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# INCOME REVISITED

*being a sequel to  
Income: An Introduction  
to Economics*

BY

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## PREFACE

THE plain man confronted with recent refinements in economic theory, often expressed in mathematical language, may be tempted to think that the subject is one entirely for specialists and not for such as him. But economic happenings *affect* the plain man in his private life and, maybe, have a bearing on his political judgments. It is fitting, therefore, that he should try to understand their general shape and the way in which different aspects of economic life are bound together; in other words, to grasp the elements of economic theory. This, in my belief, is by no means difficult. Behind the complications of advanced analysis there is a central core of economic truth which can, as I think, be made intelligible to any educated person who chooses to take a little trouble. After all, if it is possible to remove the scaffolding from Einstein's terrific structures, as Einstein himself has shown that it is, in such a way that laymen can get a good general idea of what they essentially are, the same thing should be possible in our own much easier field.

In my little book, *Income: An Introduction to Economics*, I joined the not inconsiderable band of economists who have tried to do this. That book was made up from a short course of lectures given to engineering students at Cambridge. As oratorical efforts, the lectures were not a great success. The class, which, for the first of them, contained some 200 people, dwindled for the last to 5! But in book form they have apparently been found useful and have been

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translated into several languages. This book is a sequel to that one. There is a little overlapping, but perhaps not more than is excusable. The expert reader, should any such look at the book, will inevitably find that many qualifications have been omitted and much thin ice skated over. That cannot be helped. A small elementary introduction is not a treatise.

There is one thing that I should like to add, and that applies to my other book as well as to this one. It would be a mistake for anyone beginning to take an interest in economics to confine his attention to the elements of theory. To make his picture live he will need also a straightforward factual description of the economic structure at least of our own country, the size and distribution of its population, the proportions in which its people work at different kinds of jobs, its national income and the distribution of it, its foreign trade, government activities, social services and so on — a descriptive and statistical guide-book to carry about alongside of his analytical or theoretical one — such as, though perhaps on a smaller scale than, Carr-Saunders' and Caradoc Jones's *Social Structure of England and Wales*. For theory alone, just as fact alone, is sterile. It is their duty and, be it hoped, their pleasure to join together in one matrimonial home.

I am very grateful to Sir Dennis Robertson for reading a draft of my MS. and making a number of valuable comments.

A. C. P

KING'S COLLEGE, CAMBRIDGE

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## CHAPTER I

### ECONOMIC THEORY AND POLITICAL INSTITUTIONS

A SUBSTANTIAL part of economic analysis is general in character and applicable to countries with no matter what political institutions. The classical factors or agents of production; the people of the country with their various mental, moral and physical powers; the land with its rivers, hills and adjacent seas, its mineral deposits, the chemical content of its soil, its income of sunlight, rain and wind, its animals and its fishes; the capital constructs, houses, railways, ships, aeroplanes, factories and machines that the people, working in co-operation with natural resources and already existing capital, have built up: these things dominate the scene equally in a slave state, a police state or a 'free' country. Above all, the imponderable factors, science and 'know-how', beneficent or menacing, stand always in the background, causes behind the causes.

None the less, within the limits set by these greater forces, political institutions play a very important part in moulding the shape of a country's economic life. Thus the economic theory appropriate to a free economy is not applicable without large modifications to one that relies predominantly on coercion. In a free economy, for example, people largely determine their occupations by reference to the rates of pay and other amenities that they severally offer. Under a régime of coercion they may be told what they have to do and how much they

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have to do, and may be punished if they disobey. Though they still receive pay, pay does not operate either as director or as incentive. Again, in a free economy, where people are allowed to spend their incomes as they choose, their tastes and preferences play an important part in determining what things shall be produced. In a coercive economy, with strict rations — not merely ration limits — fixed from above for everybody, their tastes and preferences, except in so far as they are guessed at by the coercing authority, play no part at all. No actual country has a completely free economy — in England there is conscription for the army — and none, even Russia in war-time, is completely regulated by coercion. But this does not affect my point. Economic theory must be developed differently according as freedom in varying degrees or coercion in varying degrees is predominant in the country in whose circumstances we are interested. For the purposes of this book, I am interested in what are ordinarily termed free countries.

A free country does not, however, mean a country without a legal or political system. And the nature of these systems is a very important determinant of economic happenings, and so of the appropriate slant to be given to economic theory. Thus clearly the incentive of prospective reward that stimulates a farmer's or a bookmaker's efforts will work differently and less effectively in a country where crops and herds are frequently raided and pockets frequently picked than in one where person and property are reasonably secure. Again, the system of interchange of present goods against promises to pay for them in the future, with which a substantial part of economic theory deals, is interlinked with and dependent upon laws about

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contract and the judicial systems through which they are enforced

Laws governing inheritance are also very important. Where a man's property descends at death to his children or can be bequeathed by him at choice there is an inducement to him to work and save which would not exist if the whole of it passed at his death to the State. If a proportion of it so passes, most people will probably work and save less than if none passed; though some, eager that their children shall be left with a 'proper' minimum of inherited wealth, may work and save more. Moreover, State policy in this matter is bound in the long run to affect the way in which property is distributed; hence also the distribution of income, so far as this is derived from property; hence saving or investment and so on through a further series of complicated repercussions.

Economic motives, in short, operate, not in the air, but on rails carefully laid down for them by law, rails which make it profitable for me, in appropriate circumstances, to buy another man's spoons, but not profitable, unless I am especially lucky, to carry them off by force or fraud. Adam Smith's invisible hand is not an external fate taking precedence over political institutions, but does its job, well or ill, only because these institutions have been framed, maybe in the interests of a ruling class or clique, maybe for the general good, to control and direct its movements.

## CHAPTER II

### MONEY

ROBINSON CRUSOE, the economist's friend, is a single integrated being. The most fundamental difference between him and a large group of Robinsons is that the single Robinson personally produces, with the help, of course, of the natural forces accessible to him and whatever machines he may have made, each several item of his real income, while in a large group different Robinsons perform different services and exchange the main part of these services, or their products, against those due to other Robinsons. This arrangement is obviously advantageous to the group, because it enables different people to specialise in, and so to become adept at, their several tasks, thus making the aggregate output of the group much larger than it would be if everybody did a little of everything. For this reason that arrangement establishes itself, so to speak, automatically.

Once it has come about, the personality of each Robinson ceases to be integrated. It becomes split into two parts, or rather assumes two facets. He is no longer producer-consumer of everything that he gets, but producer of some things and consumer of others. He conducts exchanges and operates markets. To these markets he and his colleagues come dressed up as producers and sellers, then immediately change their clothes and withdraw dressed up as buyers or consumers of the same things. To carry out this metamorphosis conveniently they require, and have invented, Money.

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What is this money? At different periods in one country or another a variety of substances have been money. I am not here concerned either with history or with meticulous definitions. At the present time in this country money consists in bank-notes, some silver and copper coins, bank balances — there is no significant difference between balances on current and on deposit account — and, of secondary importance, overdraft facilities, which constitute options to claim either notes or balances: all these things as held by the public or government departments, *i.e.* outside the banks. Bank balances amount to very much more than all the other items together. *Inside* the banks, especially in the Bank of England, there are, of course, holdings of gold, silver, notes and securities, which play an important part as reserve or cover but are not, for our present purpose, to be classed as money. Money thus defined acts sometimes as servant, sometimes as deceiver, sometimes as menace. I propose to say something about it in each of these rôles.

### MONEY AS SERVANT

Money as servant, everybody knows, is extremely important in economic life. Jevons long ago described its principal functions as measure of value, medium of exchange, standard of value (for deferred payments) and store of value. As he pointed out, these different functions *might* be performed by different things. “We might certainly employ one substance as a medium of exchange, a second as a measure of value, a third as a standard of value and a fourth as a store of value. In buying and selling we might transfer portions of gold; in expressing and calculating prices we might speak in

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terms of silver ; when we wanted to make long leases we might define the rent in terms of wheat, and when we wished to carry our riches away we might condense it into the form of precious stones. This use of different commodities for each of the functions of money has in fact been partially carried out. In Queen Elizabeth's reign silver was the common measure of value ; gold was employed in large payments in quantities depending upon its current value in silver, while corn was required by the Act 18 Elizabeth c. vi (1576) to be the standard of value in drawing the leases of certain college lands." <sup>1</sup> At the present day all these functions are performed by the same thing, or rather group of closely associated things of fixed value relative to one another, that we agreed to call money. But that does not, of course, make the distinction between the several functions of money less important.

Take first its service as a measure of value. This is very similar to the service rendered by accepted measures of length. If we want to compare the width of a piano and that of a door through which it has to pass we do not need to bring the piano to the door and compare their widths directly with one another ; we apply a foot-rule to both. We do not compare the heights of our sons and daughters by laying them out side by side ; we measure each of them separately and compare the results. It is the same with value when we have a common measure for it. If there were no common measure and we had a hundred things, the price of each would have to be set out in 99 numbers giving its value in the terms of all the others ; a grand total of 9900 numbers. With a common measure of value the price list consists of 100 numbers only. The saving of

<sup>1</sup> Jevons, *Money*, pp. 16-17.

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time and trouble that results is enormous. It is a sort of saving we get from having an alphabet of 26 letters instead of, say, 2600.

But money's usefulness is immensely enhanced when, besides constituting a measure of value, it is also a generally accepted medium of exchange. If I have something to sell that is a little more or a little less valuable than something that I want to buy, in the absence of such a medium I, or the man with whom I want to deal, must search about for some other appropriately valued object to fill up the gap, and unless we can find this, we cannot do our deal. The inconveniences of barter due to the need under it of finding a double coincidence between the value of things offered and of things wanted are a familiar theme of economic text-books. Money as a medium of exchange does away with them altogether.

As a standard of value for future payments money performs the same service for exchanges the two parts of which are carried out at different times that it does for 'prompt' transactions in its capacity as a measure of value. When the contract requires the return after a time of the identical thing that is handed over now, for example when a picture is loaned by one gallery to another, there is, indeed, no need for that service. Most contracts, however, are not of this kind. We might, no doubt, have contracted to repay so much of the same sort of thing as was handed over. "If corn be borrowed, corn might be paid back with interest in corn; but the lender would often not wish to have things returned to him at an uncertain time when he does not much need them or when their value is unusually low. A borrower, too, may need several different kinds of articles which he is not likely to obtain from one person; hence arises

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the convenience of borrowing and lending in one generally recognised commodity, of which the value varies little." <sup>1</sup>

The phrase 'of which the value varies little' is important. For, if money varies much in value, or more strictly is expected to vary much, people will not care to use it as a standard and will either make something else money or, perhaps, make contracts in terms, not of money itself, but of money corrected by some sort of price index number.

Whenever money is not a mere abstract unit of account but consists of something concrete or physical — for this purpose bank balances are reckoned as physical — there must necessarily be a stock of it and the stock constitutes a store of value for those to whom it belongs. It is not, indeed, the only store of value. All property constitutes such a store, and some sorts of property, diamonds for example, are on occasions bought specially to serve for that. But, among the rest, the stock of money in existence is unquestionably *a* store of value. Like diamonds, it is a specially useful sort of store because it is light and small relatively to its value, can be carried about between distant places and, at need, buried or hidden away. Bank balances cannot, of course, be buried, but, since everybody who has a bank balance can in modern conditions turn it immediately into metal or paper money which can be, that does not matter. People's keenness to use money as a store of value — to hold wealth in the form of money — like their readiness to use it as a standard of value for deferred payments — is obviously weakened if they become afraid that its value may prove very unstable, which implies that it is liable to *fall heavily* in

<sup>1</sup> Jevons, *Money*, p. 14.

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terms of things in general. Moreover, whereas the damage that instability does to money as a standard of value can be mitigated by allying it with an index number of prices, there is no remedy for the damage done to it as a store. The only way of escape is by flight to some other kind of store.

### MONEY AS DECEIVER

Money has often played the part of deceiver. The mercantilists, or some of them, thought of it as something special, imagining that the benefit of foreign trade consisted exclusively of the bullion that it brought into the country. Even now, when it is said that So-and-so is 'worth fifty thousand pounds', not everybody realises clearly that the fifty thousand pounds does not *constitute* his wealth but is only a measure of its value. Again, and this is a subtler point, if a man spends on consumption goods £100 less than his income, he may suppose that he has certainly added £100 worth of stuff to the capital wealth of the country, whereas in fact his action *may* simply have thrown out of work the people who would otherwise have produced £100 worth of stuff for him to consume, and not have added anything at all to the stock of capital wealth.

But the most notorious deceptions which money perpetrates are concerned with its function as store of value and as standard of value in contracts or exchanges involving the future; among which short-term agreements between combinations of wage-earners and employers should be reckoned. Nobody expects that the pound ten years hence, or even six months hence, will buy exactly the same quantity of every individual thing as it buys today; for everybody knows that the relative

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prices of different things — oranges, strawberries, eggs or what you will — frequently vary. Until recently, however, the generality of people, at all events in this country, have ‘thought in gold’, regarding the pound as a unit of value fully stable in terms of things in general. This notion was, of course, very rough. Ordinary people did not trouble about the puzzles and refinements of index numbers. They only felt themselves deceived if the general run of prices went up or down a good deal in a short time. And even then they would not willingly believe that it was the pound which had deceived them. Particular things had misbehaved, but the pound was a rock which abides. Inverting Galileo’s famous whisper about the earth, they said to themselves in their best Italian, *E pur non si muove*.

Nowadays, however, things are different. We all at least have heard of relativity and all know that for prices to have risen and for the purchasing power of the pound to have fallen are one and the same thing. When prices in general have varied largely people who had expected stability have been deceived. They have been deceived about the purchasing power of the pound. They may claim, therefore, that money has deceived them, even though the disturbances of which they complain were not associated with any change in the circumstances of money itself. Money is guilty because, though it did not with its own hand kill the patient, it failed to keep him alive!

Money, however, cannot be guilty of destroying expectations that do not exist. Recently the common expectation that the value of money will remain *completely* stable in terms of things in general has been undermined. The frequent debates in parliament and

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in the newspapers about movements in the cost of living have undermined it. Most people now recognise that the overall purchasing power of the pound is sure to vary a little and, therefore, when it does vary a little, they are not deceived. They do, however, still expect that it will be *fairly* stable, so that, when sudden large changes come about, money for them is still a deceiver. The greater the degree of instability the more wicked a deceiver it proves itself to be.

## MONEY AS MENACE

Money's activities as a menace are all associated in one way or another with its instability, coupled with the fact that its movements — the variations in its general purchasing power — are not foreseen at all or at the best are foreseen very imperfectly. If they were foreseen, and were foreseen equally well by everybody, contracts could be adjusted to them, so that they would not matter much. A standard of length whose unit was the length of the king's girdle, even though the king were a child, could do its job well enough, with the help of a few arithmeticians, provided we knew how fast and how much the king was planning to expand. It is the consequences of unforeseen or inadequately foreseen variations that give us pause. These we may conveniently distinguish into the short-run relatively small up and down movements associated with booms and slumps, and, on the one hand, *large* movements of inflation such as accompanied and followed the first and second world wars and were manifest after the first in an extreme degree in Germany and Austria, and, on the other hand, large movements of deflation, such as were experienced everywhere in the crash of 1929-32.

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### THE SHORT-RUN MENACE

From 1850 down to the beginning of the first world war the economic development of the United Kingdom proceeded by way of a succession of booms and slumps, well illustrated by the upward and downward movements in the unemployment percentages recorded by the Trade Unions. These booms and slumps were of varying intensity and the intervals between them were not rigidly fixed. Still the outline picture of what was happening is quite clear. It is also clear that, when prices are corrected so as to eliminate those long-period trends which partly mask short-period movements, good employment was in general associated with relatively high and bad employment with relatively low prices.<sup>1</sup> This association did not, of course, prove that the price movements caused, or even that they intensified, the booms and slumps. But it naturally raises our suspicions. Money cannot as yet be arrested but it can properly be held for questioning. Let us so hold it.

Apart from wars, it is widely agreed that booms and slumps are *immediately* due to fluctuations in the opinions of business men about the prospects of profit in their industries, no matter what the remoter causes of these fluctuations of opinion may be. When these fluctuations occur, even though money movements may have had nothing to do with starting them off, they necessarily invoke, with banking policy as it was in the period to which we are referring, reactions on the side of money. The process is as follows. When business men feel optimistic about their prospects they want to buy more materials and hire more labour. For this they need money. To get it they draw on their balances

<sup>1</sup> For details compare my *Industrial Fluctuations*, p. 133.

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at the banks, which implies that they make these balances circulate faster; and they borrow from the banks further balances. In these two ways they are enabled to increase their money expenditure. If this were only expanded in proportion to the output of goods selling in the market, prices would not be affected. But there is an inevitable delay between the business men's spending on production and the consequential appearance of extra goods on the market. The money they spend on production becomes at once money income for wage-earners and others, and is for the most part itself quickly spent. Thus the demand for goods in terms of money is increased more than in proportion to the supply, and prices, therefore, rise. If business men's rate of expenditure did not increase further, the supply of goods in the market would presently catch up and prices be back again where they were. But, when they see that prices are rising, business men become more optimistic, and this spurs them on to further expenditure sufficient not merely to sustain the initial price rise but for a time to enhance it. Eventually the process stops. It *must* stop when the whole economy is fully employed, and it is very likely to stop before that, because of some accident that shakes confidence or through the central bank putting up its discount rate in a warning gesture. Since demands of business men have been geared to an expectation of rising prices, when prices cease rising the boom not only stops but breaks. Business expenditures fall sharply and a cumulative downward movement, enhanced by monetary reactions, sets in. The boom has pushed the economy, not on to a level plateau but on to a ridge from which a steep slope descends on the further side: and so, by a like cumulative process, a slump follows. If this analysis is right, money or,

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more strictly, the way in which money is controlled, was responsible, in the period between 1850 and 1914, not indeed for creating booms and slumps, but for giving them a larger amplitude than they would have had under a system that put a tighter rein on variations in expenditure.

Plainly these could be held in check when a boom is threatened if the central bank's rate of discount were manipulated for that purpose instead of, as happened prior to 1914, by reference to the condition and prospects of the Bank of England's gold reserve. No doubt, the rate of discount by itself is a less potent weapon against slumps than against booms. For, while in theory the rate can be raised to any height, it cannot be lowered below nothing; negative rates of discount are impossible. It is for this reason that economists, anxious for defence against slumps and mindful in particular of the severe depression that marked the inter-war years, look for help to large direct government outlays as well as to monetary policy. But, even so, sufficiently low discount rates could do *something* even directly to mitigate slumps, while sufficiently high rates in the face of threatened booms would, by mitigating them, indirectly mitigate slumps also, since these are in part reactions from booms.

It must be remembered, however, that the monetary systems of most important countries are now linked together by fixed parities of exchange. In England, for example, the pound sterling is pegged at the rate of £1 to round about 2.8 dollars, the Bank of England undertaking to buy or sell dollars against sterling at approximately that rate and holding reserves of dollars and sterling to enable it to do so. In these circumstances if dollar prices in the United States rose greatly, English exports to the United States would be greatly stimulated and imports from there greatly discouraged, so that

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America would be forced to send a large amount of gold to England, which would tend to force our prices up. In opposite conditions England would be forced to send large amounts of gold to America, which would tend to force our prices down. These tendencies could, indeed, be counteracted in great part by the imposition of stringent restrictions upon exports in the one case and upon imports on the other, inconvenient though such restrictions would be to traders. Also or alternatively the effect of inflows and outflows of gold could be checked by skilful use of sponges or cushions such as the Exchange Equalisation Account provides. But these defences, effective enough in the face of small fluctuations in American prices, are limited in scope and, if confronted with large and continuous movements, would inevitably break down. Should such movements occur, money could only be held reasonably stable here by withdrawing or moving the peg to which the dollar-sterling rate is now tied. In the last resort, if prices in important foreign countries fluctuated largely, we should be driven to choose between reasonable stability in domestic prices and reasonable stability in foreign exchange rates. Both ideals cannot be attained and maintained unless other important countries as well as ourselves succeed in establishing reasonable price stability; and even then serious difficulties would be met with if productive technique in different countries advanced at markedly different speeds.

### THE LONG-RUN MENACE

Turn now to the sins, or alleged sins, of money as architect of long-range inflations. I shall not speak of long-range deflations here, though they also, if pressed

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far enough, may do great damage, because in the present climate of opinion they are not greatly to be feared. Inflation is an ambiguous word. It is sometimes used simply as a synonym for rising prices. But most people would not say there was inflation if prices were rising in consequence of a continuing and progressive shortage of goods. In a vague way we usually think of it as occurring when prices are rising continuously through the 'fault' of money. I myself have suggested that inflation is going on when money income is rising continuously relatively to the volume of resources at work. But, since there are several kinds of resources, that concept is ambiguous unless more closely defined. It is also open to the objection that, if the technique of production is improving fast enough, it may make us say that inflation is taking place even when prices are falling. This seems paradoxical. To avoid that paradox we might modify our definition by adding 'provided that prices are rising'. There is no need to trouble ourselves with niceties. Let us say then that large and continuous increases in money income coupled with large increases in prices constitute large inflations. That is good enough.

The most obvious source of large inflationary movements is continuous spending by governments of more money than they are collecting from their citizens through taxes or loans provided by them out of their incomes. This means that the government in one way or another borrows from the banks; and this entails further that it creates for them, or allows them to create, sufficient extra currency to enable them to cash on demand all valid cheques drawn upon them. In the emergency of a great war governments are practically forced to adopt this policy, partly because collecting extra taxes to

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match their needs would be too slow a process and partly because a very severe wrench to the machinery of taxation might cause patriotic enthusiasm and effort to flag. It might, indeed, be possible to raise loans without these ill consequences, but, if the loans were to be large enough, the public's subscription to them would be likely to come in great part, not from their incomes but from *their* borrowings from banks, a process just as inflationary as government borrowing.

When government borrows extensively from the banks this in itself increases the stock of money; and the spending of it increases the money income of the people to whom it is handed over. But money income need not increase so rapidly as the stock of money. In war-time, in particular, people may be persuaded — or compelled by rationing and price control — not to spend their extra incomes, either holding them unspent in the banks or handing them back to government in loans. The former procedure reduces what has been called the income velocity of money and so makes against rising prices. Thus, whereas between 1939 and 1945 the net deposits of British clearing banks rose by 104 per cent, retail prices rose by only 46 per cent and wholesale prices by only 66 per cent. The latter procedure makes it unnecessary for the government to borrow as much from the banks as it would otherwise have done. Both procedures help to hold inflationary movements in check. On the other hand, however, money income *may* increase more rapidly than the stock of money. Thus between 1946 and 1953 the net deposits of clearing banks rose by only 22 per cent, but retail prices by 51 per cent and wholesale prices by 90 per cent.

A second alternative way in which a large inflationary movement may be brought about is continuous successful

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pressure by wage-earners for increased money wage rates irrespective of increased prices. Such pressure would not *necessarily* entail either unemployment or an increase in aggregate money income. For, particularly in conditions of imperfect competition, it might well happen that there was a good deal of slack available to be taken up. If that is so, a substantial part of the extra wages might come out of profits. After a point, however, any government pledged, as the British Government now is, not to allow heavy unemployment to occur, would be obliged either to increase its own expenditure by borrowing from banks or to force down the rate of discount far enough to encourage business men to do that. An inflationary movement would thus be brought about, just as it would be if the initiating cause were continuing excess of government spending. It must be clearly understood, however, that the type of wage pressure considered in this paragraph is *autonomous* wage pressure. Wage pressure undertaken as a consequence of high prices already induced by excess government spending is a purely passive reaction. It prevents an inflationary movement which is occurring anyhow from pushing down the real earnings of wage earners for the benefit of profits, but it takes no active part in stimulating inflation.

What, we have next to ask, are the consequences of inflationary movements? A distinction must be drawn between relatively mild inflation and galloping inflation. The dominant effect of mild slow-moving inflations, such as we have been and still are experiencing in this country, is to mulct creditors, particularly creditors whose claims extend over considerable periods, for the benefit of debtors. For the real value of what is transferred to them continually diminishes, and it is most

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unlikely that, when they made their contracts, this fact was fully foreseen and allowed for in the terms of the contracts. At the present time the government is the biggest debtor of all and the holders of National Debt scrip collectively the biggest creditor. Thus inflation from the standpoint of the Treasury reduces the 'burden' of the National Debt and helps the Chancellor of the Exchequer. He is not called upon to make more debt payments, whereas unchanged taxes yield him continuously more money to finance those he has to make. Wage-earners, with more delay salary-earners, and, with still more delay, pensioners of the State, can secure modifications in their contracts and so in a measure protect themselves. But debenture holders and the holders of fixed interest government stock cannot do this. It is for them to enjoy what Keynes called the 'euthanasia of the rentier', a process which, speaking as one of them, I regard, provided it does not act too suddenly and sharply, as socially advantageous. I should not myself call money a 'menace' if it merely threatened slow and gradual inflations.

But it also threatens galloping inflation. This differs from moderate inflation not merely in degree but also in kind. The purchasing power of money begins to fall so fast that people fly from it — try to rid themselves of it. This entails that its income velocity rises enormously and, with that, prices. Then the government, to pay its way, has to secure for itself from the banks or the printing press a bigger stock of it, the spending of which forces prices still higher ; and so on cumulatively. The whole monetary system collapses and with it, very likely, the political system too. Rentiers are not merely subjected to a gentle and gradual euthanasia, but are ruined in a few months. The happenings in Germany

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and in Austria after the first world war — in Austria, it was said, a wheelbarrow was needed to carry enough paper money to pay for one's lunch — are classical examples of what inflation, once it starts galloping, can mean. There is nothing to be done but in one way or another to rebuild the whole monetary system from the bottom upwards. Money as menace has done its worst.

## CHAPTER III

### WHY CONSUMERS BUY WHAT THEY DO

IN this chapter I shall take no account of government purchases nor yet of the expenditure of private persons or companies on investment goods. I am concerned only with the way in which private consumers distribute the money that is left to them, after direct taxes have been paid and their investments financed, on consumption goods, *i.e.* with what the (1954) Blue Book on *National Income and Expenditure* describes as 'Consumers' expenditure at current market prices' Our problem is to disentangle the principal influences by which this expenditure is directed in various proportions into various channels and the quantities of the various consumers' goods (expressed in whatever arbitrary units are customarily employed) which are purchased are determined. The aggregate amount of this expenditure, which is, of course, also the aggregate of the payment received by those who make the goods and services for which it is paid, plus government duties and minus government subsidies, is here taken for granted.

The influences which we are to investigate are most conveniently grouped into those determining, on the one hand, individual and aggregate patterns of demand and, on the other hand, the aggregate pattern of supply. These jointly determine at once the quantities and the prices of the things affected. I shall speak first about demand, secondly about supply and finally about the way in which the two interact. For this analysis there

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is available a very handy form of mathematical technique that is helpful in clarifying one's ideas and guarding against muddles. But it is not necessary to use this technique, and anyone who is unable or unwilling to do so can get along without it. Here I shall use ordinary language and hope to show *ambulando* that this is adequate for an outline analysis. It would, however, be idle to deny that eschewing the use of precision tools must make exposition rougher and less accurate than it need have been.

### THE PATTERNS OF DEMAND

Everybody is familiar with the term demand. It is continually recurring in newspaper articles and the speeches of politicians. Unfortunately the term is ambiguous. It is used sometimes in one, sometimes in the other, of two different senses. Sometimes it means the quantity of a thing that is demanded at a given price, sometimes the list of different quantities that would be demanded at a series of different prices. This difficulty is best got over by keeping the word demand for the first meaning and using for the second the phrase demand schedule. Demand then means nothing except with explicit or implicit reference to some specific price, but demand schedule is self-contained and needs no support.

The notion of demand in the sense of demand schedule leads on to the more complex notion of a pattern of demand. It might at first sight be thought that this pattern is simply the collection of a number of separate demand schedules for different things. But this is not so. For each demand schedule sets out the quantities of one thing that are demanded at different

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prices of that thing when the prices, more strictly the supply schedules, of all other things are fixed. The sum of all of them would not, therefore, make up a pattern of demand unless it were the fact that the prices of all other things were completely irrelevant to the quantity demanded of any one thing. A man's pattern of demand sets out a list of the quantities of each several thing that he would demand at all possible sets of prices of all the things.

When his available income is given his pattern of demand obviously depends in part on his pattern of tastes or desires. I shall begin with these, leaving the part played by incomes till later on, and shall introduce the subject by focusing attention on an imaginary isolated man's desire attitude towards a single isolated thing. Of the causes of such attitudes, experience certainly and accident perhaps, the economist has little to say. What he can say with some assurance is that, apart from some trivial exceptions, a man's desire attitude to an isolated commodity will be of such a sort that, the more he has of it, the less keenly he will at any time desire an additional unit of it. This is, of course, in no way inconsistent with the fact that, as he gets accustomed to something, his desire attitude towards it may change, so that *presently* he will come to desire a hundred-and-first unit of it more keenly than he desires a hundredth unit now. This law of diminishing keenness of desire, commonly called diminishing utility, does not tell us much. We should like to know how fast, in respect of various quantities, the keenness of desire diminishes as the quantity becomes larger. On this matter a word will be said presently.

So far of an isolated and independent commodity. But many commodities are not independent; on the

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contrary, our desire for one of them is affected to an important extent by how much we have of the other. Some things are rival to (or substitutes for) other things, for example beef and mutton or cotton and woollen cloth, so that, the more of one that a man has, the less keenly he desires the other. On the other hand, some things are complementary to others, like whisky and soda or sugar and tea, so that, if one is available, this makes us desire the other more keenly.

Again, just as commodities are not isolated and independent, so also people are not. The circumstances of one member of a group may react on the pattern of desire of other members. This is probably not so to any appreciable extent as regards simple necessities. But as regards luxuries the reaction may be important. Thus the fact that some men buy and wear top-hats, particularly if the some men are prominent persons, makes other men desire them; *per contra*, the mere fact that a costume in which her ladyship delighted last year has become common in her circle — still more if it has become common in what she considers inferior circles — makes her now desire something different. In fact for many things other than simple necessities our desire attitudes are complicated by desires of a more general kind, to be respectively in the swim with our betters and out of the rut with those we think our inferiors. If one man, especially Beau Brummel, decides to wear spats, so immediately do others; if, in the age of crinolines, one lady of eminence discards them, she may be sure the flock will follow. On the other hand, if book-makers wear check suits, the *haut monde* prefers some other gear. We all of us in our degree follow the leading sheep and flee from the leading goat. This accounts for the extreme instability of fashion in

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luxury trades — an instability not unpleasing to dress-makers.

Moreover, people's tastes and desires are not, like poets, merely born. They are also partly made; and there are large enterprises at work trying to mould them this way or that. For a very poor man, indeed, his pattern of desires arises in the main out of straightforward physical needs. But the patterns of desire of richer men are also continually played upon by various forms of direct and indirect advertisement. Some advertisements are simply informative, bringing to people's notice the fact that certain things with certain qualities, about which they have not hitherto heard, are available for purchase. Other advertisements are simply competitive, rivals producing exactly similar things each trying to persuade customers that his product is different from and better than the competing one. Yet others endeavour by propaganda and perhaps by free samples to create tastes that have not so far existed. Would-be vendors of heroin, opium and such-like drugs use advertisements in this way, though their advertisements are proffered under the rose. Yet other advertisements are directly fraudulent, claiming for the things they name beneficial properties which their sponsors know they do not possess. All these various kinds of advertisement are directed to influence patterns of desire.

We have next to enquire in what way, when a man's pattern of desire is given, the state of his income available post-direct-taxes and post-investment affects his pattern of demand. The aggregate of available income for all men together is here taken as given. But the distribution of it among particular men, and so their individual available incomes, is not so taken. In what relation then will a man's pattern of demand stand to

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his pattern of desires? At first sight we might be inclined to suppose that it must be exactly similar in form to that pattern, a unit of money simply taking the place of a unit of desire, if we are allowed such a phrase, in the other pattern. This, however, is not so. Thus suppose that there is only one kind of commodity and our man has £1000 to spend. Whatever his attitude of desire towards that thing may be, whether, when it is represented on a curve, the curve is very flat or very steep, his demand schedule must be such that, at every price, price multiplied by quantity demanded is equal to £1000; that is to say, his demand schedule as represented by a curve must be of a particular shape. His desires have no affect at all. Following along this line of thought we readily see that, the larger the proportion of his income that a man is spending on any one thing, the less important the part played by his desires in determining the form of his demand schedule for it is likely to be; and the more forcibly the income factor will tend to drag it into the form that it would have if the whole of his income had been spent upon it. At the other extreme, for a commodity on which only a very small part of his income is being spent the income factor will have hardly any significance, and his desire attitude will determine almost entirely the form, though not, of course, the general level of his demand schedule. Thus we may conclude that, if a man is distributing his expenditure in very small parcels over a great number of things, his pattern of demand will correctly reflect his pattern of desire, though, if he is concentrating a large amount of his expenditure on one or a few things, his demand pattern will be distorted in greater or less degree away from his desire pattern.

The point may be put otherwise thus. We know that,

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if the supply price of something else alters, this cannot affect the desire attitude of our man for an independent commodity. What has been said shows that whether it can affect his demand attitude depends on whether the something else is a thing on which he spends a large or a small part of his income. If it is one on which he spends a large part, an upward shift in its supply price may make him want to spend a significantly larger or a significantly smaller proportion of his income on it, so that he will have significantly less or more income left to spend on all other things together, and the quantity of any one other thing that is bought may be affected significantly. But if the supply price of anything on which only a small part of our man's income is spent varies, it is very unlikely that the proportionate effect on his income available to buy any one other thing will be appreciable; though, of course, if the price of many other things changed at the same time in the same direction this would not be so. Broadly we may conclude that, as compared with the effect of variations in its own price on the quantity of any ordinary thing that is purchased, the effect of variations in the price of any one other ordinary thing is likely to be negligible. Marshall's picture of demand schedules relating the quantity of a thing purchased to its own price only is an adequate, though not, of course, a perfectly accurate, tool of analysis so long as the thing is an independent commodity.

The dominant dependence on their own prices of the quantities of such commodities that people, their desire attitudes being given, choose to purchase, gives warrant for attempts that have been made by Dr. Schulz, Mr. Stone and others to determine by means of statistical comparisons the form of certain demand schedules

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— the shape of certain demand curves — in the neighbourhood of current prices. There are many pitfalls in the way of these investigations, not least the fact that price changes may entail different variations in the quantities purchased at different intervals of time after they have taken place. None the less, it seems to have been established, for several important commodities, sugar among the rest, that, at all events in the short run, small rises of price are apt to be associated with less than proportionate reductions in the quantity bought, so that expenditure on the commodity concerned is increased. That is to say, in technical language, the elasticity of demand in the neighbourhood of current prices has been shown for these commodities to be less than unity, for some of them substantially less than unity.

Up to now I have been speaking of the pattern of demand of an individual. How far are the separate patterns of different individuals related to the pattern of all individuals together? People's tastes are various and their incomes are also various. It is easy to see that, aggregate money income being given, one man with twice the income of another man will not, at given prices, buy simply twice as much of everything. The proportions in which he spends his income on different things will tend to be different. Thus in general he will spend only a little more, or possibly even less, on ordinary common goods — since better goods may supplant them — but a great deal more on luxuries, travel, pictures and so on. It follows that the pattern of demand for a group of people cannot be inferred from a knowledge of their tastes in conjunction with their *aggregate* income. The pattern of demand of the group depends partly on the way in which aggregate

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income is distributed. Even if everybody's tastes were alike this would be so. For suppose a man with a large available income and a man with a small one have exactly similar patterns of desire. With any system of prices the richer man will demand several times more luxury goods than the poor man but only a few more, or possibly even less, ordinary goods (for which luxuries may be partial substitutes). If their joint income was divided into two equal parts the formerly poor man would certainly buy more luxuries than before; but it is practically certain that the total demand for luxuries would be smaller and that for ordinary goods larger than before. With the tastes of different individuals different, the relevance to the aggregate pattern of demand of the way in which income is distributed is still more evident.

## THE PATTERN OF SUPPLY

—Corresponding to the aggregate pattern of demand for consumption goods there is a pattern of supply. This is made up from the separate patterns, only partially independent, of a number of separate industries, just as the aggregate pattern of demand is made up from the patterns of a number of separate individuals. In my book on *Income* I said a good deal about the influences acting on supply. I shall, therefore, not say much here. In particular I shall ignore monopolistic practices, the inclusion of which would make the argument very cumbersome without modifying its general outlines. A brief discussion of monopoly will be found in Chapter VII.

Let us first consider the supply schedule of a single commodity that is independent on the side of supply,

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not produced, that is to say, by a joint process with any other commodity, nor in rivalry with another commodity for the use of a scarce and important raw material. From the standpoint of this single commodity the rates of pay of the several factors of production used in making it may be taken as given. They are not in general appreciably modified by variations in the quantities of the commodity which is being produced. In respect of any given quantity employers will try to combine the several factors together in such proportions that, given their rates of pay, the cost of producing that quantity of the commodity is as low as possible. What combination is chosen depends on the effectiveness of the several factors in relation to that commodity. The most effective combination may be different for different quantities of output. Given the facts about that and given the rates of pay of the several factors, the supply price of that commodity for whatever quantity is produced, that is to say the commodity's schedule of supply prices, is, *on a certain assumption*, determined.

The 'certain assumption' is, however, very important. It is that the supply price of the output of each firm in an industry depends solely on the quantity of that output and not at all on the aggregate output of the whole industry. It may well happen, however, that, when the scale of the whole industry increases, this will lead to what Marshall calls external economies, which affect all the firms equally, in such wise that, even though a particular firm continues to produce the same output as before, it will be able to produce it more cheaply. For instance, when an industry becomes large the machinery that it needs can be made by firms specialising in that particular type of machinery instead of by general engineering firms, and so is likely not to cost so much.

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Moreover, trade newspapers will be started from which all the firms can learn the latest ingenuities of technique; and so on. *Per contra*, in the special case of industries which use a large amount of one factor, for example, land in agriculture, there may be external diseconomies from the standpoint of the industry — though not, as we shall see presently, from the standpoint of the community<sup>1</sup> — consequent on the price of the services of that factor having been raised by the increased demand for it. These external economies and diseconomies, from the standpoint of the industry where they exist, as well as the internal situations of individual firms, play a very important part in determining the character of its supply schedule.

Let us next consider the way in which the rates of pay of the several factors are related in different industries and related to one another. The following passage from *Income* gives a part of the answer. "Men of similar inborn quality — and here, in Churchillian phrase, man embraces woman — being anxious to do as well for themselves and their families as they can, tend so to allocate themselves among occupations that nobody would gain by shifting out of the occupation where he is into another one. This entails that net advantages — roughly, the rates of pay — tend to be similar in different occupations for kinds of work that require equally expensive training; and where the work of one occupation needs more training than that of another, to be higher in the former in a degree more or less corresponding to the extra cost of training there. These tendencies only work themselves out very imperfectly and sometimes very slowly."<sup>2</sup> But this is not a complete answer; for it does not help us to discover

<sup>1</sup> Cf. Chapter V.

<sup>2</sup> *Loc. cit.*, p. 62.

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what the rates of pay of the several factors, each of which it shows to tend everywhere to uniformity, actually will be. We have seen, however, that in each industry for each quantity of output it will pay employers to engage such quantities of the several factors that, at their several rates of pay, output would not be increased by any alterations in their proportionate quantities. This principle, the aggregate quantities of the several factors at work being given, will determine their relative rates of pay in each industry and so in all industries. Furthermore, the aggregate expenditure on all factors engaged in producing goods and services for consumers, *i.e.* their aggregate money income, being for our purposes given, their absolute rates of pay are also determined.

*If we leave out of account the possibility that the relative rates of pay for different factors may be affected by variations in the proportions of different goods that are made*, we thus obtain, after adding in government duties and deducting government subsidies, a set of supply schedules depending on these rates of pay together with the effectiveness of the several factors in producing various quantities of each several commodity. But, as we have already seen, for each member of the set the proportion of the several factors which it is most profitable to engage is liable to be different when different quantities are being produced. This entails, even apart from external economies and diseconomies (from the standpoint of the relevant industry) and *a fortiori* when these are brought into account, that the supply prices of different things, as well as their demand prices, are liable to vary with the quantities that are being produced.

The set of supply schedules thus arrived at is, *prima*

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*facie*, the community's pattern of supply. But that is not correct. The separate supply schedules, each being constructed on the assumption that other things are equal, cannot, any more than the demand schedules, be regarded as separate and independent. They are interdependent. When two commodities are jointly produced by the same process, in such wise that the output of one cannot be increased without that of the other being increased also, or when they are rival users of a scarce material, this is very plain. But the supply schedules are still in a measure interdependent even when these special conditions are absent, since the more resources that are devoted to one of them the less are available for others. The pattern of supply, like the pattern of demand, is thus considerably complex.

## THE INTERACTIONS OF DEMAND AND SUPPLY

What has been said will have shown that demand conditions would determine the quantities of various consumption goods that people buy if prices were fixed by supply conditions, and supply conditions would determine them if prices were fixed by demand conditions. In fact prices are not fixed either by supply conditions acting alone or by demand conditions acting alone. Demand conditions and supply conditions acting together determine both prices and quantities. They are the two blades of Marshall's celebrated scissors, or better, two sets of blades, the members of each set being bound together by complicated connections, any of which by itself does nothing but all jointly do everything.

Demand and supply would interact in this way even though, as is frequently supposed, the two sets of

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influences were independent of one another. In fact, however, they are interdependent. The pattern of demand, by influencing the proportions in which things requiring different proportionate combinations of factors are produced, helps to determine the relative rates of pay of the several factors and through these the pattern of supply. By the same token, the pattern of supply helps to determine the pattern of demand in so far as it helps to determine the distribution of income, which, as we have seen, is relevant to that pattern. When the fact of interdependence is brought into account the illustration given at the end of the last paragraph needs to be still further elaborated. For the members of each of our two sets of blades are connected, not only with the other members of that set, but with members of the other set also.

The reader is asked to understand that this sketch does not profess to be other than partial and incomplete. To complete it, investment, government purchases of consumption goods and, above all, monetary factors would have to be brought into account. These we have treated as constants but they are in fact variables. A mathematically watertight system which treated them as such would have to be far more complicated than this.

## EXPENDITURES

It is evident that the interplay of demand and supply, determining, as it does, at once the prices and the quantities of the several consumption goods that our community purchases, by that very fact determines also the amounts of expenditure upon them; it being understood, of course, that neither higher prices nor larger quantities necessarily entail larger expenditures, since

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higher prices in some circumstances carry with them more than proportionately reduced quantities and larger quantities more than proportionately reduced prices.

To round off this chapter and, so far as may be, to diminish the gloom which its dry argumentation has probably engendered, I set out below a summary account, from the (1954) Blue Book on *National Income and Expenditure*, of the principal items of consumers' expenditure at market prices in 1953.

	£ million
Food	3549
Alcoholic drinks	869
Tobacco	837
Housing	835
Fuel and light	449
Household goods	844
Clothing	1064
Recreational goods	292
Chemists' goods	153
Other goods	147
Private motoring and cycling	366
Travel	434
Postal, telephone and telegraph service	77
Entertainments (including cinema, £111 m.)	184
Domestic service	98
Other services	785
Total consumers' expenditure in the U.K., allocated and unallocated (less expenditure by foreign tourists, etc., <sup>1</sup> in the U.K., £116 m.)	10,828

<sup>1</sup> *Loc. cit.*, pp. 30-1.

## CHAPTER IV

### HOW CAPITAL IS BUILT UP

CAPITAL, for the purposes of this chapter, means material capital. It does not include such things as goodwill and business connections. Nor does it include capacities and skills built into human beings by good food, training and education; and that in spite of the fact that the resources devoted to creating these human assets may often be more productive of material goods, to say nothing of human quality, than equivalent resources employed to build machines. Nor does it include the whole stock of material objects existing at any time. That part of the stock which is provided by Nature is excluded; the classical economists grouped that under the heading Land. Capital includes only things made by man, assisted, of course, by previously created capital and by this so-called Land. We might, if we chose, and in some ways that would be convenient, make the term cover all the things made by man; but it is customary to confine it to things designed to yield money income and kindred things. Marshall followed this custom and I shall follow him. He counted as private capital that part of a man's stock of things from which he expects to derive what is generally reckoned as income in common discourse, and as public capital similar things in public ownership.<sup>1</sup> Thus he included 'all things held for trade purposes, whether machinery, raw material or finished goods, theatres and hotels',

<sup>1</sup> *Principles*, p. 78.

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and, of course, also railways and ships. He included, furthermore, houses whether occupied by their owners or rented to somebody else. The income from owner-occupied houses is, indeed, only virtual income, but the Inland Revenue authorities subject it to income-tax; and that is good enough. Motor-cars and furniture in private hands are excluded on the ground that they do not yield income, but in dealers' emporia, shops and factories they are capital. Such distinctions lead to paradoxes; to call a motor-car a capital good while it is in a shop and a consumption good the moment it enters a private garage seems silly. But we must put up with these minor embarrassments. The picture of what, for the purposes of this chapter, I mean by capital, though fuzzy at the edges, should be clear enough to anyone who does not peer too closely. Within it we may distinguish fixed capital, such as railways and plant, and working capital, whether consumers' goods or capital goods, in process of manufacture or transport or in warehouses and shops on the way to their final buyer. Further, we must not forget that what we call capital is in part constituted and maintained at the cost of depleting Nature's stores of coal, oil, fissionable material and so on, and is, therefore, not strictly net.

Capital, everyone will agree in a general way, is built up through investment. But what precisely this means and what the processes are through which the building is accomplished cannot be determined without discussion. At the very outset we are confronted with a difficulty; for the term investment is used sometimes to mean money investment, sometimes real investment, and, under both these divisions, sometimes gross, sometimes net investment. Moreover, the connection between investment and saving has to be elucidated, and

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also that between the saving or investment of individuals severally and of the community as a whole.

First, for our purpose, since we are looking ultimately to real capital, a stock of physical things, investment must plainly mean real investment. Money investment, as we shall see presently, has importance because it is often through it or by means of it that real investment is made. But it is essentially subordinate. Real investment is what matters.

Real investment may be thought of either as gross or net. Gross real investment in any period is the whole inventory of material goods created during the period, regardless of any decay or destruction which they or other parts of the capital stock may have undergone during the period, less the inventory of goods that have moved out of stock into consumption. This sounds unambiguous. But it is not really so. Thus, suppose that the stock of fixed capital contains the same identical items this year as last ; that meanwhile some consumption goods have passed out of the machine of process or the pipe-line of distribution into the hands of consumers ; and that at the same time other sorts of goods, stocks of wool, for example, in place of stocks of cotton, have been added to working capital. It is easy enough to write down money valuations for the wool and the cotton and, if these are equal, to say that gross investment has been nil. But in physical (real) terms it is impossible to decide whether the stocks of wool or of cotton are equal or not ; for the two things are not commensurable. Thus gross real investment cannot be defined in purely physical terms, but must be bolstered up by a suppressed reference to money values.

Net investment, being a part of gross investment, is, like it, subject to this difficulty. It is subject to others

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also. It might be so defined as to mean gross investment minus the whole contemporaneous decay or destruction of existing capital stock. With this interpretation the net increase of capital stock in any year would always be equivalent to the net investment of that year. But in fact net investment is not normally thought of in this way. We usually imagine that so much gross investment is undertaken in connection with some already existing concern; that, after provision has been made for keeping working capital intact, a part of the gross investment is devoted to making good contemporaneous wear and tear and obsolescence in the concern's plant, and that the remainder constitutes net investment there. When an investment is made, not in connection with an already existing concern, this method of inferring net real investment from gross real investment is not used in ordinary accounting. Thus, in reckoning up the net real investment made at any time in the light industries of southern England, ordinary accounting does not bring in the fact that the heavy industries of northern England may at the same time have been rapidly decaying. Of course, from the standpoint of the community, we *ought* to bring that fact in.

This might, no doubt, be managed somehow. But what of the 'obsolescence' introduced without comment in the course of the last paragraph? To allow for obsolescence in estimating the difference between gross and net real investment means to allow that machines, etc., which are still physically unchanged, may, nevertheless, be made 'smaller' because they have been lessened in value, on account, say, of the introduction of more effective machines or of a falling off in the demand for their products. It is customary for Income-Tax authorities to make a more or less arbitrary annual

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money allowance for 'depreciation', *i.e.* wear and tear plus obsolescence, of the existing stock of capital, and to deduct this from gross money income to get at net money income, on which income-tax is to be assessed. This difference between gross and net money income is obviously also the difference between the money values of gross investment and of net investment. The only way of reconciling this procedure with our strictly physical approach is to regard certain reductions in the value of capital stock as *equivalent* to such and such reductions in its physical content.' This is the best that we can do ; and a very unsatisfactory best it is !

This puzzle about obsolescence leads on to another, no less severe. What are we to say about net investments that turn out complete or nearly complete failures, like the celebrated ground-nuts investment of the British Government ? Are we to say that our stock of capital is increased by the physical content of such investment, or what are we to say ? Suppose, for example, that a large volume of investment has been devoted to erecting a costly plant, which it is impossible to remove to a different site and which will not work without water, and that the government department interested in the enterprise has failed to observe that there is no water available. Is this plant to be reckoned as an addition to capital ? Physically it is exactly the same as it would have been if water had been available, but its value is nothing at all. It would be absurd to regard this investment as making to the stock of capital the same addition that it would have made had water been there and the plant able to operate. We must 'write it off' our physical inventory of capital, not merely off our money valuation of that. Investments that are partly failures, not dead losses, we should, I suppose, write off in part.

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A similar puzzle is provided by investments that are abnormally successful. Any technique we may adopt to deal with these puzzles must rest on arbitrary decisions ; or we may prefer to write off the puzzles themselves !

There remains a further consideration, for our purpose the most important of all. The deductions that we make from gross real investment to get net real investment never take account of depletions of capital that may happen over and above normal wear and tear and obsolescence. Most notably we do not take account of depletions due to acts of God (earthquakes and so on) or of the Queen's enemies. Such things are always reckoned as capital losses not relevant to net investment. This is merely a convention, but it is a convention departure from which nearly everybody would regard as extremely inconvenient.

In view of what has been said, it is apparent that the stock of physical capital existing at any time is not simply the aggregate of all net investments previously made. On account of acts of God and of the Queen's enemies, if for no other reason, it is practically certain to be very much less than that. This, however, is not incompatible with net investment, looked at broadly, with adjustments made in special circumstances, *contributing towards* the stock of capital, making it larger, not necessarily than it was before, but certainly than it would have been had other things remained the same and the net investment not been made. In this sense capital is built up through net investment spread over time and could not be built up in any other way. We are thus led on to investigate net real investment more closely. How is it related to real income and to real savings ; what is the connection between the investment

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or saving of individuals and of the community as a whole ; through what machinery is net real investment accomplished ; and what are the principal influences upon which the scale of it in any period depends ?

It is customary and convenient to think of the net real income of any period as consisting of two parts, one real consumption, the other real net investment. The excess of gross investment over net investment is devoted to maintaining capital intact and does not enter at all into real income. Obviously then, *real income being given*, the smaller real consumption is, the larger real investment must be. But it is a gross error to infer from this that government or other action designed to bring about economies in consumption necessarily leads to a corresponding or, indeed, to any increase in real investment. It may lead, on the contrary, to a corresponding reduction in real income associated with and due to a large increase in unemployment. Failure to realise this caused economising for some years after the 1930 slump to be pushed, as is now generally recognised, further than it should have been.

On this system of definitions aggregate net real investment must be the same thing as aggregate real savings. Since real savings are obviously equal to real income minus real consumption, and real income is by definition equal to real consumption plus real investment, the identity is self-evident. When consumption is cut, not in order to invest but in order to add saved money to bank balances, this seems at first sight paradoxical. The explanation is that the consumption goods which, on account of the saving, are not consumed are, instead, piled up in shops. They are thus invested in the form of working capital, the money value of the investment being the same as that of the

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savings. This kind of investment, indeed, differs from normal kinds in that it is unplanned, unintended and involuntary. Nevertheless our identity stands.

This identity, real savings equal real investment, refers, of course, to the aggregate real savings and the aggregate (net) real investment of the community as a whole. It does not imply that an individual man's saving and investment are equal. For one man's savings may be passed over to another man, whether directly or through intermediaries, for him to consume. For example, a person possessing capital, whether actual capital in the form of land or house property or titles to capital in the form of securities, may sell them to somebody else in return for his money savings and may himself then spend these on consumption. In that case, of course, nothing is added to aggregate net real investment. Our second man may, indeed, be said loosely to have 'invested' in land or in securities. But that is not investment in the sense in which the term is used here; for that means creation, not mere transfer of capital.

Pass next to the machinery through which real net investment is accomplished. A little of it is made direct without any mediating machinery, as when a farmer builds a barn with his own hands. In the main, however, it is accomplished through the saving or investment of money, whether money taken direct from income or further money drawn from banks, which is not money income as drawn, but becomes income for the people to whom it is paid. This money is engaged directly by those who control it in paying for such services of men and machines as are embodied in net real investment. This is what essentially happens when a business man 'invests money' in expanding his

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own business and, on a larger scale, when the directors of joint stock companies refrain from distributing a part of the profits, which are legally the property of the shareholders, and invest it in expanding the company's business. Sometimes, too, money is invested by private persons, not directly but through mediators, such as trust companies, building societies and insurance companies. The process may be a complicated one, neither the private saver himself nor even his immediate correspondent coming directly into contact with reality. Thus new concerns frequently place a good part of their issues in the first instance with issuing houses or underwriting syndicates, to whom the money that is actually 'turned into' real investment belongs; and these bodies afterwards unload the shares on to the public when more is known or conjectured about their prospects. Private persons in these conditions only come into the picture at two removes. Finally there are government authorities which collect people's private savings, voluntarily through loans or coercively through taxes, and use some of the proceeds in setting labour and capital to work to make net real investments.

It remains to consider aspects of real investment more fundamental than machinery, namely, the underlying influences through whose interplay the scale of real investment is proximately determined. The key here is the fact, indicated on p. 42, that net real investment will be increased either if, real income being given, consumption is reduced, or if, consumption being given, real income is increased.

Let us begin by supposing that real income may legitimately be taken as given, in the sense that it is not itself affected by contemporaneous real investment; the rate of money wages being highly plastic and

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always adjusting itself in such a way as to keep employment, not, indeed, necessarily full, but constant at a given level, thus making real income, other things being equal, constant also. In these circumstances four principal influences regulating the scale of net real investment can be distinguished: first, the size of the community's real income per head; secondly, the distribution of that income among different income groups; thirdly, the returns that people expect to get from various amounts of invested income; fourthly, their general attitude to the future—roughly, the rate at which they discount future satisfactions.

First, of the size of real incomes. It is evident that very poor people with only just sufficient to meet immediate needs cannot undertake any appreciable real investment; and it seems a natural inference that, the richer they are, the more, other things being equal, they will wish to undertake. This matter is not, however, quite simple. For people's actual incomes and their expectations of future incomes are to some extent bound up together; and, while the fact of a larger income now will make people invest more for a given inducement, the expectation of a larger income in the future will make them invest less. The most natural assumption to make is that, on a rough average, people expect, apart from the fruits of current investment, to have about the same real incomes in the future as now, some expecting to have more, some to have less. If we make this assumption it is possible to construct a rather complicated argument in support of our natural inference.<sup>1</sup> But for the present purpose it is more satisfactory to appeal to statistical evidence. Sample enquiries have been made in America about the saving

<sup>1</sup> Cf. *Employment and Equilibrium*, 2nd ed., p. 113.

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habits of people with money incomes up to £2500. Throughout this range the proportions of income saved were found to be larger for larger than for smaller incomes, though the rate of growth in the proportions became less as incomes became larger.<sup>1</sup> If we can generalise from this evidence, and it is admittedly somewhat slight, our natural inference that richer people will tend to save a larger absolute amount than poorer people follows *a fortiori*.

Secondly, if people with larger incomes invest, as the foregoing evidence suggests, not merely more absolutely but more in proportion to their incomes than poorer people, it follows that a group whose incomes are distributed unevenly will, other things being equal, invest more than one in which distribution is even. Thus a system under which considerable incomes are concentrated among richer people makes in favour of investment and egalitarianism makes *pro tanto* against it. Society, in Keynes's epigram, has allowed certain people to have immense incomes on the condition that they save or invest most of them. It must not be forgotten, however, that we are speaking here only of investment in material capital. Equal distribution of incomes is much more favourable than unequal to investment in human capital.

The third influence we have to consider is the actual or, more strictly, the expected rate of return from investment. It is conceivable that, the more people expect to get from investment, the less they will invest. For they may want to have in the future a given fixed income and no more; and, the higher the rate of return, the less the amount of investment needed to yield that income. But probably only a few people act in this way. In any

<sup>1</sup> Cf. *Employment and Equilibrium*, 2nd ed., pp. 121-2.

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ordinary community, taken as a whole, larger expected rates of return from investment are, other things equal, fairly certain to cause more investment to be made;<sup>1</sup> though the actual numerical relationship between expected returns and quantity of investment is not known.

Now people will expect better returns from given quantities of investment as opportunities are opened up by scientific and technical advances. Until comparatively recently they simply did not know about many sorts of durable instruments useful to produce things in large quantities and so could not have had them even if they had been able to 'afford' them. Stores of durable consumers' goods were, indeed, always worth-while as a safeguard against the uncertainty of future harvests and so forth. But there were not many durable items of fixed capital that people knew how to make. Palaces, temples, fortresses, to a less extent roads, simple agricultural and industrial implements, houses and a certain amount of land drainage constituted, apart from ~~gold~~ and silver treasure and costly garments, nearly the whole of them. In the 18th and 19th centuries, however, inventions affecting industry and transport showed them how to make a great number of instruments obviously capable of yielding directly or indirectly large returns. More recently developments connected with electricity, petrol engines, aircraft, wireless telegraphy, atomic energy and so on have made further large new openings.

But to induce investment it is not enough that invested resources are capable of producing a good yield. Potential investors need also to be assured that the good yield, or most of it, will go to them and will not be snatched away. A country where order is secure

<sup>1</sup> Cf. Marshall, *Principles of Economics*, 5th ed., p. 534.

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and law enforced is sure to have more investment than one which is subject to violent, frequent and destructive civil commotion.

So far of relevant facts. But facts are not the sole determinants of action. The same objective prospects may look bright to some, but dismal to other eyes. Moods of optimism and pessimism, often closely related to and dependent on recent experience, are of dominating importance in determining at any time the rate of net real investment.

Also very relevant are the costs and difficulty, or to put the same thing the other way round, the facilities available, for investment. There are several gadgets in the machinery of finance deliberately designed to make the actual process of investment easy and attractive. Thus the system of limited liability in joint stock companies preserves investors from the danger of heavy personal losses should the companies fail, by restricting their liability to the actual amount of their holdings instead of leaving the whole of their fortunes liable under partnerships, for debts incurred by the enterprises in which they take part. There is the Stock Exchange, which, by providing a continuous market for securities, caters for people who are prepared to invest for short periods only but not to tie up their resources indefinitely. Finally, there is the system under which companies raise funds partly through debentures, partly through preference and partly through ordinary shares, thus providing separately for the requirements of people who are content with relatively safe small returns and for those who are in various degrees more adventurous. If only one type of security were issued by a company, one or another of these types of potential investor might feel shut out and not think it worth while to invest at all.

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Finally, over against the prospects offered to them by various sorts of investment openings has to beset people's attitude towards the future — the rate at which they discount future satisfactions. This, of course, varies with different people and, maybe, for different distances in time. Further, it may depend in part upon the size of people's incomes, their expectation of life and the relative importance they attach to what will happen before and after their personal death. Obviously the higher the rate at which anyone discounts the future the less resources he will be induced to invest in response to any given set of prospects.

The four sets of influences which I have been describing, and which could easily be analysed in much greater detail, jointly determine, granted that real income is given in the sense explained above, how much net real investment the people of this or any other country will undertake *voluntarily* at any given time; and in conjunction with the influences regulating compulsory investment through government, determine the whole of their net real investment. All the relevant factors can be brought under these heads. Of course, the influences described are only proximate causes of what happens. To seek out ultimate causes, the causes of these causes, would drive us back in a continuing regress to the beginning — if there ever was a beginning — of time.

So far we have had smooth sailing. But there is rougher weather ahead. What if the money rate of wages is not plastic enough to allow us to regard real income as given in our sense? In that case the analysis offered above is plainly not adequate. Wage policy and banking policy have parts to play in a complicated interconnected system through which they help to

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determine both real income and real investment. How precisely they do this cannot, at all events by me, be made clear without some help from mathematics. In my book *Employment and Equilibrium* I have tried, with that help, to throw a little light on that difficult problem. Here, however, what has been said must suffice.

## CHAPTER V

### SOCIAL AND PRIVATE GAINS

FOR the purpose of this chapter I shall ignore the fact that there are a great number of different kinds of resources at work and shall speak of resources in general as though there were only a single kind. This is, of course, a violent simplification, but it enables us to bring out clearly a distinction that is important both for theory and for practice; namely, the distinction between marginal social and marginal private product.

By the marginal social product of resources at work is meant in any industry the difference to total product that would be made by the presence or absence of a very small amount of resources. Thus, if we suppose resources to be a homogeneous mass made up, say, of 20 million units, its marginal social product is the difference between the total product when that number of units and when that number plus or minus one is at work and everything else is the same. The value of the marginal social product is the number of units comprised in it multiplied by the money price per unit. The marginal private product, on the other hand, is that part of the marginal social product of resources at work in the industry — the part here may be greater than the whole — which is paid for, through employers, by the people who buy it. It is the purpose of the present chapter to elucidate this distinction and to work out some of its implications.

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Let us suppose that a commodity is being produced at a number of centres and that, after a point, the employment of more resources in any one centre yields diminishing returns. It is then easy to see that the way to get the largest possible total of the thing produced is to distribute resources in such a way that the marginal unit engaged in any one centre makes the same contribution to output as the marginal unit engaged in others, *i.e.* that the marginal *social* product of resources is the same in all centres. For, when this is so, any shifting of resources from any one centre to any other must obviously make a total output smaller. In the same way, when a number of different things are being produced it is easy to see that the output as measured in money (of given marginal utility) — it cannot, of course, now be measured physically since one bicycle *plus* one hat do not make two of anything — is maximised when the distribution of resources is such that the value of its marginal social product is the same everywhere. If then we ignore differences in wealth and temperament and regard the marginal utility of money as the same for everybody, it follows that the arrangement we have been describing makes aggregate satisfaction as large as possible; that is, does the best that can be done for the community as a whole.

Now in conditions of competition units of resources tend to distribute themselves in such a way that there would be no advantage to any unit in moving from where it is. This implies that its rate of pay, allowing, of course, for non-monetary amenities, tends to be the same everywhere. Now obviously no employer — the fact that employers themselves are a part of resources is ignored here — will engage a number of units greater than the number in respect of which the rate of pay is

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equal to the value of the marginal *private* product to him. Nor under competition can the rate of pay anywhere be less than this value ; for, if it were, the underpaid units would seek work elsewhere and would find other employers who could profitably engage them on better terms. Hence the rate of pay of resources must everywhere tend to be equal to the value of their marginal *private* product. Of course, obstacles to mobility, custom and friction prevent this tendency from realising itself completely. There are also complications due to the existence in some industries of monopolistic practices. Here, however, we are not concerned with these qualifications, but solely with what would happen under strict and fully effective competition.

It follows from what has been said that, differences in wealth and temperament being ignored, if marginal private product and marginal social product were everywhere identical, competition would tend to call into being the best of all possible economic worlds. But, in so far as marginal private and marginal social product are not equal, competition will not do this. On the contrary, some increase in the quantity of resources engaged in occupations where their marginal social product is larger than their marginal private product, and some decrease in their quantity in occupations where opposite conditions prevail, would make the community better off. I propose to give some illustrations of these two conditions.

A specially interesting example of marginal social product exceeding marginal private product occurs when in some industry expansions of demand are accompanied by increased marginal social product, on account, not of anything special to individual firms, but because increased scale of production leads to external economies

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that reduce costs for *all* the firms. In this case the marginal private product of resources engaged by any firm falls short of the marginal social product by the amount to which the addition made to its product is associated with increased consequential output to other firms.

This case is interesting, not only for its own sake, but because in regard to it the distinction between marginal private and marginal social product provides a simple solution to two puzzles which have sometimes been found troublesome. First, apart from this distinction, so long, that is, as we ignore Marshall's external economies and regard the supply schedule of an industry as made up by simply adding together independent supply schedules of separate firms, it looks as though in industries subject to increasing returns any firm which once gets a start over others must eventually capture the whole market, because its lower costs enable it to sell more and these larger sales reduce its costs still further, and so on cumulatively; and yet we know as a fact that frequently this does not happen. Our distinction enables us to see at once that increased aggregate output in any industry may lower marginal social costs for all firms while leaving the marginal private costs, and so their competitive position, of individual firms unaffected.

The second puzzle which our distinction helps to clarify is as follows. In an industry subject to increasing returns associated with external economies the marginal social product rises as output increases. Hence the marginal social product multiplied by the quantity of resources at work is always larger than the total output of the industry and its value larger than the value of that output. Apart, therefore, from our distinction, if

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we supposed that there were only one sort of marginal product and that, according to the argument on p. 53, this was equal to the rate of pay of resources in our industry, we should be landed with the conclusion that productive resources there were paid more than the industry's aggregate product; and, extending the same reasoning to industry as a whole, that the aggregate of resources employed received more than their aggregate output! Our distinction relieves us of that absurd conclusion.

Over against industries enjoying increasing returns due to external economies, one is tempted to set industries suffering from diminishing returns due to external diseconomies; and to suppose that in such industries marginal social product must fall short of marginal private product. This, indeed, will happen if an industry is making use of a scarce raw material *imported from abroad*. Then an increase in the output of one firm will raise the cost of this material to all the firms, so that a part of the product of the resources engaged in making it is absorbed in paying this extra cost outside the country and is thus neutralised. Apart from this case, however, on the assumption that there is only one kind of resource, not several factors of production, there are never likely to be diseconomies of large scale leading to diminishing returns. If that assumption is abandoned and the existence of several sorts of resource is recognised, we may, indeed, in some industries get diminishing returns, through the factor of production of chief importance to those industries being increased in price relatively to the others when those industries are expanded. But the extra costs involved here are merely transfers within the country, land, say, getting more and labour correspondingly less.

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The diminishing returns are thus only diminishing returns from the standpoint of the industry, not diminishing returns from the standpoint of the community, and do not imply that marginal social product is less than marginal private product.<sup>1</sup>

Let us turn next to a second class of divergence between the two sorts of marginal products. Here the essence of the matter is that one person A, in the course of rendering some service, for which payment is made, to a second person B, incidentally renders services or disservices to other persons (not producers of like services) of such a sort that payment cannot be exacted from the benefited parties or compensation enforced on behalf of the injured parties. Uncompensated services may be performed to third parties for the simple reason that it is technically impracticable to exact payment.<sup>2</sup> Thus, as Sidgwick observes, 'it may easily happen that the benefits of a well-placed light-house must be largely enjoyed by ships on which no toll could be conveniently levied'. Again, uncompensated services are rendered when resources are invested in private parks in cities; for these, even though the public is not admitted to them, improve the air of the neighbourhood. The same thing is true — though here allowance should be made for a detriment elsewhere — of resources invested in roads and tramways that increase the value of the adjoining land; except, indeed, where a special betterment rate, corresponding to the improvements they enjoy, is levied on the owners of this land. It is true, in like manner, of resources devoted to afforestation,

<sup>1</sup> Cf. *The Economics of Welfare*, pp. 220-1.

<sup>2</sup> The remainder of this and the whole of the following paragraph except the last sentence are taken from *The Economics of Welfare*, pp. 184-7.

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since the beneficial effect on climate often extends beyond the borders of the estates owned by the person responsible for the forest. It is true also of resources invested in lamps erected at the doors of private houses ; for these necessarily throw light also on the streets. It is true of resources devoted to the prevention of smoke from factory chimneys : for this smoke in large towns inflicts a heavy uncharged loss on the community in injury to buildings and vegetables, expenses for washing clothes and cleaning rooms, expenses for the provision of extra artificial light, and in many other ways. Lastly and most important of all, it is true of resources devoted alike to the fundamental problems of scientific research, out of which, in unexpected ways, discoveries of high practical utility often grow, and also to the perfecting of inventions and improvements in industrial processes. These latter are often of such a nature that they can neither be patented nor kept secret, and, therefore, the whole of the extra reward, which they at first bring to their inventor, is very quickly transferred from him to the general public in the form of reduced prices. The patent laws aim, in effect, at bringing marginal private product and marginal social product more closely together. By offering the prospect of reward for certain types of invention they do not, indeed, appreciably stimulate inventive activity, which is, for the most part, spontaneous, but they do direct it into channels of general usefulness.

Corresponding to the above investments in which marginal private product falls short of marginal social product, there are a number of others, in which, owing to the technical difficulty of enforcing compensation for incidental disservices, marginal private product is greater than marginal social product. Thus, incidental

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uncharged disservices are rendered to third parties when the game-preserving activities of one occupier involve the overrunning of a neighbouring occupier's land by rabbits — unless, indeed, the two occupiers stand in the relation of landlord and tenant, so that compensation is given in an adjustment of the rent. They are rendered, again, when the owner of a site in a residential quarter of a city builds a factory there and so destroys a great part of the amenities of the neighbouring sites ; or, in a less degree, when he uses his site in such a way as to spoil the lighting of the houses opposite : or when he invests resources in erecting buildings in a crowded centre, which, by contracting the air space and the playing-room of the neighbourhood, tend to injure the health and efficiency of the families living there. Yet again, third parties — this time the public in general — suffer incidental uncharged disservices from resources invested in the running of motor-cars that wear out the surface of the roads. The case is similar — the conditions of public taste being assumed — with resources devoted to the production and sale of intoxicants. To enable the social product to be inferred from the private product of the marginal pound invested in this form of production, the investment should, as Bernard Shaw observed, be debited with the extra costs in policemen and prisons which it indirectly makes necessary. Finally resources engaged in any one export industry may be expected in general to have a marginal private product larger than the marginal social product, because an increase in their amount will in a measure move the terms of trade against us and so lessen the import value of the goods produced by our other export industries.

Many other illustrations of discrepancies between

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marginal social and marginal private product and, consequently, between their values might be given. But what has been said is enough for the present purpose. This is to bring home by example the fact that, even though differences of wealth and temperament among different people are ignored, or rather set aside for separate consideration, and even though fully competitive conditions rule everywhere, the free play of self-interest will not lead to the best possible results for the country as a whole — will not, in the language that was once customary, maximise aggregate satisfaction.

In actual life, of course, fully competitive conditions do not rule everywhere but are modified at many points by monopolistic practices. These, where they are present, cut down output in such wise as to make the value of marginal private product larger than elsewhere. So far as these cuts occur at points where the value of marginal private product is less than that of marginal social product, so that competition would make the value of marginal social product larger than elsewhere, monopolistic practices may — not necessarily will — make the values of marginal social products more nearly equal at different points than they would be under thorough-going competition. But where the value of marginal private product is greater than that of marginal social product, so that output under competition is already too small, they are certain to make marginal social products more unequal still.

In all circumstances, whether there is monopoly or not, in industries where output is too large, there is a *prima facie* case for the imposition of a tax on output, and in those where it is too small for the grant of a

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subsidy. But the practical difficulty of selecting the right industries for either treatment, and of gauging what intensities of treatment would do good — for by too great intensity we should overplay our hand and do harm — would be very great.

## CHAPTER VI

### THE SHARE OF LABOUR

THE real income of the country is shared out among the several factors of production — on the classical scheme labour, capital and land — ; or, we may say, it is shared out between the owners of property and the providers of work, which last group comprises both salary-earners and wage-earners ; or again between wage-earners and ‘the rest’. These sharings are thought of here as sharings prior to any reshuffling that government may accomplish by means of taxes collected by it and expended on various sorts of grants or subsidies. The type of sharing on which interest at the present time chiefly centres is that between wage-earners and ‘the rest’. The border line is not entirely clear ; shop assistants, for example, have sometimes been classified as wage-earners, sometimes as salary-earners, part of ‘the rest’. But for a bird’s-eye view, and no more than that is offered here, this does not matter.

Real income being produced by the joint work of the several factors or agents of production, labour, capital and ‘land’, we might be inclined to suppose that the agents would agree without difficulty each to carry off that part of the national cake for the production of which its own efforts were responsible. But that will not do. Thus, suppose conditions to be such that no product at all would be forthcoming if the whole of any of our three factors of production were withdrawn, if there were no labour *or* no capital *or* no land. Clearly,

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the contribution of labour to the total is not equal to the difference that would be made by withdrawing all labour, and similarly for capital and land. For that would imply that the contributions of the three factors together amounted to three times as much as the whole product which their contributions jointly yielded! And there is no other way in which the separate aggregate contributions of the several factors can be isolated; for the very simple reason that there *are* no separate aggregate contributions, just as there are no separate contributions made to cutting by the two blades of a pair of scissors.

Though, however, it is not possible to isolate the contribution to production of labour or any other factor in the aggregate, it is possible to isolate its marginal contribution. To simplify the argument — its substance is not effected — I shall suppose for the main part of this chapter that real income consists of one sort of product only and also that there is no difference between marginal private and marginal social product. In these conditions, as is well known, the real aggregate pay for each factor of production tends to be equal to its marginal product multiplied by its quantity.

Even so, however, there are complications. For labour, to say nothing of capital, is not a single homogeneous entity, but embraces a great number of different types of labour of varying skills, so that there is no single rate of pay per unit of labour as such. The real rate of pay for labour has, therefore, to be thought of as the rate of pay, not of actual individual wage-earners, but of a more or less idealised representative or average wage-earner. It is important to understand that this real rate of pay is not measured, the price level being given, by the average rate of money wages as recorded by the

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Ministry of Labour, and, therefore, the absolute share of product received by labour, as measured in money, is not the average rate of money wages multiplied by the number of wage-earners. The value of the representative wage-earner's marginal product tends to equality with the average rate of *earnings*; and it is the average rate of earnings multiplied by the number of wage-earners at work that constitutes the absolute share of product in money terms accruing to wage-earners. This average rate of earnings is liable to differ substantially from the average rate of wages and, what is more important, to differ to a different extent in different years. Thus, whereas between 1938 and the present time average rates of wages have moved up roughly in step with the cost of living, average earnings have moved up much more. Over the ten-year period 1938-48 they rose 15 per cent more and from 1938 to 1953 20 per cent more. The explanation is that the average rate of wages is only one out of a number of elements that enter into average earnings. Thus, as the Ministry reported in 1948, the rise of earnings over their pre-war level was 'the combined effect of a number of factors, including: (a) increases in rates of wages, (b) increases or decreases in the number of hours worked and in the proportion of hours paid for at over-time, week-end and night-shift etc., rates; (c) extensions of systems of payment by results to some industries and increased output by the workers affected; (d) changes in the proportion of men and boys, women and girls employed in different occupations; and (e) changes in the proportion of workers employed in different industries'.<sup>1</sup> Plainly, anyone who attended to average rates of wages instead of to average earnings would greatly under-estimate the improvement

<sup>1</sup> *Labour Gazette*, 1948, p. 333

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in the fortunes of wage-earners that has taken place since before the last war.

We are now prepared to take a step forward. Let us lump together the factors of production other than labour — the whole of 'the rest' — and speak for simplicity as though this consisted exclusively of capital. For each then of our two factors the marginal product and so, other things being equal, the value of it depends upon the quantities of *both* factors together with the state of technique in respect of what is being produced. When this last element is taken as given, we may lay down this general rule: the more of either labour or capital there is, the smaller its own marginal product, alike in real terms and in money terms, will be, and the larger the marginal product of the other will be. The reason for this is that, while in particular limited fields labour and capital — or 'the rest' — may be predominantly rivals, for industry as a whole they are predominantly co-operators. Thus, the more tools there are with a given quantity of labour, the less help from labour each tool gets and so the less it can contribute to output; while, *per contra*, each unit of labour has more tools to help it and so can contribute more. In like manner, the more labour there is with a given quantity of tools, the less help from capital each unit of labour gets and the more help from labour each unit of capital gets.

From this rule it follows that, other things being equal, the more of either factor there is, the larger the absolute share, *i.e.* marginal product multiplied by quantity, of real income the other factor must get. Thus a very important way in which the real earnings of labour can be increased is through the accumulation of a large stock of capital. Lack of capital per head is a

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dominant cause of the poverty of the labouring class in undeveloped countries and abundant capital per head a dominant cause of the high rate of earnings in the United States.

Our rule does not, however, tell us how expansions or contractions in the quantity of labour will react, other things being equal, on its own absolute share of product, for, while an expansion in its quantity is bound to reduce its marginal product, the rule does not say whether it will reduce this more or less than in (inverse) proportion to its quantity. Obviously for labour this is a very important matter. If an increase in its quantity lessens its absolute share of product, a representative worker is made worse off, not only when the increase in quantity takes the form of an increase in numbers, but even when it takes the form of an increase in efficiency, *i.e.* of the representative wage-earner coming to contain, as it were, more units of labour. In like manner, by restricting hours of work or working less vigorously, wage-earners could render the representative worker better off. If, on the other hand, an increase in the quantity of labour increases its absolute share, then an increase by way of numbers must still make the representative worker worse off: but in this case an increase by way of efficiency must make him better off; and in like manner restrictions in hours of labour or in energy of work must, except in so far as they indirectly improve efficiency, make the representative worker worse off.

Naturally, therefore, we should wish to discover more than our rule tells us, so that we could decide which of these two kinds of effect on the absolute share of labour changes in the quantity of labour may be expected to bring about. Statistical evidence is not available and general reasoning cannot reveal matters of

fact. What can be said with confidence on this subject is, therefore, very little. Two points, however, may be made. First, when the quantity of labour at work decreases and so, other things being equal, its marginal product increases, the proportionate increase in marginal product is more likely to exceed the proportionate decrease in quantity from the standpoint of a short period, for which the stock of capital may be taken as fixed, than from a long-run standpoint when the possibility of a cumulative check to investment at home and of encouragement to capital to flow abroad has to be reckoned with. Secondly, a reduction in the quantity of labour at work (not associated with an increase in efficiency) is bound to lessen aggregate real income. Therefore, if the absolute share of labour is increased, it can only be at the expense of a larger loss to other factors of production. In like manner any gain that a particular group of workers may make by restricting their services must be at the expense of a more than equal loss to other factors of production *and* other groups of workers together.

Certain economists have been interested in the proportionate share rather than the absolute share of labour; because, as they claimed, this has been highly stable both in the long and in the short run, not only in this country but also, at a rather different level, in the United States. This claim is open to challenge. The English figure seems to have fluctuated between 1911 and 1935 over a range between 40·7 and 43·7 per cent and the American figure between 1919 and 1934 over one between 34·9 and 39·3 per cent.<sup>1</sup> Numerically the English range at all events does not look wide. Still a

<sup>1</sup> Cf. Kalecki, *Essays in the Theory of Economic Fluctuations*, pp. 16-17.

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rise in the proportion from 40·7 to 43·7 per cent is a rise of over 7 per cent *in the proportion*. This percentage is roughly equivalent to a rise from 90 to 97 per cent in the proportion of wage-earners at work, *i.e.* a fall in unemployment from 10 to 3 per cent. That change would not usually be considered small! However this may be, according to Sir Dennis Robertson's calculations, made with the help of Cambridge statisticians, the proportion of wages to all private net income (*i.e.* personal income from work and property plus undistributed profits of companies, plus security, etc. transfers) was in 1938 37·1 per cent and in 1953 39·6 per cent, a rise in the proportion of 7 per cent. The proportion of wages to all private net income less social security (etc.) transfers works out on this basis at 39·9 per cent in 1938 and 42·3 per cent in 1953, a rise of 6 per cent.<sup>1</sup> There is reason to suppose that the main part of these rises took place between 1938 and 1948. All this, however, is beside the main point. For evidently from the social point of view changes in the absolute share of dividend accruing to labour and other factors respectively are more important than changes in their proportionate shares. Evidently, too, it is harder for a decrease in the quantity of labour (brought about *e.g.* by a reduction of working hours) to effect an increase in the absolute share of labour than an increase in its proportionate share. For, since the decrease in the quantity of labour necessarily involves a decrease in real income, it is impossible for an increase in the absolute share of labour to take place without there also being an increase in its proportionate share; while its proportionate share must increase when the decrease in its quantity

<sup>1</sup> Cf. Robertson, *Stamp Memorial Lecture*, 1954 (corrected version), p. 19.

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leaves its absolute share unchanged or even reduces it in some degree.

So far we have supposed the state of technique to remain unchanged. If this changes, the shares accruing to the several factors of production may be altered even though their quantities stay the same. For example, changes in technique that make it profitable to employ more capital than before relatively to labour will cause the marginal product of a given quantity of capital to rise and that of a given quantity of labour to fall; with the result that the absolute share of real income accruing to a given quantity of capital is increased and that accruing to a given quantity of labour is diminished.

We have now to remove the assumption made so far throughout this chapter that real income consists of a single sort of homogeneous commodity. The issues concerned with changes in technique now become more complicated. For technique may change in different ways in the production of different things; so that both the several kinds of change and the scale of the several industries in which they respectively take place have to be brought into account. Moreover, even though there is no change in technique anywhere, a shift in public taste may call for an enlarged output of the things in which one factor (say, capital) is specially important at the expense of things in which another (say, labour) is specially important, and this will lead, the quantities of capital and of labour remaining unaltered, to an increase in the proportion of real income (as measured in money) going to capital and a decrease in that going to labour.

It remains to add one further important consideration. So long as it was supposed that real income consists of one commodity only, there could be no question

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about wage-earners and non-wage-earners spending their incomes in different proportions among different things. With that assumption removed, the fact that in actual life they do that very thing becomes important. For plainly, if technical or other causes cheapen the things which wage-earners predominantly buy more than other things, their real incomes, reckoned in terms of the things they buy, may be increased even though these incomes as calculated by dividing their money incomes by an index of general prices are not altered at all. Thus, the great improvement in our terms of trade during the period between the wars which enabled common articles of food to be sold very cheaply, helped wage-earners a great deal. This kind of effect is an extra over and above anything that has been brought into account in the preceding pages.

## CHAPTER VII

### MONOPOLY

WHEN a seller comes to a market, having control of only a very small proportion of the total supply of some product that is being offered for sale, he knows that the price ruling the market cannot be appreciably affected by anything that he does. Consequently, so far as he is concerned, that price is something given and all he has to decide is how much of his product at that price it would pay him to sell. If, however, his private supply is a considerable part of the total supply, he knows that variations in the amount that he sells will modify the ruling price and he has to take that fact into account. Broadly speaking, we may say that thorough-going competition rules when the individual sellers cannot by their individual action influence the price of the 'market' and monopoly power is present in greater or less degree when they can. It is possible, for theoretical analysis, either to treat thorough-going competition as a limiting case of monopoly or to treat various degrees of monopoly as aberrations from the ideal of thorough-going competition. The choice is a matter of taste. For the present purpose it is more convenient to follow the second, which is also the traditional, road.

Public bodies in a position to exercise monopolistic power if they choose will not be considered here. Nor will anything be said about what happens when two or more concerns in a market each control a substantial part of the total supply. For, though this situation is of

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considerable theoretical interest, it is to be expected as a general rule that it will not last for long, the rival monopolists, perhaps after a period of warfare, either combining or settling down to a formal or informal agreement about price policy, so that in effect the several monopolists are reduced to one. I shall speak only of what happens when a concern, or group of concerns, is operating in its own private interest and when only one such concern or group is exercising monopoly power in one market.

Since the way in which monopoly yields advantage to the monopolist is by restricting the quantity of what he offers for sale, it is evident that, apart from changes in technical efficiency directly or indirectly due to the monopoly, monopolistic practices must cut down the volume of resources devoted to making the monopolised product below what they would have been under free competition. It is thus certain that monopolistic practice in any part of industry must make the *content* of real income different from what it would have been in conditions of competition. If monopoly were practised throughout the whole body of industry this is not absolutely certain. Rates of pay to the various factors of production might be so adjusted that the total volume of resources at work would be unchanged and also that their allocation among different industries would be unchanged. But the tendency to restriction induced by monopoly will be greater or less in any industry according to the characteristics of the demand and supply for its product, and it is extremely improbable that these characteristics will be the same in all industries.<sup>1</sup> Hence

<sup>1</sup> It is well known that, if the demand and supply curves of any product are straight lines, monopolisation, other things being equal, will cut output in half. But there is no reason to suppose that the curves will in fact be straight lines and it is extremely unlikely that their divergence from straightness will be exactly similar in all industries.

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it is *nearly* certain that monopolisation everywhere, and not merely monopolisation in some industries, will modify the *content* of real income even though the total volume of resources at work is unchanged. It is impossible to decide *a priori* whether that modification will or will not be socially advantageous. Presumably neither its direction nor its extent is made *with a view to* social advantage, and, from that standpoint, is random. That is a consideration to be borne in mind. But the general problem is too complex and too much dependent on detailed circumstance for discussion here.

A shift in the content of real income may be looked for equally under all types of monopolistic activity. Other effects, so far as they occur, are different for different types, and it is, therefore, convenient to consider these types separately. Let us begin with a single firm or completely unified consolidation of firms serving an independent market where there are also a number of smaller firms who follow and do not attempt to influence the big firm's price policy. Even so, the existence of these firms cramps the big firm's style; for, as it pushes the price up, the output of these firms will expand; which both prevents it from pushing the price as high as it otherwise would do and also causes part of the monopoly profit due to its action to go to them. The big firm is, therefore, under an inducement to buy the other firms up or otherwise incorporate them into itself. Thus, in one way or another, the fact that it has monopolistic power, coupled with the fact that, the wider its tentacles spread out, the more profitable the exercise of that power becomes, tends to make it swell up beyond the size it would find most profitable under conditions of competition. As is well known, that size is the size that makes average cost of production a minimum, that is, which

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makes technical efficiency a maximum. The prospect of monopolistic profit thus enlarges the monopolistic firm beyond the technically most efficient size. In other words, monopolisation of this type may lead to concerns being *too big* — clumsy and incapable of properly coordinated activity. Such excessive bigness entails definite physical damage to real income of the same kind as would result from the failure of some productive resources to find employment. This is not inconsistent with the fact that large-scale concerns can often introduce economical ways of working — mass-production methods and so on — that are not available to small ones. Largeness directed to that end is obviously economical. The point here is that monopolistic motives may drive concerns beyond that degree of largeness that is best for technical efficiency. Still, we must remember, it is sometimes possible to secure large-scale monopolistic power without the need of having any large-scale individual concern. A number of firms may join together to form a common selling agency whose sole function is to control selling price. In this case the danger of loss from excessive individual size is obviated.

It is sometimes claimed that monopoly may be unfavourable to real income because the monopolist, lacking the spur of competition, may be negligent about improvements and new devices. Imagine that all the shirts in the world are made by a single monopolist and that an inventor comes along with a process that will make shirts last for ever. Is the monopolist likely to cut his own throat by putting these shirts on the market? Will he not rather be inclined to suppress the process and, if sufficiently ferocious, even to 'liquidate' the inventor? But the everlasting shirt is a phantasy only

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fitted to encase the invisible man! Against it should be set the fact that many devices of internal structure — comparative cost accounting and so on — are available to simulate the spur of external competition and keep executives on their toes. Further, even though the loss of the spur of competition is not fully compensated by these devices, it must be remembered that a monopolist, if he makes improvements, has a much better chance of winning advantage from them than a single competitor among rivals eager to imitate them and, even if they are patented, to find a non-patented way of getting round the patent. In view of all this, the claim that, by and large, monopolisation is hostile to industrial advance must, I think, be judged not proven.

Turn next to that type of monopolistic activity that is usually discussed under the name of imperfect competition. Imagine a commodity for which the cost of transport is considerable, produced by several firms, say, a hundred miles apart from one another, and purchased by customers scattered evenly over the routes between them. Each firm is thus supreme in its own 'neighbourhood' — for it this is an independent market — but in the middle region between the firms their markets are interdependent. By raising its price a little, firm A may get more money from customers in its neighbourhood, at the expense — we suppose that it sells at the same price at works to all — of losing to its rivals some customers in the middle region; and the same thing is true of firms B, C and so on. Such a situation *may* prove interdeterminate and fluctuating, much as when two concerns are exercising monopoly power in the same market. But, if there are a considerable number of related markets, this need not be so; for in that case no firm's action will appreciatively affect any other single

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firm, and so is unlikely to evoke a retort.<sup>1</sup> Given determinateness, provided that the industry of which we are thinking is freely open to entrants from outside, the long-run prospects in it must be the same as elsewhere and the firms there cannot make any special gain. But this does not imply that they cannot try to do that. On the contrary, they will all try. The fact that the fruit is plucked from their lips is neither here nor there. On the one hand, there will be more firms at work than there would be under perfect competition; on the other hand, the representative member of the group will be below the size and producing below the scale proper to such perfect competition, *i.e.* the scale in respect of which average cost is a minimum and so technical efficiency a maximum. In short, this type of monopolistic practice makes firms *too small*. It thus inflicts on real income exactly the same sort of loss as the type of monopoly considered in the last paragraph was found to inflict by making them, or rather the one monopolistic firm, too large.

There remains a type of monopoly which threatens damage to real income in a different way, namely, by reducing the aggregate volume of productive resources engaged in production. Monopolistic practice need not do this, and in the two cases considered above does not do it. Resources ejected from one industry, when things have settled down and rates of pay have been adjusted, find themselves at work in others. This is particularly likely to happen when the monopolist's method of restriction is to bar out by one or another clubbing device, boycotts and so on, would-be entrants into its industry. But where the method is price regulation, where entry into the industry is left open, and where

<sup>1</sup> Cf. *The Economics of Stationary States*, p. 99.

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some of the gains from monopolisation are used to raise the rates of pay for work-people and machines engaged there, work-people and machines tend to push their way in, up to the point where so many of them are unemployed or partially employed that the actuarial prospects for them in that industry are no better than elsewhere. When an industry establishes a central selling agency, which does not interfere with the independence of the firms joining it and does not restrict their numbers, but confines itself to manipulating prices with monopolistic intent, this may well happen. When it does, real income obviously suffers. It is very unlikely that the enforced extra leisure of some men — and some machines — will compensate for that. Here then once more there is a definite loss of real income due to monopolisation; the same sort of loss as is incurred when superfluous workers are allowed to do their work but its product is destroyed; witness the notorious burnings of Brazilian coffee.

There is finally to be considered the effect of monopolisation on the distribution of real income as between different categories of persons. Plainly the controllers of the monopoly get something for themselves at the expense of other people. Since in practice the controllers, at all events in this country, are almost always the people who own the capital of the monopolised concerns — private entrepreneurs or the shareholders of a company — they are the ones to secure the gain. This entails that monopolisation makes against the interest of the wage-earners, reducing their real earnings below what the considerations set out in the last chapter suggest. Since wage-earners belong on the whole to the lower-income classes this entails a shift in distribution from poorer to richer people.

## CHAPTER VIII

### 'FAIR SHARES FOR ALL'

ECONOMICS, it is commonly said, is concerned with what happens or tends to happen, not with what ought to happen; questions about what is just or fair lie beyond its scope, and the law-abiding economist will not trespass among them. Definitions, however, are made for man, not man for definitions, and I do not propose to be law-abiding. On the contrary, in this chapter I shall discuss the popular slogan 'fair shares for all', distinguishing a number of principal meanings that might be attached to it and trying to educe any suggestions useful for practice that may be embedded there.

Let us begin with what looks like and perhaps is a piece of pedantry. In the slogan there are three key words, all, shares and fair. The greatest of these is fair, but — this is the pedantry — we must not ignore the other two. So what do we mean by 'all'? The bacteria and viruses of noxious diseases are, of course, *hostes humani generis* and have no friends. What of insects? Nobody likes the idea of small boys pulling the wings off flies, but there is no society for their protection. With animals, however, particularly with tame animals, things are different. There is a powerful society for the prevention of cruelty to animals and laws to punish cruelty. In some of our heavens, dogs — but not streptococci — are to be found. They are certainly in strictness a part of 'all'. Still, for the present purpose we may, I think, reasonably omit them and take account

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only of that part of 'all' which consists of human beings.

Even so, we are left with a serious problem. There is no doubt that for genuine full-time Christians all men are brothers standing on an equal footing. But no British Government, to say nothing of other governments, wishes, nor, if it did, would its citizens, for whom it is trustee, allow it, to take the same interest in the fortunes of foreigners as in those of its own people — to class them on an equal footing in its 'all'. Generosity to foreigners suffering calamity by all means; neither the British Government nor yet, more markedly, the American has been behindhand in that. Moreover, to members of colonial and dependent peoples, as also to some 'friendly' peoples, particular obligations are recognised. But this falls far short of the Christian ideal. How nearly can that ideal be approached in practice? Who outside our own boundaries can, I will not say should, be treated as brothers, who as half-brothers, who as quarter-brothers, and so on? To this problem, however, like that about animals, we must turn a blind eye, focusing attention only upon that part of 'all' which comprises the citizens of our own country.

Next for the word 'shares'. Shares of what? Since the doctrine or slogan of 'fair shares' is intended as a tool for use and not merely for academic debate, the shares must clearly be shares of something that government has power to hand out. They cannot be shares of virtue or happiness or health or physical strength or intelligence, but at best only of means to these things, opportunities for education and for medical and surgical treatment in illness; more broadly, annual incomings of means to buy what people want, holdings of property and so on. About this I think there will be general agreement. Moreover, shares of annual incomings and

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property must mean shares of these things that are disposable by individuals after what is needed for communal purposes has been taken away by the State. Any other interpretation would land us in a hopeless tangle. 'Fair' shares then for our purposes mean, broadly, fair shares of disposable income and property.

There remains the word 'fair', and it is here that the real trouble begins. The interpretation which naturally presents itself is that 'fair' means 'equal'. And for some purposes this is the interpretation that is actually adopted in our legislation. For electing members of Parliament all adults, with insignificant exceptions, have equal voting power; all men are, or are supposed to be, equal before the law, a poor dependant or suitor being, if necessary, financed by the State. Equality of opportunity for all is also the aim, if not yet the achievement, of our educational authorities, and the National Health Act aims at providing equal medical and surgical facilities for all. But as regards general disposable purchasing power after taxation, the suggestion that fair means equal is nowhere seriously accepted. It cannot, indeed, be laughed out of court with the rhetorical question 'Do Mr. Attlee and other advocates of "fair shares" really mean that the Prime Minister — or the leader of the Opposition — should get the same wage as an unskilled labourer?' For inherently there is nothing absurd in that suggestion. In a besieged city either of these gentlemen should, and, no doubt, willingly would share equally with unskilled labourers. Nevertheless, in normal circumstances the suggestion that fair shares mean equal shares, though not, indeed, laughed out of court, is dismissed, and rightly dismissed, from it. If it could be founded on the simple principle of justice, that similar persons in similar circumstances should be

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treated similarly, it could not, indeed, be so dismissed. But, since in fact different people are not similar and not similarly circumstanced, that principle as a guide for practice is empty. We cannot, therefore, find a defence here; and the claim that 'fair shares' means equal shares is destroyed by the fact that objective needs — I say nothing of subjective needs — and responsibilities are not equal; that a sick man needs more help and care from others than a sound one; that a man with six dependent children needs more than a bachelor; that a 'heavy worker' needs more food than a man in a sedentary occupation; that an intellectual worker needs quiet and restful surroundings more than a manual worker; that an historian may need opportunities for travel and a scientist apparatus and materials that other people do not. Fairness requires at least that egalitarianism should be qualified by regard for differences in objective needs.

But is there not also a further qualification? Is it not 'fair' that different people should be allowed to take out of the common pool more or less in proportion to what they put into it? There is, indeed, a distinction to be drawn here. A man may put more into the pool either because he is stronger or more intelligent or possesses a kind of skill which at the moment is in specially keen demand, or because he works for longer hours or more intensively or has devoted more time and labour to training and improving his faculties than others have. Some people would deny that it is fair for a man who contributes more than others for the former sort of reason to reap a higher reward. Greater strength or natural intelligence creates an obligation, not a claim! But a man who contributes more than others for reasons of the second sort is differently placed.

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We feel instinctively that it is fair for him to be awarded extra if he puts out extra effort in work or in self-training. Unfortunately, however, it is impossible to devise a practicable arrangement that will take account of this distinction. When two men produce equal services, the one with little effort, because he is strong, the other with great effort, because he is weak, the strong man is not going to accept worse treatment than the weak one. Egalitarianism cannot be qualified by reference to differences of effort. That being so, it should, most people hold, be qualified by reference to differences in contribution; a great inventor, a great organiser, or a great general who, whether through native talent or through hard self-discipline, renders immense services to his country 'deserves' more in return than a humble washer-up of plates. At the same time we should not, I think, consider it fair for differences in contribution to be associated with anything like equal differences of reward. Very large differences of disposable income, whatever their cause, are on this plane of thinking not fair.

I conclude then that fairness, as ordinarily and, of course, very vaguely conceived, means equal shares for all qualified in some unspecified degree on the one hand by reference to differences in objective needs, on the other by reference to difference in contributions of service, this second qualification not being pressed unduly. Clearly with a concept so very loose and rough it is impossible to draw up any sort of blue-print to suggest in positive terms what a fair state of things would be like. This does not, however, reduce us to complete silence. Though we cannot say what state of things would be fair absolutely, we may be able to compare two states and to judge that one is fairer than the other, and,

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moreover, to indicate certain changes that would render a given state of things fairer than it actually is. Let us, from this point of view, look at recent happenings and present conditions in this country. Is the general state of our economy fairer now than it was before the last war? And are there any notable defects in it now, the removal of which would make it fairer than it is?

In Messrs. Rowntree and Lavers' study of poverty in York it is stated that between 1936 and 1950 the proportion of the working-class population living in poverty, *i.e.* so poor that they would have to go short of the necessities of life even if they did not spend anything on non-essentials, fell from 31·1 per cent to 2·77 per cent; and that, if welfare legislation had remained unaltered, it would have fallen, chiefly in consequence of improved employment, to 22·18 per cent.<sup>1</sup> The welfare legislation referred to includes children's allowances and food subsidies. So far as the experience of York may be regarded as typical, it is plain that at the lower end of the income scale a great advance towards fairness of distribution has taken place between Rowntree and Lavers' two dates.

As regards the upper end of the scale, the Blue Book on *National Income and Expenditure* of August 1954 reports that, whereas in 1938 there were in this country 26,000 incomes of £ 5000 and upwards, absorbing before income-tax 286 million pounds (about 5 per cent of all allocated personal incomes) and after income-tax about half this amount, in 1953, *in pounds of 1938 purchasing power* (rather more than twice current purchasing power), there were some 11,000 incomes of £ 5000 and over, absorbing before income-tax 99 million pounds,

<sup>1</sup> *Poverty and the Welfare State*, p. 40.

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less than 1 per cent of total allocated incomes, and after income-tax 49 million pounds, less than  $\frac{1}{2}$  per cent. Taking a more extended view of these figures we find that *in pounds of 1938 purchasing power* much the same aggregate of post-income-tax income fell to people with less than £250 (pre-income-tax) a year in 1954 as in 1938; more than three times as much to people with incomes between £250 and £500; rather more to people in the income range from £500 to £750; about the same in the range from £750 to £1500; substantially less in the range from £1500 to £5000; and in the range from £5000 upwards only half as much. Thus throughout the income scale, not merely at the lower end of it, a considerable advance towards equalisation and, as most people would say, towards fairness has been made since pre-war days.

Income, however, is not everything. People who possess property can by encroaching on this — selling some of it against the savings of other people and so incidentally neutralising these savings — continue to maintain a high standard of consumption in spite of reduced real income. Many middle-class people are in fact doing this; how otherwise could they afford to send their sons to expensive public schools? Thus, so long as property remains unevenly distributed, movements towards greater equality of incomes need not be fully reflected in greater equality of consumption. A study of incomes alone may thus suggest that the victories lately won for fairness have been larger than they really are.

In his book on *Public and Private Property*, published in 1939, Mr. Champion estimated that in 1936 'one per cent of persons of 25 and over in England and Wales owned 55 per cent of the total property in

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private hands'.<sup>1</sup> *Prima facie* we might reasonably suppose that the selling off of capital by rich people to reinforce their incomes, together with the highly graduated death duties that have now been in operation for a number of years, will have substantially reduced inequalities in property ownership. Estimates recently published by Mrs. Langley confirm this expectation to some extent. They show that of private capital holdings exceeding £100 some 1 per cent of all capital owners owned about two-thirds in 1936-8 and about one-half in 1950.<sup>2</sup> Thus inequality has been reduced; but a very large proportion of privately-owned British capital is still concentrated in very few hands.

So far of movements towards greater fairness in the structure of our economy that have taken place since before the last war; movements that have been reinforced and supplemented by large government expenditure designed to open up for poor people educational opportunities and the prospect of receiving skilled treatment in illness. Pass then to the second question suggested on p. 82. Are there any notable defects in that structure now, the removal of which would render it markedly more fair than it is? Many people hold that differences among incomes are still unduly large and that further advances towards egalitarianism would be 'fair'. The inequalities of property ownership are, however, as we have seen, much more marked. Moreover, while our very high graduated income-tax now makes it extremely difficult for anybody to build up a large private fortune out of income, English law does not count as income and does not tax gains made through fortunate dealings on the

<sup>1</sup> *Loc. cit.*, pp. 109-10.

<sup>2</sup> Langley, 'Distribution of Private Capital 1950-1'. *Oxford University Institute of Statistics Bulletin*, Jan. 1954.

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Stock Exchange, so long as these gains are made by amateurs. Persons who engage in this sport may, if they are lucky, still build large fortunes. I suggest, therefore, that the distribution of property ownership and the law about capital gains are now the most obvious targets for protagonists of fairness to attack.

A very important, if obvious, consideration remains. When fairness is understood in the sense that I have roughly described, it does not follow that changes which would make towards fairness are necessarily *desirable*. For, besides promoting fairness in distribution, some of these changes might produce other effects that would more than offset the benefit of the increased fairness. Provisionally we may take it as agreed that for fairness the distribution of income should be considerably less unequal than it was in this country before the second world war, and, moreover, that the distribution, at all events of property, should be considerably less unequal than it is now. As against that, surrender to these requirements threatens so far to hamper production that, despite the increase of fairness, the last state of the community might be worse than the first. There is here a problem of balancing which it is obviously impossible to solve in general terms or, indeed, in any strict sense to solve at all. The best that can be done is to set out a few broad considerations that are relevant to it.

There are three principal processes through which it may be feared that arrangements designed to promote fairness will indirectly reduce the size of the national cake and so, in greater or less measure, cancel out the benefit of greater fairness. These are, first, a reduction of the incentive to work and enterprise among people capable of earning high incomes; secondly, a

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reduction of the incomes of rich people, who are specially likely to invest a large proportion of their incomes; and, thirdly, a reduction for these people of the incentive to invest.

Fears about work and enterprise are not felt so acutely now as they were, say, fifty years ago. It is realised that a great deal of the important work of the world is done, not principally for the sake of money, but for the pleasures of the chase, the joy of the deed, a sense of duty or a desire for reputation. The prospect of getting less money, particularly if one's friends and neighbours are getting less too, need not discourage work *much*. Moreover, the reactions of the people who, with increased fairness of distribution, would get more money must not be left out of account. With better incomes they may be better fed, clothed and housed, so that they and, later on, their children acquire greater capacity for work, perhaps also greater willingness. Different people will, of course, be affected differently and we cannot be sure of what will happen; and different methods of promoting greater fairness are likely to have different effects. Still, on the whole, adverse reactions on work and enterprise need not, I think, frighten us very much.

Fears that cutting down the incomes of rich people, from whom traditionally savings have chiefly come, will reduce their ability to invest, and fears that heavily graduated income-tax and heavy death duties may also reduce their desire to invest, must not be so lightly dismissed. Reactions of this type, so far as they occur, are especially important because they are cumulative. Less investment means presently less equipment and so, a few years hence, a national cake smaller than it would otherwise have been; a smaller cake again leads to less

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investment; and so on. There are, however, mitigating factors. In present conditions a large part of the country's savings is provided out of the undistributed profits of companies at the discretion of the directors, not of the shareholders who legally own them. Thus the voluntary savings of rich individuals are a less important source of investment than they used to be and damage to them need not matter very much. Furthermore, it is in the power of the State to make good reductions of voluntary by means of compulsory savings engineered through taxation or forced loans or through the price and wage policy of State-controlled industries.

These considerations do not, of course, show that the indirect threat to production which policies directed to make distribution fairer entail can be ignored. But they do show that it should not be dressed up as a bogey. After all, many abuses have been defended by such a threat — long hours of work for children, for example — and, when the threat has at last been defied, the sky has not fallen. After all, too, so long as progress in technique continues, production may be expected to expand in any event. The offset to increased fairness in distribution is thus likely to be, not a catastrophe for production, but at the worst, some slowing down in its rate of increase; and that is not a disaster.

THE END







