which increase utility. From this point of view a shirt in the hands of a manufacturer is still in the process of production; for it has yet to be transported to the wholesaler and retailer, and through them to the person who will ultimately wear it. So, too, wheat which is stored in warehouses at harvest time for consumption during the winter months has to be (so to speak) transported in *time*

may be remarked that in distinguishing "immediate" from "derived" utilities we are adopting the standpoint of the community as a whole, rather than that of any particular member of it. A production good may have a direct and immediate utility *to its owner*, in so far as he hopes to make a profit out of its employment. But he can only do this (in general) because it helps to produce goods which are useful in their own right. See on this point above, Chapter XI, p. 185, and also below, pp. 262-3 n.

[1] Below, pp. 258-9.

before the economic production of it is completed. And it is only when a commodity has been produced in time and place, as well as in form, that it can be said to be a consumption good from the strictly economic point of view. We have therefore to distinguish between a "technical" and an "economic" way of interpreting the distinction between the two categories, according as we mean by "production" the making of goods or the creation of utilities.[1]

Finally, it should perhaps be noted that some doubt may exist as to the point at which utility ceases to be derived and becomes direct. We should naturally think of, for example, lettuce and vinegar as consumption goods. But if they are never consumed by themselves, being always used as ingredients in a salad, then we are entitled to argue that the salad is the *real* consumption good, the utility of the lettuce and vinegar being essentially derived therefrom. This point is probably of no practical consequence, however, so far as economic theory is concerned. And we need not quarrel with the current convention of regarding a commodity as a consumption good once it has reached the form in which it is bought by its ultimate consumer or some member of his household.

Production goods, then, are sometimes known as *capital* goods.

(2) We may classify goods according as their consumption does, or does not, require any considerable degree of "waiting". The former may be thought of as "capital" goods, the latter being by contrast "immediately consumable" goods.

This distinction, it will be observed, cuts across the one just discussed. Some "consumption" goods are in this second sense capital goods—e.g. dwelling-houses and furniture—whereas others are immediately consumable. So, too, some "production" goods—e.g. machines—are capital goods in the

[1] See on this Chapter XI above, especially p. 178 n. The "economic" interpretation of the contrast is more difficult than at first sight appears. In strictness economic production must include *exchange*—which is one way of "creating utility"—and a commodity is not a final product so long as it is in the hands of someone other than its final consumer, even although *nothing* remains to be done to it except selling it (or lending it). But there is a real convenience, as we shall see shortly (pp. 261-3), in excluding exchange from the denotation of "production". And if we adopt this standpoint, then commodities are "consumption goods" so soon as production in form, place, and time are completed, whether or not they are yet in the possession of the person who is to consume them.

new sense, whereas others—e.g. the fuel used in operating them—are immediately consumable.

But apart from this, the distinction now under consideration is by no means so simple as at first sight appears. For the *fundamentum divisionis* on which is rests may be either (*a*) the length of time which the commodities in question will last before they become unfit for utilisation; or (*b*) the number of times they can be used before they are fully consumed; or (*c*) the effect of consumption upon their physical identity.

Let us confine our attention for the time being to consumption goods in the sense of goods whose utility is direct, not derived. Then:

(*a*) We may wish to contrast those goods which are, and those goods which are not, from the economic point of view durable or "long-lived". Into the long-lived category fall not merely houses and furniture, but also such things as tinned foods, safety-razor blades, and balls of wool. For all these commodities are capable of being kept or stored for a considerable period of time without in any degree losing their capacity for yielding a utility when they come to be finally consumed. Short-lived, or perishable, goods, on the contrary, are those which must be consumed at once if they are to be consumed at all. Such goods fall into two main sub-groups: those which (like fresh vegetables, etc.) will deteriorate physically with the passage of time: and those whose utility depends upon their *novelty*—e.g. daily newspapers, which become "out of date", at least as a general rule, twenty-four hours after publication. Commodities of both these types are from the economic point of view perishable; whatever may happen to their physical properties, their *utility* is essentially short-lived.

This distinction, like that between production and consumption goods, is a matter of degree. Some things will survive without damage for centuries, others for years, others for no more than a week or two, still others for a day or less. Again, some goods decline in utility slowly, others quickly and suddenly. And of course, improvements in the technique of storage may transfer a commodity from the short-lived to the long-lived category or may slow down the process of deterioration. But these and other similar complications do not mean that the classification has no validity: they merely show that it is provisional and not absolute, and that there

will always be some margin of doubt as to whether some particular commodity class is to fall into the one category or the other. With this qualification in mind we may safely define a durable good as one the consumption of which is capable of involving an appreciable degree of "waiting".

(*b*) Secondly, however, we may be interested not in the passage of time as such, but in the relationship between actual utilisation and complete consumption. Some goods lose all utility after being used once; whereas others are capable of being used indefinitely often. The former may be called "single-use" goods. They are characterised by the fact that using them is equivalent to using them up. The most obvious illustration of this type of commodity is food; since nothing can be eaten more than once, and food which is once used is (at any rate in the economic sense) completely consumed. So, too, coal is a single-use commodity: once it has been burned it cannot be burned again. Contrast with these the case of, for example, furniture. A chair is as a rule used a large number of times before it has to be thrown away: eating a meal from a table does not incapacitate the table from being employed for the same purpose in the future. Furniture then provides an example of "multiple-use" commodities—commodities which are not wholly consumed as soon as they are used.

Two things are to be observed about this second form of the distinction.

First, it is in principle much less provisional than the other classifications with which we have so far been concerned. For there is a clear and absolute line of demarcation between being usable once and being usable more than once. For most purposes, however, it is convenient to include in the category of single-use commodities things which though capable of more than one use yet tend to be fully consumed in a *relatively small* number of acts of utilisation.[1] And from this broader standpoint the distinction becomes once more one of degree, leaving room for doubt in the case of particular commodity types.

[1] Thus, safety-razor blades and gramophone needles can in fact be used more than once, but would certainly tend to be classed with food and fuel rather than with chairs and tables. So, too, as regards goods which, though technically capable of a large number of uses, are yet so easily destructible as to be likely to be *in fact* used up rapidly—e.g. kitchen china.

Secondly, we must not assume that in order to belong to the multiple-use category a thing must necessarily be "long-lived". To be long-lived means to survive for an appreciable period of time; and it is of course reasonable to assume that the longer a commodity endures in this sense the more will be the opportunities it provides for multiple utilisation. But this does not prove that durability is an essential prerequisite of multiple use. For it is perfectly possible for a thing to be "used" in the economic sense several times *at the same moment.* Contrast, for example, food with (say) cut flowers. The former is a single-use good, because not merely can it only be consumed once by any one person, but it cannot be consumed by *more* than one person. Cut flowers, on the contrary, are multiple-use goods; they are, indeed, short-lived and do not give much scope for multiple enjoyment *through time*, but at any given moment they can be enjoyed by a large number of different persons. They are, so to speak, not "private" but—at any rate potentially—"communal" goods. And as such, though perishable, they cannot be included in the category of "single-use" goods.[1]

It follows that the two distinctions overlap, yielding together a fourfold classification of commodities: long-lived multiple-use goods, short-lived multiple-use goods, long-lived single-

[1] This analysis of multiple-use goods into sub-types should for completeness be carried much further than has been done in the text. There are really two different principles of subdivision at work. First, there is the question whether a thing can or cannot be used by the same person more than once—i.e. whether its use is what we may call "recurrent" or "non-recurrent". Secondly, there is the question whether the use of a thing by one person is or is not compatible with its contemporaneous use by someone else—i.e. whether it is "communal" or "private". And the simultaneous application of both these criteria yields *four* sub-classes of multiple-use goods: (1) private recurrent-use goods—e.g. chairs or good books (long-lived) and handkerchiefs (short-lived); (2) communal recurrent-use goods—e.g. gramophone records (long-lived) and cut flowers (short-lived); (3) private non-recurrent-use goods—e.g. bad books (long-lived) and daily newspapers (short-lived); (4) communal non-recurrent-use goods—e.g. fireworks (long-lived or short-lived). Single-use goods are then a particular case of the *third* sub-class; they are goods which are not merely useful only once to any one person and incapable of use by more than one person at the same time, but they also have the further peculiarity that having been used once by one person they cannot be used *even subsequently* by anyone else. But we need not discuss all these sub-classes in detail: for so far as I know they have no particular importance in themselves for theoretical economics. The examples of each which this note has attempted to provide—ambiguous and disputable as some of them are—are perhaps sufficient to show the sort of complexity with which we are confronted when attempting to distinguish capital from non-capital goods in terms of waiting and the relation of using to using up.

For a simpler version of the classification here suggested see Jevons, *Principles*, pp. 22 ff.

use goods, and short-lived single-use goods. We have already sufficiently indicated the type of consumption commodities which fall into each class. Let us now observe that all four of them are to be found also among *production* goods. Machines are as a rule long-lived multiple-use goods. Not merely are they capable of surviving through time, but during their period of life they may be used an indefinitely large number of times. Many raw materials, and industrial fuels, on the contrary, are no less durable than machines; but in general they are used up when they are used; that is to say, they are long-lived single-use goods. Examples of short-lived multiple-use goods are not so easy to find in industry proper, though there is no reason to doubt that they exist in one form or another; thus one can well imagine a tool which is highly perishable on physical grounds, but which within its short period of life is capable of a very large number of uses.[1] Finally, such raw materials and fuels as are subject to deterioration or are liable to become out of date may be taken as representative of the short-lived single-use category. The important thing here, as also in the case of consumption goods, is not to discuss in detail the contents of the four classes demarcated—much less to estimate their relative size and importance—but to identify and demarcate the principles of classification on which they are based. For some purposes the contrast in terms of durability is the important one; for others—and in particular for the discussion of the phenomenon of "overhead costs"—what matters is not so much how long a means of production will survive as whether or not its utilisation will bring about or hasten its destruction as a commodity. And as we shall see shortly, some part of the difficulties which have sprung up round the concept of "circulating" capital are due to the failure to notice with sufficient care the difference between classifying commodities in terms of their ability to survive through time and classifying them in terms of the number of uses of which they are capable.

(*c*) Not merely, however, is the distinction between long-lived and short-lived goods sometimes confused with that between single-use and multiple-use goods; but they are both

[1] On the "business" side they are reasonably prominent; e.g. topical advertisement posters.

at times identified with that between goods which do and goods which do not retain their physical or material identity after having been used. This last is really a *tripartite* classification. For we can distinguish between (i) such things as machines and tools which continue in existence *as things* not merely after being used once but even after they have lost all productive utility, at any rate in their present form, and have so ceased to be *commodities*; (ii) raw materials, which lose their identity in the course of the productive process, but which nevertheless survive from the physical point of view in the product into which they are made; (iii) such things as fuels, which not merely lose their identity being used but are actually destroyed in the physical sense—i.e. change their material form and properties. This third mode of classification looks at first sight as though it were merely another form of the second. Clearly if a thing loses its identity in the act of utilisation or consumption, whether or not it survives in the physical sense, then it must be a single-use commodity. Unfortunately we cannot convert this proposition. For not *all* single-use commodities lose their identity in the productive process. Safety-razor blades and gramophone needles, we have agreed, are properly to be included in the "single-use" class; and yet they clearly survive *as things* even after they have yielded up the utility of which they are capable. So, too, among production goods; we have no ground for supposing that *all* single-use means of production lose their physical identity in the course of the productive process in which they are employed, even though it may be true that all means of production which lose their identity in the productive process are single-use commodities. The two distinctions are *not* the same. The one is based upon the part played by things in the physical circumstances of production and consumption, the other upon the nature of the utilities which they provide. The one is of purely technical interest, the other is economic and may have considerable importance for the various problems of value analysis.[1]

[1] It is vital to recognise the economic irrelevance of the classification in terms of physical identity. It was remarked in Chapter XI, p. 177 n. above, that in economics "consumption" refers properly not to things but to "commodities" —i.e. to things only in so far as they have a utility or an exchange value. And there is *no* economic difference between (for example) the natural resources which are used up and destroyed in the course of some productive process and the natural resources which though used up yet survive as the material basis of

It is perhaps hardly necessary to add that all of the classifications here under consideration, like that in terms of production and consumption goods, may cut across particular commodity classes. Many things are long-lived or short-lived according to the purposes for which they are used and the treatment which they receive; things may be capable of multiple utilisation in one type of employment and only of single utilisation in another; some productive processes may destroy things which would have survived (whether in their own right or as the material basis of a product) in others. Thus the classifications are to be understood functionally, not substantially. They relate not to things or classes of things as such, but to the uses to which they may be put in the course of production and consumption.

Finally let us note that for the understanding of the concept of *capital* it is only the first of these three classifications which is of immediate significance. There seems to be no reason for regarding a single-use good as being any less a capital good than a multiple-use good, nor a physically destroyed good than one which survives after full utilisation. But long-lived goods *have* a right to be regarded as capital goods in contrast with short-lived goods, in that, as we have seen, they are by definition capable, as short-lived goods are not, of involving some degree of "waiting" before they are fully consumed. From this point of view *any* durable good is a capital good, whether it is a multiple-use good or a single-use good which is being stored for future consumption.[1]

(3) We may, however, envisage the contrast between

the commodity, or between either of these and the natural resources which are used as instruments of production and therefore survive, as things, in their own right; except, indeed, in so far as the first and third of these groups when they have been fully utilised may come to represent waste products (ashes, scrap iron, etc.) with either a negative utility or else with the possibility of being reconstructed into something else. (And even this contrast is from the economic point of view largely illusory; for the second group of natural resources may also come to be a "waste product" in a sense—viz. when the consumption good into which it has been made has itself outrun its usefulness as a commodity.)

[1] If a single-use good is in fact consumed immediately after its production is complete it is of course not a capital good—except in the wide sense in which *all* resources are capital goods at any given moment during which they exist; but then it is also not a long-lived good under these conditions. But if it is capable of surviving through time, then it is at least *potentially* a long-lived—and therefore a capital—good. The fact that single-use goods are sometimes in fact short-lived which *could* have been long-lived must not lead us to identify the two classifications, or to suppose that all multiple-use goods are, and all single-use goods are not, to be accounted forms of "capital" in the sense here under discussion.

capital and non-capital goods in yet another way; namely, according to the nature of the utilities they yield *to their owners*. We are now concerned not with production but with exchange; with the ability of commodities not to help in *making* other commodities but to have purchasing power over them. From this point of view we distinguish between what may perhaps be called "personal-use" goods and "exchange-use" goods. By a personal-use good we mean something which is useful to its owner for what he himself can do with it—for the utilities it yields when consumed by *him*. An exchange-use good, on the contrary, is one which its owner values because of the *other* things which its possession enables him to acquire by exchange. Thus, if I am a painter and earn a living by my art, my pictures are for me "exchange-use" goods; their importance so far as *I* am concerned rests primarily in the price which they will fetch. Contrast with these the flowers with which I decorate my house or the novels I read during my leisure time—commodities whose usefulness to me depends upon my consuming them in person.

This classification is, of course, to be interpreted functionally rather than substantially. The same commodity unit is capable of being a personal-use good and an exchange-use good at the same moment and to the same person; as for example, when a painter adorns the walls of his own house with such of his pictures as he has not yet sold. Moreover, it is of the essence of exchange-use goods that they should ultimately pass into the hands of somebody who wishes himself to consume them; mistakes and accidents apart, therefore, every commodity must be a personal-use good before its career is ended. For both these reasons, then, the distinction is not between two different and mutually exclusive sets of *things*, but between things *in so far as* they are valued for what their owners can do with them, and the same things *in so far as* they are valued for what they will fetch in the market.

It is important to emphasise the difference between a classification of commodities along these lines and the classification in terms of production and consumption goods. Both distinctions are alike in involving a contrast between a direct and an indirect utility; the usefulness of production goods is derived from that of consumption goods in the same *sort* of way in which the usefulness of exchange-use goods is derived

from that of personal-use goods. But in scope and content the two are fundamentally different. The earlier classification can be applied wherever things are (in the economic sense) *produced*; wherever, that is to say, people do things to the resources at their disposal so as to make them more useful than they are in their natural form. The one with which we are now concerned, on the contrary, is only valid in communities in which goods are privately owned and may be *exchanged*: it is not relevant either to a Robinson Crusoe or to economies of a socialist or communist type, in which the individual, whether or not he is left free to buy goods for himself, is not in a position to *sell*, at any rate on his own account.[1] Furthermore, even when the two distinctions are both present—as, of course, they are in all modern capitalist economies—they overlap and cut across one another. The things which I sell, and which for me constitute exchange-use goods, may be either production goods (e.g. if I am a machine manufacturer) or consumption goods (e.g. if I am an artist or a flower grower). Conversely the plane or the saw of a carpenter is a production good whose utility is yet "personal" to its owner—in that he values it for what he can do with it himself, and not for its purchasing power over other things.[2]

[1] Notice, however, that the distinction does not necessarily imply the existence of *money*; though we shall naturally expect it to be particularly prominent in any community in which money is in regular use and has brought with it a substantial degree of economic specialisation and division of labour. In such communities the immediate significance of an exchange-use good is to be found in its ability to be sold for money.

It may perhaps be added that if we interpret the production-consumption-good contrast "technically", rather than in its economic reference, cases are to be found in which it is not present, while the personal-exchange-use contrast *is* present—e.g. the community sometimes imagined by economic theorists in which goods are provided by Nature in a consumable form, and in which people gather them and exchange them among each other (cf. chapter X, above, p. 169 etc.). For the sense in which the words "socialist" and "communist" are used here, see Chapter II, p. 42.

[2] It is necessary to insist upon this last point. One is tempted to think of a workman's tools as being "indirectly" useful in both possible senses of that word. But this is a serious error. That they are production goods is obvious. And as such they have a utility only *because* in the last analysis they contribute to the making of directly useful consumption goods. Nevertheless their utility is direct in the sense of being "personal" to their owner. So far as they are concerned he is a consumer, not a producer; he does not sell or supply them but demands and buys them. Nor is the situation altered even if the *reason* for his demand for tools is his intention of making consumption goods which he will be able to sell and which represent for him exchange-use goods. In this case a personal-use production good is employed in making—and is valued because it can help in making—an exchange-use consumption good. It may be felt that a system of distinctions cannot be satisfactory which yields so paradoxical a result. But para-

If we choose to combine the two, therefore, we shall have to recognise *four* categories, not two: personal-use consumption goods, exchange-use consumption goods, personal-use production goods, and exchange-use production goods.

The next point is more important. Exchange-use goods (as also personal-use goods) may be capable of multiple, or only of single utilisation. If they fall into the latter category, then the only way in which their utility can be realised is by being sold outright—presumably, though not of course necessarily, in return for money. But in the case of multiple-use goods there are two further possibilities. If they are also long-lived, then they may be hired out or let on lease, bringing in a return in the form of a periodical income, rather than of a lump sum.[1] And, secondly, even if they are short-lived they may still have an exchange-use without leaving the possession of their present owner; for he may charge persons for the privilege of "consuming" them—as in the case of a display of rare flowers or of a topical news-reel shewn in a cinema. In both these ways the exchange-use of goods may be realised without actual sale. And the first of them is of fundamental importance for the purposes of the present discussion. For if I possess a long-lived commodity, and if instead of consuming it myself I give the use of it to some other person, receiving in exchange a weekly or annual

doxical or not, it simply reflects a sober fact of economic life; the fact, namely, that utility—the ability to be desired and/or demanded—is a property not merely of things which satisfy an ultimate need but also of everything which can contribute to bringing such things into being (cf. above, Chapter XI, § 8 (1), p. 185).

The above discussion suggests, indeed, a still further classification of commodities; namely, between those commodities which are desired because of the wants which they, *or their products*, will satisfy in their owners, and those commodities which are desired because their owners expect them, *or their products*, to be profitably exchangeable in the market. On this basis we should distinguish between a workman's tools according as their user employed them in making goods for himself or for the market. The distinction, in fact, now turns upon whether or not the possessor of a commodity values it "as a speculation", in the widest possible sense of that word. But we need not stop to examine this point further here; for important as it is in the theory of profit it has no direct relevance for the concept of capital.

[1] It might seem as though single-use goods could in principle be "leased out" too—viz. when (for example) I lay in a stock of tinned foods as a provision against some emergency, on the understanding that if I do not in fact consume them I may return them (perhaps at a small discount) to the grocer who has supplied them. But in that case I derive a utility from merely having them, in that I have the knowledge that they are available if needed; and since this utility is different from that yielded by their actual consumption it is no longer accurate to call them single-use goods.

rent, then it is for me a source of income; I have a claim on the lessee of my property so long as it remains in his possession. And according to ordinary linguistic usage my property is now a form of capital. It is, in fact, the basis of a *capital claim*.

We shall be concerned to see exactly what this implies in the next part of the present chapter. Meanwhile, let us observe that if we call a commodity a form of capital because it yields a money revenue to its owner we are using the word in a different sense from any that we have so far encountered. The commodity which I hire out is not necessarily a "capital good" in the sense of being a *production* good; it may be a dwelling-house or an electric stove no less than a farm or a piece of industrial building land. Again, though in the nature of the case it is likely to be a long-lived commodity,[1] yet it is not *qua* long-lived commodity but *qua* exchange-use commodity that it is the source of a money income. Houses and electric stoves are capital in the sense of goods whose consumption involves "waiting", even when they are owned by their users: they are only the basis of capital *claims* in so far as they are useful as a source of money income.

9. We have now at last completed the task of analysing the ways in which capital equipment may be divided up and classified. In the light of the appalling complexity which our investigation has revealed it is not to be wondered at that many economists, among them some of the most distinguished in the history of the science, have fallen into confusions in their treatment of capital goods. By this time, indeed, the more flagrant errors of the classical writers have been eradicated from the corpus of economic doctrine—largely (so far as this country is concerned) as a result of the labours of Jevons and Professor Cannan.[2] But the tendency to confusion still remains. And its main sources emerge fairly clearly from our discussion.

For we have distinguished three main ways in which it is possible to distinguish "capital" from "non-capital" goods. And we have seen also that while each of them yields two classes, the line of demarcation between these is different in all three cases. It follows that the superimposition of any one

[1] See, however, note on next page *sub fin.*

[2] See in particular Jevons, *Theory*, chap. vii, *Principles*, especially chap. xxiv; Cannan, *Theories*, chap. iv, *Review*, chap. vi; and cf. also Sidgwick, *Principles*, Book I, chap. v.

of the *fundamenta divisionis* upon another will yield *four* groups of commodity classes, and that the simultaneous application of all of them will yield *eight* such groups.[1] Now, of these eight only *one* is a non-capital good from all three points of view—namely, the group of short-lived personal-use consumption goods. All the others contain goods which *in some sense* are capital goods. Now, these other groups have no *positive* characteristic in common. Four of them are alike in consisting of production goods, four in consisting of long-lived goods, four in consisting of exchange-use goods; but the most we can say about all seven taken together is that they are *not* short-lived personal-use consumption goods. And nobody would suggest that this is an adequate definition of a capital good.

Can we do better, then, if we start not with the seven groups themselves but with the sets of four into which they may be collected? We now have: capital goods equals (1) production goods; (2) long-lived goods; (3) (certain kinds of)

[1] Viz.:

1.	Long-lived	personal-use	production goods
2.	,,	,,	consumption ,,
3.	,,	exchange-use	production ,,
4.	,,	,,	consumption ,,
5.	Short-lived	personal-use	production ,,
6.	,,	,,	consumption ,,
7.	,,	exchange-use	production ,,
8.	,,	,,	consumption ,,

The last two of these groups disappear, however, if we take the view that exchange-use goods are only to be regarded as "capital" goods if they constitute the basis of a capital *claim*; for, as we have seen, short-lived goods cannot be hired out or let on lease. In that case these two classes combine with the sixth to constitute goods which are by any test "non-capital".

It might be argued, however, against this that

(1) in so far as short-lived goods can be made a source of a money income they *are* in a sense a form of capital; that the owner of *all* exchange-use goods will regard them as such, or at any rate will consider that they have had capital invested in them. Language of this sort, however, refers to capital purchasing power, and will be dealt with in Part III below.

(2) When the owner of a short-lived good supplies it to someone else and is content to wait for payment, receiving interest so long as the debt is outstanding, then the good so supplied *does* form the basis of a capital claim and is a source of income. This is formally a perfectly legitimate mode of expression. It is usual, indeed, to treat such transactions as constituting a case in which capital purchasing power is lent, rather than capital goods being hired; and the income accruing is correspondingly thought of as interest rather than as rent. The fact, however, that the position may be stated in the former as well as in the latter way is enormously important, as we shall see, for the understanding of the relationship between capital claims and capital purchasing power—as also of that between rent and interest (see below, pp. 278-80.).

The eightfold classification here given may be compared with Walras' tenfold classification in his *Éléments*, pp. 205 ff.

exchange-use goods. Surely it is clear that these three possibilities represent simply three different ways of *defining* a capital good. They are not co-ordinate species of any one genus; nor are they different aspects of a common whole. What they represent is simply a variety of essentially unrelated ways in which the *term* "capital good" may be understood.

If we are to avoid confusion, then, we must be careful *not* to say that there are three species of capital, "production" capital, "consumption" capital, and "revenue" capital.[1] We are, of course, perfectly entitled to adopt any one of these to the exclusion of the others. Or we may broaden out our definition so as to include the *whole* of what has here been called "capital equipment". But what we must not do is to try to make the word "capital" apply at one and the same moment to an assortment of heterogeneous commodity groups, connected only by the fact that they are *either* not immediately consumable, *or* not long-lived, *or* not personally consumed by their owners.[2]

10. This, then, is one source of the trouble; economists have been too ready to treat as a distinction between different kinds of capital good what is really a distinction between different *senses* of "capital good". The other main cause of difficulty is very similar. Of the three ways of classifying material goods which are principally relevant for a discussion of capital, two derive their interest from considerations which in strictness belong to a different plane of analysis. Why is a long-lived consumption good regarded as a "capital" good?

[1] This is actually stated by Nicholson in his *Principles*, vol. i. p. 91 (cf. also his *Elements*, pp. 41 ff.). In his article, "Capital", on the other hand, the same writer adopts an essentially different but equally erroneous standpoint: for he asserts, in effect, that being a means of production, being a form of good the consumption of which involves waiting, and being a source of revenue are simply three "aspects" of the same thing; this "thing" being, apparently, capital. This sort of statement is not so much absurd as meaningless.

[2] Economists have, of course, varied enormously in their definitions of a capital good. It is on the whole common nowadays to distinguish *two* categories of capital goods: "consumption capital goods" = long-lived multiple-use consumption goods; and "production capital goods" = *all* production goods. But Gide (for example) explicitly excludes long-lived consumption goods, putting in their place what he calls "lucrative" capital—i.e. anything which brings in a revenue to its owner. Neither of these positions yields a positive definition of a capital good as such. And the result of this and of the general lack of unanimity on what a capital good is to mean has tended more and more to drive those people who shrink from Fisher's bold solution of the problem to abandon the use of capital as a goods concept altogether and to content themselves with thinking of it in terms of claims and/or purchasing power.

Because its full enjoyment necessitates an appreciable degree of "waiting". But the importance of "waiting", as we have already seen, is that it gives rise to the concept not so much of capital *equipment* as of capital purchasing power. It belongs to capital as a concept in the theory of value, rather than to capital in its technical sense. Why, again, is an exchange-use consumption good regarded as a "capital" good? Because it is capable of becoming the basis of a capital *claim*; or else because it represents an investment of capital *purchasing power*. In both these cases it is the association with capital in one or both of its other two main senses which has led to the word's being applied in this particular way to material products. We need not object to this; for it can be argued that the distinction between long-lived and short-lived goods, at any rate, is so important for the problems of value analysis, and is so intimately connected with the investigation of capital theory, that it is worth while describing the former as capital goods even at the risk of confusion.[1] But for the theory of *Production* the distinction which really matters is that between goods which are and goods which are not useful "in their own right"; and much trouble would have been saved if that distinction only had been described in terms of capital and non-capital goods. The analysis of capital equipment has, in fact, become the complex task it is because of the intrusion into its field of considerations which properly belong to the problems of value and distribution.[2]

Specific and Non-specific Goods and the Concept of Liquidity

11. Before finally leaving "capital equipment" it will be worth while to introduce a new distinction which is of

[1] The same cannot be said of the distinction between personal-use and exchange-use goods, whose importance is not really connected with the theory of *capital* at all. Professor Cannan in effect voices the general opinion of economists when he ridicules the system of definitions which would describe a dwelling house as "capital" when it is not owned by its occupier, and as not "capital" when it is (*Theories*, p. 57).

[2] It may be rejoined that it is with value and distribution that economists are really concerned, and that they are only interested in production in so far as a study of it will help them in these other fields. But if this is so—and we have seen some reason to believe that it is (above, Chapters XI, pp. 178, 186, XII, pp. 210-11)—and if capital is really in essence a value or a distributional concept, then the wise course would have been not to give it a "technical" content at all. Had that policy been pursued the last twenty-six pages of this book would have been superfluous.

enormous importance both in itself and for the understanding of the nature and problems of capital. Suppose we examine the resources at the disposal of a man living by himself on a desert island. They will be of various kinds, including, presumably, consumption goods and production goods, short-lived goods and long-lived goods, single-use goods and multiple-use goods. And for some purposes it may be of interest to distinguish "capital" from "non-capital" goods in one or more of the ways in which we have found this legitimate. But it is also possible to classify them on a quite different principle. For we may wish to contrast those pieces of equipment which are from the economic point of view "specific" to a given purpose with those others which in one way or another can be adapted to various ends according to the needs and desires of the user. Of two tools in Crusoe's possession one may be highly specialised; it may only be capable of fulfilling one particular function, and its usefulness may therefore depend exclusively upon the urgency and frequency of his demand for that function. The other, on the contrary, a hammer, perhaps, or a penknife, may be useful in all sorts of different ways; it may be pressed into service for building, for raising and tending crops, for preparing food and so on. The former is then what we may call a "specific" good; the latter is "general" or (perhaps better) "non-specific".[1]

This contrast is once more a matter of degree. Some things are almost completely specific, being utterly useless except in one narrowly defined way, others are highly non-specific and versatile, still others are capable of being used for a variety of purposes but only within certain limits and at the expense of greater or less difficulty and inconvenience. But we can still recognise it as the basis of a broad and provisional classification between goods which are valued because of one or two particular functions to which they are accurately and closely adapted and goods which are valued because of their general potential usefulness. Or if we prefer we may express the distinction functionally and say that things are "specific" *in so far as* they are thought of as serving one particular purpose

[1] I owe these terms to Professor Hayek (*Prices and Production*, p. 67). I have not read the work of Wieser from which Professor Hayek states that he "adapted" them.

and are valued on that basis, while they are "non-specific" *in so far as* they are valued for their potential usefulness in a wide range of different purposes.

12. With this qualification in mind let us observe the relationships between our new classification and the more important of the classifications which we have already examined.

In the first place, it applies to consumption goods as well as to production goods. Indeed, it has a double application to consumption goods. For on the one hand it corresponds with the well-known distinction between such commodities as water, which can be used in all sorts of different ways, and commodities which (like ornaments or prepared food) have one kind of use only. And on the other hand (what is for the moment of more urgent interest) in so far as any given consumption good is also a production good—in so far, that is to say, as it contributes to the productive efficiency of the producer—then it is capable of being either specific or non-specific *in this latter capacity*. For it may contribute to the *general* productive power of the consumer or else to his productive power in some one particular direction. Thus as a rule food as a production good is highly non-specific, since it simply helps to maintain the eater's health and strength, thereby safeguarding his general competence as a labourer; whereas cigarettes (to take a somewhat trivial example), while valuable as consumption goods to all cigarette smokers, yet can only be supposed to contribute to the productive efficiency of a narrowly limited group of workers, such as authors, and are in this way specific as *production* goods. Or, again, foreign travel, while being non-specific, both as a consumption and as a production good, to tourists who undertake it for the sake of recreation and health, may yet have a specialised usefulness to teachers or lecturers, in so far as these individuals can make direct use in their particular work of the experience and knowledge it brings them.

And this in its turn throws light upon the application of the distinction to "original resources" such as human labour. For some people's abilities are general; they are able to undertake many different kinds of work with almost equal facility and efficiency. Others, on the contrary, whether owing to physical or intellectual limitations or to specialised training,

are capable of doing one kind of work only, so that the value of their contributions to the productive process depends entirely upon the demand for work of that particular kind. Labour, therefore, no less than material resources, may be either "specific" or "non-specific".

Again, it is clear that both specific and non-specific goods may be either long-lived or short-lived, and capable either of multiple or of single utilisation. None of these combinations requires illustration. We may observe, however, that non-specific goods which are also *long-lived multiple-use* goods are in general such as can be *transferred* from one use to another—like a factory building which may house a series of different productive undertakings in succession: whereas if a commodity is either short-lived or capable of only a single use, its being non-specific can only take the form of its being available for any one of a number of *alternative* uses—like industrial fuels, each unit of which may be used in one, *but not in more than one*, of various different employments.

13. When we come to examine the connection between the distinction now under consideration and that between personal-use and exchange-use goods an important new point emerges. We have so far been treating the question with exclusive reference to the processes of production and consumption. And what has been said applies in principle as much to the equipment of a Robinson Crusoe as to that of a modern exchange economy. But we cannot confine the question to this plane of analysis. Suppose a man, a member of a community in which goods are regularly bought and sold and in which the rights of private property are fully recognised, to possess a tool which is highly specialised to one narrowly restricted form of production: and suppose that, for whatever reason, he comes to be unable or unwilling to use it for the purposes for which alone it is fitted. So far as he personally is concerned, then, it is completely useless. But it may still have a substantial value in exchange. For there may be other persons who *are* anxious to employ it, and who will be willing to buy it from him, paying a price which will be determined with reference to its utility *to them*. If so, it will have an *indirect*, or reflected, use even to its present owner. Though of no further importance to him as a *personal*-use good, it will yet be a valuable *exchange*-use good.

Now, just as in the field of production some goods are specific and others are non-specific, so in the field of exchange some goods are difficult of sale and others are easy of sale. Of two articles in my possession, one may regularly command a ready market, while the other, though not less valuable than it from a long-run point of view, may be difficult to dispose of at short notice without serious loss. The former is then "liquid" as a form of wealth; the latter is by comparison "illiquid".[1]

In this manner we arrive at a second way in which commodities may be classified from the point of view now under discussion. It stands in much the same relation to the first as does the distinction between personal-use goods and exchange-use goods to that between consumption goods and production goods. In the one case we are concerned with the real or technical phenomena of the making and using of goods, in the other with the value phenomena of purchase and sale. Moreover, the latter distinction no less than the former is a matter of degree: some things are highly liquid, others are liquid to a more or less limited extent, still others are highly illiquid; not merely that, but the same commodity may be liquid at one time and illiquid at another, according to the state of the market and the conditions of trade. Or (as before) the contrast may be expressed functionally, and we may say that things are liquid *in so far as* they possess a ready market and are valued for this reason, and are illiquid *in so far as* they are not capable of being useful to their owners in this particular way.

But though in these and other ways the distinction in terms of liquidity is closely parallel to that in terms of specificity, the two are yet essentially different in scope and content. Other things being equal, indeed, we shall expect non-specific goods to be more liquid than specific goods—if only because being themselves more adaptable to human needs they are likely to command a wider and readier market. But we have already seen that a good may be highly specific and yet represent a liquid form of wealth—if, namely, the use to which it can be put is one for which *somebody* has a need and is willing to pay. Conversely, under certain circumstances—e.g. in times of panic or a paralysis of trade and commerce

[1] Cf. on this Chapter IV above, pp. 68-70.

—even the most completely non-specific goods may lose their markets and become "frozen" in their present owners' hands.[1]

14. We cannot investigate in detail the part played in economic analysis by the distinctions between specific and non-specific, and between liquid and illiquid resources. But it will be worth while to review some at least of the main issues into which they enter.

(1) They are of importance in the theory of *Production*, because in general "specificity" and technical efficiency go hand in hand with one another. The more highly specialised a tool is, the greater (as a rule) will be its ability to perform its particular function well.[2] And one of the problems which most frequently confronts the industrial entrepreneur is whether it is better to employ an instrument which is highly efficient in one particular way but is valueless outside its own narrow field, or whether, on the contrary, he should prefer to use tools which are less productive in any one direction but are more versatile. So, too, with labour. The more skilled an individual becomes at any one type of work the less well-fitted is he likely to be for changing his job and taking over tasks to which he has hitherto been unused. And a community may well feel some doubts, in a world in which the channels of demand are liable to fluctuate and in which new inventions may render large portions of human skill and craft superfluous, whether it might not be better to sacrifice some of the cheapness which a high degree of labour specialisation brings with it for the sake of avoiding the danger of permanent unemployment among its skilled workers.[3]

[1] On this point see further below, pp. 283-7. It will be observed that the concepts of liquidity and illiquidity lose their meaning when we are concerned with the community as a whole—except, of course, with reference to goods which it is in a position to sell to *other* communities.

We may add here that a "liquid" commodity is in the nature of the case at least *potentially* an exchange-use commodity. But liquidity is a characteristic of many goods which are *in fact* valued for the uses to which their owners can put them personally. And the question of liquidity will be of great importance in the case of such things as are valued for *both* personal *and* exchange reasons. Or putting the same point the other way round, the more *illiquid* a thing is as a form of wealth (other than in times of temporary market dislocation) the less chance is there of its being valued except for its purely "personal" use.

[2] This is, of course, a commonplace of economic theory, going back at least as far as Book I, chap. i, of the *Wealth of Nations*.

[3] To some extent, indeed, education and the right use of leisure may reduce the conflict between specialisation and adaptability; just as (on the material side) an advance in technical knowledge may make it possible to produce

(2) In the theory of *Value* the importance of the distinctions rests primarily in the fact that the more specific a good is the more dependent must its esteem value be upon one particular human purpose. The demand schedule for a completely specific commodity is absolutely determined by its ability to satisfy a single and isolated type of desire. A commodity which has several different uses, on the other hand, and which can be applied to whichever of them is the most urgent at a given moment, is dependent for its esteem value upon a series of different and competing desires. Now, it is only when this latter condition is fulfilled (as we saw in an earlier chapter[1]) that the principle of diminishing utility can be regarded as a maxim of rational behaviour; for if a commodity class is specific to one use, then all we mean by saying that successive units of it show a falling utility is that we tend to become satiated with it the more we consume—i.e. the principle becomes no more than a somewhat dubious statement of a psychological fact. A theory of value, then, which bases itself not on subjective satisfactions but on the possibility of rational choice necessarily assumes that the commodity units whose value it is attempting to explain are to some extent *non-specific*; that they are capable of serving different purposes and may be devoted to whichever among these is felt to be the most important—in short, that they are means to *competing* ends.[2]

(3) Both distinctions are important in the theory of *Distribution*, in that they represent the basis of the contrast, such as it is, between rent and interest as forms of income. This point is one of the most difficult in the whole realm of value analysis, and we cannot begin to do it justice in the present work; though we shall have something further to say about it in the following parts of this chapter. At the moment we must content ourselves with the assertion that the essence of *rent* in orthodox theory is that it is the income derived from the possession of pieces of property which are thought of as *specific* to particular productive uses, while interest is the

instruments of production which are highly efficient without being narrowly specific. To the extent that this becomes possible the conflict between maximum wealth for the moment and security for the future is reduced. But we cannot stop to pursue the implications of this point.

[1] Chapter V, p. 81 *et seq.*

[2] See on this (in addition to Chapter V, *ibid.* Supplementary Note 17, p. 389, and also Robbins, *Nature and Significance*, pp. 13-14.

income derived from possessions which are thought of as, if not non-specific, at any rate *liquid.*[1]

(4) In the theory of *Exchange* the second distinction is of importance because in any money economy money itself is the outstanding example of *liquid* resources. We have already had occasion to see in some detail the significance of liquidity for the understanding of money, and the subject will occupy us further when we come to deal with the meaning of "capital purchasing power". Here all that need be said is that just as the medium of exchange is *par excellence the* exchange-use good, so it is the one commodity the utility of which depends absolutely on its being a "liquid" form of wealth.[2]

(5) Finally, let us observe that the distinction between specific and non-specific goods is one which falls entirely *within* the field of capital equipment. Nobody would dispute that a non-specific good has as much right as a specific good to be regarded as a "capital" good in any of the senses which the first main part of this chapter was concerned to distinguish. The immediate relevance for the understanding of capital of the discussion of the last few pages rests first and

[1] It would, I believe, be possible to exhibit the changes which have come over the theory of rent during the last century as being the consequences of increasing knowledge as to what forms of property are, and what forms are not, "specific". Thus, the concept of "quasi-rent" as used by Marshall is derived from the realisation that in the short period machines once made tend to be specific, whereas the capital purchasing power which was originally used to buy them was not merely non-specific but highly *liquid.* Land, on the other hand, is now universally recognised to be in many cases a comparatively non-specific type of commodity; and the income derived from its possession has *pro tanto* come to be regarded as the same in kind as that from other forms of capital equipment. So far as the relation between rent and *interest* is concerned, however, the situation is complicated by the fact that it is usually explained in terms not of equipment but of claims or purchasing power. This is the main seat of the horrible difficulties with which this latter problem is surrounded. See further on this below, pp. 279-80, 308-10.

[2] See on this Chapter IX, pp. 135 ff., 147 etc., and also pp. 294, 302-3 below. In so far as we use "money" functionally of the medium of exchange "as such" then we can invert the last proposition in the text, and say that anything which is valued solely for the sake of its liquidity *is* money, almost by definition.

A further point which may be noticed here is that in strictness the distinction between specific and non-specific goods has no meaning so far as money is concerned. For, as we know, that distinction applies in the field of production and consumption; and unless exchange is treated as a form of production and consumption it follows that money can fulfil *no* purpose which is relevant to the question of specificity. In the same way, and for the same reason, it is not really possible to say that money is either a production good or a consumption good; it is neither of these, but an *exchange* good; or else it is *both* a production good *and* a consumption good. Cf. on this extremely complicated matter above, pp. 254 n., 261-2; below, p. 340 n.

foremost in the light which the concept of *liquidity* may be expected to throw on the nature of capital claims and capital purchasing power—as also upon the nature of the process of investment.

II. Capital Claims

Let us turn now to a consideration of capital in its *distributional* reference—to the meanings which the word may bear when it is used in the sense of a claim to a particular kind of income.

15. We have already seen in broad outline how "capital claims" arise. When an entrepreneur wishes to finance a project on which he is embarking by means of borrowed resources he will in general have to pay interest to the lender; for the latter is (so to speak) doing his "waiting" for him, and "waiting" is something which is usually disagreeable and for which a charge will be made. Now, the total amount of this charge will tend to vary—though not necessarily in exact proportion—with the length of time for which the loan is outstanding; for the longer the lender has to "wait" for the return of his property the greater is the service he performs for the borrower, and the greater, also, is the disutility which he himself suffers. Interest is likely, therefore, to be calculated —at any rate in the case of long-period loans—as amounting to so much *per unit of time*, and may also be actually paid over in the form of periodical instalments so long as the debt is outstanding. From the point of view of the lender, then, it represents a form of income. And he will naturally regard the immediate source of that income as resting in the *claim* which he possesses against the borrower. But a claim to income of this kind is by ordinary linguistic usage a form of capital. And so we arrive at a provisional definition of a capital claim: it is the right of one person to an income arising from a loan that he has made to somebody else.

16. Note the following points about capital claims, so defined:

(1) They are inconceivable except in an exchange economy. In this respect the term "capital claim" has a narrower range of denotation than the term "capital equipment"; for the latter is applicable in one way or another to all possible types of economic organisation, not excepting (as we have seen) a

solitary man on a desert island at the one extreme, and a thorough-going communist economy at the other. Capital *claims*, on the contrary, are the result of borrowing and lending; and they can only exist among people who enter into exchange relationships with one another as independent economic agents.

(2) They imply also the existence of private property in a capitalist or quasi-capitalist sense. No claim will be of any value as a source of income unless its holder has the assurance that the income due in respect of it will in fact be paid. And this means that the law must recognise the legitimacy of such claims and must be prepared to enforce the contracts which give rise to them. If this condition is fulfilled then claims to future income based on past loans become themselves a form of property (in the broadest sense of the word); they are legally recognised rights to acquire and hold wealth in the form of periodical income payments.

But a right to receive income implies the existence of a corresponding obligation on somebody else to pay the income. So a capital claim, which is an "asset" from the point of view of its holder, is also a "liability" from the point of view of the person against whom it is valid. This double reference is given verbal expression in the ordinary usages of finance and accountancy; for a company's obligations to its shareholders and long-term creditors are regularly described as *its* "capital"—though they also represent "capital (claims)" from the point of view of these persons themselves. That is to say, the word may be applied not merely to claims as a source of income to their holders, but also to claims as an obligation on the persons or institutions claimed against. If we choose, we can remove this ambiguity by distinguishing between "asset claims" and "liability claims". But the concept of a liability claim is of no particular importance for the present purpose and may safely be ignored in what follows.[1] For us, then, capital claims are simply a form of property, characterised by the fact that it yields an income—known as "interest"—to its owners.

(3) The existence of capital claims does *not* necessarily presuppose a developed monetary system. I may lend a tool to a

[1] See, however, below, p. 291-2 n., where liability claims appear as "negative property capital."

workman in return for his promise to supply me with an agreed quantity or proportion of the products which he makes with its aid. Or I may maintain and educate my children on the understanding that they will support me when I am too old to do productive work myself. Such contracts as these are perfectly conceivable even in communities in which money is quite unknown. And yet, provided that they are enforceable at law, or are reasonably certain to be carried out in fact, they clearly give rise to an "expectation of future income in virtue of a past loan" and are therefore the basis of "capital claims" as here defined.[1]

(4) Where money does exist, however, then it is likely to play a prominent part in the making and repayment of loans. It may still happen, as in a barter economy, that concrete material goods are "lent" (that is, leased or hired out) and that payment for their use is made "in kind"; as when a landlord gives a farmer the right to cultivate his land in return for a share in its annual produce. But there are now two further possibilities. In the first place, the amount of the loan, and of the interest due upon it, may be expressed in terms of the standard of value. Thus (to revert to a former example), the tool which I lend to a workman may be reckoned as being worth so many units of purchasing power; and he may bind himself to supply me in return, not with a given *quantity* of his products, but with products to a given *value*, as determined by their market purchasing power at the moment of payment. Or, again, when a tailor sells a suit of clothes to a customer, but is willing to wait for a period of years before receiving payment, he is, economically speaking, in the position of having made a *loan* to the customer for so long as his account is outstanding. Yet it is not the suit itself

[1] It may be difficult to ascertain in the two examples given in the text how much of the return actually made to the lender is genuinely "interest" as opposed to the mere repayment of the principal. But so far as the lender's motives are "economic" and not (for example) charitable, then the fact that he is prepared to wait must mean—if waiting is disagreeable to him—that he expects to get more in the future than he gives up now. (In the second case indeed—the case of a father "lending" to his children—it is possible that waiting will *not* be disagreeable to the lender; that he may be prepared, even on completely selfish grounds, to forego wealth now for the sake of an equal or even a smaller amount of wealth in the future—on the ground that when he is old and unable to earn a living for himself the "marginal utility of wealth" will be substantially higher than it is now. But this point, important as it is for the pure theory of interest, has no particular relevance for the understanding of "capital".)

which he has lent, but its *value*; his claim is calculated as amounting to so many units of *purchasing power*.[1]

Secondly, in a money economy loans may be not merely expressed in money terms: they may be made (and repaid) in money form. In this case too the lender acquires a claim against the borrower. But it arises from the transference not of a particular piece of concrete property but of a quantity of cash or bank deposits. So, too, the repayments of loans, and the settlement of the interest due on them, may be effected by the handing over of *money*, rather than of goods. Under these circumstances the creation of capital claims is connected with the passage from one person to another of *capital purchasing power*.

There are thus *three* main ways whereby in a money economy loans may be effected. They may take the form of the leasing of a concrete piece of property; or of the transfer of the effective ownership of such property in return for an undertaking on the part of the recipient to pay interest on its monetary value and to restore to the former owner its equivalent in value terms when the "loan" falls due; or finally, of the handing over of money in return for a promise to pay money back in the future. The distinction between them is a matter of degree rather than of kind; the second being essentially an intermediate or border-line case between the other two.[2] But all are alike in that they involve the creation of a claim to future income in favour of the lessor or lender and against the lessee or borrower—a claim which lasts until such time (if ever) as the latter returns to the former what he originally borrowed, or its value equivalent.

17. We are now in a position to define fairly clearly the scope and range of the concept of capital claims. As a matter of ordinary usage a person's capital tends to be thought of as including those rights to income only which are expressed in

[1] Transactions of this type are more important for their logical implications than for the urgency of the practical economic problems to which they give rise. The main way in which they differ from the hiring out or leasing of specific pieces of property rests in the fact that the "borrower" receives not merely control but also *ownership* of the property in question. I shall certainly tend to regard myself as the owner of a suit of clothes which I have had from my tailor even if I have not yet paid for it; whereas I shall *not* regard myself as the owner of a costume which I have hired for a particular evening from a firm of fancy-dress outfitters. Whether the feeling of ownership corresponds with the legal facts is, of course, another matter. See further Supplementary Note 18, on p. 390.

[2] See on this Supplementary Note 18, p. 390.

value terms. Thus, if I own industrial securities I shall certainly regard them as part of my capital resources; whereas if my property is in the form of farming land or dwelling-houses which are on lease to tenants I shall perhaps be dubious about calling it my "capital".[1] Correspondingly, the income from the former will in general be classified as "interest", that from the latter as "rent". The analysis of the previous section suggests, however, that this distinction has very much less economic importance than is commonly attributed to it. For while it is true that the possession of material property is not *as such* a capital claim, yet whenever it is leased or hired out it becomes the *basis* of a claim which is in all essential economic respects indistinguishable from "capital" claims as ordinarily understood. This will become clear from a simple illustration. Let us imagine two landowners, both of them owning property over which it is proposed to build a railway line. And let us suppose that one of them accepts an invitation to transfer his land to the ownership of the Railway Company, receiving in return, not cash, but a block of irredeemable bonds or mortgages on the Company's equipment. He thus acquires a capital claim on which he receives an income in the form of interest; and the interest payments represent the actual (as opposed to the technical or legal) cost to the Company of the land he has sold them. The second landlord, on the contrary, refuses to sell his land, but agrees to let it to the Company on a perpetual lease. He, too, receives an annual income, though he probably calls it "rent", not "interest"; and he, too, has a claim for this income against the Company, though it takes the form not of the possession of its bond or scrip but of the perpetual lease agreement into which he, and it, have entered. Why should not this claim be regarded as a *capital* claim? And why should not the income which it yields be regarded as coming, not so much from the land itself, as from his claim against the Company—as constituting, in fact, not rent on his land but interest on his capital? The distinction between him and his fellow is purely a matter of legal ownership; the one is still *technically* a landowner, the other has become a capitalist. But the economic nature of the

[1] I may of course think of myself as having *invested* capital (purchasing power) in them—either in the sense that I personally bought them for money or that I have devoted money to their repair and improvement. On this use of the word see below, pp. 297 ff.

income, and the forces which determine its amount, are precisely the same for the former as for the latter.

We may put the point in another way, so as to bring out its implications for value and distribution theory, as follows. Suppose I have £10,000 to invest and am faced with the alternatives of putting it into industrial securities or agricultural land. If we assume that the one form of investment is as safe as the other and that there are no particular advantages, social or otherwise, and no special tax liabilities, in being a landowner rather than a bondholder, then I shall expect to get the same income whichever of the two I choose. Let that income be £500 a year. That means two things: first, that the current interest rate on industrial bonds of this type is 5 per cent, and secondly, that the "capitalisation rate" on agricultural land of the relevant kind is the reciprocal of this—i.e. that it can be bought "at twenty years' purchase". Since, however, the income from the land is probably fixed by long-standing lease agreements and can be taken as given, it follows that the value of the land itself, like that of irredeemable fixed-interest securities, is simply the quotient of the rent receipts obtainable from it upon the current rate of interest. Interest rates, that is to say, determine—and, we must add, are in part determined by—the value of real property. And the rent on land falls into its place as a form of interest on capital; or if we prefer it, interest becomes a form of rent. The one is typically the income from a given *quantity* of property (the rents from the estate total £500); the other is the income from property to a given *value* (£500 = 5 per cent on the £10,000 which is the estate's "capital" value).[1]

If, therefore, our purpose in using the concept of capital claims is economic rather than legal—if what interests us is the group of incomes to which they give rise and the relations between the value of each claim and the amount of the income it yields—then we must include within its scope not merely claims which take the form of the holding of securities and other evidences of debt, but also claims which are based on the possession of leased property.

The preceding argument assumes, indeed, that the value of

[1] This is not, of course, to say that no distinction can be drawn between rent and interest; merely that it must be provisional and uncertain, depending as it does on whether the "amount" or the "value" of the capital claim in question is the more prominent. Cf. Chapter XVII below, p. 360.

landed property to its owner is solely determined by the income which it yields him. And this is not by any means always the case. It is notorious that in this country at any rate landowners are almost as much interested in the social status involved in belonging to the landed classes, or in the sentimental satisfaction of feeling themselves owners of the soil on which they live, as in the money revenue which their property yields them. To the extent that such non-pecuniary considerations are present, land is not so much the basis of a capital claim as a personal-use consumption good. And correspondingly we may expect that the income derived from land will be smaller in proportion to its current market value than will be the income from industrial securities which have no similar non-pecuniary appeal. In strictness, therefore, we must understand "capital claims" functionally, not substantially; we must say that a given piece of property is the basis of a capital claim *in so far as* it yields an income to its owner and is valued by him for this reason.[1]

18. The next point is rather simpler. The capital claims which have so far been investigated have all of them in some sense been based upon material equipment in some form or another. This is quite obvious in the case of loans of the first two types; for what is leased or is handed over in return for securities or other evidences of debt is likely to be a long-lived good which is desired by the borrower for the personal uses to which he can put it—whether it be a production good (such as a piece of agricultural or building land) or a consumption good (such as a dwelling-house). And even when loans are of the third type it is reasonable to suppose, at any rate if we confine our attention to the industrial field, that the resources lent will be used by the borrower for the purchase of some kind of productive equipment. But we must not suppose that *all* capital claims can be correlated in this way with existing material resources. In the first place they may be based upon *immaterial* equipment; as when a patented process is hired or rented by an industrial company,[2] or is

[1] See Supplementary Note 19, p. 391, and cf. also below, pp. 302-3, where a second and for our purposes more fundamental ground is advanced in support of the view that capital in its second main sense is essentially functional in reference.

[2] That is to say, when the company gets a "licence" from the patent-holder to use the process in question in return for an agreed periodical payment, or for a percentage return on all products made with its aid.

bought up by it with borrowed resources. Secondly, however —and this is much more important—claims may exist without having any counterpart whatever in the form of capital equipment, even in the widest possible sense of that term. Thus in the example already cited of the tailor who is not paid for his suit of clothes until several years after he has actually supplied it, the claim may well be outstanding even after the clothes themselves have ceased to exist. And it is of course well known that loans of the third type are often devoted to the purposes of immediate consumption—both on a very small scale, as when I run an overdraft in my household banking account, and on a very large scale, as when a country floats a loan in order to carry on a war. If we wish, then, we may introduce a second classification among "claims to future income", contrasting those which are with those which are not based upon and "backed by" capital equipment. This distinction cuts right across the earlier one. Moreover, it is a distinction *within* the field of "capital" claims. We have clearly no ground for refusing to treat a money-lender's rights against his clients as constituting his capital; they are for him a source of income of essentially the same kind as are the claims of a landlord against his tenants, or of a capitalist against the company whose bonds he holds.[1]

19. A third possible distinction among "claims to future income" gives perhaps rather more ground for supposing that not all such claims are properly to be regarded as constituting forms of "capital" in the sense of the word now under discussion. It is common to contrast "short term" loans, running for three to twelve months or less, with "long term" loans, which mature (if at all) only after a period of years.[2] And we may be inclined to take the view that it is only the latter group to which the word "capital" may properly be applied. Thus in the financial world a more or less clear line of demarcation is to be found between the "capital" market

[1] It is not so easy to find clear examples of "claims without equipment" in the first type of loans as it is in the other two. But a case in point is perhaps to be observed in speculative markets, when a piece of property is borrowed (or "hired") with a view to being sold short. Being "short" of a commodity implies under these circumstances having a claim outstanding against one without possessing the equipment from the transference of which the claim originally came into being.

[2] For some purposes a third group is distinguished, consisting of "medium-dated" securities, with a length of life of from one to, perhaps, five years.

(i.e. the market in long dated and irredeemable securities) on the one hand, and the short-term or "money" market on the other.[1] And a corporation will tend to distinguish between its "capital liabilities", as represented by the bonds, etc., which it has issued to long-term investors and such short-time obligations as it has incurred in the form of bank advances or the bills which it has sold to discount houses. In these and other cases it seems to be of the essence of a *capital* claim that it should be based on a loan which lasts for an appreciable period of time. How far is this restriction on the scope of the concept justifiable for the purposes of economic theory?

In the first place it is clear that in so far as the distinction between short- and long-term loans is *merely* a matter of time its significance cannot be more than provisional and even arbitrary. A period of time is selected more or less at random as the dividing line and loans are placed in the one category or the other according as their length of life is less or more than the period so chosen. No hard and fast classification is, then, possible; for some purposes we may fix the upper limit of short-term loans at a year, for others at six or nine months, for others at three years or even longer. It is difficult to see how so wavering and uncertain a method of classification can be of fundamental theoretical importance, no matter what practical ends it may serve. And we may feel tempted to conclude that so far as economics is concerned the contrast between short-dated and long-dated securities is at best no more than a matter of distinguishing between two species of capital claims, and that the former no less than the latter is entitled to the name of "capital".

There, are however, two grounds on which the distinction, at any rate in a modified form, may be held to be of interest to economic theorists.

(1) First, the shorter is the life of a loan the higher—so it may be thought—will be its liquidity. If I buy bonds or mortgages which are not redeemable until twenty years have elapsed, then my money is "tied up", and it is only after a long period of waiting that it will be returned to me. During the intervening time I am of course drawing interest; but the principal, the sum originally invested, remains outside my control. A

[1] The latter is, however, not infrequently described as the *short-term* "capital" market.

short-term loan, on the contrary, is "self-liquidating". The money invested in it returns after a month or two to the lender. And while he can immediately reinvest the latter in a similar sort of claim if he chooses, yet there is no obligation on him to do so; he can equally use it for current consumption purposes or for investment in long-term loans or productive equipment. In this way short-term loans are not merely more convenient and (in general) less risky than long-term loans, but it involves a smaller degree of compulsory "waiting". In short, they seem to have less title to be treated as a form of *capital* claim.[1]

Considerations of this sort have enormously affected the structure and development of the British Banking System. It is well known that the banks in this country, unlike those in some other parts of the world, have kept steadily before their eyes the ideal of "liquidity"; that they would in general rather invest in a bill of exchange carrying 2 per cent interest or less than in a bond or mortgage of unimpeachable security which would yield perhaps twice as high a rate of return. It is no part of our task to question the wisdom of this policy on practical and financial grounds. But is it in fact true that long-term loans are substantially less liquid, in the sense which is here relevant, than short-term loans? In normal times a short-term loan is admittedly highly liquid (provided that the borrower is himself solvent when the time comes for repaying it). But so, too, in normal times, is a long-term loan (with the same proviso). For while it is not *self*-liquidating—while, that is to say, it does not automatically turn into cash after a short period of time—yet it can at any moment be *exchanged* for cash. In modern industrial communities the capital market is highly competitive and no difficulty whatever is found in disposing of long-dated claims at prices which (if general economic conditions have not altered) are not appreciably less than those which were originally paid for them. And this means that anybody may safely invest his resources in bonds and other long-term securities in the full knowledge that for *him* they are liquid, and can be sold as easily as they were bought.[2]

[1] On the other side, of course, they tend to carry a lower rate of interest—a fact the full importance of which will emerge shortly.

[2] For the purposes of this discussion we are entitled to neglect the actual cost (in the form of brokerage, etc.) of buying and selling bonds and stocks; for our

To this it may be replied, indeed, that long-dated claims, however liquid they may be from the point of view of their present owners, are yet from the point of view of the community as a whole highly illiquid; that I can only dispose of my bonds if somebody else is willing to take them over from me and that their transference from me to him does not involve any net change in the volume of long-term claims outstanding. But in so far as this is true at all it is true of short loans as well as of long. Suppose that I buy a bill of exchange and that the funds I advance to the seller of the bill are used for financing the importation of some raw materials which are to undergo manufacture before being sold in the home market. Under normal circumstances, as we know, my money will be returned to me as soon as the bill matures. But this will only happen because the importer of the raw materials has succeeded in selling them for cash to the manufacturer. And the manufacturer is only able to buy and pay for them because he has the necessary resources of his own or else has been able to borrow them. If he cannot pay the price of the materials and they are left on the importer's hands, then the latter must either persuade me to renew the bill or else find someone else who will come forward as a lender in my place, if he is not to go bankrupt. Whichever of these possibilities is in fact realised, it is at any rate clear that my claim is only liquid because *somebody* is prepared to take it over from me when the bill matures. From the point of view of the community, therefore, even the most immediately self-liquidating of claims may for a time be wholly illiquid.[1]

object is not to argue that there is *no* inconvenience in respect of liquidity in the ownership of long-dated securities, but merely to shew that the difference between them and short-dated securities is from this point of view very much less than current British banking practice would seem to imply. Another point, which is of much more importance for commercial banks, is the possibility that at the moment when it is desired to sell such securities their capital value may be lower than when they were bought owing to the fact that in the intervening period interest rates have risen. We shall see, however, that this too is irrelevant to the issue now under consideration (p. 288 n.).

[1] This is not the only answer which can be made to the attempt to defend the distinction between long and short loans on the ground that the latter are less liquid from the point of view of the community as a whole. For when I dispose of an industrial bond it (or some other equivalent security) will ultimately pass into the hands of somebody who is anxious to find an investment for his capital purchasing power, so that the amount of capital purchasing power available for *new* investments will be correspondingly reduced. In that case it is *not* true to say that my action has involved "no net change" in the total of capital claims outstanding.

And this becomes immediately apparent in times of crisis or panic. Long-term loans are now illiquid, even from the point of view of their owners: I cannot dispose of my bonds except at a heavy loss. But so also are short-term loans. Credits become frozen, bills cannot be met when they fall due, and even those banks which have most sedulously avoided tying up their resources in long-term commitments find themselves unable to insist upon the cash settlement of their debts. In short, the mechanism of credit under these circumstances breaks down *as a whole*, carrying with it the pretensions to liquidity of even the most short-dated and reliable of "claims to future income".[1] Conversely, as conditions return to normality the liquidity of *all* claims from the point of view of their holders is once more and to an equal degree restored.

The fact is that so far as the community as a whole is concerned the only distinction which is here relevant is that between "specific" and "non-specific" forms of *equipment*. It is true that a long-lived machine is often "specific" for a much longer period of time than the raw materials which it helps to convert into finished goods. And it is also true that machines are often paid for with resources borrowed on a long-term basis, whereas the carrying of raw materials and semi-finished goods is often financed by means of bills and other short-period forms of debt. There is, then, a *prima facie* attractiveness in linking the two distinctions together and arguing that long-term loans are illiquid, *because* they are based on specific forms of equipment. But such a procedure can only lead to confusion. It is perfectly possible for a company to "borrow long" in order to cover its short-period material needs, or to "borrow short" for its long-term equipment. And if specific goods happen in fact to be paid for by long-term loans and non-specific goods by short-term loans, that is in logic no more than a coincidence. It does not entitle us to conclude that short-term claims are in principle less illiquid from the point of view of the community, than are long-dated and even irredeemable claims. Indeed, if we are strict we shall hold that from the point of view of the

[1] In law there may still be some difference between the two groups, in that the owner of a self-liquidating claim can if he chooses force his debtor into the bankruptcy court—unless, indeed, the Government declares a moratorium.

community the words "liquidity" and "illiquidity" have no assignable meaning at all, except in so far as they are surreptitiously identified with "non-specificity" and "specificity".[1]

It follows that we cannot refuse to short-term claims the name of "capital" merely on the ground that they are more liquid than long-term claims. For from the purely economic standpoint the apparent difference in liquidity between them and long-term claims is largely illusory.

(2) Let us turn now to the second ground on which it may be held that the classification of loans in terms of their length of life is of economic importance. In the case of a loan which runs for less than a year it is probable that the payment of the total interest due will be made simultaneously with the return of the principal. Thus, when I buy a bill I pay for it somewhat less than the amount which will accrue to me on its maturing, and the difference between what I receive and what I have given constitutes the interest on the loan, and the reward for my waiting. In the case of long-term loans, on the contrary, a clear distinction is in general made between the two, the interest being paid in yearly (or half-yearly) instalments throughout the period of the loan. Interest payments constitute, in fact, a steady *flow* of income to the holder of a long-dated claim. And it may be argued that if we are thinking of capital as a source of income, then claims which yield a return in the latter form are more naturally to be regarded as "capital" than claims which simply represent the expectation of a lump sum at a particular moment in the future.

This view is legitimate as far as it goes. But let us note carefully its implications. What we are now saying is, in effect, that the test of whether a claim is or is not capital is only to be determined with reference to the intentions of its owner. If he values it for the flow of income it yields him, then it constitutes "capital" for him; if, on the contrary, he thinks of it merely as a way of employing profitably some funds which he does not happen to require for the moment but wishes to have available for use in the near future, then it

[1] See on these terms pp. 267 ff.; and cf. also on the argument of the preceding paragraphs, Machlup, "The Liquidity of Short-term Capital". The last few pages are not, of course, intended to represent a contribution to the content of capital theory—merely to the elucidation of the nature of one of its problems.

is not *in this sense* capital.[1] Now, we have no grounds for assuming that the distinction in terms of people's intentions always coincides with that in terms of the length of life of the claims. On the one hand it is open to anybody to buy long-term securities not as a permanent investment but merely as a way of using temporarily idle funds; for as we know he can normally rely upon being able to sell them whenever he wishes. And on the other hand a capitalist may prefer the money market to the long-term capital market *as a field of investment.* He may as a regular practice buy up bills, re-investing the proceeds in other bills as the first ones mature, and living on the interest which he obtains from them. In this case bills are *for him* capital claims; since he values them because of the *flow* of income which they successively yield him.[2]

It is obvious, however, that the desire for a future income and the desire to hold one's resources in a liquid form are not necessarily mutually exclusive. I may value the bills I have bought, or the bonds I own, both because they yield interest and also because I can convert them into cash whenever I have a mind to do so. Indeed, it is quite certain that the former motive will be present in *any* decision to invest in an interest-bearing claim; for if my sole concern were with liquidity I should naturally tend to keep my funds in the most liquid form of all—viz. in currency or on demand deposit with my bank. If, therefore, we wish to construct a classification of claims according to the part played in the demand for them by the expectation which they afford of a flow of future income, we must recognise it as essentially provisional and

[1] It may, of course, be a form of capital *purchasing power*: but we are not at the moment concerned with this possibility.

[2] The decision whether to use one's resources in the long-term or the short-term market will depend principally, we may assume, upon the view one takes as to the course of future interest rates. If I think long-term rates are due for a rise (or more accurately, if I think that the present value of capital securities does not fully reflect the possibility of such a rise) then I shall tend to buy short; if for a fall I shall tend to buy long. This fact introduces a complication, in that the actual amount of my future income will be affected by whether or not my anticipations are correct. For if they are, then the *extra* income I make from my successful prophecy has some claim to be regarded as profit, rather than as interest. This point, however, important as it obviously is for an understanding of profit and of the relationship between speculation and investment, does not affect the present issue. All we are concerned to stress here is that short-term claims may be, and constantly are, treated as a field of permanent investment no less than long-term claims.

uncertain. We are simply contrasting those forms of security which (like bonds or government stock in the hands of rentiers and trustees) are *primarily* valued as "capital" claims with those other forms which (like funds on deposit account with a commercial bank) are *primarily* valued because of the high degree of liquidity which they possess—because they are for practical purposes simply a "store of liquid purchasing power". No hard and fast line can be drawn between the two; for not merely are forms of investment available which combine the two characteristics of liquidity and of being a source of income in all possible relative proportions, but the same type of security may be valued by one person mainly on the first ground and by another mainly on the second. Broadly speaking, however, we shall expect to find that the better fitted a claim is to be treated as a store of liquid purchasing power the lower will be the rate of interest which it yields; and *vice versa*.[1]

And this means that the concept of a capital claim must be understood *functionally*. Just as a landlord (so we have seen) may value his estates not merely as a source of income but also as in some sense a direct consumption good, so a capitalist may value his securities not merely for the interest they yield but also because they represent a way of keeping his resources in a liquid and readily disposable form. Any claim to future income, then, is a "capital" claim *in so far as* it is valued for the sake of that income. If it is valued for other reasons, then *to that extent* it is something other than a capital claim.

20. The full significance of this result will emerge when we come to deal with capital purchasing power. Meanwhile let us summarise the conclusions of our analysis of capital in its second main sense.

(1) In my capacity as a receiver of income my "capital" consists of the claims which I possess against other persons

[1] This conclusion may seem to conflict with the argument on pp. 283-6, which tended to deny any difference in liquidity as between short- and long-term loans. It may be remarked, however, that (*a*) the earlier passage was only concerned to shew that the difference was not nearly so great as might at first sight appear (cf. pp. 284-5 n.); and (*b*) in so far as a substantial group of people or institutions (such as the British joint-stock banks) *believe*, whether rightly or wrongly, that in the interests of liquidity they must woo bills and eschew mortgages, the rate of interest on the former will tend to be lower than that on the latter.

to future income. (Conversely, in my capacity as a borrower—e.g. if I am an industrial entrepreneur—my "capital" consists of the *liabilities* to other persons in respect of claims to future income held by them.) The concept is to be understood functionally; since in so far as I value my property, or the claims which are based upon it, for other reasons than as a source of future income then to that extent they are not capital in this sense. With this qualification, however, the term covers *all* claims to future income.

(2) Within the field of capital claims so defined several distinctions may be drawn, some of them of considerable economic importance. For—

(*a*) Some claims arise from the leasing of concrete pieces of property (material or immaterial), others from the actual transfer of such property in return for a promise of future payment, still others from the transference of liquid resources or money. This classification is essentially legal (or possibly psychological) rather than economic in status. In particular, it is not so important for the analysis of types of income as it is sometimes supposed to be.

(*b*) Some claims can be correlated with existing capital equipment, others cannot; that is to say, we have no ground for supposing that there is any quantitative correspondence between "capital" in its second and "capital" in its first main sense.

(*c*) Some claims are long dated, others are short dated.

(*d*) Some claims are more "liquid" than others from the point of view of their holders. This distinction does not coincide with the preceding ones, being really a question of whether times are normal or abnormal: if they are normal then all claims which run in value or money terms tend to be liquid, whereas if they are abnormal all claims tend to be illiquid.

(*e*) Some claims are more "liquid" than others from the point of view of the community as a whole. This can only mean, however, that some claims arise in respect of "specific", and others in respect of "non-specific", capital equipment; that is to say it is really a distinction on the "technical" rather than on the "distributional" level of analysis.

21. We may conclude this part of our discussion with a

brief consideration of what Professor Irving Fisher has termed "property capital".[1] At first sight this concept represents no more than the logical completion of "capital claims" as here understood. Just as for Fisher capital in its "technical" sense covers *all* real resources at a given moment of time, regardless of their nature and functions, so in the world of "claims" the word is taken to include *all* property, whatever the utility may be which it yields to its owner. It thus coincides in range with capital in the earlier sense. *All* capital (equipment) is also property capital, in that it is all *owned* by somebody—whether by an individual, by a group of individuals, or by the community as a whole. And just as the capital equipment of a community is correlated with the community's real income, so a person's property capital is correlated with *his* income; not merely, however, with the money income which accrues to him in the form of rent or interest, but also with the subjective or "psychic" income which he derives from the goods in his immediate possession and control. In short, it is the property of the community and its members at a given moment of time, as contrasted with the flow of property incomes.[2]

We need not discuss how far the concept of property capital is likely to be of use for the purposes of economic analysis. But we must observe that it is in two ways quite different from that of capital claims. In the first place it is both wider and narrower in range. For it includes *all* owned or appropriated goods whether or not they are used by their owners as a source of income from other people; and at the same time it includes goods that are not owned by any individual, being the common property of the community as a whole. And on the other hand it does *not* provide room for those claims which cannot be correlated with particular pieces of equipment; or rather, it only does so by means of a somewhat dubious arithmetical device.[3]

[1] "Senses of Capital", p. 201; cf. *Capital and Income*, chap. ii.

[2] On the various meanings of "income" see below, Chapter XVI, especially pp. 332-5.

[3] Fisher argues in effect (pp. 205 ff.) that if I own a claim for £1000, and the debtor has no corresponding equipment to back his liability to me, then while I have property capital amounting to +£1000, he has property capital amounting (in respect of this claim) to −£1000. If, then, we add the two together the result is zero—which corresponds with zero equipment! To which the answer seems to be that for the theory of distribution we are not in the least interested in the algebraic sum of positive and negative property, but in the effect of the

Secondly, the two concepts differ in the *nature* of their content. Property capital denotes the concrete things which a person owns—the fields of a landlord, the buildings of a house-owner, the machines which have been paid for with the money of an investor, and so on. And these things are *not* capital claims, even though they may become the equipment basis of such claims. A capital claim is something intangible: it is not a concrete material thing, nor even a concrete immaterial thing, but an expectation or a *right*. And the essential fact about a right is not in the least that it is connected with any particular owned good but that it is balanced by a recognised liability or obligation. If, then, we allow ourselves to identify capital as a source of income with the ownership of concrete property we shall not merely make it unnecessarily difficult to explain and analyse such claims as are not vested in concrete property—e.g. in particular, that peculiar type of claim which arises from the "goodwill" of a business or trade connection—but we shall run grave danger of misunderstanding the nature of the relationship between "rent", the income from claims which do, and "interest", the income from claims which do not, depend upon the legal ownership by the income receiver of a piece of concrete equipment. Nothing but harm can come from allowing the desire for a neat parallelism between the second main meaning of capital and the first to obscure the essential difference between the ownership of equipment and the possession of claims to future income, closely connected as the two no doubt sometimes are.

III. Capital Purchasing Power

We come now to the third main sense (or group of senses) in which the word "capital" may be used. It will be possible to deal with "capital purchasing power" (as we have called it) comparatively briefly: for much has already been said about it by implication in the earlier parts of this chapter.

22. Let us note first that "capital" bears the meaning now

existence of claims in favour of one person and against another upon the incomes of each taken separately. The *net* amount of property in existence is only relevant if we are investigating the wealth of the community as a whole. But for this latter purpose the fact that it is "property" is of no immediate importance; what matters is that it is equipment. "Property capital" in other words is merely "capital" (equipment) *conceived of as owned*—but not as owned by anyone in particular.

to be examined in one of its most frequent everyday uses. When a man speaks of "putting his capital" into land or dwelling-houses, or of having "invested all his capital" in a particular industrial company (or in its shares or bonds), the "capital" which is so employed consists in general of liquid purchasing power; of cash or other media of exchange which he had at his disposal and which he decided to use in these ways, rather than (for example) hoarding it or spending it on immediate consumption goods. What he has done is to exchange resources which he *might* have used up at once for either a quantity of long-lived equipment or else a claim to future income; he has agreed to "wait" for some part of the consumption which it is open to him to enjoy. And this "waiting" has expressed itself in the fact that some of his wealth has been made available for the purchase of long-lived (i.e. "capital") goods or for handing over to somebody else in return for a ("capital") claim to future income in the form of interest payments. In the latter event it is being employed on the "capital market" (in the widest sense of that term). For the capital market, while it can be described as the market in capital claims, is also a market for capital purchasing power; it is in fact the organisation whereby purchasing power and claims are exchanged for one another.

From this it might seem that capital purchasing power could be regarded as being simply an expression for the *value* of capital equipment or capital claims: their cost value to those who buy them and their exchange value to those who sell them. And indeed this is one possible meaning which the phrase may bear, though (as we shall see shortly) a difficulty arises owing to the fact that neither claims nor equipment are in general constant in value, the present purchasing power of a person's property tending as a rule to be either greater or less than the amount of money which it originally cost him. But in its initial reference the term is narrower than this; for as we have already learnt, both equipment and claims can come into existence without any employment of capital purchasing power; as when, for example, a worker constructs a tool for himself in his spare time, or a landowner leases his estate to a tenant in exchange for the latter's undertaking to pay an annual rent. Here, as before, it is essential not to allow our ideas of the scope of "capital" in one sense

to be warped at the outset by associations with one of the other two senses in which the word may be used.

23. Capital purchasing power, then, consists of resources which are available for the purchase either of capital goods or of capital claims. It is of the essence of the concept that these resources should be *liquid* in form; that they should consist of commodities (or claims) which are valued by their holders for their power in exchange. And this means that in their purest form they will consist of *money*; indeed, if we define the latter word functionally as covering everything which is useful as a medium of exchange and/or a store of liquid purchasing power *in so far as* it is so used and valued, then capital qua capital in this sense *must* take the form of money. Only "exchange-use goods" can be capital purchasing power.

It appears to follow that the term can only be appropriately used when we are thinking of a money economy. This would not be wholly accurate, however. Even in a barter economy it is possible to distinguish between relatively illiquid and relatively liquid resources—the latter consisting, presumably, of more or less non-specific goods which command a wide and ready market.[1] And at least some part of the esteem value of such goods might be due to their purchasing power over other goods or services (or their ability to be converted, by lending, into claims). To this extent, then, they would constitute "liquid capital" for their owners and would be entitled to the name of capital purchasing power. From the present point of view the difference between monetary and non-monetary exchange economies is simply that in the former, but not in the latter, a commodity is in general use which is valued *primarily*, and even *exclusively*, as a means of purchasing other forms of wealth. That is to say, it is only when there is money that capital purchasing power can acquire the status of an independent entity or "thing", as opposed to being merely an element in or an aspect of things which are in the first instance something *other* than capital purchasing power.[2]

[1] Cf. Schwarz, "The Risk-liquidity Theory", pp. 166-7.

[2] If we prefer we may use some vaguer terms such as "capital control" or (following Cassel) "capital disposal" when we are thinking of exchange economies in general, confining "capital purchasing power" to the specific realisation of liquid capital in money form.

On capital (in this main sense) as an "aspect" of things see further below pp. 302-3, 306-8.

24. From this point the enquiry branches out in two opposite directions. On the one hand, since capital purchasing power in its purest form consists of money it is necessary to investigate the distinction (if there is a distinction) between it and money purchasing power in general; that is to say, we must enquire what, if any, is the specific characteristic of money resources in virtue of which they are entitled to the name of "capital." And secondly, we know that under normal economic conditions liquidity is in some degree a quality of *all* valuable commodities, at least potentially,[1] and we have therefore to ask what is the relationship between capital purchasing power in its pure (i.e. its money) form and the capital that has been invested in other kinds of wealth. In both cases we are concerned with tendencies which the concept possesses to widen its range of denotation far beyond the limits which have so far been by implication imposed upon it.

The first of these two questions is at bottom simply a matter of ordinary usage. We have seen already that money purchasing power is thought of as capital if it is used for investment either in capital goods or in capital claims (however exactly these terms are defined). By parity of reasoning, then, it cannot be capital if it is used in some other way; that is, if it either is hoarded or else is spent on goods which are intended for its owner's immediate consumption. This, however, will not quite do. For on the one hand, money hoards may well be regarded as representing capital, in so far as they are *potentially* available for investment purposes; not merely that, but it is far from easy to decide at what point a person's monetary holdings cease to be a part of his ordinary equipment as a consumer or business man and become in the relevant sense a "hoard".[2] And on the other hand, it is usual to apply the word "capital" even to resources spent on short-

[1] Above, pp. 67, 69.

[2] This is a point to which we cannot do justice here. It raises the whole problem of the nature and the status of the "demand for money" and of the precise way in which a "miser" differs from ordinary people. It is, however, at least arguable that economists are far too prone to exaggerate the economic insignificance of the phenomenon of miserliness: cf. Chapter XVI below, p. 340 n.

Another difficulty is that in so far as monetary stocks are *not* hoards but are part of the ordinary working resources, or reserves, of people in their capacity as producers, financiers, or private persons, they are properly to be thought of as (in the first instance at least) a form of capital *equipment*, not of capital purchasing power (cf. below, pp. 310-11, 340 n.).

lived personal-use consumption goods, *if* these resources *might* have been used for the purposes of investment, or if they have arisen from the disposal of investments previously held. What exactly is meant when it is said of a person that he is "living on his capital"? To do this involves the conversion by sale of either capital equipment or capital claims into liquid purchasing power, with a view to applying the latter to the purchase of ordinary consumption goods. And the "capital" which is "lived on", since it obviously is not the consumption goods themselves, must be thought of as being either the claims or equipment which have been sold, or the money which their sale has yielded.[1] In so far as it is the latter, then we can no longer insist that it is of the essence of *capital* purchasing power (as opposed to money purchasing power in general) that it should be devoted to the acquisition of capital in one of its other senses. So, too, with the parallel phrase, "living on *borrowed* capital". Here again it is no part of the connotation of the word that the resources borrowed must necessarily be devoted to production rather than to consumption.[2] They are called "capital" because (*a*) from the point of view of the *lender* they represent capital purchasing power, having been used by him to acquire a capital claim against the borrower; and because (*b*) they *might* have been used for the acquisition or construction of a piece of capital equipment had not the borrower chosen to live above his income and apply them to the satisfaction of his immediate consumption needs. In short, by capital in this sense we seem to mean in ordinary usage monetary resources which have *some* connection, whether negative or positive, with capital in one of its other main meanings.

As it stands this is an obviously unhelpful definition. But we can give it precision in either of two ways. In the first place, we may stress the *potentialities* of money purchasing power, rather than the uses to which it is actually put, or from which it is diverted. That is to say, we may lay it down that purchasing power is capital which is *available* for purposes

[1] In all probability it will be both; since in the contexts in which the phrase is generally used it is not necessary to distinguish between them, the point being simply that wealth is diverted from a "capital" use (however vaguely conceived) to a "current consumption" use.

[2] They *may* of course be devoted to production in a wide sense; as when a person "borrows capital" in order to support himself while undergoing training for a professional career.

other than that of current consumption, whether or not it is always in fact used for these purposes. On this definition the word will tend to be coterminous with money resources in general; for there is in principle no limit to the extent to which people may divert their incomes from current to "capital" expenditure (even though we may be quite certain that in the real world immediate consumption will not fall below a certain fairly well defined level). Or secondly, we may take as our guiding principle the test of *saving* and *dissaving*. For we may say that money resources are capital if no positive act of saving is required for their application to the purchase or construction of capital equipment or claims—if, in other words, to use them for current consumption involves *negative* saving; whereas those money resources are *not* properly speaking capital which, presumably because they are part of the ordinary flow of income and expenditure, will be devoted to the purchase of immediate consumption goods *unless* their owner is prepared to save them. Whether this is finally adequate as a means of distinguishing the two types of money purchasing power, indeed, will depend upon the possibility of arriving at an accurate definition of "saving" and "dissaving";[1] but given that this possibility is realised, then we may conclude that while in the widest sense all money purchasing power is *potentially* capital, yet a clear line of contrast can be drawn between capital purchasing power *par excellence* and money resources which in the first instance at least are simply a part of income and may be expected in the absence of definite decisions to the contrary to be devoted to objects of current consumption expenditure.[2]

25. The second question—that concerning the relationship between capital purchasing power in money form and "invested" capital—is rather more complex. What exactly do we mean by "putting capital into a thing"? In ordinary language the phrase has *two* main meanings; for it may be used of spending money upon making or *improving* a thing, or of spending money upon acquiring or *purchasing* a thing.[3] And these two usages must be carefully distinguished.

[1] On these words cf. Chapter XVI, p. 340 ff.

[2] See further Supplementary Note 20, p. 392.

[3] Contrast: (1) "I have invested capital in my land" (i.e. I have devoted resources to the improvement of its productive and revenue-yielding capacity);

(1) The first usage is on the whole the older so far as economic theory is concerned. Ever since the days of Ricardo (as we saw in the last chapter) economists have been interested in contrasting that part of (or element in) the community's equipment which could be regarded as in some sense "given" by Nature with the improvements made in it by human efforts and exertions. The former they have called "land", the latter has been regarded as capital invested in the land. And the total present value of the equipment is held to be due partly to the "land" itself, partly to the capital investments made in it; correspondingly, too, the revenue it yields is supposed to be partly pure rent and partly interest. The status of this distinction has already been fully examined, and we have found reason for thinking that it is of little genuine importance in economic theory.[1] But it will be worth while to add a word on the interpretation of "capital" which it entails. Suppose that I own a house, for which I have paid £2000. And suppose that I "put capital into it" to the amount of £500. In the first instance the word clearly stands for liquid resources, presumably in monetary form: it is in fact "capital purchasing power". But it is now an integral and inseparable part of the house. I cannot hope by restoring the latter to its original state to recover the £500 I have spent on it. So far as the future is concerned I must count it *as it now stands* among my "given" material resources. So, too, if I am a business man or entrepreneur. It is usual to regard as the "capital" of a company the money resources which were used to set it going. Much, perhaps most, of these resources are as such quite irrecoverable. They may have been spent in advertising campaigns, in the payment of bankers or lawyers, in preliminary investigations as to the prospects of the company's being a success. But once spent they are irretrievably gone. They represent capital which has been "sunk" in the company, and which can never be re-extracted from it.

Now, for business and accounting purposes it is important to know how much capital has been "sunk" in the construction or improvement of a piece of equipment, or in the setting

(2) "I have invested my capital in land" (i.e. I have bought some land and value it as a piece of capital equipment, or as the basis of a capital claim). In the former case "capital" refers to what is used for *production*, in the latter to what is used for acquisition or *exchange*.

[1] See above, Chapter XIII, pp. 224-5.

up of an industrial enterprise; for only in the light of this knowledge can any estimate be made of whether the investment was or was not profitable.[1] But so far as value theory is concerned such estimates are completely irrelevant. The exchange ratio between one thing and another is determined exclusively by conditions as they are now and are expected to be in the future. The fact that I have spent £500 on my house, though it may have some sentimental interest for myself, and though it may also influence a government which proposes to tax any capital appreciation which the value of my property has undergone, is yet essentially a matter of ancient history and falls outside the scope of a science for which "the past is forever past".

(2) What, then, of purchasing power which is used not to construct or improve equipment but to *buy* it (or to acquire claims)? When we say that we have invested our capital in land or in government stock, we do not mean merely that we have spent capital purchasing power on their purchase. There is at least a suspicion in our minds that what was originally spent somehow survives in the things bought. We think of our property not merely as *representing* or *constituting* capital—phrases which, of course, involve the use of the word in the sense of "equipment" or "claim"—but also as *containing* capital. And the capital so "contained" is conceived of as being in some sense the capital purchasing power originally invested. Formerly it was liquid, now it has become (so to speak) solidified; but it still exists and is "capital". And we may be able at any time to restore it to its liquid form, either by selling the property outright, or else by accumulating a reserve out of the gross revenue it yields, so as to provide for depreciation as it wears out. Capital is, then, a kind of "fund"

[1] Thus, if after I have improved my house it is worth (say) £2600, then my £500 has been well spent; if it is worth only £2400, then it has been badly spent, unless the additional amenities while I inhabit the house are worth at least £100 to me. Again, a comparison of the market and par values of a company's total shares may be a reliable indication of whether it is doing well or badly; provided always that (*a*) the shares were originally issued at par and not at some other figure above or below it; (*b*) all the shares either were subscribed for in cash, or else, if issued directly to the founders, represented a genuine measure of the cost of the founder's services; and (*c*) current interest rates have not seriously changed in the meantime. These provisos are, indeed, not likely to be realised, the second, in particular, being almost unrealisable; and therefore even for accounting purposes the par value of shares is not likely to be of much importance. In *principle*, however, they provide a means for judging of its profits or losses.

of purchasing power, some of it in a highly liquid form, the rest temporarily invested in various forms of equipment or claims.

26. The concept of a "fund of capital" which is embodied from time to time in concrete goods, and is in due course released as these goods are used up or sold, is one which has played an important part in the history of economic theory. It is, for example, the basis of the classical economists' notion of "circulating" capital; for circulating capital has usually been held to consist of those goods which yield a revenue to their owners by *being sold*—in contrast with "fixed" capital goods, which play their part in the productive process without changing hands. That is to say, the former are *exchange-use* production goods, while the latter are *direct-use* production goods.[1] And it is an essential characteristic of circulating capital goods that they embody a quantity of purchasing power, or fund of value, which is perpetually returned to their owner as he disposes of them: indeed, this aspect of them was so important in the eyes of the earlier economists that they regularly tended to think of circulating capital (but not of fixed capital) in value or money terms—with disastrous results for their understanding of the meanings of "capital".[2] Later on, too, J. B. Clark elevated the distinction into a far-reaching contrast between capital goods of all kinds on the one hand and what he called "pure capital" on the other. The latter he described as a permanent fund of value, invested or embodied in an ever-changing series of concrete capital goods, but distinct from them in the same way in which a waterfall is distinct from the drops of water of which it is at any given moment composed.[3]

But can we attach any precise meaning to such phrases as

[1] This is not, however, the only way in which the distinction between the two has been understood. Thus, Gide defines circulating capital goods as those which disappear in the mere act of production, and fixed capital goods as those which can be used several times. (*Cours*, I, p. 192.) The discussion of pp. 256-259 above shows that this is by no means unambiguous; but we can probably say that for Gide the distinction is that between "single use" and "multiple use" goods.

[2] See on this in particular Cannan, *Theories*, chap. iv.

[3] See his *Essentials*, chap. ii, especially pp. 27-9. So far as I have noticed, indeed, Clark does not himself call capital a "fund of *value*", defining it rather as a "fund of productive goods " (p. 29), or as a "fund, or sum, of *wealth*" (p. 33). But this wealth is conceived of in "money" (i.e. in value) terms (p. 31), and is therefore in fact, whether or not in name, a "fund of value".

a "fund of pure value" in this context? On the face of it the "value" of which pure capital consists can only be the exchange value of the capital goods themselves. And it is so understood by more than one writer. Thus, Fisher defines the "capital" contained in *things* as "capital value", and the "capital" contained in *property* as "property capital value".[1] But this, while it is the only possible interpretation for those who (like Fisher) think of capital as something existing, or thought of, *at a moment of time*, yet misses the main point of Clark's concept: for it is of the essence of a "permanent fund of value" that it lasts through time. What Clark was concerned to say was that under static economic conditions the total value of the community's capital equipment will remain constant: that as short-lived production goods are used up their place will be taken by an equal volume of other short-lived perishable goods, and that as long-lived production goods wear out resources will be accumulated sufficient to cover their full value and provide for their replacement by other long-lived production goods.[2] In other words, his "concept" was not really a concept at all, but an assertion or *judgment*—the judgment that the value of capital equipment may (and in a Static State *will*) remain unaltered even though individual pieces of it are continually being constructed or destroyed.

Now we need not question the truth of this judgment under the "heroically abstract" conditions which Clark was avowedly presupposing; on the contrary it is almost a self-evident truth that in the Static State as defined by him, characterised as it is by a complete absence of saving or dissaving, of changes in population and technique, of shifts in demand and supply schedules and of irregularities or discontinuities in production and consumption, both the volume and the value of the community's capital goods must be fixed and invariable. And if we choose to express it in the guise of a concept—if instead of laying down that capital goods remain constant in total value we prefer to say that "there is a constant fund of pure capital"—then we are at the worst guilty of putting our meaning in an unnatural way; so long as we are talking about the Static State. But once we broaden our interests and start to think in terms of the real and changing world, the judgment ceases to be true, and the con-

[1] "Senses of Capital", p. 201. [2] *Essentials*, p. 29.

cept ceases to have any meaning. The value of productive equipment is *not* now constant, either as a whole (for the community's wealth may be expanding or contracting) or in its individual parts (for particular capital goods will become more or less valuable with changes in demand and supply or in the technique of production). This being so, it is merely confusing to use language which suggests that purchasing power which is invested in a given piece of equipment (or for that matter in a given claim) will automatically be returned to the spender unchanged in amount as the good wears out (or the claim matures). The facts are quite simply that equipment and claims may be bought in exchange for purchasing power, and that they are also in general converted back by one means or another into purchasing power—whether to the same amount, or to an amount that is larger or smaller, according as they have or have not retained their value unchanged in the meanwhile. To speak as though the capital invested in them lives on as a kind of substance or vital spark, emerging into the outer world once more when they are used up or disposed of, is pure mysticism.

27. But though we must deny any literal meaning or content to "pure capital" as a fund of value, there is yet some justification for the feeling that goods or claims which have been bought with capital purchasing power may themselves represent a form of, or contain an element of, capital purchasing power. For while they are not themselves liquid in the sense in which money is liquid, yet they can commonly be turned into money without serious difficulty. In normal times no serious loss need attend the sale of most forms of capital equipment, at any rate if there is a ready market for them and their products; and loans can be transferred from one lender to another at any time during the period of their life. Both equipment and claims, in short, have a value and a purchasing power; and having these they can in general be sold for cash.[1] And this means that to their present owners they represent, if not actual, at any rate *potential* capital purchasing power. I will not regard the capital I have invested

[1] Alternatively, they can be used as a security on which to borrow. It is not, of course, denied, that some capital goods or claims may be difficult to dispose of at short notice; but unless they can be sold *in the long run*, then they can scarcely be said to have an exchange value at all. (Cf. Chapter IV, pp. 67-9).

in buying a house as irretrievably lost to me; for I know that what I have bought I can also sell. And in this is an additional utility which the house possesses for me over and above its obvious services as a place of shelter. It represents for me not merely a personal-use consumption good but also a store of purchasing power. And it is this latter fact which entitles me to regard it not merely as having used up or absorbed but also as *containing* the capital purchasing power which I spent upon it.

But this means that capital purchasing power is not a concrete thing in its own right, but an element in, or an aspect of, things in general. *Any* commodity is capital purchasing power in so far as it is capable of being used as a store of value and is esteemed for this reason. When we say that it "contains capital" we are merely acknowledging the presence in it of this particular function which it may serve; we are recognising that it not merely came into our possession in return for the expenditure of liquid resources, but can also be converted into liquid resources once more should we find this desirable. No doubt some goods possess this property to a greater degree than others; no doubt, also, some goods owe a greater part of the esteem in which we hold them to the fact that they do possess it. But in so far as anything both has it and is valued *because* it has it, then to that extent it contains a capital element; from that point of view it *is* "capital purchasing power".

There are thus two different ways of looking at capital in its third main sense. We may regard it "substantially" as denoting liquid resources in their purest form—i.e. in money or we may functionalise it and say that it denotes *all* valuable resources in so far as they are both liquid and are esteemed as such. From the second point of view even long-lived equipment and long-dated claims may be capital purchasing power: for in so far as they have a value they are capable of being esteemed *because* they have a value.[1]

28. We shall discuss the wider significance of this conclusion in the final part of this chapter. It will be found tha

[1] If we choose we can express the distinction between the two references to capital purchasing power by saying that the first confines it to *actual*, while the second includes also *potential* liquid resources. Put in this way the result at which we have arrived comes extremely close to the view of Schumpeter (*Wirtschaftliche Entwicklung*, chap. iii, part ii, and Appendix thereto; especially pp. 167 ff.)

with its aid the relations between capital purchasing power and capital claims, as also those between capital as a whole and money, can be precisely and clearly set forth. In the meantime it will be sufficient if we add a brief note on the contrast between capital purchasing power as now understood and Fisher's "capital value". The exchange value of a given claim or piece of equipment is from the quantitative point of view expressible as the amount of other things for which it can be exchanged. It follows that if it is valued as capital purchasing power—i.e. as a store of value—its exchange equivalents will tell us *how much* capital purchasing power it represents. But there is still a clear distinction between capital purchasing power and the value of capital equipment or of capital claims. The latter is an objective amount, fluctuating, no doubt, from time to time—except in the Static State—but in principle clear and unmistakeable. The former, on the contrary, is subjective and private; it is a matter of the intentions and motives of individual persons. A thing may have a high value in exchange and may represent an important item in the total of the community's "fund of pure capital", but unless it is esteemed by its owner for this reason, and not merely for the personal-use services which it may yield, it is not capital *purchasing power.*

29. We have now distinguished no less than six senses of "capital" in its third and last main reference. It will be worth while to summarise them. Capital in the sense of purchasing power or control over resources may stand for—

(1) liquid resources in the form of money;

(2) (more specifically) those money holdings which are destined for investment in capital equipment or claims (or which are derived from the sale of capital equipment or claims);

(3) *all* resources in so far as they are (actually or potentially) liquid—i.e. are capable of being exchanged for other things —and are valued for this reason:

(4) purchasing power which has been "sunk" in working on, or improving, existing "given" property—as distinct from the unimproved value of the property;

(5) the cost of existing equipment or claims—i.e. the amount of purchasing power spent in acquiring them by their present owners;

(6) the value of existing equipment or claims—i.e. the amount of purchasing power (or of other goods) they would realise if sold by their present owners.

Not all of these meanings are of great importance for economic theory. The first makes capital identical with money purchasing power, while the fourth and fifth, though of interest to the individuals concerned, are irrelevant for the analysis of value and distribution. The second is relevant to those problems which have to do with the nature of, and fluctuations in, the volume of savings; the sixth may have its uses (as employed by Fisher) in discussions of the relation between changes in the volume and changes in the value of the community's capital equipment. Finally, the third is perhaps of importance as giving explicit expression to the widely held feeling that a person's capital is in some sense a *store* of value or purchasing power.

CONCLUSION

30. We are now at last in a position to survey the territory we have traversed during this long chapter, and to bring together its main threads. Of the relations between capital equipment on the one hand and capital claims and capital purchasing power on the other little need be said. We have seen that capital as a goods concept may stand for the whole of a community's equipment at a given moment of time; or for production goods as opposed to consumption goods; or for long-lived goods as opposed to short-lived goods; or for exchange-use goods as opposed to personal-use goods. It is evidently in the last of these senses only that it can be correlated in any quantitative way with the other main meanings of the term. Not all equipment, nor all production or long-lived goods are the basis of capital claims. For they may be used by their owner for the services which he personally can derive from them. Nor are they necessarily connected with capital purchasing power. For they need neither have been bought with money nor be capable of being sold for money; and even if they have a market value, yet they need not be esteemed by their owners because of the purchasing power over other goods with which this market value provides them. When we come to the contrast between personal-use and

exchange-use goods, on the contrary, the connection with claims and purchasing power is close. For a commodity has an "exchange-use", we know, either (*a*) when it is valued by its owner for the other goods for which it can be exchanged, or (*b*) when it is lent or leased by him in return for the expectation of a future income. In the former case (as we can now see) its utility is derived from its representing *capital purchasing power*; it constitutes for its owner so much control over wealth in general. In the latter case its utility is derived from its being the basis of a *capital claim*; it is valued, not as directly consumable wealth, nor (at any rate in the first instance) as potentially liquid resources, but as a means to an income. Thus the concept of an exchange-use good—a "revenue capital" good, as it is sometimes called—is the result of attempting to find in the world of equipment a reflection of the phenomena of claims or purchasing power. It yields a distinction, not between different physical kinds of material good, nor between different functions which material goods may fulfil in the productive process, but between different ways in which they may be useful to their owners in a community in which exchange relations are present and property rights are recognised. In short, it is not really a classification of *goods* at all, but of the kinds of utility which goods may possess.[1]

But if not all capital goods are the basis of capital claims, so not all capital claims are based on the ownership of capital goods. For they may arise from the provision of commodities or services payment for which is delayed; or from the transference of purchasing power which may be devoted to immediate consumption needs and so be destroyed long before the claim is finally redeemed. So, too, with capital purchasing power. Even in its widest functional reference capital purchasing power need not be embodied in any particular piece of equipment; for it may take the form of what is technically a pure claim—as in the case (to which we shall come back shortly) of money held on deposit in a bank.

It remains, then, to discuss the relationships between capital claims and capital purchasing power. We know that fundamentally they are both functional concepts; that possessions are capital *claims* in so far as they are valued as

[1] Cf. the remarks on "subjective exchange value" in Chapter V, p. 77.

representing an expectation of future income, and are capital *purchasing power* in so far as they are valued as representing control, actual or potential, over wealth in general. In the one case the emphasis is on the *illiquidity* of the possessions—on the length of time which will elapse before their utility is fully consumed. In the other case it is on their *liquidity*—on their power of being converted at any moment into some other form of wealth. It follows that so far as concrete *things* are concerned the two concepts are not mutually exclusive. Some capital claims, indeed, are so illiquid as to be in no sense a store of liquid resources—e.g. a debt which is non-transferable, and which depends on the personal guarantee of the debtor and so cannot be used by the creditor as a security on the strength of which he may borrow from a third person. And on the other hand, cash and also most current bank accounts are in no sense capital claims, because they carry no right to interest payments. But in between these extremes is a wide and diverse range of claims which are also purchasing power, and purchasing power which is also claims. Thus, industrial securities are in the first instance valued as claims to future income; but the element of purchasing power is clearly present in them, since under normal conditions they are readily convertible into cash or can be used as collateral for a cash loan. Again, bills of exchange and deposit accounts with banks are both of them capital claims, in that they carry interest; and yet because of their nearness to actual cash they are valued, the former sometimes, the latter usually, at least as much for their liquidity as for the income which they promise. Hence the fact (to which we have already made reference) that the rate of interest they bear is as a general rule appreciably lower than that on less liquid types of loan.[1] And in general, no hard and fast line can be drawn between the two meanings of "capital" except as distinguishable elements in the same things. For not merely is there an infinite gradation between pure claims at the one end and pure purchasing power at the other; but the same bill of exchange or government bond which is valued by one person primarily, or even exclusively, for the income it yields, may derive its chief importance for someone else from the fact that it can for most purposes be treated as cash.

[1] See above, p. 289 and n.

In the light of this result we can understand why it is that capital in the sense of claims to future income and capital in the sense of control over resources seem to be at times merely different species of the same genus and at times direct opposites. If I instruct my banker to purchase an industrial bond with the funds which I have accumulated on deposit account with him, it is natural to say that I am exchanging capital purchasing power for capital claims; and the implication is clear that a bank deposit is not a form of claim, nor an industrial bond a form of purchasing power. We are here concerned to emphasise the *contrast* between the relative liquidity of the one and the relative illiquidity of the other. Yet bank deposits are loans to the bank, and through it to its debtors. And a complete catalogue of all the claims outstanding against the country's industrial and financial enterprises would have to take account of loans to banks and advances by banks no less than of securities issued in the long-term capital market; just as, on the creditor side of the picture, it is not unknown for people to decide to hold *all* their capital resources in the form of bank deposits and to rely for their property incomes entirely upon the low rate of interest which these afford. What we are now stressing is the fact that everything which bears interest is a claim; it represents a capital asset to the receiver of the interest and a capital liability to its payer. In both these cases we are observing one side, and one side only, of the whole truth. For a deposit account with a bank is a capital claim *as compared with* cash, but a form of capital purchasing power *as compared with* bills of exchange or stocks and shares.

31. Moreover, we now reach an important conclusion as to the nature of capital as a factor of production in the economic sense. What is the specific contribution of "capital" to the processes whereby useful goods are created and distributed? Not the provision of the necessary raw materials and instruments of production; for in so far as these are "given" when production is undertaken they fall into the factor group "land", while if they are not "given", they are themselves a part of the process of production and cannot be regarded as original elements in it. Nor the endurance of "waiting" and the postponement of consumption; for that is not merely at the best the *source* of a factor of production rather than a

factor itself (as was argued at the beginning of this chapter[1]), but it is also something which is undertaken as much by the landlord who "lacks" the use of his land as by the person who provides "capital".[2] If we are to distinguish capital from land in this context we must mean by it capital *purchasing power*; resources which are liquid and non-specific—which are desired by the entrepreneur not because of any immediate personal utility which they may possess for him in his productive activities, but because of the general exchange control which they provide over wealth in all forms. That this represents a real and important contribution to the carrying on of economic production is as obvious as that it is distinguishable from the contribution made by the specific pieces of property which he leases from "landlords" and also from the contribution made by the goods which he uses these liquid resources themselves to buy. For the borrowing of "capital" gives him the power to buy the things he wants *when* and *where* he wants them. He can adjust his purchases to the needs of the moment, and can be in readiness to meet any unexpected emergency with which changing conditions or a miscalculation in his plans may confront him. In short, the specific advantage of capital to him is the advantage which the existence of a generally accepted medium of exchange brings with it into all branches of economic activity. It extends the area of his choices and assists him in the task of administering his resources efficiently.

But in the circumstances normally envisaged by economists in their analysis of production and distribution the capital purchasing power which an entrepreneur borrows is immediately invested in various forms of concrete equipment; and in consequence the specific function of *capital*, as opposed to land, disappears: just as more generally the specific utility of money disappears once it is used for the buying of goods. Hence there is no form of income which corresponds to capital in the sense in which rent corresponds to land and wages to labour. Interest is almost invariably thought of as constituting such an income. But this is seriously misleading. For interest is the income derived from capital *claims*; and when an entrepreneur borrows with a view to acquiring possession of concrete equipment, then (as we have already

[1] P. 236; cf. Chapter XII, p. 208. [2] Cf. Supplementary Note 15 (2), p. 388.

seen) the claims can be regarded as being based on the equipment, and the interest upon them is merely a form of rent. When we speak of interest as the reward for the lending of capital (or for that matter as the reward of waiting or abstinence) we are thinking not specifically of capital purchasing power, but of resources in general. Our emphasis is not on the fact that the wealth lent is *liquid*, but merely on the fact that it involves the lender in "waiting", and yields him in return a claim on the borrower. And we shall never understand the function of capital *as a factor of production* if we confine ourselves to analysing the reasons which lead some people to "wait" and others to pay them for "waiting"; just as on the other side we shall never understand the relation between interest and rent if we assume that capital *as the source of interest* is a factor of production wholly independent of land as the source of rent. It is a remarkable feature of most present-day economic analysis that it is prepared to tolerate without serious investigation the idea that rent and interest can be taken as mutually exclusive forms of income, the one derived from "land", the other from "capital".[1]

32. Finally let us note the upshot of our discussion as regards the relation between "capital" (in its various senses) and "money". We have already had several opportunities, both in the present chapter and in that on money, to observe how intricate and various these relations are. All that is necessary here is to summarise the main points at which the two terms come into immediate contact.

(1) Pieces of money clearly represent a part of the community's capital equipment (in the widest sense of that phrase). For they are forms of material wealth, and they

[1] The above paragraphs are both controversial and obscure, and it may be felt that I have no right to say as much as I have about rent and interest without saying a great deal more. In self-defence I can only plead once more that my object in this book is not to discuss economic problems but to clarify the conceptual and terminological foundations on which their discussion must rest. In the above section I have been trying to demonstrate the importance of distinguishing between capital as a factor of production and capital as a source of income, by drawing attention to the main—though not the only—point at which the difference between them may be of vital importance for the theory of value. The relations between rent and interest present a problem which since Marshall's time no outstanding economist (so far as I know) has seriously attempted to solve, much as has been done to explain and analyse each of them separately. I have not here tried to fill this gap in our theoretical equipment; merely to emphasise that it exists.

fulfil an unmistakeable function in the processes of production and consumption.

(2) Money as a medium of exchange is more specifically a part of the equipment of any individual in an exchange community, in that he would clearly be poorer without it as regards the range of his choices and the ability to satisfy his needs. In one sense it is neither a production good nor a consumption good, in that it is concerned not with production but with *exchange*. If, however, exchange be treated as merely a particular (if very peculiar) form of production—in the widest economic sense of the word—then money may be either a production good (in so far as it increases a person's ability to create useful things) or a consumption good (in so far as it gives a sense of security and power to its possessor) or both.

(3) Money in the sense of purchasing power and capital in the sense of capital purchasing power may be synonymous with one another. For we have seen both that in its "financial" sense money *means* control over resources, and also that all purchasing power in monetary form has some claim to be regarded as *potentially* capital purchasing power. Moreover, when we are thinking of past investments—whether of the acquisition of claims or equipment in return for liquid resources or of the "sinking" of resources in works of construction or repair—the two words can be used practically interchangeably.[1] On the other hand, if we adopt slightly different definitions of capital, then a double distinction develops between them. For on the one hand we may confine the name of "capital" to such monetary resources as are either destined for investment in equipment or claims, or else are derived from the sale or consumption of such equipment or claims; in which case money purchasing power will not be capital if it can only be used for investment purposes as the result of a positive act of saving—though it will be capital once it *has* been so saved. And on the other hand we may

[1] There is always here a *slight* difference in overtones. When we talk of "spending money" on our property we are emphasising the actual vehicle by which the improvements were paid for; when we talk of "sinking capital" in it the emphasis is rather more on the loss of "control over resources" which has resulted. In a rather different way, too, "money" in the financial world is never *quite* synonymous with "capital"; for the associations of the latter word with (long-time) claims lingers even when it is used of short-term lendings and borrowings. "Money" in fact means "(*short-term*) capital".

extend the concept of capital purchasing power to goods other than money, in so far as, though not themselves money, they represent a store of at least *potentially* liquid resources and are valued as such.

Appendix: Capital and the Wages Fund

33. We saw in § 7 of this chapter two grounds on which it might be argued that a great many things normally thought of as consumption commodities should be included among the community's capital goods or equipment. In the first place, many things which are in the first instance desired and consumed for their own sakes may yet contribute to the productive efficiency of their consumers, and so contribute to their, and the community's, future wealth; and secondly, many consumption goods, being long-lived and capable of multiple utilisation, require for their full use a more or less protracted period of *waiting*, and as such are entitled to be regarded as (at the least) "consumption" capital goods. What we have now to consider is a special application, and extension, of both of these considerations. Production on any complicated scale is likely, we know, to take some time. And during that time those engaged upon it must be fed, housed, and clothed. Therefore (it has been held) before any elaborate productive process can be initiated a stock of consumption goods must be in existence sufficient to meet the current needs of these producers. Are not these consumption goods, then, properly to be regarded as constituting a part of the community's capital equipment?

This question was answered in the affirmative by the great majority of the classical economists up to and including Mill and his immediate disciples. In their view the capital (equipment) of a community consisted of two main parts: (1) "fixed" capital—i.e. machinery and instruments of production; and (2) "circulating" capital—i.e. a fund of consumption commodities available for wage payments.[1] This latter came to be known as the "wages fund"; it represented the source of the labourer's real income—or at any rate of the real income of labourers employed in industry and commerce—and was therefore held to constitute the sole "demand for labour". And for many years the orthodox explanation of the rate of wages rested in asserting that it must equal the

[1] This classification neglects raw materials and goods in process of manufacture.

"capital" available for distribution as real wages divided by the total number of workers: in other words, the value of labour was determined by the demand for it (so understood) and its supply. It is no part of our task to examine either the practical conclusions to which this view pointed or the protracted controversy to which it gave rise. But the fact that it rested upon a particular view as to the constituent elements of *capital* makes it essential that we should investigate its theoretical foundations.

34. In the first place it is clear that there is no *less* justification for counting as a form of capital equipment goods consumed by labourers—"wages goods" as they are frequently called—than there is for so counting *all* consumption goods. For (1) they presumably help to maintain the productive efficiency of their consumers, the labourers themselves; and (2) such of them as are long-lived—the labourers' houses and furniture, for example—are evidently a part of the community's "consumption capital".

Secondly, in so far as the goods consumed by labourers during any particular productive undertaking are *already in existence* at the beginning of that undertaking—e.g. are stored up by the entrepreneur (or by somebody else for him) for gradual distribution as the work of production proceeds—then it is once more evident that they represent a form of capital equipment. For we have seen that finished goods awaiting future consumption represent an important part of the community's total capital resources. Let us observe, however, that this applies to *all* consumption commodities which are stored up for future use. Bottles of champagne in the vaults of a wine merchant are no less capital goods from this point of view than packets of shag on the shelves of a tobacconist or bags of flour in a baker's storeroom.

Now there is no doubt that the supporters of the wages fund theory greatly exaggerated the size and importance of such stocks of finished consumption goods. This was largely the consequence of the simplifying assumption they tended to make—itself a heritage from Adam Smith and Ricardo—that a labourer's staple article of consumption was *corn*, which could therefore be taken as the typical wages good. For corn is something which becomes ready for consumption in the form of annual harvests and which *must* therefore be stored up (in the absence of trade with other parts of the world where the harvest occurs at different seasons) if its actual use is to be more or less continuous throughout the year. So, too, with such other commodities as can on technical grounds only be

produced at comparatively long intervals; if people wish to consume them at times other than immediately after the moment of completed production, then they too must be stored up and made into a "fund" for future consumption. But in advanced communities goods of this type do not represent a very large part of total consumable wealth. Many things can be produced fairly continuously throughout the year; and of those which cannot, by no means all are "long-lived" and capable of storage. And it is quite unrealistic to suppose that the possibility of initiating a protracted and "roundabout" process of production must depend upon the pre-existence of stocks of commodities of these latter types. We have, indeed, to postulate that the labourers employed upon such a process will have the assurance of getting the articles they require for current consumption during the period of their work. But that in general means no more than that the *equipment* shall be in existence for producing these articles as and when they are required; it does not involve any need for large aggregations of consumption goods in their final form.[1]

The above argument, it must be noted, shows merely that accumulated stocks of consumption commodities are not in fact likely to be as large, or as theoretically important, as the proponents of the wages fund theory tended to imply. It does not in the least weaken the claim of such accumulated stocks as do exist to be regarded as constituting a form of capital equipment. Still less does it invalidate the whole concept of a wages fund. For it is still open to us to argue—though we need not elaborate the point here—that the amount payable in wages during any period of production is limited, if not by the quantity of wages goods in existence *at the beginning* of the period, at any rate by the quantity which can be made ready *during* its course; and many of the practical conclusions to which the theory pointed follow as well from this new premise as from that of an absolutely limited

[1] This implies, of course, the presence of some degree of industrial specialisation; though even a solitary individual can carry out a piece of long-time productive work (e.g. building a house for himself) without laying up a supply of foodstuffs beforehand—if, namely, he is prepared to divide his time each day between building and obtaining what food he requires for that day. (See on this, Supplementary Note 29, on p. 398, and also Cannan, *Review*, pp. 126 ff., *Theories*, pp. 81 ff.) Professor Cannan makes much fun of the picture of a fisherman accumulating "at the rate of one a day a hundred fish, and then knocking off fishing altogether while he makes a boat and net and lives upon this stinking putrid mess!" It is only fair to point out, however, that the economists who have made use of this illustration generally specify that the stored-up fish have been dried.

stock or fund of consumption goods. We cannot, in fact, damn the theory and all its works merely on the strength of our knowledge that labourers sometimes consume other things in addition to corn.[1]

35. But now comes the crux of the matter. Some at least of those who have advocated the inclusion within the concept of capital of the goods consumed by labourers during the course of production have based their views not so much on the fact that these goods may have had to be accumulated beforehand as upon the contention that they form part of the cost of the product. Their argument is roughly as follows. In order that I may produce a machine or any other article of capital equipment I must hire labourers. These labourers must be paid wages, and their wages represent one element in the money cost of the product. But they will be spent on wages goods; and the wages goods, therefore, represent an element in the *real* cost of the product. Like the raw materials out of which it is manufactured and the fuel which has been consumed during the manufacturing process, they have been *invested* in it. And as such they constitute a form of capital outlay: they are invested capital, not before, but *after* the labourers have consumed them.

But what does this argument prove? Only, on the face of it, that it is possible to use the word "capital" of the amount of past resources which have been embodied in existing products. We need not dispute the possibility of such a definition.[2] But we must insist that capital so defined is *not* capital equipment but (a sense of) "capital purchasing power". Capital as a goods concept, whatever its exact scope, at any rate refers to things which are in existence at a given moment and are at the disposal of the community *at that moment.* Now when any commodity is produced various forms of resources are used up—raw materials, labour power, the commodities consumed by the labourers (we need not dispute it), and so on. And all these things no doubt constituted forms of capital equipment (in its widest sense) before they were employed in this particular way. But once so employed they no longer exist. Their place has been taken by their product, and it is now not they but the product which constitutes a form of capital equipment.

[1] In recent years the movement for the rehabilitation of the wages fund has been gaining ground; and it is still a question on which economists take different views, though their disagreement is not so much whether the concept is legitimate as whether it is *useful.* For a spirited attack on the denigrators of the fund see Hutt, *Collective Bargaining.* Cf. also, Pigou, *Unemployment,* pp. 143 ff., etc.).

[2] See above, pp. 298-9.

In short, the attempt to include as capital goods not merely existing equipment but also the resources which have been invested in them rests upon a flagrant confusion between two different meanings of the word. No doubt it is true that the value of a given product is influenced by that of the resources which have been used up in its production; no doubt, too, it might never have been produced if the producer had not had the necessary capital purchasing power with which to buy these resources. But these possibilities do not in the least alter the inescapable fact that what has already been used up and consumed cannot form a part of the community's *present* capital *equipment*. On whatever grounds, therefore, we decide to include *consumption* goods within the scope of capital as a goods concept, let us make sure that we do not also include *already consumed* goods, however noble a part they may in their time have played in adding to our existing stock of wealth.[1]

36. With this we may at last take our leave of capital. It has been a misfortune for economic theory that so intricate a complex of concepts should have had to play so enormous a part in its most fundamental problems.

[1] See on this in particular Jevons, *Principles*, pp. 125-6, and on the whole controversy cf. Cannan, *Theories*, chap. iv.

CHAPTER XV

"ENTERPRISE"

1. THE fourth factor of production is generally given the name of "enterprise". We have already seen that it is a late-comer into the canon of production theory. The earlier economists were content to distinguish land from labour and both from capital; and in so far as the entrepreneur entered into their analysis at all he was treated either as a particular kind of capitalist or as a particular kind of wage-earner.[1] And even now many writers hesitate to allow enterprise a fully independent status as a factor of production. But on the whole, orthodox opinion, at any rate in English-speaking countries, has come to hold that it is properly to be included in the list of factor groups. The entrepreneur, it is felt, fulfils an essential function in the economic system, different from, but in some sense parallel with, the functions of the labourer, the landlord, and the capitalist; and this being so, it has seemed reasonable to expect that the laws determining the value of his services will be similar, at least in broad outline, to those determining factor values in general.

How far this point of view is really tenable is an issue with which we are not here directly concerned, though we shall not be able to avoid it entirely. Our task is first and foremost to analyse and classify the meanings of the *terms* "enterprise" and "entrepreneur".[2] For the time being let us assume that

[1] The "capital" view of enterprise was that of the British classical economists, the "labour" view was that of J. B. Say and his followers. So far as the former is concerned, indeed, the statement in the text is not really accurate: since it would be truer to say that (for example) Smith and Ricardo treated the capitalist as a kind of entrepreneur (and interest as a kind of profit) than that they treated the entrepreneur as a kind of capitalist. But the point is that unlike Say they did not attach great importance to distinguishing between the two. See on this Cannan, *Theories*, pp. 200 ff., *Review*, pp. 358 ff.

[2] "Entrepreneur" came into general use as a result of the influence of Say upon J. S. Mill and his associates (Cannan, *Review*, pp. 308 f.). It is now almost universally employed, though Cannan himself expresses a preference for "undertaker" (*ibid.* p. 286) while Fetter and Hawley (among others) speak of "enterprisers". Dobb and Cole are writers who use both "entrepreneur" and "undertaker", but in different senses; see below, p. 322 n.

the former is a factor of production. The latter is then the "owner" of this factor in the same way in which labourers are the owners of the factor labour and landlords of the factor land.[1] And like the labourer and the landlord the entrepreneur "produces" in the economic sense when he supplies the factor units at his disposal for the creation of wealth or utility, receiving in return a revenue or income—in his case the type of income known as "profit".

2. What, then, is the factor of production enterprise? In ordinary language the word has two main meanings. In the first instance it refers to a thing projected or attempted—particularly if it be of a bold or hazardous nature. But it may also be used subjectively of the quality or qualities possessed by those who undertake such projects—that is to say, it may be in effect a synonym for "boldness" or "initiative". Both these meanings are to be found in economic writings: but in addition the word has come to be used in at least two rather more specialised ways. On the one hand it has become more concrete, standing for the *result* or objective realisation of a project in the economic field—viz. a firm or business unit. And on the other hand it has become more abstract, being used of the *activities involved* in initiating or running such a project. This last use of the word is broadly related to the first, original use as "ing" to "ed". In the earlier use it stands for something done, in the later it stands for the actual doing of it.[2]

[1] Cf. Chapter XI above, pp. 184-6.

[2] On the "ing and ed" relationship, see Chapter I, pp. 19-20. The difference between the first and fourth senses of "enterprise" is, indeed, not *merely* one between an "ed" and an "ing". For on the one hand, as we have just seen, enterprise as an activity is primarily *economic* in reference; it would not naturally be used in connection with projects in other than business or industrial fields. And secondly—what is more important—the *activity* of enterprise is generally thought of as something which continues through time, whereas in its first sense it is (so to speak) "done when it is done". From this point of view the last sense is more closely associated with the *third* than with the first: so long as an "enterprise" (i.e. a business unit) is in existence as a going concern the running of it tends to be thought of as a form of "enterprise" (the activity).

Some writers, however, notably Schumpeter (*Wirtschaftliche Entwicklung*, chap. ii, part iii, *ad init.*),prefer to use the word in its fourth reference strictly of "once and for all" activities. They would say that not merely is the founding of a firm an "enterprise" but so also is any decision as to changes or innovations in the firm's policy once it is founded, and that these latter "enterprises" are in principle independent of the former. We thus have the distinction between the enterprise of *controlling and running* a firm, and the enterprise of *projecting new policies*, whether in respect of founding a new firm or of introducing any innovations in an existing one. This contrast is connected with that between the

Now it is in the fourth sense of the word that enterprise is to be thought of as a factor of production. It is an activity on the part of the entrepreneur—a contribution which he makes to the creation of wealth.[1] And our next task must be to find out who the entrepreneur is and what precise form his productive activities take.

3. Superficially, at least, there is a wide measure of agreement on this point. Almost every economist would be prepared to accept the following propositions, though there might be some dispute as to their relative importance for the theory of value.

(1) The entrepreneur is responsible for the control or direction of a firm or company. It is on his initiative that it is brought into existence. Moreover, when it is a going concern he decides what its policy shall be—what alterations shall be made in its internal structure, in the volume of its output, and in the prices it offers to owners of productive resources or demands from consumers; what advantage can be taken of current technical progress; whether general conditions justify an extension of its plant or call for retrenchment; and so on. On the other hand, he is *not* concerned, qua entrepreneur, with the day to day supervision of the productive process itself. Enterprise is connected, in short, with "innovation" and "adjustment";[2] but not with industrial management in the narrower sense.

(2) Upon the entrepreneur falls the brunt of any risk or uncertainty which the initiating and running of the concern may involve. If it is successful he claims the profits; if it is unsuccessful he must bear the loss.

(3) So far as the market is concerned the entrepreneur is a middleman. He buys productive resources from their owners —labourers, landlords, etc.—and sells the product they yield

"substantial" and the "functional" view of the entrepreneur, to which we shall come in a moment.

A still further subsidiary meaning of the word is to be found in such phrases as "private enterprise", "co-operative enterprise", etc. Here it stands not for projecting or controlling but for a general *method*, or *system*, of control.

[1] Strictly speaking the activity of enterprise is not itself a factor of production in the "economic" sense but the *source* of a factor of production; just as "waiting" is (at best) the *source* of the factor of production capital (see pp. 208, 236 above). But the distinction between a factor and its source does not seem to be of material importance in the present context (unlike the former), and for simplicity of exposition we shall speak in what follows as though the two were identical.

[2] Dobb, *Capitalist Enterprise*, p. 38.

to the consumers. He is in fact the intermediary between production and consumption, between the factor markets and the commodity markets; and on his decisions depend the distribution of the community's resources among the various uses to which they may be put.[1]

4. Several points are to be noticed in the concept of an entrepreneur as so outlined.

In the first place, the word may be understood either substantially or functionally. The earlier economists thought of the entrepreneur as an *individual*—a person. That is to say, they felt themselves entitled to assume that anyone who is an entrepreneur-capitalist is by definition *not* a labourer or a landlord—that belonging to the employing class is incompatible with belonging to the labouring or landowning classes. And this point of view has its adherents at the present day.[2] It is obviously appropriate when the problem under discussion concerns, for example, the economic and social stratification of the community. But in pure value analysis the word is regularly given a functional reference. People are called "entrepreneurs" *in so far as* they perform the activities with which enterprise is associated, and the same individual may be at once an entrepreneur and a labourer, landlord, or capitalist. The classification then runs in terms not of individuals but of productive functions. But it still claims to yield classes which are mutually exclusive. For the presumption is that *in his capacity as* an entrepreneur a person cannot belong to any of the other groups of factor owners, even though in other capacities—i.e. in respect of other activities—he may be something other than an entrepreneur. Though, therefore, entrepreneurs may also be labourers, landlords, or capitalists, enterprise cannot be either labour, capital, or land.[3]

[1] In any advanced economic system, of course, the passage from "original productive elements" to final consumption goods will involve a more or less large number of productive stages, each with its own group of entrepreneurs. Most entrepreneurs, therefore, will be concerned with *intermediate* goods (cf. Chapter XI, pp. 194-5), whether as sellers (all except the last stage) or as buyers (all except the first stage). But this complication can be ignored for the purposes of the present discussion.

[2] See for example, Dobb, *Capitalist Enterprise*, pp. 47 f. Dobb emphasises the convenience for social-economic analysis of confining ("entrepreneur" or) "undertaker" to reasonably *large scale* employers (*ibid.*, pp. 49 f.).

[3] Even this, it should be observed, is only a presumption; or rather, it is in the last analysis a matter of definition. We are perfectly entitled to use the word in such a way as to dispense with the postulate that enterprise and labour, etc., are mutually exclusive. For example, we may hold that it is

Secondly, however, the entrepreneur need not be an individual at all. In earlier times the control of and responsibility for any business unit was regularly vested in one master or manufacturer-employer, who was quite unambiguously its entrepreneur (though he was of course much more than this besides). But nowadays the situation is by no means so clear. In a modern company control and responsibility generally rest not with one person but with a group of persons—e.g. a board of directors; and while the individuals composing this group may be collectively, they certainly are not singly its "entrepreneur".[1] Not merely this, but the function of enterprise itself may be split up, by a kind of division of labour, among different persons or groups. Thus a private business may be owned and run by two partners, one of whom has put up the capital while the other is responsible for the actual direction and control of policy. Between them these two perform the full entrepreneur function. But the first is the "initiator", while the second is the "uncertainty-bearer". Again in a joint-stock company the function of control (as we have just seen) is likely to be exercised by a board of managing directors. But the risks and uncertainties are borne by the whole body of common shareholders, if not also, to a lesser extent, by the owners of the company's preferred stock and its long-term creditors. No doubt the division of function in this last case is never in fact absolute; for the directors are sure to be themselves shareholders, while the shareholders have in the last resort the right to pass upon policies and even to appoint and dismiss the directors themselves. But this is a matter of use and wont, not of theoretical necessity. And it does not in the least invalidate the conclusion that the *function* of bearing risks and uncertainties is in principle distinct from the *function* of initiative and control.[2]

of the essence of enterprise that it involves a particular kind of labour or a particular use of capital (see for example, Oswalt, *Vortrage*, pp. 138 ff.). Or alternatively, we may say that under certain circumstances labourers, capitalists, and landlords, and even consumers themselves, cannot avoid acting in an entrepreneurial way, even in their own capacities. As we shall see in a later chapter (pp. 361 ff.), this view of enterprise may prove to be of fundamental importance for the understanding of profit and its relations to other forms of income.

[1] A parallel is to be found in the case of land (or capital) where resources are owned jointly by a group of persons or by an institution such as a university.

[2] Knight argues that the distinction between the functions of control and uncertainty-bearing is "largely illusory"—on the ground that control really

All this is extremely familiar to present-day students of economic theory. But it means that if we are to be strict we must make up our minds which of the two functions just distinguished is to be regarded as "the" entrepreneur function *par excellence*. Either it is the initiating of innovations and adjustments, or it is the bearing of risks; but it cannot be both, for they are neither identical in essence nor inseparable in fact.[1]

Economists as a whole seem to be fairly evenly divided as between these alternatives. In the view of some enterprise is essentially active; and they test the entrepreneur by his willingness to make decisions, to initiate progress, and to control and direct policy in the light of changing market conditions. Others, on the contrary, prefer to think in terms of ultimate responsibility, and regard as the entrepreneur the person or persons who claim profits and bear the risk of loss, no matter whether they are themselves active or not in shaping the destinies of the business from which the profits (or losses) are derived. We do not need to decide between the two points of view. For our purpose what matters is simply that they involve an ambiguity in the *word* "entrepreneur"—an ambiguity to which we must be fully alive if we are to avoid confusion and logomachy in our investigations of the theory of enterprise and profit.[2]

means getting somebody else to do one's controlling for one (*Risk, Uncertainty, and Profit*, pp. 291 ff.). This seems to me astonishingly perverse. Surely most economists mean by "control" and "initiative" what any ordinary person would suppose them to mean—and that is certainly something quite other than appointing a deputy. (Cf. Sidgwick, *Politics*, pp. 626 ff., on the importance of distinguishing the possession from the exercise of power.)

[1] We can, indeed, define enterprise as the *conjunction*, or *coexistence*, of initiative with uncertainty-bearing. It will then follow that wherever they are separated there is no entrepreneur at all. (Cf. the similar possibility in the case of "money" Chapter IX above, p. 137 n.) But in that case enterprise can no longer be a factor group of production, nor can it have any particularly close connection with profit as a form of income; since obviously profits continue to be gained even when risk-bearers are not initiators. Indeed the possibility of defining the word in this way would scarcely have been worth mentioning were it not that it had the approval, if I remember rightly, of Professor Cannan—though I have not come across any explicit statement to this effect in his published works.

[2] Cole proposes to mark the contrast between the policy controller and the risk-bearer by calling the former the "entrepreneur" and the latter the "undertaker" ("The Nature of Profit", p. 245). Similarly Dobb distinguishes between "undertakers" (= approximately Cole's "entrepreneurs") and "undertaking associates" (= Cole's "undertakers") (*Capitalist Enterprise*, p. 54). It should be noted also that by using "undertakers" as the name of *persons*—the substantial reference—Dobb is able to reserve "entrepreneur" for describing these (or others) *in so far as* their activities constitute "enterprise"—the functional reference—(*ibid.* p. 4).

It may be added that the function of "policy control" is itself complex and may be subdivided. For as we have seen it covers *both* the setting up of a company (or the decision to do this) *and* the direction of its activities when it is a going concern. And not merely may these two be carried out by different individuals in particular cases; they to some extent require different *kinds* of individual if they are to be performed with the maximum success. The man who is good at the former is not necessarily good at the latter. And it is not surprising that in recent decades the tendency has grown up for a division of labour to be effected between company *promoters* and company *directors* — between experts in "innovation" and experts in "adjustment". Here is a further ambiguity in the scope and content of the word "entrepreneur".[1]

5. We can, however, if we choose, approach the problem from another, completely different angle. Most if not all economists, we have seen, would accept the proposition that an entrepreneur is a receiver of profit; that any income he makes, at any rate *qua* entrepreneur, is to be accounted as profit, rather than as wages, interest, or rent. And this can be made the basis of a *definition* of "entrepreneur". We can decide to *mean* by the word the person—whosoever he may be—whose income takes the form of a profit or a series of profits.

This method of attack has certain obvious advantages over the one just considered. For it enables us to discuss the problem of what the entrepreneur does—i.e. of what his function is in the economic system—without being entangled in the conflicting interpretations of the *word* "entrepreneur" which the last few pages have been concerned to unravel. Indeed, we are not committed to the view that enterprise is necessarily

[1] In this case, indeed, there is some ground for holding that we are distinguishing not between two *senses* of "entrepreneur" but between two *kinds* of entrepreneur. The contrast between "innovation" and "adjustment" is not an absolute one; since every innovation is an adaptation to new circumstances and every adjustment represents a change in existing conditions. And what differentiates the company promoter from the company director rests in the type of innovation-adjustment which they project: the one is concerned with business and financial construction, the other with industrial and market policy within a given business structure. The distinction is obviously at best provisional. But it is relevant for our argument in that it corresponds with the contrast between the first and third main senses of "enterprise" as distinguished in § 2. A company promoter is a person who projects a *business unit* (sense 3): a company *director's* enterprises, on the contrary are simply "things projected" (sense 1) in the field of prices, output, etc.

a productive function at all. The questions we now ask are: under what circumstances, and in return for what services (if any), do persons receive profits? Is profit of the nature of a "reward" for a productive function in the same way as are rent and wages—or is it merely some kind of windfall or monopoly increment, due to luck, bargaining power, friction or exploitation? These questions are of fundamental importance for the theory of distribution, as also for the wider problems of economic policy; but they are obscured and distorted by a system of terminology which identifies the entrepreneur *ab initio* with the fulfilling of a specific productive function and which in effect makes it a matter of mere definition what that function is to be.[1]

Nevertheless, to define the entrepreneur in terms of the income he receives rather than of his productive activities raises problems of its own. The word profit itself is by no means unambiguous, and we shall have to be quite certain in what sense we are using it if we are to escape disaster. Is it to be treated as an independent income accruing *as a whole* to its receivers, or is it simply an *element* in incomes, rarely if ever to be found in isolation? This is an issue on which economists are by no means agreed. Some attach the utmost importance to differentiating "gross" from "net" or *pure* profit, while others consider that such an analysis misrepresents the essential characteristics of the profit motive, and is simply the outcome of a mistaken desire to fit enterprise into a symmetrical schema of factor classification. We need not discuss this issue here, though it will be impossible to avoid it wholly at a later stage in our investigations.[2] Let us note, however, that it has its repercussions on the meaning of "enterprise". On the "total" view of profit the entrepreneur (=the profit-receiver) is a person who is willing to work or to invest resources whenever this may be necessary for the sake of gaining his profit, and his labour and capital are therefore an integral part of his enterprise: whereas on the analytical or "element" view in so far as he acts in these ways he is *to that extent* not an entrepreneur but a labourer or a capitalist

[1] See Supplementary Note 21, p. 393.

[2] See Chapter XVII below, pp. 361 ff. It will be shewn there that the choice between the "total" and the "element" views of profit is not exhaustive; that we may think of profit, neither as a *kind* of income, nor as a *portion* of incomes, but as a *way of looking at* incomes. Cf. also Supplementary Note 22, p. 394.

(or landlord). In the first case the emphasis is on the entrepreneur, the person, in the second it is on enterprise, the activity.[1]

Secondly, however, if we define the entrepreneur in terms of the profit he receives (whether gross or net) it will be very difficult for us to confine the word to people whose operations are *industrial* in scope. Current discussions of enterprise as a factor of production regularly assume that however it is to be defined precisely, it is at any rate something which manifests itself in the field of *commodity* production—that an entrepreneur is a man who employs labour, land, and capital in the making of material goods, and whose profit consists of the difference between the buying price of these productive elements and the selling price of the products. But evidently not all incomes which are called "profits" depend on the making of material goods. Profits are made by merchants and tradesmen, by dealers and speculators, even by gamblers and criminals. And if the entrepreneur is the profit-receiver then all these persons are entitled to the name. The word, in fact, must stand for *anybody* who tries to sell something at a higher price than he himself has to pay for it.[2] We can still, of course, distinguish various sub-groups among the class of entrepreneurs so conceived: in particular, we can mark off the industrial entrepreneur from the others by pointing to the fact that whereas what they buy is physically the same as what they sell, he buys one set of things—viz. productive elements—and sells another technically different set of things —viz. the products which these combine to yield. But we must beware of attaching too much importance to a classification on this basis. For not merely is it at best a matter of degree—the merchant is from this point of view intermediate between the pure speculator and the manufacturer or

[1] Notice that this contrast, though of the "substance-function" type, does not coincide with that between the substantial and the functional reference of "entrepreneur" as noted in § 4 (p. 320). There the word in its functional reference stood for people in so far as they perform certain productive activities, whereas here all that matters is that they should receive a (pure) profit—whether that is the reward of a productive activity or not. Again, the "substantial" view in the former case is essentially narrower in scope than in the latter—as the next paragraph in the text will shew.

[2] A qualification has to be made on this statement, indeed, in so far as the buying and selling prices are both fixed beforehand so that the difference between them is no more than a broker's commission and as such is wages rather than profit. See on this Supplementary Note 32 on p. 400.

industrialist—but it is a distinction which is technical rather than genuinely economic in scope. Production for economic purposes includes, we know, *all* operations which increase a commodity's utility, whether they change its physical nature or not. And so far as value theory is concerned no account of profit can be satisfactory which fails to cover all profit incomes, whether they are connected with the welding of land, labour, and capital into material consumption goods or merely arise from the activity of buying at one price and selling at another.[1]

6. We are now in a position to ask whether and in what sense enterprise, as understood in any of the various ways distinguished above, is to be regarded as a factor of production. Let us first recall the main conclusions of Chapter XII as to the meaning of "factor of production". We saw that it had three main meanings, according to the level of analysis on which it was interpreted. A factor of production is either: (1) an active participant in—or else an indispensable prerequisite of—the productive *process*; or (2) a kind of *commodity*, possessing value cost and utility, but distinguished from consumption goods in being demanded primarily or exclusively as a means to the making of other commodities; or (3) the source of a particular kind, or class, of *income*. Each of these levels of analysis tended, we found, to yield a different series of actual factor classes, so that there was no ground for supposing that because a particular class term appeared on one level it would also be appropriate on either or both of the other two. Moreover it seemed reasonable to hold that at any rate for the purposes of pure value theory it was only the *second* interpretation of the term which was of fundamental importance.[2] Our question now is, therefore, on which (if any) of these various levels enterprise can be identified as a factor—i.e. a factor class—of production, and in what senses the word must be understood in order to fit in to a scheme—on whichever level—of factor classification.

The answer follows directly from the argument of the last few pages. *Technically*, enterprise is a factor of production; since evidently the function of initiating and directing firms and companies and the function of bearing the uncertainties

[1] See Supplementary Note 23, p. 394.
[2] See on all this Chapter XII above, pp. 202-14.

they involve are both of them "indispensable prerequisites of" (even if they are not "active participants in") the productive process. *Distributionally*, too, enterprise may be treated as a factor of production; since we can define it in terms of the receipt of profits, and as such it is "the source of a particular kind of income". But from the narrowly *economic* point of view and for the purposes of pure value theory, how can enterprise be a factor of production? Not merely do its various units conspicuously fail to satisfy the criterion of substitutability: but it is not really a *commodity* at all. There is no market in "enterprise" corresponding with the labour and capital markets or with the markets in real property and consumption goods. From the market point of view the word is simply the name given to the activities of the entrepreneur—the man who buys productive resources and sells their product. And while these activities are of the utmost importance both for the entrepreneur himself and for the community as a whole—since speculation in the widest sense is under a capitalist system the mainspring of economic progress—they are not themselves bought or sold, nor have they an esteem value or a price. In short, enterprise—however we interpret the word—is not a factor of production *in the only sense of that phrase which is immediately relevant to the problem of value determination.*[1]

7. This conclusion has far-reaching implications for the

[1] The thesis here propounded may seem open to attack on two grounds. (1) It may be argued that enterprise *has* a price (viz. the profit of the entrepreneur) and therefore *must* be a commodity on the definition of that word which was approved in Chapter VIII (pp. 124-6). (2) It may be held that even if it is not really a commodity there can be no harm in treating it *as though* it were one if so treating it will advance our understanding of the value problem. Various economists have in recent times developed analyses which rest upon attributing to enterprise a supply price, a marginal productivity, and so on: why should we reject the results they yield? I cannot do justice to these points here. With regard to the nature of profit something is said in Chapter XVII, pp. 361 ff. As for the second point I can only express (without defending) my personal conviction that such useful results as can be obtained by pretending that enterprise is a commodity could have been obtained not less simply without any such fictitious postulate. But in any case my object here is to clarify the status of the concept of enterprise, not to pass judgment on its usefulness. And I must insist that the *plausibility* of treating it as a factor of production rests upon technical or social-distributional grounds rather than upon a consideration of the pricing process itself. In this respect it is on a different footing from the other three factors of production. For they are identifiable as commodity groups, quite apart from their status as prerequisites of production or as sources of income, whereas to treat enterprise as a commodity is no more than an analytical device. Here once more we must beware of forcing the phenomena of value into a Procrustean framework of theoretical symmetry.

whole structure of value analysis. We shall touch on some of these in a later chapter.[1] What has been said here is perhaps sufficient to indicate the kind of difficulties which the analytical treatment of enterprise raises. Many of these are terminological in nature; and we have tried to assist in overcoming them by examining and classifying the senses in which the *words* "enterprise" and "entrepreneur" can be used. Our main results may be summarised as follows:

(1) "Enterprise" has *four* main meanings which are specifically economic in scope. It may stand for—
   (*a*) A business unit—e.g. a firm or joint-stock company.
   (*b*) Projects and decisions with regard to either the setting up of such a business unit or to changes in policy within an already existing business unit—or both.
   (*c*) The function of making such decisions—i.e. control or initiative.
   (*d*) The function of bearing the uncertainties involved in business projects.

(2) By "entrepreneurs" we may mean—
   (*a*) The persons who fulfil either (or both) of the functions just listed—i.e. the "initiators" and/or the "uncertainty bearers". The word may here be understood either substantially of these persons as individuals or as a class, or else functionally of people *in so far as* they perform the activities in question.
   (*b*) The persons whose incomes take the form of profit. Here again we may distinguish a substantial and a functional reference according as we are thinking of profit receivers as individuals (or as a social and economic class) or are concerned with people *in so far as* their income takes the form of profit.
   (*c*) That group of profit receivers which is specifically connected with industrial production—as opposed (for example) to speculators and even to merchants and traders.

Of these various senses of "entrepreneur" the first and the third are to be found frequently in economic writings, the

[1] See below, Chapter XVII, pp. 355-7, 361-9.

second rarely. But it has been suggested that if the importance of the term rests in the part it may play in the theory of value and distribution it is in the second sense that it should be primarily understood. The affinity of the industrial entrepreneur with the speculator is a matter on which—so it may be held—the last word has not yet been said.

CHAPTER XVI

"INCOME": "SAVING AND INVESTMENT"

BEFORE considering the theory of distribution as a whole it will be necessary to deal with a series of concepts which are relevant to much that has gone before but have not yet been specifically discussed; the concepts of income (with its correlative, expenditure or "outgo") and of saving and investment; together with various subsidiary concepts which are closely related to one or more of these.

1. We may start with "income". We already know something about its meaning for economic theory. In particular we have seen that it is closely correlated with "capital" in two at least of the main senses of that word. Whereas a community's "capital" may be understood to mean its total wealth at a given *moment* of time, its "income" is the wealth which it acquires or produces during a *period* of time. So, too, we may give the name of "capital" to the claims which any individual in the community holds against other individuals (or against a business unit or public authority); and these claims are first and foremost claims to *income*—to the regular receipt of freely disposable wealth or purchasing power. In both cases income is conceived of as a "flow", capital as a "fund"; the difference turns upon our treatment of *time*.[1]

It follows that we can treat income in either of two ways, according as we are interested in the total quantity of wealth accruing to an individual or community during a given period, or to the *rate* at which that wealth accrues. Thus in the case of labour we may contrast the total sums paid to a worker during a week or a year, or while he occupies a particular post, with the sums he is paid *per unit* of time—e.g. per hour, or per day. The former is an *amount* of wages, the latter is a *rate* of wages. In the same way we can distinguish between amounts and rates of rent or interest. Not merely that, but

[1] See above, Chapter XIV, pp. 250, 275 ff.

rates of income are themselves susceptible of more than one interpretation. For we may relate the amounts received either directly to the time over which they are received, or else to the services for which they represent payment. In the one case our rate is a "time rate", in the other it is a "piece rate".[1] For many purposes, indeed, it is immaterial which of these possible methods of expressing income is adopted. But often the distinctions are of substantial importance. Thus, we may be concerned with the consequences of a speeding-up of work in a factory or industry. When this takes place, then if the time rate of wages remains the same, the piece rate must fall, while if the piece rate remains the same the time rate must rise. Similarly, a shortening of the hours of work per day will involve a changed relationship between hourly wage rates and daily or weekly wage rates.[2] Again, as we shall see in the next chapter, it can be argued that profit, though it is clearly a form of income in the *first* main sense—in that it is an amount of wealth accruing to the profit-receiver in a given period of time—is yet not properly speaking an income in the *second* main sense. If so, it will follow that the concept of a *rate* of profit is meaningless.[3]

2. These complications apart, however, let us observe that the concept of income can be interpreted on three different levels of analysis. In a money economy it usually takes the form of money payments to the income receiver. But he uses the money so acquired for the purchase of goods and services;

[1] Moreover, time rates may be expressed in various ways, according to the period of time which is chosen as the unit; thus we may reckon a person's wages as amounting to so much per hour, or so much per day, week, month, or year.

[2] In practice, the distinctions between time rates and piece rates and between the different ways of interpreting time rates are only important in the case of incomes from labour. Property incomes are regularly calculated in relation to time, not to services rendered. Moreover, capital and land, unlike labour, are invariably assumed, both in economic theory and in ordinary business and accounting practice, to yield rent and interest to their owners *continuously* (whether or not the entrepreneur is in fact able to keep his machinery, etc., uninterruptedly at work); and therefore it is a matter of indifference what length of time is chosen as the unit—unless of course the rate itself is changing during the period under consideration.

[3] See on this below, pp. 367-8. It should be noted that we are using the word "rate" in a different sense from that in which it was understood in Chapter XII, pp. 213-14 above. There it referred to the relations between the total income of a group of people (viz. labourers, capitalists, etc.) and the amounts of income accruing to the various members of that group separately: here, to the relation between the total income of one person during a period of time and the amounts accruing to that person *per unit* of time (or of work done). See also Supplementary Note 24, p. 395.

and if we prefer we can regard as his "income" the concrete wealth of which he thus gains possession. Finally, this wealth is itself desired by him because of the enjoyments it can yield; so that behind the flow of income goods there lies a flow of satisfactions or utilities. We can thus distinguish (1) money incomes; (2) commodity incomes; (3) subjective or "psychic" incomes.[1]

These three concepts are not quite so simple as they at first sight seem. Let us look at them more closely.

(1) Money incomes, we have seen, are generally thought of as representing incomes which are paid to the income receivers in the form of money—i.e. media of exchange. But even in a fully developed monetary economy a not inconsiderable part of some people's total incomes is paid "in kind"—e.g. in the form of free board and lodging or of privileges and perquisites. Are we to say, then, that the "money" incomes of such people are lower than their "commodity" incomes? Formally this would no doubt be perfectly accurate. But for most purposes it is not particularly helpful. For if we are interested in income from the point of view of the analysis of value, the contrast between payments in money and payments in kind cannot be of vital importance. What concerns us is the total wealth or *purchasing power* which a given income represents—the amount of commodities which it enables its receiver to acquire and consume. And this being so we shall probably want to express "in money terms" even those income goods which come to him without the intervention of the medium of exchange. Once this has been done we can describe his *whole* income as a "money income"; but the phrase will now refer, not to the actual money payments he receives, but to the total wealth accruing to him *as measured and expressed in terms of the standard of value*. The word "money" has come to denote units of value, not pieces of exchange media.[2]

[1] It is common in English to contrast "nominal" (i.e. money) incomes with "real" incomes. But this is liable to be misleading. For not merely is the term "money income" itself ambiguous (as we shall see in a moment); but commodity income is "real" as compared with money income, while subjective income is (in a rather different sense) "real" as compared with commodity income. (Cf. on this Robbins, *Nature and Significance*, p. 63 n.). The term "psychic income" is due to Fetter (*Principles*, p. 27, etc.).

[2] On this abstract meaning of "money" see Chapter IX above, especially pp. 144-6.

It is important to bear in mind the distinction between these two senses of "money income", if only because of its implications for the relationship between money income and commodity income. If we adopt the cruder standpoint, then this relationship depends upon the customs and institutions which govern income payments at the period or in the trade under consideration; and all that we can say in general terms is that money income may be less than or equal to goods income, but cannot be greater. If, on the contrary, we mean by "money income" *value* income, then we can lay down that there must be an exact correlation between it and commodity income; for the former is now merely a way of expressing the latter.[1]

(2) "Commodity income" may also be interpreted in two different ways. We saw in Chapter VIII[2] that the word "commodity" may refer either to material goods or, more generally, to services — whether the services rendered by material goods themselves or the personal services which one person may provide directly for another. Of these two the latter meaning is the more fundamental, at any rate for theoretical purposes. For the distinction between services which are and services which are not embodied in material goods is not merely extremely difficult to draw with accuracy, but is at bottom technical rather than genuinely economic in significance.[3] Correspondingly we may expect to find that if income is conceived of in "commodity" terms it will take the form of a flow of services rather than of material goods; since almost everyone spends some part—it may be a very large part—of their money incomes on the purchase of personal services (e.g. on the wages of domestic servants) and these clearly must be included in any complete account of their "commodity" incomes. Economists have, however, usually found it convenient to speak as though commodity incomes were composed primarily, if not exclusively, of material goods. This is in itself readily understandable; for an aggregate or flow of physical objects is much easier to handle and envisage than a flow of immaterial and evanescent services. But it is

[1] See also Supplementary Note 25, p. 396. We have been assuming here that all money incomes (in the first sense) are spent on short-lived consumption goods. This assumption is removed in §§ 4-7 below, pp. 338-43.

[2] P. 125 and n.

[3] See on these points Chapters I, p. 8 n., XI, p. 178 *et seq.*

important that the dangers of such a usage should be clearly recognised. On the one hand, if we think of commodity incomes in material terms, then we have no right to include within the scope of the term those objects of expenditure (such as personal services) which are not embodied in actual physical goods; since by doing this we shall make our income stream into an assortment of wholly incommensurable elements—we shall in fact force it to flow on two different levels at once. If personal services are to be included in commodity income at all, the latter *must* be conceived in immaterial terms. And on the other hand, we must remember that even when both interpretations are possible they do not necessarily coincide in range or scope. Suppose I devote a part of my quarterly money income to the purchase of an article of furniture — say an armchair for my study. Reckoned in material terms this will naturally be thought of as constituting a part of my commodity income *for that quarter*. But it may continue to *serve* me for (perhaps) twenty years or more. And the services it yields must be counted as entering into my commodity income in the *immaterial* sense for the whole of that period. Moreover, the income it yields from this latter point of view is in principle capable no less than the chair itself of being measured and expressed "in money terms" and so of being counted in my "money income" (in the wider sense of that phrase) so long as the chair is in use; not merely that, but I may be able to correlate the services it yields directly with my actual money receipts and expenditure—namely, if instead of purchasing it outright I hire it or buy it on the instalment system. So too with all long-lived multiple-use goods; if we think of them as constituting a part of commodity income, we are neglecting the essential difference between the time at which they are actually acquired and the time during which they yield up their services. And it is only if we confine our attention to short-lived goods (such as foodstuffs, etc.) that we can safely assert that it makes no real difference in which of the two ways income in this second main sense is interpreted.[1]

(3) There remains "psychic" income. About this little need be said. It is the subjective side of commodity income in its

[1] Cf. Fisher, "Senses of Capital", pp. 202 f.; see also below Supplementary Note 26, p. 396.

immaterial sense—in that it consists of the utilities and satisfactions which are derived from the services of persons or material goods. And as such it is the end and goal of the whole consumer-producer nexus. But it plays no active part in the theory of value, at any rate once that theory has renounced the hope of establishing a quantitative correlation between exchange ratios and real pleasures and pains. And in what follows it will not be further discussed.[1]

3. So far we have been concerned with the *connotation* of "income"; we have been examining the various planes of analysis on which it may be understood. We must now say something about its denotation. Not all the payments which are made to a man in his capacity as producer or factor-owner are to be regarded as *income* payments in the strict sense. For some part of them may be required for the defraying of necessary incidental expenses. Thus a landlord or house-owner may have to spend (say) 20 per cent of the total annual rents due to him on repairs and renovations to the property he has leased out, and if so it is only the 80 per cent which is left after these expenses have been covered that he can use for the purposes of his private consumption. So too with incomes arising from the leasing or hiring of shorter-lived goods: if their owner treats as income the total revenue which they yield him, he will find that after a few years the value of his property will fall to zero, and with it the income he has derived from it. If, therefore, he is (in the current phrase) to "keep his capital intact", he will reserve a part of his gross receipts in a depreciation fund with which he will be able to replace his equipment as it wears out. We must therefore distinguish between his "gross" and his "net" or *pure* income. And we can lay it down that so far as revenues derived from material property are concerned net income equals gross income *minus* the exact amount which must be laid aside in order to maintain the property itself at its existing value.

[1] Cf. Chapters V, pp. 84-6, VII, pp. 108 ff. "Psychic income" and "consumers' surplus" are intimately related; in fact, the latter might be rechristened "*net* psychic income". We need not therefore repeat our earlier discussions of the relevance of such concepts for value analysis. (It is curious that the inventor of the phrase "psychic income" should have been, of all people, Professor Fetter—perhaps the most inveterate living opponent in the western hemisphere of the introduction of real utilities and disutilities into the investigation of the value problem.)

In principle the concept of "pure income" so defined is perfectly clear and unambiguous; though of course it may be a matter of considerable difficulty in any given case to decide upon the precise amount which must be deducted from gross revenues in order to "keep capital intact".[1] Let us note, however, that it is as such simply a matter of definition. We are entitled at any time to think of income in "gross" rather than in "net" terms if it suits our purposes better to do so. Thus an owner of land with valuable mineral deposits may count the total revenue which he draws from it as freely disposable income, even though it is an income which will come to an end when the deposits are exhausted. Net property incomes are, in fact, perpetual while gross property incomes are evanescent.[2] But so long as we are aware of the distinction between them no harm need come from using the word in whichever sense is more appropriate to the subject under discussion.

What, then, of incomes other than those derived from the leasing of material property? So far as interest on loans and other "pure" capital claims is concerned no problem arises. When I possess a claim against a person for (say) £1000 the interest he pays me is evidently a net income; for the duty of making allowances for depreciation, etc., is one which falls upon my debtor, not upon me.[3] In the case of incomes from labour, on the other hand, a serious difficulty arises. In the first place, .. is clear that of the total payments made to a worker a certain amount may have to be used in covering the "necessary expenses" which his work entails. Thus, if he is an intellectual or professional worker he must buy books or technical journals in order to keep himself abreast with current work in his subject; in other cases the nature of his work may be such as to require special clothes or personal equipment; he may be burdened with substantial travelling or entertainment costs; and so on. Expenditure of this type must evidently be deducted from his total wages before we can know what is his "net" income.[4] But this is

[1] See on these matters the well-known discussions in Pigou, *Economics of Welfare*, part i, chap. iv, *Stationary States*, chap. v. §§ 5-6. In a progressive community an allowance for obsolescence will have to be included along with those for repairs and depreciation. But the principle is in all cases the same; to accumulate a fund sufficient to maintain the value of the capital intact.

[2] Marshall, *Principles*, p. 81. [3] See Supplementary Note 27, p. 397.

[4] Cf. on all this Chapter XIV, p. 247, and also below, Chapter XVII, pp. 360-61.

not all. We saw in an earlier chapter[1] that it is possible, if unusual, to treat labour power itself as a form of capital equipment. A man's energies and abilities are in the widest sense a part of his property or capital resources[2] and the income he earns in respect of these can be regarded as a "rent" on this "personal capital". It follows by analogy with what we have just said that his wages can only be a "pure" income after allowances have been made for "keeping capital intact". But keeping personal capital intact involves two things; first, the maintenance of the labourer himself as a productive unit—that is to say, an adequate provision of the necessaries of life and of anything else that may be required for physical health and efficiency; and secondly, a "depreciation and replacement allowance" in the form of expenditure on the bringing up and training of new workers to take his place when his life as a producer is over. Money spent in these ways, it appears, is not a part of the labourer's net income; indeed, it is only when his gross receipts are sufficient to leave him a surplus after providing for his own and his family's immediate needs, and for any special expenses which his work may require, that he can be said to have a "net" income at all in the same sense in which, as we have just seen, most rents and all interest payments constitute net incomes.

This argument may sound unreal and even fantastic. But it is not merely formally unassailable; it is capable of having great theoretical and practical importance. On the one hand, it is the basis of socialist theories of "exploitation"; since it shews that whatever may be said about the community's *gross* income, its *net* income is under existing conditions almost entirely concentrated in the hands of a few property owners and highly paid workers. And, on the other hand, it provides the rationale for the "personal allowances" and "exemption minima" which enter into any well-constructed income-tax system.[3] Moreover, it is closely connected with one of the cost

[1] P. 246 and n.

[2] Unless he is a slave, in which case they are a part of somebody else's property or capital resources.

[3] On this point see Hobson, *Taxation*, especially chaps. i and ii; Graziani, *Finanze*, pp. 280-285. The point is a difficult and obscure one, if only because it is in practice hopelessly complicated by problems of how "net" income is to be *calculated*. But I do not myself doubt that the necessary and sufficient explanation of the personal allowances and the allowances in respect of wife and children in the British Income tax system is in principle precisely the same as that of the

concepts which were discussed in Chapter VI[1]—cost, namely, in the sense of the payments necessary to make production physically possible; for these payments are, precisely, the allowances which have to be made for maintaining intact the value of the community's capital and personal resources, and what is left after they have been covered is a "surplus"—i.e. a net income. Finally, what is perhaps of most immediate relevance here, it draws attention to the fact, which might otherwise be overlooked, that the normal use of the word "income" involves a sharp discrimination as between wages on the one hand and rent and interest on the other. In the former case it is regularly used of gross returns (except when deductions are made for the—relatively insignificant—"incidental expenses" of labour); in the latter case it usually if not invariably stands for *net* returns after provision has been made for keeping capital values intact. There is of course excellent ground for this discrimination so far as value theory is concerned. But we must recognise that it exists if we are to avoid confusion in the application of economic analysis to the wider problems of policy and welfare.[2]

4. Let us turn now to the relations between income and its opposite, "outgo". The conversion of money income (in the narrower sense) into commodity income involves *money outgo*, or expenditure. Correspondingly, the conversion of commodity income into subjective income involves *commodity outgo*, or consumption. If the income receiver spends as much as he earns, then money income and outgo are equal; if he consumes at once as much as he buys, then commodity income and commodity outgo are equal; and if, in addition, he buys nothing but consumption goods then his money outgo (and income) will be equal in value to his commodity income (and outgo).[3]

allowances in respect of wear and tear of machinery, etc.—namely, that they represent "necessary expenses" for the maintenance of the community's capital and the production of taxable wealth.

[1] Above, pp. 99-101. [2] See Supplementary Note 28, p. 397.

[3] The uncouth term "outgo" has been used here in order to emphasise the parallelism, such as it is, between the (money) income-expenditure contrast and the (commodity) income-consumption contrast. (Cf. Fisher, *Capital and Income*, chap. viii, etc.) It might be thought that for completeness we should recognise a third level of outgo, subjective or "psychic" outgo, as the correlative of subjective income. But this could only mean the real disutilities inherent in contributing to economic production; and its relation to the utilities of consumption is different in kind from those between the other two pairs of opposites—if only because, accidents and mistakes apart, the former *must* be smaller than the latter.

But evidently none of these quantitative equivalences can be taken for granted. Money income may be greater than money expenditure; namely, if the income receiver keeps some part of his receipts in monetary form. Again, money expenditure may be less than commodity income; namely, if part of it is spent on non-consumption goods or is put out on loan. Finally, commodity income (in the material sense) may be greater than consumption; namely, if the goods bought are long-lived and will not yield up their full services for some time to come. And conversely, of course, money income may be *less* than money expenditure, money expenditure may be *greater* than commodity income, commodity income may be *less* than consumption. These relationships are all important for economic theory, and a formidable array of terms and concepts has been generated for dealing with them. Those between money income and money expenditure are usually described in terms of "hoarding" and "dishoarding"; those between money expenditure and commodity income in terms of "saving" and "dissaving" and/or of "investment" and "disinvestment"; and those between commodity income and consumption in terms of "accumulation" and "decumulation". And the final task of this chapter must be to examine and analyse the meanings of these words.

5. We may begin with "hoarding" and "dishoarding". They need not detain us long. Hoarding as an economic term invariably refers to one thing and one thing only: the withdrawal of money income from current expenditure without diverting it into non-consumption channels—that is to say, the building up of monetary holdings.[1] By analogy dishoarding is the drawing upon existing monetary holdings so as to bring current money expenditure higher than current money receipts. "Hoarding" is commonly used in economic writings (as in ordinary speech) in a somewhat pejorative sense: it is implied that a person must have a mistaken or perverted scale of values to wish to increase his monetary holdings above the minimum necessary for the effective covering of his daily needs. But this implication is not inherent in the word, nor has it any *prima facie* relevance to the problems of pure value analysis. And in recent times the practice has been growing among economists to employ it for *any* increase in an

[1] In ordinary language, of course, its meaning is much wider.

individual's money holdings, whether undertaken for good reasons or bad.[1]

6. The words "saving" and "investment" are much more controversial. Broadly speaking, we mean by the former the accumulation of resources for future use and consumption, and by the latter the conversion of resources from a relatively "liquid" to a relatively non-liquid form.[2] In the first instance both words have a monetary reference. Thus an individual is thought of as "saving" whose income is £500 a year while his expenditure on immediate consumption goods is only £400 a year—the presumption being that the remaining £100 is either lent to some other person or else is accumulated in money form with a view to future use. So understood it is essentially different from hoarding, which implies the accumulation of money for its own sake. But it may *express* itself in hoarding, if it involves a temporary increase in monetary stocks before these are devoted to the purposes for which they are intended.[3] Again, it is not the same as "waiting" as that term was understood in Chapter XIV.[4] For we should regard our individual as "waiting"—but not as saving—if he devoted his extra £100 to the purchase of long-lived consumption

[1] In the old days hoarders tended to be identified with misers, who in their turn were thought of as monstrosities whose activities fell rather within the scope of psychopathology than of economics. And this point of view still persists in some quarters. (See for example Taussig, *Principles*, vol. i, pp. 233-4; Robbins, *Nature and Significance*, p. 31.) But recent developments in the theory of money, showing as they do that money has a utility of its own (if of a rather peculiar kind) and that this utility may differ for different people—or for the same person at different times—have cleared the way to a less one-sided treatment of hoarding and miserliness. (Cf. p. 295 and n.).

Two further points should be noted here. (1) In so far as money is hoarded it represents a direct-use consumption good and as such belongs to its owner's material income no less than any other long-lived consumption good. (See, however, p. 274 n.). (2) Where an increase in an individual's money holdings is due to a change in his general economic conditions (e.g. to a rise in his total income) it would probably not be regarded as a case of hoarding. And there may therefore be considerable difficulty in defining the *amount* of hoarding which in any given case has taken place. But we need not concern ourselves with this complication.

[2] On "saving" see Cannan, *Economic Scares*, p. 43. The concept of liquidity was examined in Chapter XIV, pp. 270-75 above.

[3] The distinction here is really twofold. (*a*) Savings *need* not be accumulated in money form, since they may be promptly invested; (*b*) "Saving" implies that if an accumulation of money does take place, this is with a view to its expenditure at some more or less definite future date; whereas "hoarding" either carries no implication whatever as to the purpose of the increase in monetary holdings, or else it suggests that the intention is simply to enjoy the possession of these stocks for their own sake.

[4] See (in particular) pp. 234-7 above.

goods. The essence of saving is the storing up of wealth in *liquid* form. All saving, then, involves waiting; but not all waiting involves saving.

Correspondingly "investment" in a money economy is naturally taken to mean the use of *monetary* resources for the acquisition of wealth of a relatively illiquid type. The wealth so acquired will certainly be regarded as "capital". But it may be *either* a capital claim—as when I "invest" in war loan or in industrial common stock—*or* a quantity of capital equipment—as when an entrepreneur uses the resources at his disposal for the purchase or construction of machines, factory buildings, etc.[1] The distinction between these two kinds of investment and the relations between them are of the utmost importance for applied capital theory. In the present context, however, what matters is simply to notice that they both involve the conversion of "capital" in one sense into "capital" in another sense.

Savings, then, are invested when they are converted from a monetary into a non-monetary form. They are not invested when they are hoarded. On the other hand, not every investment is the result of saving. For as we have just seen,[2] to use some of one's current income for the purchase of long-lived consumption goods may be described as *investing*, but is not in the ordinary sense saving; or again, the resources invested may have been borrowed, or may be derived from the sale of securities or capital goods already in the possession of the investor—in which case, though *someone* may have saved yet he himself has not, at any rate in the immediate past.

7. But though primarily referring to the phenomena of a monetary exchange economy, saving and investment have their counterpart in other forms of economic life. Crusoe, for example, may be said to "save" when he accumulates supplies of food, etc., for future consumption, and to "invest" when he devotes his liquid resources—viz. his time and energies—to the construction of "illiquid" goods, such as a house or boat.[3] Here again the two need not involve one another.

[1] People are sometimes said to "invest" in pictures or furniture or other long-lived consumption goods. The word here implies that such goods are thought of as forms of capital equipment.

[2] Preceding note.

[3] An accurate use of the terminology of Chapter XIV would require the substitution of "non-specific" and "specific" for "liquid" and "illiquid".

Crusoe may save food for the sake of future idleness—i.e. without any subsequent investment. And he may construct his house or boat without saving by dividing his time each day between building and the supplying of that day's current consumption needs.[1]

It is worth adding that both terms are subject to the extended form of the "ing and ed" ambiguity which we encountered in the discussion of production and consumption.[2] That is to say, "saving" may refer to (*a*) the *process* of saving; (*b*) the result of saving, i.e. the resources saved; and (*c*) the *amount* of these resources. And "investment" may refer to (*a*) the *process* of investing; (*b*) the result of this process, i.e. the capital claims or equipment in which it issues; and (*c*) the *amount* of this capital. In the second of these three references the words are closely associated with the various meanings of "capital"; for savings are capital purchasing power and investments are either capital claims or capital equipment. The third reference is one which has acquired an enormous importance in recent years, and which has given rise to various "special" definitions of the terms. For the understanding of the trade cycle what matters is the *volume* of funds available as capital purchasing power, and the *amounts* of that purchasing power which are in fact used for the acquisition of equipment and/or claims. And it is not surprising that as economists' views alter and develop on these matters they should find themselves readjusting their definitions and expanding or contracting the scope and content of their terms, so as to make these as helpful as possible in their discussions. Nor is it surprising that different writers should adopt mutually inconsistent definitions, in so far as they take different views of the phenomena with which they are dealing. We need not discuss these "special" meanings of savings and investment here; for an examination of them is of the stuff of economic analysis itself and has no place in a preliminary work like the present.

8. We are left, then, with "accumulation". This is a term which can be dismissed almost without discussion—not, however, because (like "hoarding") it is comparatively un-

[1] See Supplementary Note 29, p. 398.

[2] See Chapters I, pp. 19-20, XI, pp. 175-6. What follows can also be applied, *mutatis mutandis*, to "hoarding" and "accumulation"—as also to the opposites of all four of the terms here under discussion.

ambiguous, but because it is so highly ambiguous that few economists allow it to play any fundamental part in their discussions of capital and income. It has already been suggested that it may be used of the process whereby consumption (or commodity outgo) is allowed to fall short of commodity income—the process of acquiring and retaining long-lived consumption goods. But it is also frequently used with reference to money, to capital claims, to production goods, and even to a store of food, etc., such as a Crusoe might collect before embarking upon the construction of a boat, or a householder might store in his cellar for fear of a future shortage. Accumulation, in fact, covers hoarding, saving, and investment. And all that we can really say about it is that in one sense or another it probably involves "waiting" and that conversely most "waiting" results in some kind of accumulation. There is nothing in this which calls for detailed discussion here.[1]

[1] Cannan proposed that "accumulation" should be used as the general term to indicate the function lying behind the construction of capital—i.e. as a substitute for what in this book has been called simply "waiting". (*Review*, chap. vi, especially p. 153.) His reason for this suggestion was the desire to emphasise the *activity* which capital construction involves; "waiting", "lacking", "abstinence", etc., seemed to him to be altogether too passive in their implications. But in an exchange economy the two elements in the creation of capital equipment can be and usually are separated, one person merely "postponing consumption" while another quite different person undertakes the work of positive construction. It seems a pity to use language which might obscure this vital fact.

CHAPTER XVII

THEORIES OF DISTRIBUTION

THE last five chapters have all been concerned, directly or indirectly, with the problem of *distribution*. And it will be worth while now to enquire what light the results they have yielded can throw upon the scope and content of the theory of distribution itself.

1. That theory may be approached from either of two points of view. It is, on the one hand, concerned with the principles on which the total income of a community is divided among its various members and groups. From this point of view it studies the nature of wages, rent, interest, and profit considered as forms of income; and it asks what determines the standard of life of the working classes, what proportion of the total national income goes to landlords, why the rate of interest is as high (or as low) as it is, why some labourers are better paid than others, and so on. So understood it represents, in fact, the second main part of the subject-matter of economics as defined by Professor Cannan; the part which is concerned with explaining "why some of us are much better off and others much worse off than the average".[1]

Secondly, however, the theory of distribution is the theory which examines the causes determining the value of *factors of production*. It investigates the conditions of demand for, and supply of, units of productive resources, and asks what fixes their market prices and under what influences these prices are liable to change, relative both to one another and to the prices of consumption goods. From this point of view it is an extension—or, rather, a constituent part—of the theory of value; for it is simply concerned with the exchange relationships of a particular group of commodities—viz. those commodities whose usefulness depends upon the part they can

[1] *Wealth*, p. v.

play in production rather than upon any direct service they yield to final consumers.

In an economic system like that of Great Britain at the present day, of course, the two aspects of distribution theory are so closely linked together as to be to all appearances inseparable. It is of the essence of capitalism that the main, if not the only, source of income should be the ownership of productive resources—of labour-power and material wealth, possibly also (if these are regarded as productive resources) of capital claims and enterprise. And to consider the value of these resources is necessarily to consider how much in the form of income their owners receive by selling them or hiring them out in the factor markets; just as, conversely, we can only explain the level of the incomes which the different individuals and groups in the community receive by examining the forces which determine the value of their productive services. But though closely associated in fact, the two enquiries are fundamentally distinct in principle. The one is concrete, the other is abstract; the one treats people "substantially" as individual persons, the other "functionally" in their capacity as producers (i.e. owners of factor units of production); the one is essentially occupied with problems of economic welfare and policy, the other with the economical administration of resources. Not merely that, but it is easy to imagine circumstances in which they would be completely independent of one another. In a socialist or communist society the division of the total wealth of the community among its members might be made the subject of governmental ordinance or fiat, and might thus have no relation whatever to the market value of the labour power or other resources of these members themselves—even though at the same time an accurate determination of factor values might be essential in order to avoid misdirection and waste in the employment of the community's productive equipment. Or, again, a redistribution of private property might profoundly affect the distribution of the national income without altering the value of a single factor class of production.[1] And even under existing conditions the State is prepared, by means of discriminatory taxation and in other ways, to manipulate the personal and class distribution of consumable wealth in

[1] See further on this below, p. 350, n. 2 *sub fin.*

accordance with various considerations of justice and national welfare, with the result of making it quite other than a pure analysis of the values of factors of production would lead one to expect. The two enquiries are distinct, then, in substance and in fact; and nothing but harm can come from supposing that because they are closely related they can therefore be taken as, for practical purposes, identical.[1]

2. Now the earlier theories of distribution were essentially of the "personal", or "social", rather than of the "factor" type. What interested the classical economists was the explanation of the level of *incomes*. As we have seen, they distinguished three main economic classes—labourers, landlords, and employer-capitalists or manufacturers—which between them were held to cover the whole community, at any rate so far as economic analysis was concerned. The income of each class was then examined with a view to discovering the principles which determined its amount, both absolutely and relatively to the incomes of the other two. Thus, wages were explained in terms of a fixed wages fund or of a tendency towards the subsistence level, rent was held to be a surplus on unusually fertile or convenient land, and profit was regarded either as a kind of wages or else more simply as absorbing whatever was left over after the other incomes had been paid. And it was believed, not merely that an adequate account of the distribution of the national dividend might be achieved along these lines—with, of course, various elaborations and refinements—but that once such an account had been given the work of distribution theory was complete.

This is not to say, indeed, that the earlier writers entirely neglected the "value" side of the problem. Their explanation of the forces determining the level of incomes was closely relevant, as they were fully aware, to their analysis of commodity values; for the cost of production theory of value is obviously empty and meaningless if it does not include some explanation of how the market prices of productive resources are determined. Not merely this, but the classical economists themselves took the view that the best way of solving the problem of personal distribution was to relate the income a man received to the amount of the resources he offered for use in production. And they therefore discussed property incomes

[1] See Supplementary Note 30, p. 399.

in terms of rent *per acre* of land or of profit *per cent* of capital invested, and labour incomes in terms of wages *per unit* of labour power.[1] It followed that their results were, at least to some extent, theories of the *value* of land, capital, and labour, no less than of the incomes of landlords, capitalists, and workers. Nevertheless the emphasis was on the personal rather than on the value aspect of the problem. Their real aim was to explain the division of wealth among the community's economic classes; and if doing this involved an account of the "value" of "factors of production", that was no more than a by-product.[2]

3. The attitude to distribution theory above described remained substantially unchanged throughout almost the whole of the nineteenth century, though the actual contents of the doctrine were modified in various important and well-known respects. But in the nineties a fundamental change took place. For it was then that J. B. Clark enunciated his "marginal productivity" theory of wages.[3] We need not expound that theory. But the essence of it was that it treated labour as a *commodity*, and applied to the analysis of the value of labour the technical apparatus which the founders of the marginal utility theory of commodity values had elaborated twenty years earlier. Labour was now thought of as comprising an aggregate of substitutable and competitive units,

[1] In this last case, indeed, the classical economists never forsook, even provisionally, the personal standpoint. A unit of labour was for them an individual labourer, not a quantity of work done or of working time spent. It was not until the last quarter of the nineteenth century that adequate attention came to be paid to problems connected with the length of the working day and the productive efficiency of the workers.

[2] Cf. on this Cannan, *Production and Distribution*, especially chap. vi and § 1 of chap. vii. Professor Cannan took it ill of the earlier economists that they shewed as much interest as they did in the problems of what he called "pseudo-distribution". And to the end of his life he was inclined to accuse economists of neglecting the *real* issue—why some of us are better off than others—for the sake of the side issue. (Cf. also Cole "New Economic Theory (A)", p. 200.) One's agreement or disagreement with this point of view will depend upon whether or not one considers the pure analysis of value to be a worth-while pursuit. (See further below, pp. 351-2 n.)

For a full study of the history of Distribution Theory from approximately the same point of view as is here adopted see Dalton, *Inequality of Incomes*, pp. 37 ff.

[3] The first published statement of the theory was in Clark's "Scientific Law of Wages" (1889). But it did not become widely known until ten years later with the appearance of his *Distribution of Wealth*. And in the meantime much had been done to his theory by other hands—as we shall see in a moment. It should be noted that Clark himself spoke in terms not of "marginal" but of "specific" or "final" products and productivity. But the former word is in universal use nowadays and will be regularly employed here.

"supplied" by the labourers themselves and "demanded" by their employers, the entrepreneurs; the demand for labour was analysed in accordance with the principle of diminishing utility (the "utility" of a unit of labour being its ability to yield a valuable product); and the principle of substitution was used to establish that the value of every unit of labour must be that of the marginal unit.[1] In short, the earlier "personal" approach to the problem of labour incomes was replaced by a "value" approach. Wages came to be thought of, not as an income but as a *price*.

Nor was this by any means all. For it was soon seen that the usefulness of the marginal productivity analysis extended far beyond the mere establishment of a law of wages. On the one hand, it could be applied to factors of production other than labour; for if wages tend to equal the marginal productivity of labour, then by parity of reasoning rent and interest must tend to equal the marginal productivity of the capital resources which yield them.[2] And on the other hand, in so far as units of labour (or of capital or land) are not fully substitutable for one another, tending to fall into "non-competing groups", then the price of each such group can be ascribed to *its* marginal productivity. In this way, the same *type* of explanation can be offered of, for example, the professor's £1000 and the company director's £10,000 per annum as of the agricultural labourer's 30s. per week. For if there is little or no free movement between one kind of occupation and another, then the labour appropriate to each falls into two separate factor *classes*; and it is with factor classes, rather than with factor "groups" in the old sense, that the marginal productivity theory is now concerned.[3]

In this way the concept of marginal productivity has transformed the whole scope and spirit of the theory of distribution. From being semi-political it has become narrowly econo-

[1] Clark, *Distribution*, chap. vii (*n.b.* p. 90: "we will adopt the mercantile conception of labour, as a thing to be sold in the market"); *Essentials*, chap. viii.

[2] Cf. Wicksell, *Lectures*, vol. i, p. 132: "between rent and wages there is a practically complete parallelism".

[3] See on this last point the discussions in Chapter XII, particularly pp. 202-5, 211-14. The credit for this extension of the marginal productivity analysis to cover all factor classes must be shared between Wicksteed and Wicksell, the former of whom first made the attempt to work out a systematic theory of distribution based upon it (in his *Essay on Co-ordination*, 1894), while the latter was the first to offer a satisfactory and intelligible solution of the problem of synthesis which such an attempt involved. See on this Hicks, *Wages*, pp. 233 ff.

mic. It deals in commodities and prices, not in incomes and social classes. Instead of claiming a status as an independent field of investigation, it has fallen into place as a constituent part of the theory of value.

4. This is not the place to study all the consequences and implications of this revolutionary change. But it will be worth while to notice some of the characteristics of the new theory of distribution and to point the contrasts between it and its predecessors.

In the first place, it is from the theoretical point of view far simpler. Earlier theories, we have seen, offered, as a rule, different types of explanation for the several kinds of factor incomes; one was fixed by the cost of supply, another was a scarcity differential, a third was a pure surplus, and so on. The marginal productivity analysis, on the contrary, applies without discrimination to all factors of production alike, in so far as they can be treated as commodity classes; not merely that, but the account it gives of the determination of their values is fundamentally the same as that given of the determination of the values of consumption goods. In this respect it represents a clear improvement over previous theories. For explanations should not be multiplied beyond necessity.

There is, however, one difficulty here. The earlier theories, being heterogeneous in content, could explain the income accruing to *one* factor of production (though not to more than one) as being simply the difference between the total income and the amounts payable to all the other factors. Thus if the levels of wages, rents, and interest could be established *a priori*, then it was legitimate to describe profit as what was left over after deducting what was due to labour, land, and capital. Alternatively, if it could be shewn that *profit* was explicable *a priori*—e.g. as being the reward of the differential abilities of supra-marginal entrepreneurs—then *labour* might be treated as the "residuary legatee" of industry, and a consistent and intelligible theory of wages might be based on this cheering foundation.[1] No such device is open to the marginal productivity theory. For it is applicable in principle to *all*

[1] This last point of view was, of course, that taken by Walker. (See his *Wages Question*—as also his *Political Economy*, pp. 248 ff.; and cf. further Supplementary Note 31, p. 399).

factors of production. And if—as most of its adherents would probably hold—enterprise is to be accounted a factor of production no less than land, labour, and capital, then it follows that *no* income can be explained in "residual" terms. It must therefore prove (or assume without proof) that there is no residue—that the sum of the amounts due to each factor, as determined by its marginal productivity, is precisely equal to the total income to be distributed. This is the familiar "adding-up" problem. It is not insoluble, at least in formal terms. But it represents a complication which cannot be ignored in any complete treatment of distribution along marginal productivity lines.[1]

5. Secondly, the marginal analysis is not merely theoretically simpler than its predecessors, it is also much wider in scope. For they were designed to be explanations of the principles of distribution which were actually operative in nineteenth-century Europe or America, and it was not claimed for them that they would retain their validity if the economic system underwent a radical reorganisation. The new theory, on the contrary, is in principle as valid for socialist or communist economies, or for a Robinson Crusoe on his desert island, as it is for an economy which is based on private property and free enterprise. It is no part of the marginal productivity doctrine that the factors of production should be privately owned, or that their market value should be handed over as income to those who supply them. All that it demands is that if production is controlled by a central authority, that authority should endeavour to administer its resources in the most economical way. To the extent that it does this it will automatically adjust the uses of its productive resources—so the theory claims—in such a way as to bring the value of each factor class into harmony with the value of its marginal product.[2]

[1] See on this Joan Robinson, "The Problem of Distribution", with the references there given. The whole difficulty ceases to be of practical importance once we abandon the attempt to treat enterprise as a factor of production and profit as the reward for a productive service. More will be said on this matter shortly (below, pp. 361 ff.).

[2] This statement seems to me quite indisputable. Those economists who question it seem to do so on the ground that a socialist or communist government would not in fact be able—perhaps would not think it worth while to try—to ascertain the most economical way of administering its resources. In that case marginal productivity would indeed become a fantasy. But so, too, would the whole theory of value (since, as we know, that theory rests on the postulate of

6. But if the new theory is wider than its predecessors in this way, it is in another way very much narrower. Not merely does it renounce the hope of establishing any necessary correlation between the factors of production whose value it studies and the emergence of particular types and amounts of personal income, but it makes no claim to connect either factors or incomes with the technical processes of production. In this respect the evolution of distribution theory is closely parallel to that of value theory in general. We saw in an earlier chapter how the abandonment of the cost of production theory of value and of the marginal utility theory in its first form meant that the analysis of value ceased to run in terms of real satisfactions and real embodied costs, and confined itself to an investigation of esteem and exchange relationships. Value theory was compelled, in fact, to draw in its horns and to attain consistency and simplicity at the expense of concreteness and comprehensiveness. So too here; the theory of distribution no longer claims to establish a magnificent synthesis of technical, social, and economic classifications. It deals in the phenomena of the market-place and neither penetrates the "hidden abode of production" nor seeks to evaluate the joys of consumption. It is, in fact, a part of the study of commodity values.[1]

rational choice) and economists would either have to find other problems to study, or would be drafted into other occupations. (Cf. Chapter II, pp. 42-5, and the references given in p. 42 n.)

All this is not, of course, to deny that any revolutionary change in the economic system would in fact be certain to alter the actual values attaching to most commodities and factors of production. But it would do this by altering the tastes and resources of consumers (and producers), not by destroying the principles on which the former settle what is the most economical distribution of the latter. It would represent a change in the *data* of the problem—but not in the form of its solution. (Cf. on this Strigl, *Ökonomische Kategorien*, chap. iii.)

[1] The divorce between distribution and production above described depends, however, upon understanding the latter term in its technical rather than its economic sense. If we mean by it the creation of utility rather than the creation of material goods (cf. Chapter XI, p. 178), then the study of production is the study of the laws which determine what things are to be made and in what quantities. Clearly these laws must be laws of value; for the worth-whileness of using productive resources in a particular way depends upon the value of these resources as compared with the value of the product they would yield if so used. And this means that we cannot study production without studying "distribution"—the principles on which the values of productive resources are fixed—just as conversely a complete account of the determination of factor values must take into account the contribution they can make to the production of consumption goods. We can no longer lay down, with Mill (*Principles*, Book II, chap. i, § 1), that whereas the theory of production deals in physical laws the

7. From this it follows, moreover, that the newer theory of distribution, like the newer theory of commodity value, is essentially *positive*, not normative, in its assertions. It makes no claim to establish that if any factor class is paid according to its marginal productivity it is therefore getting its "fair share" of the national dividend, or is drawing out of the productive process exactly what it has put into it. On this point it has been frequently misunderstood—and that, not merely by its critics but also by some of its exponents themselves. The source of trouble here has been twofold. In the first place, the idea of marginal productivity itself has been supposed to depend upon the assumption that one can identify and measure the share of the total product of industry for which a given factor of production (e.g. labour) has been responsible. If this were indeed so, then the theory must fall to the ground. For it is of the essence of modern industrial methods of production that they are co-operative—that they owe their efficiency to the fact that they rest upon the *division* of labour and the specialisation which is thereby made possible. And we are no more in a position to identify that part of the total product which is due to any one participating agent than, for example, to decide how much of the beauty of a Beethoven symphony is due to the violins and how much to the trumpets or the flutes. Fortunately, however, this objection rests upon a misunderstanding of what the doctrine states. All we mean by the marginal product of a given factor class is the *difference* made to the total product by the addition (or subtraction) of a small quantity of that factor class, the amounts of all other factor classes in use remaining unchanged. And to say that the value of the factor in question tends to equal the value of its marginal product, as so defined, implies nothing whatever as to the *amount* which it as a whole has contributed to the pro-

theory of distribution is concerned with matters of social policy. Both parts of this statement are true if "production" is used in its technical, and "distribution" is used in its personal-social reference. But they are not true as the words are now to be understood.

Veblen, it may be noted, constantly protested against making the theory of production into a theory of "acquisition" as he called it (see, e.g., his "Preconceptions", pp. 135 ff., "Marginal Utility", p. 231, etc.). But this was simply because he was not himself much interested in value theory, whereas he *was* interested in the mutual interactions of technological changes and economic institutions. His whole work serves as a reminder—if reminder be needed—that there are matters outside the theory of value which economists may find worthy of investigation.

ductive process. The theory does not in the least require us to "unscramble eggs".

The second point is more immediately relevant to our present discussion. Even if the marginal productivity theory could show that each factor receives as its reward exactly what it has itself put into the productive process, it would not follow, as has sometimes been imagined, that it had proved that reward to be fair or just. For what a man can put into production depends upon the resources at his disposal. And the distribution of resources may be equal or unequal, just or unjust, without in any way affecting the principles on which the productive value of these resources is determined. In short, a doctrine which applies in principle (as we have just seen) to *all* economic systems cannot be used in support of one system in opposition to another.[1]

8. In all these ways the new theory of distribution has helped to systematise the whole analysis of value and to clarify its status. On the one hand, it is supported by and itself receives support from the modern theory of the value of consumption goods, in that it enables us to see that the system of interdependent and mutually reacting esteem and exchange ratios in terms of which that theory runs extends over the whole of economic life, from the choices and resources of the initial producer through the mechanism of production and exchange to the choices and resources of the final consumer. And on the other hand, it indicates clearly how far value theory can go, and where it must stop. For it once and for all disposes of the idea that the division of wealth among the various classes of the community is controlled by an iron

[1] Except, of course, in so far as it provides a *prima facie* case in favour of systems which do, and against systems which do not, aim at the economical administration of their resources within the institutional framework they set up. (Cf. on this the parallel discussion in Chapter VII above, pp. 114-16.)

J. B. Clark was himself largely to blame for this misunderstanding. His language undoubtedly implies that he believed himself to have shewn that the labourer receives as wages exactly what he has put into the productive process—if it does not also imply that he considered this to be a "just" state of affairs. (See, for example, his *Essentials*, chap. viii, particularly *sub fin.*; *Distribution*, p. 324 n., and cf. Carver, "Clark's *Distribution*", *ad init.*, Douglas, *Wages*, pp. 42 ff.) But these implications have long been expunged from the theory. And it is a matter for surprise that so influential an economist as Mr G. D. H. Cole ("Economics in the Modern World", pp. 31 ff.) should trouble to attack the pure marginal productivity theory of distribution (as also the pure marginal utility theory of value) as though it were meant to be a buttress of individualism and *laissez-faire*. As is shewn in pp. 354 ff., it is open to attack in various respects. But that is *not* one of them.

system of immutable laws. It shows how under given conditions the process of attaching value to productive resources *works*: it cannot show either that these conditions are inevitable, or that they are good or bad.

9. This, then, represents in the broadest possible outline the present position of distribution theory. But no economist would claim that that theory is as yet complete, even as a purely academic structure or framework. It has the defects of its qualities. Being simple and self-consistent it is abstract and impersonal. It stops short of those investigations of concrete economic and social problems with which the name of "distribution" was formerly associated, without in the least rendering such investigations unimportant or otiose. And the "purer" the theory we succeed in building up the more essential it is that we should not suppose economics to have done its task when it has enunciated the laws of value.[1] Moreover, it can be argued that in the form in which it is commonly expounded at the present day it is guilty of sins both of commission and of omission; that its postulates are unduly rigid and narrow, and that it is still to some extent distorted by modes of thought and language which are appropriate to an earlier, more concrete type of doctrine. We cannot do justice to these matters here. But it may be worth while to devote a few pages to noticing some of the main lines along which there is room for progress.[2]

10. In the first place, the word "productivity" itself is not without implications which are irrelevant for pure value theory. The analysis in terms of marginal productivity, we have seen, is in essence simply the application of marginal utility to the particular case of productive resources. Now the utility of productive resources can be regarded in either of two ways, according as we mean by "utility" the capacity to yield satisfactions or the capacity to arouse desire or de-

[1] See on this the concluding remarks in the next chapter (pp. 374-5 below), and cf. also Chapter II above, pp. 39-41.

[2] The discussion which occupies the remainder of this chapter is necessarily somewhat controversial. I have felt compelled to incorporate it in this work, both because it takes up a number of points which have been left outstanding from previous chapters and also because it may help to indicate some of the positive conclusions to which the argument of the book as a whole points. But what I say in it is to be taken merely as the expression of my personal views: I do not imagine myself to have proved that they are true, or even important.

mand.[1] From the former point of view utility is in the case of factors of production a *derived* property; they can only yield satisfactions because, and in so far as, they are capable of being converted into useful consumption goods. From the latter point of view, on the contrary, their utility is perfectly direct and immediate: everything now has a utility which is demanded, and for which people are willing to pay, and factors of production are "demanded"—namely, by entrepreneurs who hope to derive a profit from converting them into finished products. Of these two points of view the first is no doubt in the last analysis the more fundamental. But it is the second which is of immediate relevance so far as pure value theory is concerned. In its modern form, as we know, the analysis of value does not profess to tell us anything about absolute utilities, except in the most general terms. What matters for it is the capacity which goods possess to induce purchase, rather than the real satisfactions the consumption of goods may sooner or later yield. From this point of view, then, the fact of primary importance about a factor unit of production is that somebody is prepared to buy it, and pay for it; and we should expect that at least in the first instance the value of a factor of production would be explained in terms not of its ultimate contributions to the community's economic welfare but of its utility—and its marginal utility—*to the entrepreneur.*

But the term "productivity" belongs to the absolute, not the relative, line of approach. To explain factor values in terms of the products which the factors help to yield is to connect them with the real satisfactions which they are ultimately capable of providing. It emphasises their (derived) "absolute" utility at the expense of the (direct) "relative" utility which they must obviously possess if they have an exchange value at all. And as such it does not properly belong to a theory of value which is professedly interested more in the interdependence of exchange and esteem ratios within the pricing process than in one-way causal chains from real costs to real pleasures. We may conclude, therefore, that there is at least a *prima facie* case for supposing that the treatment of

[1] For this contrast see Chapter V, pp. 78-9 above. The distinction between "arousing desire" and "arousing demand"—i.e. inducing purchase—(*ibid.* pp. 86-9) is not relevant to the present discussion, the latter being of course the concept of immediate importance.

distribution would be brought more completely into line with the accepted treatment of commodity value if factors of production were analysed—at any rate in the first instance—in terms not of their marginal *productivity* (as that word is ordinarily understood), but of their marginal *utility* to the entrepreneurs who buy them. The problem of what determines the entrepreneurs' demand schedules can then be dealt with in its proper place—the theory of profit.[1]

Such a treatment, moreover, will not merely help to unify value theory as a whole; it will also simplify and broaden the account given of the problem of distribution itself. The proposition that the value of a factor of production tends to equal the value of its marginal product is only valid on the familiar assumption that entrepreneurs are in perfect competition with one another in the commodity markets. On this assumption the value of any given product will not be appreciably affected by the production and sales policy of any one entrepreneur by himself. Each entrepreneur, in other words, can take the market price of his product as given; and it follows that if he increases the scale of his output his total receipts will rise by precisely the selling value of the extra units he brings to market. Under these circumstances the marginal utility of a factor of production to him—that is to say, the amount by which the employment of an extra unit of that factor will increase his total receipts—will be quantitatively equal to the value of the product for which that unit is responsible. Suppose, however—as is only too likely in the real world—that competition among entrepreneurs is *not* pure; that an increase in the output of any one firm will tend to lower the selling price of its particular products. Marginal productivity and marginal utility will now no longer coincide. The former, as before, is measured in terms of the extra product due to a small increase in the amount of any particular factor class employed. But the marginal *utility* of that factor class must be *less* than the value of this extra product; since gross receipts will be adversely affected by the fall in price which an increase in output must bring about. Moreover, of the two it is the latter which will determine the demand for the factor of pro-

[1] Cf. on this above, Chapter VII, pp. 112-13, XI, p. 185. The significance of the argument for the theory of profit itself will be touched upon in a later section of this chapter (pp. 367-9).

duction in question. No entrepreneur will offer 10s. for a unit of labour or land unless the employment of that unit can be expected to increase his gross selling receipts by at least that sum; and it will not do this in the circumstances envisaged unless the extra unit yields a product which is worth more—it may be substantially more—than 10s.[1]

In other words, it is only under the stringent condition of pure competition that the values of factors of production tend to equal their marginal productivity. But they tend to equal their marginal *utility*, as above understood, whatever the state of the commodity markets. And an analysis which runs in (relative) utility terms is to that extent both simpler and more general than one which continues to treat productive resources from the point of view of the ultimate satisfactions towards which they contribute. "Productivity" is in fact a survival from the older approach to the distribution problem, and has no necessary place in a pure theory of exchange value of the currently accepted type.[2]

[1] The extent of the divergence between marginal utility and marginal productivity will of course depend on the shape of the demand curve in the commodity market. If the firm is faced with an elasticity of demand less than unity, then the marginal utility of any factor class will be negative—i.e. the firm would lose by employing more of it, even if it were a free good.

[2] The point discussed in these two paragraphs is thoroughly familiar to economists nowadays, following on the exhaustive treatment it has received from Mrs Robinson (*Imperfect Competition*, especially chap. xx; "Problem of Distribution", pp. 410-14). But there is as yet no sign that they are prepared to relegate the concept of "productivity" to the subordinate place which, if my argument is correct, it ought to occupy. I am not sure why this is. Perhaps it is due to the belief that it is well to start with the case of pure competition, reserving the problem of imperfect competition to a later stage of exposition. But this is surely a wholly inadequate ground for conservatism. If it were sound, it would justify teachers of economics in according a similar place of honour to the cost of production theory of value—since that too is valid on the assumption of perfect competition. Perhaps, again, it is due to an unwillingness to define the difference made to total selling receipts by a small increase in the amount of a particular factor class employed as the "marginal utility" of that factor class. But such a definition is not merely simple and intelligible in itself, it is also wholly consistent with the modern use of "marginal utility" as applied to consumption commodities—indeed it serves to emphasise that utility is in value theory always a matter of the *amount people are prepared to pay* for a thing, not of the real satisfactions they hope to derive from it. Moreover, the alternative name for the concept—"marginal value productivity"—besides being cumbrous is misleading; since we should naturally expect it to refer to the value of the difference made by an extra factor unit to the total product; not (as it here must mean) to the difference in the value of the total product for which these extra units are responsible. On these grounds, and in view of the unification in the presentation of the whole theory of value which it effects, the case in favour of talking of the "marginal utility" of factors, when that is what we mean, seems overwhelming.

11. The same reasoning applies, *mutatis mutandis*, in the case of the factor markets themselves. The value of a factor of production will not tend to equal the value of its marginal product unless entrepreneurs are in pure competition with one another as *buyers*, no less than as sellers. If this condition is not realised, then the decision of any one entrepreneur to increase the amount of a particular factor class in his employment will tend to raise the buying price of that class and so to increase his costs of production; and he will only find such an increase economically desirable if the value of the extra product thereby secured is sufficiently above the price he must pay for the extra factor units to offset the rise in the cost of the factor class as a whole. Here again marginal utility diverges from, and is less than, marginal productivity. This particular situation represents the case of imperfect, or monopolistic, competition in the factor markets. It is perhaps of less practical importance than the case of imperfect competition in the commodity markets, and it has certainly received very much less attention at the hands of students of economic theory.[1] But we must recognise it as at least a possibility—and as one which so far as it goes still further limits the range of validity of the marginal productivity theory in its narrowest form.

And this raises a wider and more fundamental issue. We saw in an earlier chapter that the concept of a factor of production itself must be regarded as a vestigial element in present-day value theory; that of the four orthodox factor groups only one, capital, has any pretension to be regarded as a commodity "class" in the strict sense, and that it is not possible to do much in the way of constructing a better classification to take its place. Factor classes, in fact, like commodity classes, are at best postulates, or tools of analysis. They enable us to treat the problem of value determination in simple and precise terms. But they cannot yield finally accurate results in a world in which commodity units (and factor units) in general fail to group themselves in perfect economic classes. In such a world all that we are in strictness entitled to say is that one commodity unit is *more* or *less* substitutable for

[1] Cf. Chapter XII above, p. 216 and n. A verbal purist who wished to do equal honour to Professor Chamberlin and to Mrs Robinson would probably describe it as an example of "monopsonistic" competition.

another: perfect substitutability (like its opposite, perfect complementarity) is merely a particular limiting case, depending for its prominence in theoretical discussions on its amenability to analytical treatment. Is it possible, then, to construct a theory of value which shall dispense with this restriction and shall solve the problem of scarcity in terms solely of commodity (and discommodity) units and the ratios of substitution between them? We can hardly hope for an answer to this question for many years to come. In the meantime, let us at least remember that in so far as our discussion runs in terms of commodity and factor *classes*, it is to that extent removed from the actual facts of economic life.[1]

12. We now turn to the last matter which requires our attention here. The survival of the traditional factor groups has been bound up—as we already know—with that of the traditional types of income. The latter, no less than the former, represent vestigial elements in the framework of pure value theory, important as they are for the problems of distribution in the personal and social sense. And it can be argued that their retention in current expositions of the theory of value not merely introduces unnecessary complications into that theory but also tends to obscure certain important points as regards the nature of these income types themselves.[2]

For if we divide all income payments into four classes, each associated with and dependent upon a particular factor of production, then it will follow that the income classes we obtain must be mutually exclusive; that no unit of income can belong to more than one class at the same time. The total receipts of an individual *person* may, of course, be comprised of elements from two or more of these groups. This will be attributed, however, to the fact that the receivers are playing several parts in the economic world. They are paid wages for their labour, rent or interest for the property resources they

[1] This point, it should be noted, is quite distinct from that discussed in Chapter V, pp. 86-9. There we were concerned with the elimination of the hypothesis that *utility* is measurable; here with the elimination of the hypothesis of "real kinds" among economic goods. Most economists, indeed, will probably not feel the latter hypothesis to be seriously objectionable; but it is at least worth stressing once more that it *is* a hypothesis (cf. Chapter VIII, pp. 131, 133; Chapter XII, pp. 214-16).

[2] Cf. on what follows the somewhat obscure discussion in Cannan's *Review*, pp. 310-12, of the difference between classifying incomes according to their origin and according to the arrangements under which they are received.

have leased or lent, and profit for their enterprise. And we shall still hold that in so far as any one element or unit of a person's total income is wages, it cannot be interest, or if it is rent it cannot be profit.

But is this not a distortion of the natural scope of the terms "wages", "rent", "interest", and "profit"? Can we exclude the possibility that a unit of income which is wages from one point of view may *also* and *at the same time* be rent or interest or profit from other equally legitimate points of view?

As regards three of the four income types the answer follows immediately from what has been said in earlier chapters. We saw in Chapter XIV that "rent" and "interest" are both of them names given to the kind of income which is derived from the possession of property, or non-personal resources, and that the difference between them depends primarily upon whether these resources are thought of in "real" or in "value" terms.[1] And it was not difficult to find examples of actual income payments which could be given one name or the other according to the whim of the investigator. The difference between the two is at most one of emphasis. Some resources are naturally treated as concrete amounts of wealth or productive power, and the income which they yield their owner is usually called "rent"; other resources are naturally treated as claims to so much "money" or purchasing power, and if the income derived from them is also expressible in money terms, then it will tend to be called "interest". But the one point of view does not exclude the other, and in the last analysis every rent payment is interest and every interest payment is a rent.

So, too, with the relationship between rent and interest on the one hand and wages on the other. The last named, we know, is the income from "labour"—from an individual's personal efforts and abilities. But we have also learnt that the distinction between labour and capital—between personal resources and non-personal resources—is not absolute. A given worker's capacity to earn his salary may be in large part due to past capital outlay in the form of training and education; or it may depend upon the possession of an innate skill or efficiency which is valuable simply because it is scarce. And just as these qualities can with complete propriety be

[1] Above, pp. 278-80.

regarded as constituting capital resources, so the income which they yield can be treated as interest or rent. Not merely that, but labour itself, we have seen, is a kind of capital equipment, in that it is a part of the total wealth of the community and contributes, like other kinds of wealth, to the production of the national income. It follows that the income it yields is capable, at least in principle, of being treated in precisely the same way as the income from a piece of land or a machine. That it is rarely so treated in fact is beside the point. All sorts of considerations indicate the desirability for most economic purposes of regarding the contrast between incomes in respect of work done and incomes in respect of property owned *as though* it were absolute. But we can admit this as a working assumption without elevating it into an ultimate truth. And it will help us to obtain a complete view of the problems not merely of wages but also of income distribution in general if we remember that the income payments which we think of as "wages" are so called simply because they are connected in our minds with "amounts of work done" and that they *can* be connected, either in part or as a whole with "amounts of (personal) property owned", thereby becoming rents.[1]

13. There remains the case of profit. Here the problem is both more controversial and of more immediate importance. We have already seen that the meaning of "profit" is itself a matter of dispute. It may be conceived of as a "gross" or as a "net" income; in some contexts it is associated with all speculative activities, in others it refers only to the incomes of industrial entrepreneurs; some writers treat it as the reward

[1] Cf. on this above, Chapter XIV, pp. 244-6. The conclusion in the text must of course be qualified in the light of what was said in the last chapter (pp. 336-8) as to the contrast between "gross" and "net" incomes. Wages may be treated as rent only if the former is understood in net terms or the latter in gross terms. On the ordinary verbal usage the most we can say is that there are or may be "rent elements" in total wage receipts. In this form, the proposition has a familiar ring after all. But its significance here is wider than in the writings of Marshall and his disciples. For they tended to mean by rent a *differential* surplus —i.e., the *extra* income receipts of supra-marginal, as compared with marginal producers. The present point, on the contrary, is that *any* worker can be described as receiving a rent, whether he is marginal in his class or not, if and in so far as he earns more than is necessary to "keep his capital intact". "Rent" here stands not for differential incomes but for net property incomes in general.

The point is perhaps not worth making for its own sake. But it helps to break down the rigidity of the fourfold classification of incomes, and as such contributes to an understanding of the relations between rent and interest, and also (as we shall see) to a proper interpretation of "profit".

of a particular factor class of production, others hold that it is simply a market revenue, derived from superior bargaining power or quasi-monopolistic advantages. The view we take on these issues will in the first instance depend on our conception of enterprise; and we have already surveyed the main ways in which that term may be interpreted and the difficulties to which it gives rise. It remains here to notice the consequences of our decisions as to the meaning of "profit" upon the relations between it and the other main forms of income.[1]

Let us begin by observing that so long as we believe that we can obtain best results by treating enterprise as a factor of production, we shall almost automatically think of the income of the entrepreneur as being distinct from and independent of the incomes flowing to the other factor groups. No income can be profit, we shall hold, which has already been identified as wages, rent, or interest. And our first problem will therefore be that of *isolating* profit from these other forms of income. Much of what the industrial entrepreneur contributes to economic production can be treated under other categories than that of "enterprise". Directing a business usually involves application and industry on the part of the director, at any rate if he is to make sure of arriving at wise decisions as to the business policy he is to pursue; not merely that, but the controller of policy can rarely avoid playing *some* part—not necessarily a very great part—in the day-to-day management of his firm's productive activities. Again, the bearing of risks and uncertainties can scarcely be separated from the pledging of capital resources of some kind on the part of the uncertainty bearer. Anybody, then, who is an entrepreneur must also be to some extent a labourer and to some extent a capitalist. It follows that of his total receipts part must be counted as wages and part as interest or rent: and it is only after deducting these that we arrive at the reward which he receives "qua entrepreneur". This residue alone represents (pure) "profit". Our next task will then be to discover what determines the size of his profit, so understood, and to decide what the precise function is in virtue of which he earns it.

[1] The following pages should be read in conjunction with what was said about profit in Chapter XV. I am sorry that the exigencies of my argument should have made it necessary to separate the two discussions.

The formal legitimacy of this, the currently accepted line of approach, cannot be disputed. But we must observe that turns entirely upon the two assumptions—or rather definitions—from which it starts. These are (*a*) that enterprise is in the relevant sense a factor of production, and (*b*) that profit is an independent type of income. We have already examined the first of these, and have seen that its plausibility is largely due to considerations which are not really germane to the pure theory of value. What we have now to notice is that the second rests on no less insecure foundations.

We can see this best if we direct our attention to the case of the speculator in commodities or in stocks and shares. In general his work is both highly skilled and arduous. For unless he has unusually good fortune (or else secret sources of information) he will not be able to arrive at a wise decision as to the prospects of any commodity or claim in which he proposes to speculate, without wide knowledge, shrewd judgment, and patient investigation. Some of the gains, therefore, which his operations may be expected to yield him can be reckoned as wages for his diligence, or as rent on his knowledge and ability. And yet these gains are *also*, and *at the same time*, profits, by all the tests by which profits are regularly identified. Not merely do they represent the difference between two prices, but they are also in some sense a return on the bearing of uncertainty and on the initiating of adjustments in the structure of prices and ultimately also in the distribution of the community's productive resources. Moreover, it is not merely a residue of his total receipts but these total receipts themselves which are naturally to be thought of as constituting his profit. The distinction between profit and wages or interest is in his case not one between different and independent elements of one composite income, but between different ways of *looking at* that income.[1]

[1] This is, of course, a matter of accepted verbal usage rather than of theoretical necessity. We presumably *can* isolate "pure" profit from the wages and rent "elements" which the speculator's gross receipts must comprise. So, too, with a further possible deduction—the interest on the capital he has to offer as security on his speculative purchases or sales. But the point is that except possibly in the case of this last item the method of deductions is *not* normally used for arriving at the amount of a speculator's profit. So far as he is concerned profit is regularly thought of as the total difference between his gross receipts and his gross expenditure (the latter including, of course, brokerage charges, interest on *borrowed* capital, and any other incidental out-payments which he may have to make).

Are we not entitled, then, to take the same view of the industrial entrepreneur? We have already seen reason to believe that he is in essence merely a particular kind of speculator, differing from other speculators on technical rather than on genuinely economic grounds. And if we once give up the view that enterprise is in the relevant sense a factor class of production, there seems to be no sufficient ground for treating entrepreneurial profits differently from any other kind of profits—much less for concentrating attention on the former to the exclusion of the latter. What we shall now say is that an entrepreneur's gains *may be treated as* wages in so far as they can be correlated with the work which planning his enterprise and directing its execution has involved, and *may be treated as* rent or interest in so far as they can be correlated with the amount, or the value, of the capital resources which he has himself invested; but that if we are interested in him as a middleman or speculator, buying with a view to resale at a higher price, then these correlations become irrelevant and what matters is his *total* gain—that is to say, his profit. Here, as before, profit ceases to be a kind of income and becomes rather a way of looking at income. The term is applied to those income receipts which are thought of, not as being the reward for supplying a particular factor of production, whether land, labour, or capital, but as being the result of successful market operations. It is, in short, what one gains by buying cheap and selling dear.[1]

14. We cannot attempt to offer any final proof of the helpfulness of interpreting profit in this way. But it will be worth while to review briefly some of its implications for the theory of value and distribution.

(1) In the first place, it does not in the least commit us to holding that *no* classification of incomes is possible along the usual quadripartite lines. On the contrary, it provides for such a classification on two distinct planes of analysis. In the first instance, as we have just seen, the four classes must be thought of as representing aspects of, or ways of looking at, the income receipts which actually accrue to the various members of the community; they are wages in so far as they can be correlated with quantities of work done (or of working time spent), rent in so far as they can be correlated with

[1] See, however, Supplementary Note 32, p. 400.

amounts of capital resources supplied for productive use, interest in so far as they can be correlated with the value of such capital resources or with amounts of capital claims, and profit in so far as they are the result of successful speculation or enterprise and represent the excess of a selling price over a buying price. In this form the classification is abstract and "functional". But we can convert it, if we wish, into a concrete and substantial grouping of income payments which will serve all the purposes which such a grouping can legitimately be called upon to fulfil. For we can say that in any specific case one or another of the four points of view is likely to be the most prominent or important. Some incomes are *most naturally* thought of as the reward of work done, others as the return on amounts of capital resources or on capital claims, others as the yield of special market opportunities or bargaining power. And there can be no possible objection to grouping income payments under the four recognised types according to the aspect of them which we consider to be most immediately relevant for the purposes of economic theory and policy; provided always that we recognise our classification to be provisional, and not absolute.[1]

(2) The view of profit here developed can be illustrated by —and in its turn throws light upon—the well-known "tendency of profits to zero". It is a commonplace of economic textbooks that the profits derived from initiating economic progress are temporary and transient—that an entrepreneur may hope to reap a large gain by some bold stroke of policy (e.g. by introducing a new product in the commodity markets) but that before long it will dry up and he will return to living on the product of his personal efforts and capital resources. On the usual view this is due to the pressure of competition: other entrepreneurs will follow his example, the supply of the new product will be increased, and its price will relapse to the

[1] Cf. on this the parallel analysis of the producer-consumer contrast in Chapter XI, pp. 190-92, as also of that between capital claims and capital purchasing power in Chapter XIV, pp. 306-8. It need hardly be pointed out that nothing we have said here is to be taken as implying that all four aspects are present in every single concrete income payment. This would obviously be false; since we have already seen that (for example) subsistence level wages are not in any sense rent; and conversely, no pure property income can be wages unless we turn antiquarian and attempt to correlate them with any labour which was originally undertaken when the property in question was accumulated or acquired. But a sufficient range of incomes *are* many-sided to make an absolute classification along the usual lines impossible.

level at which it is just sufficient to cover ordinary costs of production. In other words, given free and perfect competition, profits will tend to disappear because it will not be possible to maintain prices for long above the no-profit level. What, then, if competition is either imperfect or absent? The progressive entrepreneur may now hope to increase his revenue *permanently* as a result of his new project. He will, in fact, come to enjoy a monopoly income, and there is in principle no reason why that income should ever vanish or even decrease. Even here, however, we can detect a tendency for *profit* to fall to zero, though in a very different sense from that just envisaged. The monopoly revenue, once it has become established and is recognised as permanent, will naturally be thought of as a kind of rent or interest; for it will be capable of being treated as a property income from the (enhanced) capital value of the enterprise. What will tend to disappear is, not the extra income receipts of the entrepreneur but the use of the *name* "profit" to describe these receipts. What is reckoned as a profit at first—viz. when the project is new and people are still thinking in terms of the uncertainty which is bound up with initiating it and carrying it through —comes to be counted as something other than profit once the new position is stabilised.

In this way, moreover, we reach a simple answer to a question on which economists have not always been explicit or clear—the question of the relationship between the four accepted income groups and revenues derived from monopolies. The income of a monopolist may be *either* of the nature of a rent *or* of the nature of a profit. But this does not mean that there are two kinds of monopoly revenue; merely that there are two possible ways in which monopoly revenue may be regarded. It is a profit when we are thinking of the activities which led up to the creation of the monopoly position—activities which are evidently speculative or "entrepreneurial" in character: it is a rent when we relate it to the monopoly itself conceived of as a form of property or capital claim.

The same reasoning applies also in a still further way. A labourer who leaves the district or industry in which he has hitherto been employed because he hopes to obtain higher wages elsewhere is to that extent an entrepreneur; for he is initiating an adjustment, presumably a desirable one, in the

distribution of the community's productive resources, and is bearing the uncertainties involved therein. It follows that the extra income which (if he has rightly judged) his new post yields him can be regarded as a profit, at any rate in anticipation. But neither he nor anybody else would dream of treating it in this way. For once the change has been effected and he is settled in his new work, it is obviously natural and convenient to ascribe his total income to the (enhanced) value of his labour. Here once more is the same change in standpoint. The extra wealth he enjoys, though it starts as a "profit" soon comes to submit itself to analysis as the reward for a particular factor of production. Profit tends to disappear through being absorbed in incomes other than profit.[1]

(3) If the essence of profit is that it results from buying cheap and selling dear—or from the initiation of change and the bearing of uncertainty—then it is not in the strict sense an "income" at all. For an income, we have seen, is a *flow* of wealth. The word implies that there is at least some degree of regularity in the payments it comprises. And profit is not a "flow". It is a unitary gain, resulting from a definite operation or "coup". The profit winner may, of course, live on the proceeds of this coup for some time, or even permanently; for, as we have just seen, it may be such as to bring about a permanent increase in the value of the capital resources at his disposal. But in that case, as we have just seen, his income is not a profit but a rent. Again, if he succeeds in carrying through a number of coups one after the other, living on the proceeds of each as they come to him, what he enjoys is not a stream of profit but merely a series of independent and unrelated profits. He does not in the strict sense make an "income"—or rather, what he receives can only be treated as income if it can somehow be related to his personal efforts or his capital resources.[2] In so far as any revenue is to be reckoned

[1] Similar considerations can be advanced to justify us in saying that profits are made by consumers when they improve the terms on which they buy their consumption goods. But we need not develop this case, since it is neither important in itself nor adds particularly to the strength of the general point of view we are here concerned to put forward. Suffice it to say that in the last analysis *everybody* is an "entrepreneur" and makes a "profit" who succeeds in increasing the value of the resources at his disposal.

[2] Thus, a speculator who by diligence or skill is able to make a fairly steady and regular income, the profits on his successful coups being more or less consistently higher than the losses on his unsuccessful coups, might well be regarded as earning wages or rent.

as "profit" then it is something which is *not* regular or certain, which cannot be correlated with units of time than with quantities of labour or capital—which is, in fact, only to be called an "income" if that word is understood to cover *all* consumption of wealth, whatever its source and on whatever terms it is obtained.

And this point helps to explain further the process (with which we were concerned in the preceding paragraphs) whereby profit is "converted" into rent or interest. Suppose that by a particular coup an entrepreneur succeeds in raising his total income by (say) £1000 per annum. That, we have seen, will shew itself in a rise in the capital value of his business resources, and the extra income will be thought of as interest on that increased capital. We can therefore obtain a measure of the actual success of the coup by capitalising the increment of income at current interest rates—we shall then say that the *profit* he has gained is, not £1000 per annum, but £20,000 (or whatever the present capital value of £1000 per annum may happen to be). What this means is that the tendency for profits to be converted into rents depends upon the decision of the profit receiver not to consume his gains all at once. If he does not make this decision—and he probably will not if he is, for example, a small-scale speculator, living from hand to mouth on his current gains—then his revenues, though, as we have just seen, they may come to be thought of as a flow of wages on his diligence, or rent on his abilities, will not shew any tendency to fall into the category of interest on his capital resources. In all such cases the principle is the same: any payments which can be treated as an income *flow* are to that extent not profit but something other than profit.

(4) Finally, let us note that the treatment of distribution itself is enormously simplified if we abandon the attempt to treat enterprise as a factor of production and profit as its price or reward. The view of profit here developed makes it easy for us to analyse factor values in terms of their marginal utility to the entrepreneur, and so helps towards the unification of the whole structure of value theory. It short-circuits the adding-up problem, at any rate so far as the framework of pure value theory is concerned; since we need not now have any anxiety lest the sum of factor rewards be greater or less than the total receipts be from which these rewards are

paid.[1] Above all, it represents a natural and simple approach to the actual facts of economic life. For it envisages entrepreneurs as middlemen and speculators—as buying and employing productive resources so long as they hope to receive a profit from selling their products. And that in the real world is what they are.

[1] This is not, of course, to say that this problem is wholly unreal. But it is not nearly so fundamental as in the early days of the marginal productivity theory it was thought to be. (Cf. Joan Robinson, "Problem of Distribution", p. 414.)

CHAPTER XVIII

CONCLUSION: ECONOMICS AND VALUE

We have now completed our task. The main terms of economic theory have been dissected and examined, and some attempt has been made to classify the senses in which they may be understood. It remains to undertake a brief survey of the results we have obtained, with a view to discovering whether they yield any general conclusions for the wider understanding of economics as a whole.

1. For the most part these results have been negative. We have been more concerned to lay bare possible sources of error than to contribute to the actual content of economic doctrine. Much of our time has been spent in tracking down terminological ambiguities. This is unconstructive work. But it has not perhaps been wholly unproductive. In the first place, it has indicated with appalling clarity how versatile even the most familiar economic terms may be. That "value" and "capital", for example, have more meanings than one is known to every student of economic theory. But even the expert may be shocked by the profusion of interpretations which our enquiries have brought to light. Having distinguished value in exchange both from value in use and from cost, and having agreed to use "value" only in the first of these three senses, he now finds that he still has to choose between two sub-meanings, each in its turn leaving room for three or four different interpretations. Or he may have supposed that if he contrasted free capital with capital goods, or real capital with capital disposal—or if, at the worst, he mastered the four "senses of capital" distinguished by Professor Fisher—he could then safely proceed to study the part played by capital in the production and distribution of wealth; only to learn that the meanings of the word are more nearly forty than four, and that he must label each and understand its relations with all the others if he is to be sure of

avoiding confusion. Economics is indeed a hard discipline when to the difficulties which are inherent in its subject matter is added a terminological riddle of this magnitude!

Again, our analysis has shewn that many concepts which seem safe and simple are in fact extremely obscure. What do we *mean* by "money"? Everybody is aware that the theory of money is among the most difficult, as well as the most important, of the subjects with which economists are called upon to deal. But does everybody realise the problems of interpretation which must be solved before even a beginning on that theory can be made? The contrast between the substantial and the functional references of the term; the distinction between a concrete commodity, a quantity of wealth, an amount of liquid capital and a unit of value; the connections between "money" and "capital"; all these matters are verbal or logical rather than economic in nature—and yet they must be faced and disposed of if the analysis of the economic problems into which money enters is to rest on secure foundations.

2. In another sense, too, our work has been negative. Many of the concepts to which we have attempted to give precision are both familiar and important. But we have also been compelled to draw attention to concepts which to all seeming can be of no constructive use at all. Nobody would suppose, for example, that the possibility of describing as the "value" of a commodity the amount of "undesiredness" or of "dissatisfyingness" which its production entails, can materially assist in solving specifically economic problems, or that great theoretical interest attaches to the category of short-lived communal recurrent-use goods. Yet these are matters with which we have had to deal, because they result from the consistent application of definitions and distinctions which economists have in fact from time to time employed. They represent, so to speak, waste products of the process of economic analysis; and they must be separated out and identified even if their destination is the rubbish heap.

In this sorting process, moreover, we have more than once found ourselves casting doubts on the status of a familiar piece of conceptual equipment. Thus, we have learnt that J. B. Clark's "pure capital fund" crumbles away on analysis, as also do the "laws" of diminishing and increasing returns; the former is not a concept but a judgment—and a judgment

which is only valid under the most rigid assumptions of static equilibrium—while the latter are not laws but simply states of affairs. So, too, many widely used distinctions and classifications have turned out to rest on physical or social considerations which are not germane to the strictly economic issue; such, for example, is the classification of means of production according as they do, or do not, lose their physical identity in the course of the productive process, or the contrast between labourers and landlords on the ground that the former are productive and the latter unproductive. Here once more our work has been negative and even destructive: the work of a scavenger rather than of an engineer or a builder. But for all its tediousness it may have been worth undertaking if it assists in promoting the healthy growth of economic knowledge.

3. This is not all, however. For our operations have sometimes seemed to yield results of positive and substantial significance for economic theory. The problem of profit and the relations between rent and interest are perhaps cases in point. The analysis of the terms "factor of production" and "enterprise" had the effect of depriving the current treatment of profit—as an income class of the same general type as wages, rent, and interest—of much of its *prima facie* plausibility, and so opened the way to an alternative approach which, while it may not prove ultimately satisfactory, is at least worthy of closer attention than it has so far received. Similarly, the analysis of "capital" led incidentally to certain rather disquieting conclusions with regard to rent and interest, suggesting as it did that economists are at the moment overconfident of the compatibility and completeness of the accounts they offer of these two income types. Another illustration of the same nature is to be found in the chapter on Money. It appeared there that the angle from which until recently the theory of money has been regularly approached depends for its attractiveness on the failure to realise in how large a variety of senses the *word* "money" is used, and that the exposition of the forces determining the value of money can be both simplified and brought into closer harmony with the accepted account of value theory in general if sufficient care is taken at the outset to determine what the thing is whose exchange relations are under discussion.

In none of these cases were we able to do more than suggest lines of analysis along which advance might be possible. We were concerned with opening up avenues, not with exploring them. But at least we can claim to have drawn attention to issues on which there is still room for constructive work even within the limits of the most elementary economic theory.

And over and above these specific points our discussions have brought to light a broad conclusion which, if it is sound, is of the utmost importance for the proper understanding of the nature of economics. The earlier theories of value and distribution, we have seen, were too ambitious; they included within their purview a wider range of phenomena than they could properly assimilate. And the history of economic thought is to no small extent the story of how these foreign elements, technical, social, and psychological in nature, have one by one been extruded from the analysis of the value problem, until all that is left is a highly abstract account of the interactions of economic choices and economic obstacles. But the process of purification has not as a rule been accompanied by a corresponding adjustment in terminology. Old words have been employed in new senses without wholly losing their familiar associations and overtones; the revolution in thought has been concealed behind a veil of linguistic continuity. Many if not most of the difficulties which have filled our pages arise from precisely this source—from the pressing of words which were originally non-economic in reference into the service of pure value analysis. And perhaps the most striking feature of our investigations has been the sharpness of the contrast which it has brought to light between the old and the new approach to the economic problem. Almost every essential characteristic of the older economics has disappeared. From being philosophical and humane, the theory of value has become scientific and abstract; it has abandoned its claim to prescribe remedies for economic ills or to act as a defence of one economic system against another: it has withdrawn from the problems of social welfare into the pure atmosphere of mathematical speculation. So, too, with the other traditional departments of political economy. The theory of distribution has been absorbed into the general theory of value, and has accompanied it in its retreat from the concrete phenomena of capitalist economic life. The

theories of production and consumption have been relegated to a subordinate and ancillary position in the structure of economic thought if they have not been eliminated entirely; the problem of money has become merely one particular case of the problem of scarcity as a whole; and even the science of Public Finance is showing signs of submitting to treatment under the general category of pure value analysis.[1] In all these and other ways not merely the content but the whole scope and significance of economic theory have been altered. And the repercussions of the new developments upon economic terminology have been the main theme of the present book.

4. It is important that we should realise these developments: it is still more important that we should not misunderstand their significance. The main principles of value theory have been consolidated and concentrated; but this does not mean that economics as a whole is now narrower in range than before the advent of indifference curves and marginal productivity. The problem of value continues, as before, to be the inner fortress of economic studies, nor is it likely to be seriously shaken by the recurrent assaults made upon it in the name of institutionalism, quantitative economics, the historical method, or economic realism. But the more strictly it confines itself within its defences the larger must be the area of economic investigation which lies outside it. We need not describe these extra-mural subjects in detail. Some of them fall into the category of what we may call "applied value theory"; that is to say, they make use of the general conclusions of pure value analysis in connection with specific problems (such as the problem of capital) but introduce an admixture of inductive or factual material. Others are concerned with problems of economic welfare—with the relation between the interests of the community as a whole and the interests of its individual members and its economic groups or classes. Still others are not so much theoretical as practical;

[1] On this last point see (for example) Benham, "De Viti De Marco". It seems likely that the next few years will witness a fundamental change in the accepted approach to Public Finance in this country.

On the relation of the theory of money to that of value, cf. Hayek, *Prices and Production*, p. 110. The difference between Hayek's view and that suggested here is due to a difference in the interpretation of the phrase "monetary theory". Hayek uses it, in effect, to denote the study of trade cycles. (Cf. Supplementary Note 8, p. 381.)

they attempt to work up the results of pure economic investigation (whether deductive or factual or both) into a form in which they will assist in solving the problems of economic policy. Topics of all these kinds belong to *economics*; they are distinct from, though no doubt related to, the neighbouring studies of economic history and sociology, psychology, and ethics. And we must on no account think that once we have solved the central problem of value, and have touched upon the various issues into which value enters, we have done all that as economists we can reasonably be asked to do. The changes in the structure of value theory which have been occupying us represent a magnificent advance in respect of clarity, consistency, and completeness. But they will prove to have been a disaster for the reputation of economics if they hypnotise its exponents into the belief that it is merely a deductive science, dealing in abstract certainties and concerned only indirectly, if at all, with the urgent problems of social life.[1]

5. But even value theory itself has not reached its final form. Nobody nowadays will be so rash as to assert, as did Mill nearly a century ago, that "there is nothing in the laws of

[1] See on this my article "How do we want Economists to Behave?" especially pp. 558-9, 566-7. Professor Robbins, against whom that article was directed, assures me that he never intended to suggest any such restriction in the activities of economists as I took him to advocate, adducing as evidence his own statement that his plea was for "accuracy in mode of statement, not over-austerity in speculative range" (*Nature and Significance*, p. viii). I am of course delighted to know that the footnote here quoted—1st edition, p. 118—represented his views more accurately than the many passages in his book which implied the contrary; and I am now satisfied that there is on this issue no substantial ground of disagreement between Professor Robbins and myself. But I am still disquieted by the persistence with which some of his friends and disciples continue to exalt value theory at the expense of other areas of economic study, on the ground that being deductive it is uncontroversial. To refuse to study things because one cannot be sure of finding a precise answer seems to me to be cowardice; to suppose that only deductive studies are "scientific" seems to me to be a misunderstanding of what science is (cf. the admirable remarks in Harrod, *Trade Cycle*, p. 39).

I dwell on this point here because the present book may seem to have been guilty of precisely this exaltation of value theory of which I so strongly disapprove. Let me emphasise once more that when (for example) I examined, with apparent approval, the conversion of distribution theory from the personal to the "factor" point of view I did *not* mean that the study of the division of the community's total income among its members is a topic which really lies outside economics and which was only included by the earlier economists because they did not understand what "distribution" meant. I merely affirmed that *so far as value theory is concerned* the change from the old point of view to the new represented an advance.

On the subject matter of this section cf. Chapter II, especially pp. 39-41.

Value which remains for the present or any future writer to clear up".[1] Some of the problems which still cry out for solution have been indicated during the course of this work; and suggestions have even at times been offered as to the direction in which a solution might be found. But the full working out of what has been here briefly and dogmatically indicated, both as regards value theory itself and as regards the problems of economic welfare, would require another book, not less large, if perhaps less arid, than the one now concluded.

[1] *Principles*, Book III, chap. i, § 1.

SUPPLEMENTARY NOTES

1. (to p. 18.) *"Substance" and "function" in definitions.*

So far as I can discover, the distinction between the "substantial" and the "functional" reference of a word has not received from logicians the attention it deserves. The stock example of a circular definition is that which describes an archdeacon as "one who exercises archidiaconal functions". But the argument of the text shows that this in fact contains a piece of vital—and almost certainly *false*—piece of information as to the meaning of "archdeacon". For it tells us that the word is understood *functionally*; that people are archdeacons *in so far as*, and only in so far as, their *activities* are archidiaconal. Many persons must then in their time have been archdeacons who are not usually given that title—viz. when they have performed an archdeacon's services for him in his absence. Conversely, those who are usually thought of as archdeacons are (according to this definition) only to be given the name when they are actually engaged on the work of their office: during the time which they devote to such non-archidiaconal activities as eating or reading novels they are *not* archdeacons! In real life the word is, of course, regularly used in its *substantial*, not in its functional reference. And if we want a definition of it which will not commit us to giving specific information as to what an archdeacon does, we must say that he is a person who *occupies an archidiaconal position*. This definition is not a tautology, any more than the other; since it tells us that the word is to be used substantially. But it has the merit of being true to current linguistic usage.

2. (to p. 55.) *The "laws" of diminishing and increasing returns.*

Professor Cannan has attacked phrases such as "the law of diminishing returns" on the ground that a scientific law should admit of no exceptions (*Wealth*, pp. 70-71). To this Professor Pigou replies (*Economics of Welfare*, p. 218 n.) that the Mendelian Law of Inheritance—invariably called a "law"—does not profess to cover all the instances to which it might at first sight be expected to apply. It may, however, be rejoined that (1) it is doubtful whether botanists would agree that the Mendelian Law is *incapable* of being so formulated as to be truly "universal"; (2) botanists are not necessarily reliable arbiters as to logical usage, and if the Mendelian principle cannot be formulated so as to be universally valid

then it too is not properly called a "law"; (3) the objection to the use of "law" as a description of diminishing returns, etc., is not that they cannot be formulated in universally valid judgments but that they cannot be formulated as judgments *at all*. The point is in the end, no doubt, a "purely verbal one", as Professor Pigou says. But it seems a pity that economists who lay stress upon convincing their pupils that economic laws are in the indicative, and not in the imperative mood, should then proceed to confuse these same pupils by talking of industries which "obey" the laws of diminishing (or increasing, or constant) returns.

We are not, of course, concerned here with the precise content of the concepts of diminishing and increasing returns or with their relationship to one another. On this see (for example) Clark, *Overhead Costs*, chap. iv. (Cf. also on the usefulness of these tools of economic analysis, Clapham, "Empty Economic Boxes".)

3. (to p. 124.) *Free goods.*

The concept of a free good is not nearly so simple—nor, fortunately, so important—as is often supposed. (1) It is usually applied to commodities as a whole, rather than to individual commodity units; thus we shall not be tempted to call a particular piece of land a free good merely because it happens to yield a zero rent—though land as a whole would be a free good if *no* unit of it yielded rent. But the plausibility of this distinction rests on the assumption that commodity units can be grouped into clearly defined classes. If they cannot (see pp. 129-31, 133) then it is not easy to exclude from free goods *any* transferable and appropriable thing which has utility but no exchange value. (2) The commonest illustrations of free goods are water and air. But in what sense is water as a whole free? In a modern town the user of water has to incur the cost of installing a complicated system of pipes, taps, etc., in his house, and has in addition to pay a water rate to the local authorities. Once he has covered, or has contracted to cover, these charges he may consume any quantity of water he chooses (with certain notorious limitations in case of drought, frost, etc.). That is to say, the cost of water to him is essentially an overhead cost and does not vary with the amount consumed; wherefore its marginal utility is likely to fall to zero. But if this be the test of a free good, then all sorts of things are free goods which are never given the name in fact—food in a restaurant once one has contracted to pay a fixed sum for an "all-in" meal, railway journeys to a season ticket holder, and so on. Free goods are now, in fact, merely a limiting case of the "die and medals" type of commodity (Robinson, *Imperfect Competition*, pp. 38-9). (3) Air is "free" only in the sense that *as such* it has no exchange value. People may, and constantly do, pay for the opportunity of consuming it—e.g. when they build windows in their houses or

take trips from the centre of an industrial town to the country or seaside. In such cases what is free is merely one element in a situation which is only useful as a whole, but which as a whole is *not* free.

But we need not pursue these matters. I do not believe that the concept of free goods plays any considerable part in determining the range or content of value theory, prominently as it is usually displayed in the definitions of "wealth" with which expositions of value theory are generally prefaced. Free goods are, in fact, simply goods whose value is zero.

4. (to p. 137.) *Money as a "store of value".*

The "store of value" function has received an astonishing variety of treatment at the hands of writers on monetary theory. It was first explicitly recognised, I believe, by Jevons (*Money*, pp. 15-16); though he understood by a store of value rather a means of conveying wealth *from place to place* than a means of holding it in liquid form through time. Since his time it has on the whole been accepted as having an independent status in the list of money's functions. But Nicholson finds it derivative from the "medium of exchange" function (*Elements*, p. 257); Lehfeldt ignores it completely; Barker (*Money*, pp. 9-10) finds it so different from the other functions of money as to refuse it the name of a *monetary* function altogether; and Wicksell (*Lectures*, ii, pp. 8-14) rather mysteriously connects it with the function of acting as a "standard of future payments" (cf. also Nicholson, *ibid.*, and Todd, *Mechanism of Exchange*, p. 26)—though the nature of the connection is not explained and it is not even certain whether by "standard of future payments" is meant what is normally known as the "standard of deferred payments" (see pp. 149-50 n.) or something else. (Wicksell includes acting as a store of value *for short periods*, however, with the "medium of exchange" function; *ibid*, p. 15.) Personally I see no reason for doubting that the store of value function is distinct from all the others—though I agree with Wicksell (*ibid.* p. 8) and others that it is not so fundamental as the medium of exchange function.

5. (to p. 139.) *Bank deposits as "money".*

Much of the controversy as to the monetary status of bank credit which centres round the writings of Professor Cannan is due to a confusion as between the two references of the word "money". Professor Cannan seems anxious to define money at least partly in substantial and numismatic terms, and holds that bank deposits, which do not possess the physical properties associated with notes and coins, are not really money at all. His opponents, on the contrary, start from the fact that bank deposits *function* as exchange media, and insist that it is the function that matters;

for them, therefore, bank credit *is* a form of money. There is of course in logic no objection to Professor Cannan's point of view, so long as it is strictly adhered to. But if we adopt it we must borrow from Germany the somewhat cumbrous expedient of calling bank deposits "surrogates", or "substitutes" for money. "Money" and "money substitutes" then between them form a wider class, understood functionally, to which, following Irving Fisher, we may give the name "currency". (Or of course we can adopt Hawtrey's antithetical terminology and use "money" as the wider term, divisible into the two sub-species, "currency"—viz. coins and notes—and "credit".) The importance of such devices as these depends upon the view taken as to the value of distinguishing bank deposits from other forms of money. I personally hold that the contrast between them is less fundamental than is supposed even by those economists who are most thoroughly convinced of the claims of bank credit to be in the fullest sense money. But I cannot argue this point here.

6. (to p. 156.) *The standard of value and the medium of exchange.*

Under a full gold standard the standard of value is based not on "money" but on gold; and it is theoretically irrelevant for such a standard whether gold is also used as the material from which pieces of money are made. When a "gold exchange" standard is adopted the separation between the two is even more obvious—as also in all schemes for a polymetallic or "tabular" standard. The essence of all these is that the value of money is itself regulated in terms of something other than money, and it is this other something which provides the criterion in terms of which units of purchasing power are defined. The only conceivable case in which money itself can be the basis of the standard of value is when its value is *not* so fixed, but is left to find its own level. Thus, if the monetary authorities of a country were to regulate simply the *quantity* of money in circulation (or the quantity multiplied by the average transaction-velocity)—as was once proposed by Professor Hayek (*Prices and Production*, chap. iv)—then its value would be determined simply by the demand for it, and it could be accurately said that so long as values are compared "in money terms" the standard of value is directly dependent on the medium of exchange. Even then, of course, the two are not *the same thing*—unless we are using "standard" not of a system or scale of measurement but of the base with reference to which it is defined.

7. (to p. 160.) *Monetary theory and the standard of value.*

The study of the problems connected with index numbers have tended since the war to make economists more and more

conscious of the uselessness of seeking for a constant standard of value; and the emphasis in discussions on monetary policy, at any rate among fully qualified students, has been steadily shifting away from the "standard of value" and towards the problems connected with the quantity and distribution of the medium of exchange. (See, e.g. Roll, *Money*, especially p. 32, and Part II, chap. i; and the authors there cited.) This seems to me to be quite clearly a move in the right direction. But the question many of us still tend to ask ourselves is "shall we aim at stabilising the price level, and if so, which price level shall we try to stabilise?" And I cannot help feeling that in approaching the problem in this way we are not merely being influenced, at least sub-consciously, by the standard of value myth, but are also in danger of paying inadequate attention to the real point at issue. After all, the objections to "inflation" and "deflation"—i.e. to price changes which come "from the side of money"—is not that they raise or lower the price level, and so represent a change in the standard of value, but that they fail to do so smoothly and evenly, thereby causing all sorts of frictions and disturbances in the production and distribution of wealth. And the necessary and sufficient test of any monetary policy is simply this: does it or does it not help (or at any rate avoid hindering) the processes of adjustment which must take place when—for example—an advance in industrial technique brings about a change in the value of one commodity relative to another, or in the value of consumption goods as a whole relative to that of factors of production? This is a question which concerns the behaviour of the medium of exchange. And while we may *perhaps* be able—though I personally doubt it—to formulate the ideal monetary policy in terms of the movements (or absence of movements) in the price level in which it will result, yet these are merely incidental to the policy in question; they are not important in themselves. But I must not attempt to defend or elaborate this point of view here. All I am anxious to do is to indicate my conviction that the standard of value is not nearly so important for monetary theory—except as an obstacle to a clear understanding of the problems connected with the medium of exchange—as it at first sight appears to be.

8. (to p. 162.) *Monetary theory and trade cycle theory.*

Most of the leading writers on the problem of the trade cycle nowadays would probably regard themselves as advancing "monetary" explanations; and they might even be willing to subscribe to Hawtrey's famous dictum that the trade cycle is "a purely monetary phenomenon". But their practice belies their professions. For theories of the trade cycle which run in terms of (for example) discrepancies between savings and investments, or of excessive capital constructions made possible at the expense of

"forced savings" are *not* "purely monetary", in any legitimate sense of that phrase. They *imply* the existence of money, of course; but equally they imply the existence of (among other things) capital, "roundabout methods of production", and so on. And it is possible that the inclusion of such studies under the heading of monetary theory may prove not merely to have deflected attention from the problems of money proper, but also to have interfered with progress as regards the theory of the trade cycle itself, by bringing the non-monetary aspects of industrial fluctuations into undue contempt. On this point, however, I have no right to express any opinion.

9. (to p. 164.) *The demand for money and Fisher's equation of exchange.*

The distinction between the "demand to acquire" and the "demand to hold", illustrated in the text by the example of dwelling-houses, is of particular importance when the commodity demanded is the medium of exchange. By the "demand for money" may be understood *either* people's willingness to acquire money in exchange for other forms of wealth, as measured by the amount of other goods offered against money, *or* people's willingness to possess money, as measured by their actual money holdings. The first point of view is that of (e.g.) Taussig (*Principles*, vol. i, pp. 233-4), the second is that of Cannan (*Money*, pp. 71-4). (Mrs Robinson appears to deny that there is any distinction between them—see her "Analysis of Output", pp. 22-3). We need not pass any final judgment on the relative merits of the two points of view; though the argument in the text suggests that that of Cannan is the more natural and appropriate, at any rate for those who believe in analysing the value of money so far as possible in the same terms as are employed in value theory as a whole (cf. Chapter IX, pp. 135-6, 140 n., 157-8). But two points about the contrast are perhaps worthy of summary notice.

(1) On the Taussig view the demand for money is expressible in Fisher's symbols by T (the quantity of goods sold over a period of time), and the supply of money by MV (the amount of money paid for these goods). On the Cannan view the supply of money is M (the stock of money in existence), and the demand for it is expressed either by $\frac{T}{V}$ or by $\frac{PT}{V}$, according as we are thinking of the total *value* or the total *quantity* of people's money holdings. $\frac{T}{V}$ represents the demand for purchasing power in the form of money, and it along with the stock of money in existence determines the unit value of money. But the quantity of money demanded is this demand for purchasing power divided by the value of each unit held (i.e. multiplied by the price level). And

the Fisher equation can thus be understood as asserting that the supply of money (M) is equal to the demand for it $\left(\frac{PT}{V}\right)$.

This assumes, however, that the situation is one of equilibrium. If it is not—if people are not satisfied with the existing distribution of their resources between money and other forms of wealth—then while the Fisher equation retains its validity its terms no longer express the demand for and the supply of money accurately. M, it is true, continues to represent the stock of money in existence and T the quantity of goods sold. But $\frac{T}{V}$ shows the amount of purchasing power which people *do* hold, not what they *are willing* to hold, in money form; MV shows the amount of money which people *do* exchange, not the amount of money which they *are willing to* exchange, against goods over a period of time; and the equation $M=\frac{PT}{V}$ degenerates into a bare assertion that all the money in existence is in the possession of somebody—it no longer shows that the demand for money is equal to its supply. This is, of course, merely to say that it is only in equilibrium that amounts demanded and supplied are equal to amounts bought and sold (cf. pp. 164-5).

(2) On the Taussig view bank deposits must be treated as a part of the supply of money. That is to say, the development of a banking system is a force tending to raise prices by increasing the amount of money offered against goods: to MV must be added M'V'. On the Cannan view, while bank deposits *may* (and probably *should*) be so treated—namely, if "money" is defined so as to include them—it is also possible to regard banks as simply resulting in an economy in the *use* of money (i.e. cash) and so as *reducing* the *demand* for it: if M is the supply of money, excluding bank deposits, then the development of a banking system which enables transactions to be settled without, or with a reduced volume of, money will tend to reduce $\frac{T}{V}$—the amount of purchasing power demanded in *money* form—and will *pro tanto* tend to lower its unit value (i.e. to raise the price level). The fact that bank credit *can* be regarded as lowering the demand for money rather than as increasing its supply is the kernel of truth in Cannan's somewhat peculiar view of the significance of bank deposits. Cf. on this Chapter IX, pp. 138-9, and Supplementary Note 5 on p. 379.

Something is said about V, the velocity of circulation of money in Supplementary Note 24 on pp. 395-6.

10. (to p. 178.) *Two meanings of "production".*

Even in ordinary language the word "production" is not unambiguous. Dr. Johnson is reported to have made the following

reference to Hume: "On the sole occasion, Sir, on which I entered into the intimacy of a familiar conversation with that notorious Sceptic, *his* contribution to the mutual conviviality was to produce a drawing, so unutterably gross in its conception as to merit a murmur of disapprobation even within the walls of a brothel". What, precisely does this mean? Did Hume take a pencil and a piece of paper and generate or *create* the picture which so offended Dr. Johnson; or did he merely pull an already completed picture from his pocket and furnish or *offer* it for Dr. Johnson's inspection? The latter interpretation is perhaps the more plausible of the two. Similarly, when a car-driver is stopped by a policeman and invited to "produce" his driving licence he will not be misled into supposing that he must then and there make or forge a licence. In both these cases the word has nothing to do with technical or industrial processes; "to produce" means simply "to show" or perhaps more generally "to supply". (Dr. Broad, from whose *Scientific Thought*, p. 523, I have filched the quotation from Dr. Johnson, identifies "producing" in this second sense with *selecting*. But I do not believe the word ever means this in ordinary life.)

Two further remarks may be appended. (1) *Neither* of the two popular senses of "produce" coincides with its "economic" meaning. The latter *lies behind* supply (as is shewn in § 7, pp. 184-5); but it is not *identical* with it. (2) If production is understood in its revised popular sense, then "cost of production" from denoting the (embodied) cost of *making* a thing comes to stand for the (displacement) cost of *supplying* it—i.e. for its supply price. Happily the phrase is never used in this sense, so far as I know.

11. (to p. 186.) *Landlords as "producers"*.

Incalculable harm has been done to the development of economic theory by the confusion here discussed. In particular, the theory of rent which dominated economic thought during the whole of the nineteenth century and which still survives in most elementary textbooks in this country, depends upon it. Landlords are assumed by it to be in a completely different economic category from labourers (and capitalists) and the value of their resources is supposed to be subject to peculiar and special laws. It is only within the last few decades that the tangles into which the Ricardian rent doctrine led economists have begun to be straightened out. And we are by no means clear of them yet. Why should it be imagined that it will be a matter of indifference to landlords whether their land is used for productive purposes or not, so that any rent they receive for it is a pure and costless bonus? Will they not prefer, other things being equal, to use it themselves, in the form of parks or gardens—just as a labourer will prefer, other things being equal, to devote his time and

energies to leisure pursuits rather than to working in a factory or down a mine? Again, why should it be supposed, when land is employed as a production good, that its owners will not care to what sort of use it is devoted? What of the attitude of landowners in the 'forties and 'fifties to the building of railway lines through their estates? Or of their attitude at the present day to the electrical development of the West Highlands? Or of the view taken by the landlord in Galsworthy's *Skin Game* of the attempt to acquire his farmland as the site of a factory?

The truth is that all attempts to put landowners in a class by themselves depend so far as value theory is concerned upon identifying productive activities with *meritorious* activities. It is obviously less disagreeable to give up one's land to a farmer than it is to work oneself as a farm assistant, and the productive function of a landlord is correspondingly less praiseworthy than is that of a labourer. Equally obviously we are entitled to discuss if we wish whether the community's land *ought* to be owned by a small group of landlords. But neither of these points remotely affects the fact that *given* the present distribution of property all those who own land and allow it to be used for productive purposes are as much producers as anybody else who allows *his* resources to be used in the same way. (It is shewn in Chapter XVI, indeed—pp. 335-8—that an important distinction may be drawn between rent and wages *as forms of income*. But this does not concern us here.)

The confusion between productive and meritorious activities has been equally disastrous in other parts of economic theory—as everybody knows who has learned of the birthpangs of the marginal productivity theory of wages, or of the agonies through which the theory of interest has passed since Senior first defined interest as the "reward" for "abstinence" (cf. Chapter I, pp. 3-4.

12. (to p. 223.) *Fields and machines.*

In case anybody is not convinced by what has been said in the text as to the essential similarity, from the point of view under consideration, between a field and a machine, it may be worth while to summarise the differences which might be alleged to exist between them. They are four:

(1) The raw material and the processes to which it is subjected are totally unlike one another in the two cases. This is obviously true—not merely as between fields and machines, however, but also as between one field and another, or one machine and another.

(2) The raw material of a machine—e.g. iron ore (plus the coal needed for smelting it, etc., etc.)—is liable to be *moved* or transported from one place to another during the manufacturing process; whereas the raw material of a field remains (as a rule) *in situ*. But this is a geographical, not an economic fact. From the

economic point of view transport is simply one particular kind of production.

(3) The same word, "land", applies to the field, both as it was before men started to make use of it and as it is now; whereas the word "iron" is not (in general) used as the name of the things into which iron ore is converted. Again, we do not talk of "manufacturing" or even of "producing" fields, but merely of "preparing" them. But this is a purely verbal distinction.

(4) The English legal system makes a sharp distinction between "real" and "personal" property. But (*a*) this is not the *same* distinction as that between "land" and "capital goods", since (for example) houses are "real" property without being "land"; (*b*) the legal contrast, though doubtless connected with the Roman division between "immobile" and "mobile" wealth, is primarily a legacy of the feudal system and is not of any *necessary* judicial—much less economic—importance.

Finally it may be added that *sometimes*, no doubt, a piece of virgin land may require no preliminary work before being ready for productive use. So, too, *sometimes* a flint or stone may be found which can be employed as a tool without being subjected to any process of "manufacture", however primitive. If the former is "land" in the economic sense, so also is the latter.

13. (to p. 232.) "*Land*" *and* "*rent*".

Any reader may be pardoned who is left with the feeling that this chapter is both far more obscure and far less productive of positive results than it has any right to be. The truth is that economists have not as a whole clearly made up their minds what to mean by "land"—much less, how important a part it should play in their expositions of value theory. On the one hand, there is a tendency to identify it with property in general; on the other is the desire to adhere to the line of analysis first struck out by Ricardo and his contemporaries. And the meaning of "rent" has varied accordingly. I need not conceal my personal view that the time has come to throw over the Ricardian schema once and for all; that refining on it and adapting it merely adds complications and obscurities to a subject that is in any case difficult enough. But I obviously cannot defend this view here against any who would seek to controvert it. And all that this chapter attempts to do is to sort out the various meanings which "land" may bear, to give them as much precision as they are capable of bearing, and to indicate the kind of confusions to which they are liable to lead. If I have not succeeded in this, at least I may hope to have shewn that the word is not so simple and intelligible as at first sight appears, and that if it is to be used at all as a technical term in economics it requires more careful definition and elucidation than as a rule it receives. A fully satisfactory discussion would

involve a careful investigation of a large part of value theory as a whole.

14. (to p. 235.) "*Waiting*" *and* "*roundaboutness*".

There has, I think, been some misunderstanding on the part of a number of critics of the "Austrian" theory of capital as to the connection between "roundaboutness" and increased productivity which that theory postulates. (See, for example, Cannan, "Capital and the Heritage of Improvement", p. 390; Cole, "Dr. Hayek's Triangle", pp. 125 f.) It is not of course *certain* that more roundabout methods will be more efficient than less roundabout methods. But if they are not, then no economic problem arises. For the initiation of a new process which is not merely more efficient than the old (in the sense of yielding a larger volume of the product for a given expenditure of original productive resources) but also involves less "waiting" will *obviously* be worth introducing (unless waiting is assumed to be pleasant!); while a process which involves more waiting without being more efficient will equally obviously *not* be worth introducing. The theory of capital is surely right, therefore, in concentrating attention on the only case which is from the economic point of view interesting: the case in which the utility of extra products has to be balanced against the disutility of extra waiting. It will not be denied that such cases exist, or that they are of considerable practical importance in the modern world.

To say, however, that one process involves more "waiting" than another is not necessarily to say that it takes a longer time: it may simply mean an increase in the average quantity of resources tied up per unit of time. Waiting is, in fact, two-dimensional, in the sense that when we try to measure it quantitatively we must take into account the *amount* of consumption that is postponed as well as the duration of the postponement. Here the earlier Austrian writers were perhaps less explicit than they might have been: indeed, the word "roundaboutness" is itself a little misleading, in that it tends to stress the time dimension at the expense of the quantity dimension. But by now this point is sufficiently familiar, and the problems to which it gives rise have been canvassed sufficiently often, to make further discussion of it irrelevant for the purposes of the present work.

15. (to p. 237.) "*Waiting*" *and capital.*

The following notes may be added on "waiting" and its relations to capital:

(1) The distinction between "waiting" and "control over resources" has its parallels in the case of land and labour. For these, like "control over resources" (and unlike "waiting"), are results of human behaviour, rather than forms of human behaviour. The

landowner's "activity" can be expressed by saying that he "gives up" his material resources; but what the entrepreneur buys is the use of these resources themselves. So, too, what a labourer *does* is to exert himself in various ways, physical and mental: but it is in strictness not his exertions or "labourings" but their *result*—viz. the various alterations effected in the materials on which he works—which constitutes the factor class "labour". (We have already come across this distinction from a different angle in the course of analysing the concept of a "unit" of labour; for "natural" units represent the obvious (if not very accurate) way of measuring what are here called "labourings", the activity of the labourer; whereas "labour", the factor class, must properly speaking be measured in "efficiency" units. Cf. also for the case of the landowner Chapter XI, pp. 185-6). We can therefore say that just as landowners and labourers do certain things which *result in* the factors of production land and labour, so the capitalist does something (viz. "waits") which *results in* the factor of production capital.

(2) Notice further that "waiting" is not connected exclusively with "capital". When an entrepreneur rents a piece of land or factory building, the owner or landlord, we have just seen, "gives it up" for the duration of the lease. We might equally have said that he "does without" it or "lacks" it. His activity, in fact, is clearly a form of "waiting", and the contract between him and the entrepreneur is no less clearly of the nature of a *loan* (cf. Chapter VIII, p. 125 n.). And yet the productive elements which he supplies fall on the face of it into the factor group land rather than the factor group capital. This point raises the whole problem of the relationship between capital (in its various meanings) and land. We examine it in two later passages in Chapter XIV (pp. 278-80, 308-10), where it is shewn that the distinction between the two turns on whether the loan is, or is not, "liquid"; land as a factor of production stands always for (the use of) particular pieces of wealth, capital for the use of, or control over, wealth in general. But apart from this it is clear that we must not allow ourselves to think of the activity of "waiting" as something peculiar to the supplier of *capital*—unless, of course, capital is defined (as it sometimes is) to *include* "land".

(3) If the contrast between capital and land is that between the lending of "liquid" and of "specific" resources, then it is one which can only be effectively drawn in a community which possesses a recognised medium of exchange and store of liquid purchasing power. In a barter economy all loans must be loans of particular goods; and therefore "capital" as distinct from "land" for practical purposes disappears. (See, however, p. 294). This represents the main justification for calling capital in this sense by the name of "capital purchasing power", rather than employing some more colourless phrase, such as "capital control"

or "capital disposal". It is well to emphasise from the first the close association between it and money—an association which was already noticed from the other side in Chapter IX (pp. 143-4, 146-7) and which is analysed further on pp. 295-7, 302-3, 310-12.

16. (to p. 247.) *Consumption goods and productive efficiency.*

Professor Seligman (*Instalment Selling*, pp. 165 ff.) distinguishes four categories of consumption good according as their effect on productive efficiency is (*a*) "positive"; (*b*) "neutral"; (*c*) "wasteful", e.g. such luxuries as tend, if indulged in to an excessive degree, to diminish people's willingness to produce; and (*d*) "destructive", e.g. drugs, etc., which reduce or destroy productive ability. As it stands this classification is obviously unsatisfactory. If two kinds of "negative" goods are to be distinguished, why not also two types of "positive" and "neutral" goods—those which increase (or leave unaffected) people's *willingness* to produce, and those which increase (or leave unaffected) people's *ability* to produce? Moreover, there is no ground for doubting that a good which is "wasteful" may be either positive, neutral, or negative in its effect on productive efficiency; just as conversely a good belonging to any one of these three categories may either increase, leave unaffected, or diminish the willingness to produce. In short, the test of "willingness" introduces a classification which cuts right across that in terms of productive ability or efficiency as here understood, yielding in all *nine* classes, not four.

Seligman's language indeed suggests a rather different interpretation of "destructive" goods from that here suggested. For he describes them as goods which yield an "absolute" deficit of utility over against costs, as opposed to "wasteful" goods which merely engender a "relative" deficit—i.e. a diminution of the usual surplus. So understood, however, destructive consumption goods are not goods at all but "bads", and their purchase and consumption is simply an example of irrationality; in short, they fall outside the scope of pure value theory.

But we need not pursue this highly academic point.

17. (to p. 273.) *Valuelessness of goods with no "alternative uses".*

It may seem an extreme paradox to assert that what we have called an "absolutely specific" good has no economic significance. But it is true, nevertheless, provided that we are confining our attention to existing and "given" forms of wealth. Thus, in order that a piece of land shall have value it must be capable of being used by its owner in more than one way. If it is only fit for one kind of *productive* use (e.g. for pasturing sheep) then it must also

be capable of yielding direct enjoyment as a consumption good. Or alternatively it must be capable of different "revenue" uses (as we may call them); that is to say, more than one person must be anxious to have the use of it and willing to pay a rent for it. Where these conditions are not realised—where the owner is not in the least interested in keeping the land for his private enjoyment and there is only one possible tenant—then any rent which the latter in fact pays is simply a matter of charity (or of legal convention) and is for the purposes of value analyses arbitrary and irrational.

This argument does not apply, however, to things which, however specific in themselves, are the *products* of other things (except to the extent that the elements which enter into their production are also themselves wholly specific to the manufacture of this particular product). For the question then is, not whether they can have a value once they exist, but whether they are worth producing—at the cost of the other things which might have been produced by the same productive elements in their stead. So that the doctrine that only non-specific resources are the subject of rational or economic choice does not, after all, represent any very startling restriction of the range of value theory.

18. (to p. 278.) *The three types of "loan".*

The difference between the first type of "loan" and the second, we have seen, rests in the question of *ownership*. But this is a matter on which, in particular cases, doubt may well exist. From the purely legal point of view, presumably, the matter can always be settled by reference to the exact terms of the contract and/or to statutory and court decisions as to contracts of the type in question. But so far as the attitude of mind of the parties themselves is concerned the position is more obscure. For example, it is probable (as we have seen) that a person will consider himself to be the *owner* of something which he has bought, even though he has neither the intention nor the means to pay for it, either in whole or in part, for some time to come. On the other hand, if he adopts the hire-purchase method of payment and begins to settle the debt immediately on receipt of the thing bought, he will probably *not* regard himself as its owner—quite rightly from the legal standpoint. But we need not discuss such matters. The point here is that the line of division between the first and the second kind of "loan" is not really a question of economics but of law or psychology, and that economists are not really interested in studying the sort of considerations on which the classification must at bottom rest. For economic purposes it is much more important to emphasise the similarity between the two groups than their differences (see pp. 292, 308-10).

On the other side, the second type of loan differs from the third

in that the thing lent is "specific" rather than "non-specific", "illiquid" rather than "liquid". This too is not a contrast on which a hard and fast line of demarcation can be based. Thus, one possible modification of the second type is to be found in the case in which the "lender" supplies the "borrower" not with property but with his personal services. A newly established company, for instance, may pay the various persons who have helped in its organisation and promotion—bankers, lawyers, brokers, inventors, etc.—with blocks of its shares and/or bonds rather than in cash. In this case the transactions are all but of the third type. Personal services are non-specific and liquid as compared with land, houses, and tools, but specific and illiquid as compared with actual cash. And we can with perfect propriety describe the situation by saying that the persons concerned are investors in the company who have supplied it with capital purchasing power, and that the company has then used this capital purchasing power to pay them as employees. (Cf. supplementary note 25 for another illustration of the same double possibility.)

Casuistical discussions of this kind are tedious but unavoidable in the elucidation of "capital".

19. (to p. 281.) *Agricultural and industrial property.*

The fact that certain pieces of property are valued not merely as sources of income but also as consumption goods is of secondary importance so far as the nature of rent and its relation to interest are concerned. Nevertheless it is relevant for more than one problem of economic policy. For example, the fact that the rate of return on agricultural property is lower than that on industrial property is commonly taken as shewing that landlords as a class are worse off than capitalists and are therefore deserving of special consideration in the way of governmental assistance. I am completely unable to see any justification for this view. A man who invests in land will no doubt get a lower money income than if he had invested in bonds or mortgages. But the fact that in spite of this he prefers the land shews that the "psychic" income involved in being a landowner is more than enough to offset the reduction in his money returns. And it can be argued that the present system of taxation discriminates *in favour of* landowners in that it leaves this psychic income unassessed. (The usual view among the landed classes is, of course, that the discrimination is the other way; that death duties bear more heavily upon a landed estate yielding a given annual revenue than upon industrial securities yielding the same revenue. But this would only be valid if it could be shewn that landowners themselves regularly valued their property at more than it was worth to them. If so, then once again they are deserving of no particular sympathy from either economists or the Exchequer.)

20. (to p. 297.) *Various "capital" confusions.*

It will be worth while at this point to append notes on various uses of "capital" which, while apparently similar to those considered in the course of the last few pages, have yet sometimes been a source of serious confusion and error.

(1) "Living on capital" is sometimes used not of individuals in an exchange community but of the community itself in which they live; as, in particular, when it is desired to shew that death duties are likely to impoverish the nation which makes extensive use of them. We need not discuss this view in detail. But it is clear that it relies for much of its force (not, of course, for all) upon a confusion between the various senses of "capital". From the point of view of the community as a whole, the word can only mean *equipment*—so long, at least, as we are neglecting its assets and liabilities *vis-à-vis* other communities. And if death duties are to make it poorer they must bring about a diminution in the volume, or a decline in the efficiency of this equipment—a result which, whether or not it is likely in fact to be realised, is only by a gross misuse of language to be described as "living on capital".

(2) "Flights of capital" from a country are often stated to be the inevitable—and disastrous—result of extravagant or revolutionary conduct on the part of the home government. This assertion too is designed rather to arouse alarm and despondency than to impart intelligible or verifiable information. To suppose that capital *purchasing power* will leave the country is pure mercantilism (at any rate when the country is not on the gold standard); capital *equipment* obviously cannot leave the country on any extensive scale; and if capital *claims* leave the country (whatever precisely that may be taken as meaning) the country can probably manage to get on without them. This is not, of course, to deny that a dislocation of international financial relations may be highly unpleasant in itself, and may also be the consequence of misgovernment or revolution. But we do not make these facts any clearer by treating capital as though it were a bird which might at any moment become migratory.

(3) "Capital consumption" has in recent years been a centre of heated controversy among rival schools of trade-cycle theorists. Though I am not competent to express any opinion on the merits of the various opposing views now current as to the nature of industrial depression, yet I cannot help thinking that at least some part of the trouble is due to insufficient precision in the definition of "capital". If so, then perhaps the formidable apparatus of terms and distinctions which this chapter provides may prove to be of some assistance in sorting out those elements in the controversy which are merely verbal from those others which have a genuine and interesting economic content.

21. (to p. 324.) *O'Brien on enterprise and profit.*

Professor O'Brien provides the best illustration known to me of the dangers of postulating that enterprise is a productive function. He distinguishes two ways of approaching the problem (*Notes on Profit*, pp. 11 f.): "We may begin by identifying the receiver of profit and then define profit as the income he receives, or we may begin by defining profit and then identify the receiver of profit as the person who receives it." This statement is in itself far from clear, but the context shows that the choice in Professor O'Brien's view rests between (1) discussing the question from the side of profit—i.e. making the provisional assumption that we know what incomes are profit and what are other than profit, and proceeding to learn about its nature by enquiring what the people do who in fact receive such incomes; and (2) discussing the question from the side of the entrepreneur function—i.e. discovering what people must *do* in order to earn profit and proceeding to learn about the profit receiver by enquiring what types of people in fact do these things. Of these two courses Professor O'Brien selects the second (*ibid.*). But this involves him in taking it for granted without discussion that profit is in fact the reward for a productive function; and while this may be true it is not *self-evident*, and has in fact been from time to time questioned—e.g. by Marx. Nor is this all. For Professor O'Brien proceeds to state that the productive function for which profit is paid is the function of uncertainty bearing (p. 15)—though he scarcely even pretends to show why it should be defined in this way rather than in terms of (e.g.) policy control. And the rest of his book is devoted to the elaboration of a theory of profit *as so defined*. Some of his conclusions are not surprising, given his premises. But what ground have we for supposing that they are relevant to an understanding of profit as the word is ordinarily used in ordinary speech—or even in economic writings?

The truth is that if we define profit as the reward of uncertainty bearing our theory of profit will be a theory about uncertainty bearing and its reward. Such a theory may be formally unexceptionable and even aesthetically satisfying; and yet its inadequacies as an account of the nature of profit in any natural sense of that word are to my mind so glaring—quite apart from what has been said in this note—that I am unable to understand how it ever came to be propounded—much less how it could gain the influential support which it now enjoys. But I must defer the pleasure of a frontal attack on this well-entrenched doctrine to a more suitable occasion than the present.

The meanings of "profit" are examined further in the following paragraph in the text (pp. 324-5) and in Chapter XVII, pp. 361 ff.

22. (to p. 324.) *Two views of "profit".*

For the "total" view of profits see MacGregor, "Theorie des Profits". Proponents of the "element" view are less easy to identify with certainty because of all those who in fact lay stress on the concept of net or pure profit the great majority belong to one or other of the main "productive function" schools of thought. Thus O'Brien believes that the theory of profit is concerned first and foremost with the elucidation of *net* profit; but that is simply because he has already made up his mind to define enterprise in terms of uncertainty bearing—indeed, his reason for rejecting the "income-receiver" approach to the problem in favour of the "productive-function" approach (see preceding note) is precisely that (net) profit "is never received in isolation" (*Profit*, p. 12). This is a pretty example of circular reasoning; the only ground in his case for holding that it is "never received in isolation" is his initial decision to define it in terms of a productive function, and he has therefore no right to defend the latter in terms of the former. For an example, however, of an author who adopts a "net" view of profit without (so far as I can judge) committing himself to *defining* enterprise in terms of entrepreneurial activities, see Carver, *Distribution of Wealth*, Chapter VII. The whole question is made almost impossibly difficult by the fact that so few writers are as frank and open as is O'Brien with regard to their methodological approach and their system of definitions. (Even Professor MacGregor's article is obscure in itself, and also suffers from the disadvantage of not being available in the language in which it was written.)

23. (to p. 326.) *Entrepreneurs and speculators.*

I have not been able to recollect any passage in writings on the pure theory of profit in which the claim of speculators to be regarded as entrepreneurs is even discussed—much less upheld or rejected. And yet if anyone is a "pure" entrepreneur it is the speculator. For the industrial employer rarely avoids being *to some extent* a manager or organiser, whereas no industrial management is required in buying and selling on margins. And that it is impossible to draw a hard and fast line between the two can be seen if we consider the case of an industrial entrepreneur who genuinely does *not* manage his own enterprise. Suppose I think that there is a market for (let us say) mass-produced razor blades; and suppose that, knowing nothing of the technique of steel production or even of the problems of marketing and advertisement, I borrow capital and appoint production and sales managers, instructing these to build and staff a factory for producing and selling razor blades, on the understanding that they, like the workers they take into employment and the capitalists from whom

I have borrowed, will receive a fixed contractual income for their services. Then I am a "pure" entrepreneur (except in so far as I have had to mortgage resources of my own as a security for my creditors). But what I am now "buying" is for all practical purposes the *same* as what I hope to sell; for it is not my business but that of the manager of my factory to combine the units of labour, land, etc., which go to make razor blades into the razor blades themselves. I am not a "producer" in the technical sense at all; merely an entrepreneur—that is to say, a speculator. And it can be argued that a satisfactory theory of profit is more likely to be reached by starting with profit-making in its purest form—as represented by the speculator or (still better) the gambler—than by concentrating from the outset on the more intricate case of the profit-receiver who is also an industrial organiser or manager. The emphasis on *industrial* profit is, I suspect, a remnant of the tendency to allow value theory to be warped by considerations which are first and foremost technical rather than economic in significance. (See on this Chapter XI, pp. 186-7, Chapter XII, pp. 206-11).

It may, of course, be objected that the word "entrepreneur" as ordinarily used simply does not *mean* the same thing as the word "speculator"—that the suggestion of a connection with industrial production is an essential part of its connotation. But if so—this is my point—then many people receive profits who are not entrepreneurs, and the theory of profit has no right to run exclusively *in terms* of enterprise and entrepreneurs.

24. (to p. 331.) "*Amounts*" versus "*rates*" *of income, etc.*

The distinction between amounts and rates of income may be expressed by saying that the "time dimension" of the former is 0 while that of the latter is -1. (Cf. Jevons, *Theory*, pp. 66 ff., especially p. 70.) By contrast the time dimension of capital, in the present sense of the word, is $+1$ (*ibid.* pp. 249 ff.). That is to say, even *amounts* of income represent "flows" rather than "funds". But unless there is some degree of *regularity* in the flow the concept of a *rate* of flow loses practical significance and becomes a mere empty average. The reason why we cannot legitimately talk of a "rate of profit" is because no correlation is in general possible between amounts of profit and the time taken to earn them—just as we cannot talk of a "rate of profit" in the *earlier* sense of "rate" (Chapter XII, pp. 213-14) because no correlation is in general possible between the amounts of profit gained by one person and those gained by another.

Another concept which has this double reference is the concept of velocity of circulation. Fisher invariably gives it a time dimension of 0 (*Purchasing Power of Money*, pp. 17, 352-4). But it can be

argued that it ought to have a time dimension of -1: that is to say, that we should think of the velocity of circulation of money as the *rate* of turnover (or outlay) of money *per unit of time*, not as the *amount* of turnover (or outlay) within a given period. This point lies far outside our present terms of reference, however.

25. (to p. 333.) *More about "money" income.*

For completeness three further points about money income should be noticed. (1) The distinction between incomes paid in money and incomes paid in kind is not a completely sharp one. Intermediate cases are to be found where (e.g.) a worker's wages take the form of credits with a store owned by his employer. The classification of such incomes will depend simply upon whether we define such credits as money or not. (2) We can envisage the transition from the first to the second of the two senses of "money income" by saying that in the latter case we treat payments in kind as though the receiver were first paid money which he then used to buy goods and services from the payer. The objection to this way of treating payments in kind is, of course, that in general the payee, were he to receive his total income in money form, would not buy precisely those things with which in fact his employer provides him. And it is therefore difficult to know exactly what value to assign to payments in kind. But this is not of vital importance *for the general theory of value*, though it is of vital importance for more than one problem of applied economics. (3) Only such goods and services received can be brought within the scope of money income in the second sense as can be given an assignable exchange value. Incomes which cannot be so treated are not money income in *any* sense. But the question what can and what cannot be "brought into relation with the measuring rod of money" is itself not *precisely* answerable; and there must always be some margin of doubt, therefore, as to what is and what is not "money income". This does not, however, affect the validity of what was said in the text; for if a thing cannot even in principle be given an assignable exchange value, then it is not, properly speaking, a "commodity" and is merely a form of "subjective" income.

26. (to p. 334.) *Professor Pigou and the Inland Revenue Department.*

Professor Pigou's analysis of "real" (i.e. commodity) income seems to me to shew a deference to the practice of the British Income-tax authorities which is thoroughly unbecoming in a writer on purely theoretical economics. (See his *Stationary States*, chap. v.; it is fair to say that in this respect he is only following the example of many economists, including Marshall, before him.) For he states (p. 23) that real income is to be thought of, not as the services yielded by goods but as these goods themselves—

except when they happen to be dwelling-houses. This is not merely illogical in itself—as Professor Pigou admits (*ibid.*)—in that it makes real income flow on two different planes at once; it ignores the possibilities of hiring or buying on instalments. Under present-day conditions it is simply not true that dwelling-houses are the only things which are dealt in in a commercial way other than by outright purchase.

But the point is purely verbal. So far as I can discover there is nothing in Professor Pigou's subsequent argument which is affected by his definition of commodity income. And whether or not one agrees with the latter is of negligible importance as compared with an understanding of the discussion which leads up to it.

27. (to p. 336.) *Interest as a "net" income.*

The question of depreciation allowances in respect of capital claims will of course only arise where the debtor has used the proceeds of the loan for the construction or acquisition of some form of capital equipment. (See on this above, Chapter XIV, pp. 281-2.) It should be noted that to say that interest is a "net" income is once more merely a matter of definition—though in this case the definition is one which is universally accepted. If the capital claim is one which matures, then presumably an amortisation fund will be accumulated during the time when it is outstanding. And this *may*—though of course it *need* not—be handed over to the creditor along with each interest payment. If so, then the latter's receipts will represent a "gross" income from which these amortisation or redemption payments must be deducted before we can discover his "net" income. But the point is that the word "interest" is *in fact* never used of the total figure, but only of that part of it which constitutes a pure income. The one doubtful case from the terminological point of view is where the creditor fears for the security of his loan and lays aside a part of his receipts as a kind of insurance fund lest the debtor default on the capital lent him. In ordinary language the word "interest" is apt to be applied to the total receipts as well as, more specifically, to that part of them which remains when this insurance allowance has been deducted. In these circumstances—and in these circumstances alone—"gross" interest may be contrasted with "net" interest. And even here gross interest may be thought of as being really interest plus profit—if, namely, profit is treated as the reward for risk-bearing.

28. (to p. 338.) *Necessaries of life* versus *expenses of production.*

The unwillingness to treat the necessaries of life consumed by the labourers as "expenses of production" is due partly, no

doubt, to the feeling that labour should not be regarded as merely a kind of tool, partly also to the fact that these necessaries of life are themselves consumption goods, and as such seem to belong to the commodity income—and to contribute to the subjective income—of the consumers. Neither of these considerations is decisive, however. On the former see the remarks in Chapter VIII, above, p. 125 and n. As for the latter it is sufficient to point out that (*a*) it is perfectly possible for the same thing to be from different points of view a consumption *and* a production good (cf. pp. 247-8 above); and (*b*) many of the universally admitted expenses of production also take the form of consumption goods—e.g. a large part of the costs of a business journey are absorbed in the food and lodging of the traveller. These two facts make it plain that any distinction which is drawn between necessary incidental expenses and the maintenance of the labourer in terms of the type of goods consumed must be at best provisional and even arbitrary. [Einaudi declares—*Finanza*, pp. 123-4—that the former are productive expenses (*spese di produzione*) whereas the latter are merely "free outlay" expenses (*spese di erogazione*). I can make nothing of this. If it means anything at all, it must refer to the wholly irrelevant fact that the incidental expenses are likely to be more "specific" to the particular piece of production in hand than is the general maintenance of the worker (cf. Chapter XIV, pp. 267-273, especially p. 269).]

On the other hand, I am bound to admit that so far the uses to which a rigorous conception of net income along these lines has actually been put—e.g. by Hobson (*Industrial System*) and, still more, by Loria (*Economic Synthesis*)—illustrate more forcefully the difficulties to which it gives rise than the positive results which it may yield. Fortunately the whole topic lies outside the limits of value theory, which must take account, as we know from Chapter VI (pp. 100-101), rather of what must be paid to people to *induce* them to work than of what must be paid to them in order to *enable* them to work.

29. (to p. 342.) "*Waiting*" *and* "*saving*" *in a crusoe economy.*

In a crusoe economy the construction of capital equipment may take place in *three* different ways. Crusoe may either (1) eat less fish than he catches so as to accumulate a store on which to live when he is building a boat; or (2) devote a certain portion of each working day to building the boat, with a corresponding reduction in the time spent on fishing (and in the amount of fish caught and consumed); or (3) build the boat "in his spare time" —i.e. reduce not his consumption of fish but his leisure. The first case involves him in both "waiting" and "saving", the second in "waiting", but not in "saving". In the third case even "waiting"

does not seem appropriate, since what is happening is not so much a temporary postponement of consumption as a temporary increase in productive efforts; or rather, if we speak of "waiting" we must understand it (as in strictness we always should) of the postponement not of material consumption but of enjoyment or utility—that is to say, of consumption in the economic sense. We can, however, talk, if we will, of "accumulation" (see § 7, p. 343).

30. (to p. 346.) *Wage rates, labour incomes, and unemployment.*

We may illustrate the danger of confusing the two problems of distribution from current discussions of the unemployment problem. The view is widely held among theoretical economists that wages have tended since the war to be too high to allow of the full employment of the country's labour power, and that (failing a substantial increase in productive efficiency) the *value* of labour must be lowered if unemployment is to be substantially reduced. Critics of this view are for the most part content to accuse its proponents of "wanting to lower the working-class standard of life". This misses the point twice over, however. Not merely may one believe a thing to be true without thereby *wanting* it to be true; but there is no sufficient ground for assuming that to lower the rate of wages must necessarily mean lowering working-class incomes. For it is at least *in principle* possible—though we obviously cannot elaborate the point here—to offset the reductions which individual labourers may have to endure in their gross wage receipts by means of relief from taxation or increased benefits in the way of social services. The theoretical proposition, in short, whether it is sound or unsound, concerns the value of labour as a factor of production, and has no *necessary* bearing on the real incomes of the labourers—a fact which, it is fair to say, is commonly overlooked by both parties to the dispute.

31. (to p. 349.) *Wages* versus *profits as "residual" incomes.*

The "residual share" theory of wages is not considered by most economists to be a particularly good or helpful theory. On the one hand, it tells us nothing *positive* about the level of wages: thus, it does not in itself disprove the classical doctrine that wages will never for long rise above the subsistence level unless it is supplemented with a non-Malthusian theory of population. And on the other hand, it is only formally tenable if it is combined with a positive and *a priori* theory of profit. Professor Cannan seems to fall into a surprisingly crude error on this point. For he gives his blessing to Walker's theory of wages, while contemptuously rejecting Walker's account of profit (*Review*, pp. 357-8); and since

he offers no alternative *a priori* theory of profit his account of the problem amounts to saying that profit = what is left after wages, rent, and interest have been paid, while wages = what is left after rent, interest, and profit have been paid!

32. (to p. 364.) "*Profits*" versus "*commissions*".

Not every "difference between two prices", indeed, is naturally or properly to be thought of as a profit. For if both the buying price and the selling price are fixed beforehand, whether implicitly or contractually, the margin between them is of the nature of a broker's commission, and falls into the category of wages (and/or rent). It is, in fact, the "price" of the services which the broker renders. Even here, however, there is room for doubt in particular cases. For if there is any uncertainty as to the *amount* of opportunities which the broker will have for earning such "commissions", then his total receipts—as opposed to the return he makes on each specific deal—will represent his "profit". (Thus, we commonly think of retailers and merchants as earning profits rather than wages or rents, even when there is no uncertainty as to the *prices* at which they buy and sell.) O'Brien is therefore wrong in laying it down (*Profit*, p. 15) that one of the two prices the difference between which constitutes profit must be uncertain.

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