Joan V. Robinson // Lesekreis WS 2015/16

PART I

TEACHING ECONOMICS

A Passage to India

For many years I have been employed as a teacher of theoretical economics; I would like to believe that I earn my living honestly, but I often have doubts. I am concerned particularly for India and other developing countries whose economic doctrines come to them mainly from England and in English. Is what we are giving them helpful to their development?

In Cambridge, one or two of our best men, in most years, come from the sub-continent. This is not at all surprising. If talent is fairly evenly distributed in various populations, there must be ten potentially first-class men there for every one bred in Britain and where economic problems are of great importance and the natural sciences not very well endowed, a larger proportion of talent is attracted to the subject than with us. A small proportion come to English Universities, but a small proportion of a large total comes to quite an appreciable number.

These good men who come to us to be taught (and the not-so-good ones also) go home often to teach in their turn, and their pupils, too, become teachers and influence thought through other channels. Moreover, the books and the subjects chosen for examinations bear the stamp of English teaching. We have a great responsibility on our shoulders. Are we doing more harm or good?

In a gloomy mood, I think of the harm. Most students, of course, approach their studies merely with the aim of passing an examination and acquiring a degree. (This is not a matter of natural talent, but of character and circumstance. Some who are naturally brilliant may set themselves this limited aim. Some less clever may be more serious.) The exam-passers learn the trick of saying what is expected; of *not* asking themselves what is

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Economic Weekly (Bombay), January 1960.

meant by what they are saying (for that is disturbing and dangerous and may lead to losing marks), of repeating the particular formula which sounds as though it was relevant to each particular question. In India, especially, where the ancient belief in the power of words as such is still strong, this comes quite naturally. The exam-passer who does well becomes in due course an examiner, and by then he has quite lost any doubts he may once have had to stifle. He has come to believe that this kind of thing really is education. And so the system feeds on itself.

What about the few who are serious, who really want to learn something? What do we do for them? The serious student is often attracted to economics by humanitarian feeling and patriotism—he wants to learn how to choose economic policies that will increase human welfare. Orthodox teaching deflects these feelings into the dreary desert of so-called Welfare Economics, a system of ideas based on a mechanistic psychology of a completely individualistic pursuit of pleasure and avoidance of pain, which no one believes to be a correct account of human nature, dished up in algebraical formulae which do not even pretend to be applicable to actual data. As he goes deeper into the matter, he reads some brilliant and subtle authors who debunk the whole subject and show conclusively that its methodology was inadmissible. For most, this is too bitter a pill to swallow and they desperately cling to some scraps of what they have learned because no other way has been offered of formulating the vague benevolent feelings with which they began.

The serious student was hoping, also, to learn something that would help him to make up his mind on the great question that lies open before all the developing countries. How far can private-enterprise capitalism be made to serve national ends? Why is it that the Socialist countries appear to develop faster than the democracies? Is the cost that they exact from their people necessary, or could the job be done with less pain? Must he make an all-or-none choice or is there a middle way?

He soon begins to notice that, without any overt discussion of the question, he is being indoctrinated with notions soaked in a prejudice for *laissez-faire*. This is partly the result of a mere time-lag. Nineteenth-century economic teaching was built up round the conception of the merits of the free market, and in particular,

of free trade (which at that time favoured British national interests, though it was damaging to India); the modern text-books are still much influenced by the masters of that period. It is partly the result of the choice of curriculum. A large proportion of his time is taken up by the theory of relative prices. The question of the distribution of *given* resources amongst alternative ends, subject to the condition that there is an equitable (and not very unequal) distribution of purchasing power among the families concerned, lends itself to exhibiting a free market in a favourable light; the student is required to work out exercises devised to show how, in these conditions, interference with the free play of the forces of supply and demand causes harm to the individuals who make up the market. All this is very complicated, and when modified by modern embellishments such as the theory of oligopoly and imperfect competition, may well occupy a year of lectures and reading. If the serious student has the hardihood to ask: But are resources given, and is income distributed equitably? he is made to feel foolish. Do you not understand that these are necessary simplifying assumptions for the analysis of prices? You cannot expect to do everything at once.

It is true that we cannot, in the time available, teach everything that we would like. But why do we pick out for treatment just that selection of topics that is least likely to raise any questions of fundamental importance?

Trudging through these arid lands, the serious student still hopes to learn something about development, planning, inflation and all that concerns the burning questions of India today. Here the mere pressure of events has forced some new questions into the curriculum and a new theoretical apparatus of capital/output ratios and growth rates has been hastily botched up to meet the need. Systematic teaching, however, for the most part still rests at the stage of the old equilibrium theory. Take, for example, the question of choosing the capital/output ratio in framing the plans for industrialization. The text-book theory says no more than that, if we compare two economies, each already in equilibrium, with the same total value of capital already in existence in each, the one with the lower level of real wages will have (on certain stated assumptions about competition, etc.) a higher level of employment. That is where the argument is left. If the student falls into

the trap of concluding that cutting wages would cause employment to increase, very likely no one will go out of their way to explain why this is a *non-sequitur*.

The prestige of the teachers and the books bears down on the serious student with a heavy weight. He learns to distrust his native common sense and to curb his generous impulses. He submits himself to a course of miseducation and comes out, not 'by the same door wherein he went' but by another door, in the wrong street.

So in my gloomy mood. But even at the gloomiest, I do not think of giving up. The subject does exist. For better or worse it has become the basis of a flourishing profession. There is no stopping it now. We must keep on pegging away and try to make the best of it.

II

How would I like to see teaching reformed? First, do not let us bother about the exam-passers. Whatever we teach they will reduce to slogans, and new slogans cannot be more mis-educating than the old ones. If the new ones are less easy to detach from reality, they might even be a shade less mis-educating.

For the serious students, I would take the bull by the horns and start from the beginning to discuss various types of economic system. Every society (except Robinson Crusoe) has to have some rules of the game for organizing production and the distribution of the product. *Laissez-faire* capitalism is only one of the possible sets of rules, and one in fact which is unplayable in a pure form. It always has to be mixed with some measures of collective control. The Indian scene provides examples of pre-capitalist. capitalist and socialist games being played side by side. Students acquainted with the old fast-vanishing world can help in trying to puzzle out the economic analysis of its functioning and to test out the meaning of concepts such as wages and capital in non-capitalist contexts.

Adam Smith, Ricardo, Marx, Marshall and Keynes would be treated in terms of the model of an economic system that they each had in mind and of the actual problems that each sought to solve.

I should displace the theory of the relative prices of commodities from the centre of the picture and make the main topic production,

accumulation and distribution, looked at from the point of view of an economy taken as a whole. Keynes' General Theory then falls into place as the short-period section of a truly general theory. Here price theory comes in as an element in the theory of distribution, for the relation of prices to money-wage rates in the industrial sector of an economy is one of the determinants of the distribution of proceeds between workers and capitalists or the state, and the relation of agricultural to manufacturing prices is a main determinant of distribution between sectors of the economy.

Markets and the laws of supply and demand I should treat not only in terms of an ideal equilibrium already achieved but also in terms of actual dealings in commodities, with their tendency to develop cobweb cycles, and the violent shocks that are given from time to time to the communities dependent on them.

Welfare I should treat in human terms and teach the students to look, not for 'preference surfaces', but for objective tests of standards of nutrition and health.

In all this I should emphasize that economic theory, in itself, preaches no doctrines and cannot establish any universally valid laws. It is a method of ordering ideas and formulating questions. For this reason, I should pay a good deal of attention to method. I should insist upon the distinction between an accounting identity, a statement of equilibrium conditions and a summary of econometric facts. $Y \equiv C + S$, (where Y is net value of national income of a period, C is the value of purchases of consumable goods and S, net saving) is an identity. The word 'net' covers a balancing factor (amortization of pre-existing capital) which makes the two sides equal by definition. $S = sY$ (where s is the proportion of national income *normally* saved) is a statement of conditions of equilibrium; its whole significance lies in the sense given to *normally*. A table of figures giving estimates of S and Y over some past period is a statement, *ex post*, of supposed facts; its significance depends largely on the reliability of the estimates. None of these tells us anything about causation; models built with these bricks will never stand up. To find causal relations we want to know how individuals behave and how the behaviour of various groups reacts on each other. I should try to break down the awe that students feel for formulae, not so as to induce a sceptical drift into intellectual nihilism, but so as to form the habit of picking them to pieces and putting them together again with the

ambiguities cleaned off, and keeping them firmly in their place as useful adjuncts to common sense, not as substitutes for it.

All this sounds dry and formalistic but, illustrated first with precise imaginary simple examples, and then with rough and inexact actual examples, leading up to questions of real importance, it can be made interesting and educational for the serious students. The exam-passers will not be any the worse for it.

A generation well educated, resistent to fudging, imbued with the humility and the pride of genuine scientists, could make contributions both to knowledge and to the conduct of affairs that no one need be ashamed of.

Returning from this happy day-dream, my gloom is all the deeper. To write down what I want to see emphasizes how unlikely it is that I ever shall. But, courage! We must try as best we may to do a little good here and there to set in the scales against all the harm.

Papers, Volumes II and III, published in 1975. Debate: 1970s and Retrospect: 1980 complete the discussion.

Some readers may find my style of criticism excessively sharp. To compensate, I include three Tributes to writers from whom I have learned a great deal. (There is a corresponding tribute to Michal Kalecki in my first volume of *Contributions to Modern Economics*.)

The last group of papers constitute an appeal to contemporary Marxists to eschew dogmatism and join in the project of getting economic theory out of the desert of equilibrium into fruitful fields.

ANALYSIS

1

WHAT ARE THE QUESTIONS?

1

INTRODUCTION

THE 1930s have been described as the years of high theory, but all the great mass of work that has been done since and the proliferation of academic economic teaching has been very little illuminated by the ideas that emerged at that time, and there are no consistent and accepted answers to the questions that were then raised.

One reason for this lack of progress is connected with the origin of the new ideas themselves. George Shackle[1] treated 'high theory' as a purely intellectual movement, but in fact it arose out of the actual situation of the thirties – the breakdown of the world market economy in the great slump. Kalecki, Keynes, and Myrdal were trying to find an explanation for unemployment; the exploration of imperfect and monopolistic competition set afoot by the challenge, from opposite directions, of Piero Sraffa[2] and Allyn Young[3] to the orthodox theory of value, though it proved to be a blind alley, arose from the observation that, in a general buyers' market, it could not be true that prices are equal to marginal costs. The movement of the thirties was an attempt to bring analysis to bear on actual problems. Discussion of an actual problem cannot avoid the question of what should be done about it; questions of policy involve politics (laisser faire is just as much a policy as any other). Politics involve ideology; there is no such thing as a 'purely economic' problem that can

[1] *The Years of High Theory*, Cambridge, 1967.

[2] 'The Laws of Returns under Competitive Conditions', *Economic Journal*, December 1926, pp. 535–50.

[3] 'Increasing Returns and Economic Progress', *Economic Journal*, December 1928, pp. 527–42.

Journal of Economic Literature, December 1977.

be settled by purely economic logic; political interests and political prejudice are involved in every discussion of actual questions. The participants in every controversy divide into schools – conservative or radical – and ideology is apt to seep into logic. In economics, arguments are largely devoted, as in theology, to supporting doctrines rather than testing hypotheses.

Here, the radicals have the easier case to make. They have only to point to the discrepancy between the operation of a modern economy and the ideals by which it is supposed to be judged, while the conservatives have the well-nigh impossible task of demonstrating that this is the best of all *possible* worlds. For the same reason, however, the conservatives are compensated by occupying positions of power, which they can use to keep criticism in check.

Benjamin Ward observes:

> The power inherent in this system of quality control within the economics profession is obviously very great. The discipline's censors occupy leading posts in economics departments at the major institutions. . . . The lion's share of appointment and dismissal power has been vested in the departments themselves at these institutions. Any economist with serious hopes of obtaining a tenured position in one of these departments will soon be made aware of the criteria by which he is to be judged . . . the entire academic program, beginning usually at the undergraduate level but certainly at the graduate, consists of indoctrination in the ideas and techniques of the science. . . .[4]
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> These inside instruments of control are accompanied by outside instruments exercised by members of the larger society. Probably the most important of these is control of funds for research and, to a lesser extent, teaching. Consciences are not much troubled by such practices because economics has mixed its ideology into the subject so well that the ideologically unconventional usually appear to appointment committees to be scientifically incompetent.[5]

For this reason, the conservatives do not feel obliged to answer radical criticisms on their merits and the argument is never fairly joined.

Moreover, with the best will in the world, it is excessively difficult to find an agreed answer to any question concerned with reality. Economists cannot make use of controlled experiments to settle their differences; they

[4] *What's Wrong with Economics?* New York, Basic Books, 1972, pp. 29–30.
[5] Ibid., p. 250.

have to appeal to historical evidence, and evidence can always be read both ways.

The laboratory sciences proceed by isolating a question and testing hypotheses about possible answers to it, one by one. In economics, questions cannot be isolated because every aspect of human society interacts with every other; hypotheses can be put forward only in the form of a 'model' of the whole economy. Before a model can be confronted with empirical tests, it has to be examined for internal consistency and for the *a priori* plausibility of its assumptions. There is a whole branch of the subject – that which carries the highest prestige – which is concerned simply with criticizing and defending hypotheses. The 'high theory' of the thirties consisted of advancing alternative hypotheses to replace those, derived from the theory of supply and demand for labour, which had been too much discredited in the slump.

Even when it is possible to mark off some element in such a way that it can be confronted with evidence, the collection of evidence from available statistics is enormously laborious. To establish the simplest of statistical 'facts' requires years of patient toil. Since it is so laborious, there is a powerful temptation to take short cuts, to overlook awkward details and favour evidence that supports an attractive theory. No doubt natural scientists are also subject to such temptations, but the experimental method provides a sieve to keep out error which has a much finer mesh than any that can be produced by an appeal to history.

There is a still more baffling difficulty in applying an economic model to statistical evidence. It may be possible to find evidence of the relationships within the model over a certain period of time and then to predict what they will be, say over the following years; but when it is found that the relationships turned out to be different, there is no way of telling whether it is because there was a mistake in specifying the model in the first place or because circumstances have changed meanwhile. And when they turn out the same, it is possibly by accident.[6]

> Difficult as it is to collect good physical data, it is far more difficult to collect long runs of economic or social data so that the whole of the run shall have a uniform significance. The data of the production of steel, for instance, change their significance not only with every invention that changes the technique of the steelmaker but with every

[6] For instance, it has been found that a 'Cobb–Douglas production function' will fit any time-series of outputs, whatever the technology, provided that the share of wages in value added was fairly constant over the period.

social and economic change affecting business and industry at large, and in particular, with every technique changing the demand for steel or the supply and nature of the competing materials. For example, even the first skyscraper made of aluminium instead of steel will turn out to affect the whole future demand for structural steel, as the first diesel ship did the unquestioned dominance of the steamship.

Thus the economic game is a game where the rules are subject to important revisions, say, every ten years, and bears an uncomfortable resemblance to the Queen's croquet game in *Alice in Wonderland*. . . . Under the circumstances, it is hopeless to give too precise a measurement to the quantities occurring in it. To assign what purports to be precise values to such essentially vague quantities is neither useful nor honest, and any pretense of applying precise formulae to these loosely defined quantities is a sham and a waste of time.[7]

Evading these difficulties, a great part of current teaching is conducted in terms of models that are evidently not intended to be taken seriously as hypotheses about reality but are used rather to inculcate an orthodox ideology. For a model to be taken seriously, the assumptions must be carefully specified, while a doctrine can appeal to a general body of received ideas. This distinction is illustrated below in terms of the contention that market prices provide an efficient mechanism for allocating scarce means between alternative uses, expressed in the proposition that 'a competitive equilibrium is a Pareto optimum'.

2

Market Equilibrium

In current teaching, a sharp distinction is usually made between micro- and macroeconomic problems, each being treated in terms of quite different concepts. It is necessary, of course, as the subject grows more complex, to focus upon particular questions one at a time, but a *general* theory cannot be split into these two parts. Micro questions – concerning the relative prices of commodities and the behaviour of individuals, firms, and households – cannot be discussed in the air without any reference to

[7] Norbert Wiener, *God and Golem, Inc.: A comment on certain points where cybernetics impinges on religion*, Cambridge, Mass., MIT Press; London, Chapman and Hall, 1964, pp. 90–1.

the structure of the economy in which they exist, and to the processes of cyclical and secular change. Equally, macro theories of accumulation and effective demand are generalizations about micro behaviour: the relation of income to expenditure for consumption, of investment to the pursuit of profit, of the management of placements in which financial wealth is held to rates of interest, and of wages to the level of prices result from the reactions of individuals and social groups to the situations in which they find themselves. Even the artificial conception of a stationary state has to be specified in terms of the behaviour of its inhabitants. Supposing all natural and technical conditions are constant, we still have to describe the individual and social behaviour which is conceived to make total consumption exactly equal to net output, neither more nor less, so that net saving and net investment are exactly zero. If there is no micro theory, there cannot be any macro theory either.

The analysis of markets is treated under the heading of micro theory, but it cannot be understood without some indication of the macro setting in which it operates. A prisoner-of-war camp, a village fair, and the shopping centre of a modern city cannot all be treated in exactly the same terms.

The macro setting of the analysis of 'scarce means with alternative uses' is very vaguely sketched. It appears to rely upon Say's Law, for the scarce means are always fully utilized.[8] The central concept is the production-possibility surface showing the combinations of quantities of a list of specified commodities that could be produced by various combinations of the given resources.

Nothing much is usually said about the inhabitants of the model. The ancestry of Adam Smith is often claimed for it, but his world was inhabited by workers, employers, and gentlemen. Here there are only 'transactors' or 'economic subjects.' To borrow Michio Morishima's trope, the people in this model are like the conventionally invisible property men of the Kabuki theatre, and only the commodities have speaking parts.

The 'scarce means' consist of 'labour', that is, workers who can be employed in various occupations, privately-owned land providing various kinds of natural resources, and the produced means of production (buildings and industrial equipment) that have already been accumulated. Thus, it purports to deal with a capitalist economy that has a future and a past,

[8] Strictly speaking, the rule is that any resource that is under-utilized has a zero price. When this applies to labour, presumably the workers must have died long ago.

but the analysis applies rather to a once-over meeting of independent peasants at a rural market or to the prisoner-of-war camp where parcels were occasionally received from the Red Cross.

As Nikolay Bukharin observed when he was in exile in the West, there is almost no discussion of how scarce means are organized to yield outputs; the whole emphasis is on exchanges of ready-made goods.[9]

Robert Clower subsumes production under exchange:

> An ongoing exchange economy with specialist traders *is* a production economy since there is no bar to any merchant capitalist acquiring labour services and other resources as a 'buyer' and transforming them (repackaging, processing into new forms, etc.) into outputs that are unlike the original inputs and are 'sold' accordingly as are commodities that undergo no such transformation. In short, a production unit *is* a particular type of middleman or trading specialist.[10]

And he supports the view 'that "capitalists" are just individuals who have the wit and forethought to exploit profit opportunities by accumulating trade capital and engaging in the "production" of both trading services and new types of commodities.'

It is true, of course, that industrial capitalism developed out of commercial capitalism, but the process of exchange does not explain why there are so many (presumably dull-witted) individuals who are available to sell labour services.

There are various brands of micro theory; Clower has been critical of others, but all share the characteristic of stressing exchange and neglecting production.

Even the process of marketing commodities is not much discussed. Since the tastes of individuals are hard and fast, there is no scope for advertisement and salesmanship to affect them. Indeed there is no scope for competition at all. To quote Oskar Morgenstern:

> Competition means struggle, fight, maneuvering, bluff, hiding of information – and precisely *that* word is used to describe a situation in which no one has any influence on anything, where there is *ni gain, ni perte* where everyone faces *fixed conditions, given prices*, and has only to adapt himself to them so as to attain an individual maximum. . . .[11]

[9] *Economic Theory of the Leisure Class*, English translation, London, Martin Lawrence, 1957. (In Russian, 1919.)

[10] Private communication, quoted with permission, 1976.

[11] 'Thirteen Critical Points in Contemporary Economic Theory: An Interpretation', *Journal of Economic Literature*, December 1972, Vol. 10, No. 4, pp. 1163–89.

There is a large number of sellers of each kind of commodity, and though they are all assumed to be 'maximizing profits', none of then ever forms a group which could increase proceeds for each member above what they could get individually.[12] On the demand side, the market is made up of transactors each with a certain amount of purchasing power, in terms of some numeraire, which he spends on a selection from among the commodities offered, according to his tastes and their prices. Here the argument does correspond to Adam Smith's treatment of the subject, for when he speaks of appealing to the self interest of the butcher, the brewer, and the baker to get us our dinner, he is evidently thinking of a gentleman with independent means spending money on the tradesmen, rather than of their competitive struggle to make a living.

At an equilibrium position on the production-possibility surface, the prices and flows of sales of the various commodities determine the earnings of various types of resources so that the income of each transactor depends upon the specific resources that he commands. An observing economist may make use of a single numeraire but, for each inhabitant of the model, the numeraire is a unit of whatever he has to sell.

The situation is described as an optimum when it is impossible to improve the position of one individual without doing harm to any other, but in Pareto's formulation individuals are not depicted in human terms. No aspect of economic life is considered but the individual's choice of how to spend given purchasing power, at a given moment, among a given assortment of goods. Pareto's optimum only repeats the definition of the production-possibility surface on which the output of one commodity cannot be increased without reducing the output of any other. (Only the commodities have speaking parts.)

The principle of measuring the cost of any benefit in terms of the alternative opportunities that must be foregone in order to get it can be applied in a general way to any decision-making unit, such as a family with limited income, a farm with limited space, a business with limited finance, or a planning commission with the limited investable resources of a particular socialist nation. But the choices that any such unit makes must depend upon the information at its disposal, both about technical conditions and market possibilities. In a perfectly static society, relevant knowledge might be handed down to everyone by tradition, but their behaviour also would be governed by tradition and no one would be conscious of ever making choices at all. In the world where we are living,

[12] It has been found by mathematical analysis that to ensure that combinations do not pay, the number of sellers must be indefinitely great.

choices have to be made in the light of more or less inadequate information. The full information required to make a correct choice can never be available because of the inescapable fact that:

> the basic data simply do not exist, and cannot exist, no matter what information is devised. There is no certain knowledge about the future, not even certain knowledge of probability distributions. There are expectations (or guesses) formulated with greater or less care; and unfortunately those formulated with the greatest care are by no means always the most accurate. The New York State legislature has deliberated on these difficulties, and enacted in Section 899 of the Code of Criminal Procedure that persons 'Pretending to forecast the future' shall be considered disorderly under subdivision 3, Section 901 of the Code and liable to a fine of $250 and/or six months in prison.[13]

John Hicks, having repudiated the works of his former incarnation, J. R. Hicks,[14] has observed that the very concept of equilibrium arose from a misleading analogy with movements in space, which cannot be applied to movements in time.[15] In space, it is possible to go to and fro, but times goes only one way; there is no going back to correct a mistake; an equilibrium cannot be reached by a process of trial and error. Since all individual choices are based upon more or less independent and inaccurate judgments about what outcomes will be, it is impossible that they should be consistent with each other. The assumption of 'perfect foresight' carries the argument out of this world into a system of mathematical abstraction, which, although the symbols may be given economic names, has no point of contact with empirical reality.

The question of scarce means with alternative uses becomes self contradictory when it is set in historical time, where today is an ever-moving break between the irrevocable past and the unknown future. At any moment, certainly, resources are scarce, but they have hardly any range of alternative uses. The workers available to be employed are not a supply of

[13] B. J. Loasby, *Imperfections and Adjustment*, University of Stirling Discussion Papers No. 50, 1977.

[14] 'Revival of Political Economy, the Old and the New', *Economic Record*, September 1975, Vol. 51, No. 4, pp. 365–7.

[15] John Hicks, 'Some Questions of Time in Economics', in *Evolution, Welfare and Time in Economics: Essays in honor of Nicholas Georgescu-Roegen*, edited by Anthony M. Tang, Fred M. Westfield, and James S. Worley, Lexington, Mass., Heath, Lexington Books, 1976, pp. 135–57.

'labour', but a number of carpenters or coal miners. The uses of land depend largely on transport; industrial equipment was created to assist the output of particular products. To change the use of resources requires investment and training, which alters the resources themselves. As for choice among investment projects, this involves the whole analysis of the nature of capitalism and of its evolution through time. Something like a production-possibility surface might appear in the calcualtions made for investment plans in a fully socialist economy, but in the world of private enterprise it cannot exist.

A completely different approach to the analysis of markets was proposed in *The Theory of Games and Economic Behaviour*.[16] This provides a powerful criticism of orthodox doctrine, but it is itself open to the objection that the type of games susceptible to mathematical analysis, such as noughts and crosses or go, are subject to set rules that all players accept and to the condition that each play has an agreed time limit. The scope of economic life, even that part of it which is concerned with markets, cannot be so narrowly confined.

The most basic objection to orthodox doctrine is raised by Kenneth Arrow, for he rejects the principle of individualism. The conduct of economic life requires the authority of institutions, such as corporations or national governments:

> There are many other organizations beside the government and the firm. But all of them, whether political party or revolutionary movement, university or church, share the common characteristics of the need for collective action and the allocation of resources through non-market methods. . . .
>
> There is still another set of institutions, if that is the right word, I want to call to your attention and make much of. These are invisible institutions: the principles of ethics and morality.[17]

The familiar story of the prisoners' dilemma illustrates this point. If each man acts selfishly, both will be worse off than if they follow the moral rule of refusing to betray a chum. But this rule cannot be introduced *ad hoc*. If it is followed at all it must be followed for its own sake, equally in circumstances where the individual will suffer for it.

With this objection, the whole structure of the model collapses.

[16] John von Neumann and Oskar Morgenstern, Princeton, 1944.

[17] *The Limits of Organization*, New York, Norton, 1974.

3

THEORY OF THE FIRM

Keynes described the orthodox equilibrium theory as a pretty, polite technique 'which tries to deal with the present by abstracting from the fact that we know very little about the future.'[18] Alan Coddington observes:

> To stress the basis of all economic activity in more or less uncertain expectations is precisely to emphasize the openness and incompleteness of economic theorizing and explanation.[19]

Certainly it is true that a mechanical model cannot survive when it is set afloat in historical time. (It was recognizing the difference between the future and the past that caused Hicks to become disillusioned with the *IS/LM* model with which generations of students have been taught to misinterpret the *General Theory*.) But this does not mean that economic theory is useless. We cannot help trying to understand the world we are living in, and we need to construct some kind of picture of an economy from which to draw hypotheses about its mode of operation. We cannot hope ever to get neat and precise answers to the questions that hypotheses raise, but we can discriminate among the pictures of reality that are offered and choose the least implausible ones to elaborate and to confront with whatever evidence we can find. This is one function of economic models. The other is to satisfy the requirements of ideology.

Hypotheses are invented and die every day. The criteria by which some are chosen to survive and enter into the corpus of economic teaching are of two kinds. One is that a hypothesis seems life-like and offers some explanation that appears sufficiently promising to be worth exploring, and the other is that it fits into and supports received doctrine. Clearly the model of competitive equilibrium has a low score on the first criterion and owes its support to the second.

There is another approach to the analysis of competition in which the relations between observation and doctrine are more subtle, that is, the problem known as Marshall's dilemma.

[18] 'The General Theory of Employment', *Quarterly Journal of Economics*, February 1937, *Collected Writings of John Maynard Keynes* (JMK, London, Macmillan), Vol. XIV, 1973.

[19] 'Keynesian Economics: The Search for First Principles', *Journal of Economic Literature*, December 1976, Vol. 14, No. 4, pp. 1258–73.

Marshall's model was concerned not only with exchange but also stressed manufacture. The most basic micro-macro question for an industrial economy concerns the way production is organized in firms. Marshall had a picture, based on observation, of the family business in British manufacturing industry. He found it plausible to argue that as a firm's business expands, its costs of production fall because of 'internal and external economies of scale.' He observed, moreover, that in many cases the fortunes of a business are bound up with the life of a family. An individual sets it going and it prospers, but by the third generation its vigour is lost.

Now, on the plane of doctrine, Marshall held that in competitive conditions, prices are determined by costs, so that the benefit of economies of scale are passed on to the public. But how can competition be maintained if any firm that gets a start undersells its competitors, gains more economies, and therefore cuts prices further until it establishes a monopoly for itself?

To get out of the difficulty, Marshall fell back on the observation, which was quite correct in many instances, that family firms lose competitive power as they grow. He made this into a general rule (allowing for monopoly as an occasional exception) and described industry as a forest in which each individual tree grows only to a certain height.

This raised the obvious difficulty that when the grandsons of its founder lose their grip on a business, it can go public and become immortal as a joint-stock company. Marshall recognized this possibility, but he did not allow it to spoil his doctrine. The joint-stock company loses 'its elasticity and progressive force', so that it is unlikely to be able to continue to grow in competition 'with younger and smaller rivals'.[20]

A. C. Pigou[21] was a loyal disciple of Marshall and quite innocent of any knowledge of industry. He therefore constructed a U-shaped average cost curve for a firm, showing economies of scale up to a certain size and rising costs beyond it. Pigou's firm, in a perfectly competitive market, is always selling the output that maximizes profits, that is, at which a small increase in production would cause marginal cost to exceed the price; when price exceeds average cost, the firm is making a super-normal profit, which will attract in new competition; when price is below average costs, some firms are dropping out. Equilibrium requires that both marginal and average costs are equal to price, that is, that the size of the firm is such that

[20] *Principles of Economics*, Seventh edition, London, Macmillan, 1916.

[21] *Economics of Welfare*, Fourth edition, London, Macmillan, 1934, Appendix III.

it is producing at minimum cost. In the ultimate equilibrium of a stationary state, the flow of profits obtained by each firm is just sufficient to cover interest at the ruling rate on the value of the capital that it operates, leaving nothing over as the 'reward of enterprise'.

In Marshall's world, however, profits accrue to 'business ability in command of capital'; successful firms retain part of their profits to invest in expanding their activities, and the more capital they own the easier it is to borrow outside finance. The conception is absurd that a firm when it is making more than normal profits sits around waiting for competition to invade its market and drive it back towards its optimum size. It would be the height of imprudence for a business to distribute the whole of its net profit to the family or to shareholders, and no business could borrow if prospective profits did not exceed its interest bill.

If Marshall's theory had been taken on its merits as a hypothesis, it would have soon appeared that the way out of his dilemma was the opposite to that proposed by Pigou. Successful firms accumulate finance and devour the unsuccessful ones. Most joint-stock companies continue to grow, and many competitive industries tend towards a condition of dominance by one or a few firms. But the great corporations do not behave monopolistically in the sense of restricting output in order to raise prices. They continue to compete with each other, invading new markets, introducing new products, and evolving new techniques, while at the same time throwing up opportunities for new small businesses to make a start.

Marshall's analysis was half in historical time and half in equilibrium doctrine. It is the first half that can pass the test of *a priori* plausibility and provide a starting point for a 'theory of the firm' appropriate to an economy of private enterprise.

Keynes developed his analysis in the setting of a short-period situation with given productive capacity and training of labour. This was appropriate to his problem: the influence of the level of effective demand on the utilization of resources already in existence. He had to concentrate upon forcing his readers to admit that there was such a problem. He was concerned with investment primarily as the source of instability and, apart from some quite conventional remarks, he did not have much to say about the process of accumulation either for firms or for nations.

Hicks[22] complains that Keynes' argument is not set wholly in historical time because the multiplier theory (and the theory of production that goes

[22] Hicks, op. cit., 1976, p. 140.

with it) is couched in terms of equilibrium. This is quite untrue. The original purpose of the multiplier was to work out what increase in income could be expected over the immediate future if the level of home investment were to be stepped up, beginning from a particular date. Admittedly the time-scheme was not very clearly worked out (Dennis Robertson complained a lot about this), but the main topic of the *General Theory* was the consequences of a *change* in the level of effective demand within a short-period situation with given plant and available labour.[23] The consequences of changing the stock of plant as investment matures hardly came into the story.

It is paradoxical that during the great Age of Growth – the twenty-five years that followed World War II – so-called macro theory was taught in 'Keynesian' terms, though Keynes himself had almost nothing to say about growth. Once he had thrown off the incubus of Say's Law, the whole field of the long-period theory of accumulation remained to be explored.

Side by side with the timeless equilibrium model, there have grown up a number of treatments of the behaviour of firms in a growing industrial economy, but no plausible simple general hypothesis has so far been found.[24]

The doctrine that firms 'maximize profits' collapses as soon as it is taken out of the equilibrium world and set in historical time. For a firm which is growing from year to year by investing retained profits, the maximum flow of profits will be reached when it commands an indefinitely large value of capital. Certainly, it is true that firms pursue profit, for without profits they would perish, but to 'maximize' profits over the long run is a meaningless phrase.

A less vapid statement would be that, in respect to each particular choice, say, of an investment programme, the firm will prefer the most profitable alternative. But, as Loasby has observed,[25] the firm does not know which would in fact be the most profitable alternative. The observing economist can only advance the hypothesis that the alternative actually chosen was that which was expected to be the most profitable.

[23] It must be admitted that there are many Marshallian remnants in the General Theory, which obscure exposition, but in the reply to Jacob Viner the point is made clearly (see Keynes, 'The General Theory of Employment', JMK, Vol. XIV).

[24] The question was opened by Edith Penrose (*The Theory of the Growth of the Firm*) in 1959. A recent contribution is *The Megacorp and Oligopoly*, Alfred S. Eichner, Cambridge University Press, 1976.

[25] See p. 8 above.

Furthermore, any plan a firm makes is multidimensional – it involves the selection of products; the choice of technique, including the choice of workers to employ; it involves pricing policy and salesmanship; and it involves the availability of finance. In a small business, all these considerations revolve in the mind of the boss, who acts on business instinct and does not explain, even to himself, exactly what his motives are. In a large corporation, any decision involves the personnel of many departments in the technostructure – salesmen, accountants, engineers – each of which has its characteristic beliefs and interests, and which have to be coordinated by bureaucratic rules.

The stress that John Kenneth Galbraith[26] lays on the dependence of large corporations on their technostructures has been taken to suggest that they are not governed by the profit motive. This is a misunderstanding. The specialists who serve a particular corporation depend upon it for their incomes and careers and generally develop a kind of patriotism for it. They have just as much motive to promote its profitability as an old-fashioned capitalist. But the complexity of multidimensional choice in conditions of uncertainty means that maximizing profits, even in the limited sense of preferring more to less profitable policies, is by no means a simple matter.

An alternative hypothesis is that the motive of firms is to maximize their rate of growth. But this does not take us much further than the observation that firms that are not profitable do not survive, and those that are, grow.

Another approach is to start from the growth of the market for a range of products and suggest that each of a group of competing firms keeps its productive capacity growing so as to maintain its share. But fast-growing firms expand into diversified markets.

One view is that the growth of the productive capacity of an industrial firm is a function of its flow of profits – as fast as its cash flow comes in, it looks around for opportunities to invest. Another view is that when an investment opportunity offers, the firm adjusts the prices of its existing output in such a way as to get the profit that it needs to finance the investment.

All these hypotheses have turned up many interesting and plausible concepts, but it seems to me that the search for a single generalization is a hangover from the equilibrium model. There is no simple theory to cover the multifarious evolution of a private enterprise economy. The methods

[26] *The New Industrial State*, London, Hamilton, 1967.

of ethology are more appropriate than mathematics to the study of industry, and, indeed, we do know a great deal about the natural history of business life from studies of the economics of industry, of finance, and of conditions of labour. But this knowledge cannot be well organized if it has to be squeezed into formulae that smooth over the distinction between the future and the past.

Galbraith sets out to substitute for Marshall a picture, based on general observation, of the New Industrial State. His account of the behaviour of giant firms appears plausible or, at the very least, worth discussing, but it has had no success as an ideological doctrine. As he points out, a very large proportion of the educated and professional class in industrial nations is employed directly or indirectly by great corporations, and the educational system is largely at their service. For this reason, the power that Ward refers to,[27] prevents critical views from penetrating into orthodoxy.

4

Prices

Keynes complained of the theory in which he was brought up:

> So long as economists are concerned with what is called the theory of value, they have been accustomed to teach that prices are governed by the conditions of supply and demand; and, in particular, changes in marginal cost and the elasticity of short-period supply have played a prominent part. But when they pass in volume II, or more often in a separate treatise, to the theory of money and prices, we hear no more of these homely but intelligible concepts and move into a world where prices are governed by the quantity of money, by its income-velocity, by the velocity of circulation relatively to the volume of transactions, by hoarding, by forced saving, by inflation and deflation *et hoc genus omne*; and little or no attempt is made to relate these vaguer phrases to our former notions of the elasticities of supply and demand.[28]

He proposed a micro-macro theory in which the prices of commodities

[27] See p. 2 above.

[28] *General Theory of Employment, Interest and Money*, 1936, JMK, Vol. VII, p. 174.

are primarily governed by the cost of production, and he observed that the main element in the general level of costs (internal to one country) which can change in the short period, is the level of money wage rates. He was concerned to argue that cutting wage rates would lower prices. We now have to adapt the argument to the case where raising money-wage rates (relatively to the growth of productivity) causes prices to rise. Keynes' 'homely but intelligible' concepts now appear old-fashioned. A great deal of work remains to be done to establish a macro-micro analysis of prices appropraite to the modern world. Moreover, during the Age of Growth the industrial economies have gone through a mutation so that unemployment no longer prevents wage rates from rising.

Meanwhile the 'vague phrases' that Keynes complained of have come back into fashion. 'Monetarism' is now a powerful doctrine, but it is not easy to confront it with the post-Keynesian system, to discuss which is the more plausible, for the hypotheses on which the quantity theory is based have never been clearly stated.

The post-Keynesian system dwells in historical time; it is designed to analyse the consequences that may be expected to follow a change taking place at a particular date in particular circumstances. The system is set up like an artist's mobile. A flick on any point sets everything in motion, but it is possible to see which are the principal interactions and which way causation runs from one to another.

The old-fashioned formula, $MV = PT$, can be interpreted in terms of this mobile. Suppose that, since this time last year, there has been an all-round rise in money-wage rates and also some increase in employment. Both the flow of transactions (T) and the level of prices (P) are now higher. This has led to an increase in bank deposits, with a corresponding increase in currency in circulation because the value of working capital having gone up, many businesses have taken larger advances from banks or drawn upon overdraft facilities. At the same time, average velocity of circulation may have risen, as liquid reserves have been drawn upon so that a larger proportion of the total stock of money is now in accounts that are more frequently turned over. (It is in general more true to say that an increase in prices causes the quantity of money to increase than the other way round.)

However, if a spontaneous rise in M and V was not sufficient to provide for the higher PT, then interest rates must have risen, and a smaller proportion of the stock of money is now held by bearish owners who prefer cash to securities (in existing circumstances) as a placement for their wealth.

When the monetary authorities are endeavouring to prevent M from increasing, interest rates are raised all the more, and a credit squeeze checks the growth of activity or even precipitates a slump. But this, unfortunately, is not guaranteed to reduce prices.

The monetarist theory is not so easily described. The modern version of the quantity theory connects M, not to the flow of transactions, but to PQ, the value of gross output, so that V simply means GNP divided by some figure representing the quantity of money; all the interactions in the mobile are collapsed into one opaque relationship.

There seems to be a chronic confusion, in latter-day expositions of monetarism, between changes in the stock of money deliberately brought about by the authorities and the effects of changes in the flow of government expenditure. The story of currency notes dropped from helicopters is presumably intended to illustrate the case of a budget deficit financed by 'using the printing press'.[29] A shower of notes, picked up by passers-by, might be expected to produce a burst of expenditure that would peter out over a short time; a budget deficit continued from year to year tends to support a flow of expenditure as long as it continues. An *increase* in the deficit from one month to the next tends to increase expenditure over the following months in much the same way as a commensurate rise in investment or reduction in thriftiness. This is not a *monetary* phenomenon, though it is likely to be accompanied by an increase in MV. There is no way to distinguish between a rise in activity that is 'inflationary' in the monetarist sense from one that is not.

Monetary influences on the behaviour of the economy, in the proper sense, arise from changes in the stock of placements (including currency) available to the public relative to the demand for them. A shower of notes would leave behind (after the increase in expenditure with its multiplier effect was exhausted) an addition to wealth equal to the savings made out of the extra income generated by the expenditure and an equal addition to the stock of currency notes. Assuming that the demand for currency has been increased less than the supply, credit will be somewhat easier in the final position than it would otherwise have been. This is the only *monetary* element in the story of the helicopters.

A budget deficit may be financed by borrowing through the banking system and so increasing the quantity of money, but it need not be. A modern government has a large national debt to operate upon, not only

[29] M. Friedman, *The Optimum Quantity of Money*, London, Macmillan; Chicago, Aldine, 1969.

what it borrowed last week. If it thinks right, it can sell long-term bonds and generate a credit squeeze whatever its budgetary balance may be. The trouble is that when money-wage rates and prices are rising, increasing values of working capital have to be financed and the authorities can prevent the quantity of money from increasing only by bankrupting business and bringing production to a halt.

Keynes, looking forward to a period of continuous high employment, expected money-wage rates to rise faster than productivity. He regarded this as an essentially political problem and did not suggest any remedy.[30] Michal Kalecki observed: 'If capitalism can adjust itself to full employment a fundamental reform will have been incorporated in it'.[31] The revival of monetary theory is a device for avoiding discussion of political problems. This makes it very attractive as a doctrine, but fails to provide any plausible hypotheses for interpreting experience.

Keynes intended to bring the theory of prices back from Volume II, Money, to Volume I, the Principles of Economics, but Michal Kalecki[32] made a greater contribution than Keynes himself to carrying this programme forward.

Kalecki drew attention to the fact that there are two distinct systems of price formation in the modern world, one dominated by supply and demand and one by costs plus profits. This distinction has recently been rediscovered by Hicks.[33] The market for some commodities is created by specialist merchants who buy to sell again, and make their profits out of price differences. They carry stocks; when the outflow of sales exceeds the inflow of purchases so that stocks are falling, they raise prices, and conversely. A large part of the produce of agriculture and extractive industries is handled in this way. For manufactures, in modern times, the producers have taken over the merchanting function. They offer their commodities at an advertised price and produce for sale what the market will take. There are various intermediate forms and overlapping conditions, but the main distinction is between these two types.

Kalecki analysed industrial prices in terms of gross profit margins expressed as a mark-up on average prime cost. As his theory evolved, he rejected the view that Keynes had taken over from Marshall, that an increase in output requires a rise of prices because of rising marginal costs.

[30] See Richard Kahn, *On Re-reading Keynes*, London, British Academy, 1974.

[31] 'Political Aspects of Full Employment', *Political Quarterly*, Vol. 14, No. 4, 1943, pp. 322–31.

[32] *Essays in the Theory of Economic Fluctuations*, London, Allen and Unwin, 1939.

[33] Op. cit., 1976, p. 149.

On this, his opinion now generally prevails. In general, it seems that average prime costs fall rather than rise with rising utilization of plant. A sellers' market, in which the flow of outputs is limited by capacity, is rather rare because it quickly leads to investment to expand capacity for production of the commodities concerned; if it is expected to last, it will not. Even while it prevails, firms generally prefer to lengthen delivery dates rather than to choke back demand by raising prices.

Kalecki observed that prime costs are made up of two independent elements, the wage bill and the cost of materials and power. Here there is an interconnection between the two types of price formation, for costs of materials are strongly influenced by supply and demand. Bargaining for money-wage rates depends upon the balance of forces in the labour market. Assuming a stable pattern of gross profit margins, we can deduce the behaviour of prices to be expected in the short period. A rise in the overall level of activity entails an increase in demand for materials, which raises their prices. The rise in prime costs that this entails leads to a more or less proportional rise in prices. Now real wage rates have been reduced, while profits in money terms have risen. This sets the stage for a rise in money-wage rates. On the other tack, a decline in general industrial activity tends to lower material prices, but the resistance of organized labour is generally strong enough to prevent money-wage rates from being cut (though unemployment and short-time reduce earnings).

Kalecki's analysis reinforces Keynes' view that inflation is essentially a political problem by stressing the relationship between the formation of prices and the share of wages in the proceeds of industry, although the treatment of profit margins, which Kalecki derived from 'imperfect competition', was not thoroughly worked out.

Some evidence has been found to support the assumption that the ratio of gross margins to prime costs is fairly stable in respect to changes in the general level of demand.[34] But the hypothesis that the pattern of gross margins for various commodities can be explained solely by the 'degree of monopoly' was in the nature of a shot in the dark. A high degree of monopoly, in Kalecki's sense, means a weak state of price competition. It is true that the great oligopolistic corporations can set higher margins on their products than small competitive firms, but they may be using them

[34] R. R. Nield, *Pricing and Employment in the Trade Cycle: A study of British manufacturing industry, 1950–61*, Cambridge University Press, 1963. See also Wynne A. H. Godley and William D. Nordhaus, 'Pricing in the Trade Cycle', *Economic Journal*, Vol. 82, No. 327, September 1975, pp. 365–7.

partly to cover the expenses of nonprice competition among themselves. Moreover, the degree of monopoly is itself partly a function of the level of margins required to cover overhead costs of production. Risky investments requiring a heavy initial capital cost are made only by powerful corporations which have sufficient command over their markets to expect to be able to recover adequate gross profits.

Here we come to the border-line between long- and short-period theory of prices, which has been very inadequately explored.

5

LONG-RUN GROWTH

Hicks in the course of his 'long struggle to escape' from *Value and Capital*, came to the conclusion that models of steady growth are futile.[35] Certainly, if steady growth is proposed as a hypothesis, it sinks at the first step, but, as Hicks himself found, it is useful in what János Kornai describes as intellectual experiments, which are necessary to sort out the questions involved in analysing complicated processes.

Hicks describes his attempt to analyse disequilibrium growth in *Capital and Time*:

> I had to start very slowly. If I had started with a fine set of plausible assumptions, drawn from the real world, I am sure I should have got nowhere. I had to build up my model bit by bit. I began from a steady state (but that was simply because I had to have something firm, which I thought I understood, from which to start), but the point of the steady state . . . is that it is to be *disturbed.*[36]

I intended my golden age (which has often been mistaken for a hypothesis) to be used in this way, as I suggested in *Exercises in Economic Analysis* in 1960:

> Most economic questions lead up to a discussion of what consequences may be expected to follow a certain event. We cannot isolate a particular causal element from its surrounding circumstances by a controlled experiment. . . . We have to proceed by breaking the question up into parts, and after discussing each separately, reassemble the pieces as best we may.
>
> First, compare two economies which are alike in all relevant respects except the one which we wish to isolate. . . . Each has its own past and its own expectations about its own future. They need not be in stationary conditions provided that any change that has been taking place or is expected is smooth and regular so that we know where we are with it.
>
> Next consider a single economy, following a regular predictable path, and consider how its subsequent course is altered by an event happening at a particular moment. . . .
>
> Then consider an economy which is not following a smooth path, but is caught for examination, so to speak, at particular moment in a more or less turbulent history. We have to try to work out what future development is inherent in the situation as it exists to-day. . . .
>
> Finally, we have to try to see what effect upon this in any case turbulent path would be introduced by a particular event.[37]

This is what makes serious economics difficult.

A discussion of growth immediately raises the question of technical change. This was for a long time held up by the conception of a production function in labour and 'capital.' The concept of 'malleable machines'[38] was introduced precisely to abolish the difference between the future and the past so that a growing economy could be always in equilibrium. A pseudo-production function or 'book of blueprints' was a half-way house between history and a timeless production function. The pseudo-production function consists of the specification of a set of mutually non-inferior techniques, each requiring a particular stock of means of production per man employed. Each is eligible for at least one rate of profit, and none is superior to the rest at every rate of profit. When the techniques are listed in order of the flow per man employed of a homogeneous net output, it can be seen that a higher output is not necessarily associated with 'more capital,' that a technique that is eligible at a higher rate of profit may require a larger value of capital at the corresponding prices, and that the same technique may be eligible at widely different rates of profit. This killed off the doctrine of 'marginal

[35] Op. cit., 1976, p. 143.
[36] Ibid., p. 145.
[37] *Exercises in Economic Analysis*, London, Macmillan, 1960, pp. vii–x.
[38] J. E. Meade, *A Neo-Classical Theory of Economic Growth*, Second edition, London, Allen and Unwin, 1967.

productivity of capital' associated with the production function (though it has refused to get buried),[39] but it does not, by itself, provide the basis for an alternative analysis of accumulation. If techniques are invented, one after the other in historical time, there is no reason to expect them to be mutually non-superior. A new technique is normally adopted because, at existing prices and wage rates, it promises a higher return than the one in use, per unit of financial investment. It does not have to wait for a change in prices to make it eligible. But it will not remain exceptionally profitable for long. Copiers wipe out the initial competitive advantage of new commodities and rising real wage rates, of higher productivity. Meanwhile, new, more eligible techniques are being introduced. At each moment, the prospect of higher profits is inducing change, while, over a run of years, the *ex post* average realized rate of profit may be constant or falling.

To sort out the analysis of this turbulent scene involves the whole of economics and, as Hicks says, we must approach it bit by bit.

The first use to which the golden-age method was put was to examine the relation between accumulation and the rate of profit. Take Kalecki's assumptions that wages are currently consumed as they are received; gross investment is financed out of profits, which are also partly distributed to rentiers. On a steady growth path, g, the rate of growth per annum is equal to I/K, the ratio of net investment to the value of the stock of capital at the ruling rate of profit, and the rate of profit is equal to g/s_p where $(1 - s_p)$ is the proportion of profits consumed by rentiers' households. Thus, if two economies are alike in all respects except for the share of saving from profits, with equal growth rates and the same level of money wages, then prices are higher in the economy where rentiers are less thrifty.

This kind of argument is not confined to strictly steady growth. When each firm finances its own investment out of its own cash flow, and plans to invest its own retained profits, there is no problem of effective demand; the financial system, as Hyman Minsky[40] puts it, is robust, and investment has great inertia. When firms can raise outside finance direct from rentiers or through the banks, the system is liable to instability. The rate of investment is not tethered by a particular ratio to the value of the stock of capital. Any rise in investment above the former ratio increases the current

[39] See Martin Bronfenbrenner, 'Ten Issues in Distribution Theory', in *Modern Economic Thought*, edited by Sidney Weintraub, Philadelphia, 1977, p. 419.

[40] *John Maynard Keynes*, London, Macmillan, 1976; New York, Columbia University Press, 1975.

flow of profits and encourages further investment and a rise in the proportion of borrowing to own finance. Soon schemes of investment are being planned that will be viable only if the overall rate of investment continues to rise. A fragile debt structure has been built up. When the acceleration in the rate of investment tapers off, some businesses find current receipts less than current obligations, and a financial collapse occurs. During the boom, equity holders have been experiencing capital gains and increasing the ratio of expenditure to income; when the boom breaks, thriftiness increases. Thus long-run average growth may occur in cycles.

There is no guarantee, because growth has been maintained on the average for a run of years, that it will continue. At any stage in the process of accumulation, a sufficiently drastic financial collapse may throw the investors into a state of self-fulfilling pessimism, which postpones recovery indefinitely.

The monetary characteristcs of a growing economy would generate instability even if the 'real forces' developed smoothly, but (even apart from wars and political upheavals) technology has never developed smoothly. As Joseph Schumpeter observed, great fundamental discoveries and inventions occur at random intervals and each is followed by a boom, or a series of booms, as investment is made in innovations embodying new techniques. When the appropriate changes have been made in the stock of industrial capital, investment tails off and recession supervenes.

Another problem also can be analysed by means of the golden-age method. We can distinguish the technical character of an innovation in terms of the cost of investment necessary to install the appropriate means of production. When the equipment involved in employing a man with the latest best-practice technique has required the same investment (at unchanged real-wage rates) as that which it replaced, the innovation has been neutral. When it has required a greater investment, the innovation has been capital-using, and when less, capital saving.

The 'stylized facts' – a run of years with a constant rate of profit, constant share of wages in proceeds, and a constant ratio of the value of capital to the flow of net output – are possible only if technical progress is neutral, though neutrality by itself does not guarantee a constant rate of profit.

To allow a constant rate of profit when a series of neutral innovations are being made, the real-wage rate must rise at the same rate as average net output per man employed. Then, if a steady rate of accumulation is being maintained, the value of the stock of capital is rising at the same rate as the flow of net output and the capital to output ratio is constant.

A round of capital-using innovations, with a constant rate of profit, requires real wages to rise in a smaller proportion than net output (to allow for the rise in the capial to labour ratio). Conversely with capital-saving innovations.

On an orthodox production function, there are no articulated techniques. 'Capital' is a kind of mush and, for some unexplained reason, a higher ratio of 'capital' to labour is eligible only at a lower rate of profit.

With neutral technical progress, it is possible to maintain both a constant rate of profit and a constant capital to output ratio. Neutrality is a necessary, not sufficient, condition. Steady growth requires not only that innovations are neutral, but also that the rate of accumulation is constant and that real wages rise at the appropriate rate. These are the characteristics of a golden age.

When real wages fail to rise in step with output, demand fails to expand as fast as supply (unless investment is expanding sufficiently to make up the difference). Underconsumption discourages investment, and the economy falls out of the golden-age into stagnation.

The analysis is quite complicated even on this high plane of abstraction, and this plane is very far removed from the turbulence of actual history. Here is a field where mathematical expertise combined with real-life observation has plenty of work to do. Meanwhile we may hazard some general remarks.

First consider the formation of prices. Innovating firms have to set prices *ex ante*. They may be supposed to aim at a price that will cover average total cost (including the interest bill) at some standard level of utilization of plant, plus an allowance for selling costs, plus an allowance for net profit. As well as the choice of technique, the choice of the standard of utilization, of selling costs, and of the ratio of net profit to price depend upon the policy of the individual firm. There is too great an element of luck in the game for an outside observer to tell which policies are proving the most successful in any particular circumstances.

The design of new commodities is a very important element in innovation. Here the large firms with an ample flow of finance have a great advantage. They can employ research staffs and try out a large number of innovations in the expectation that one will take off and become a winner.

Old commodities are constantly being dolled up with changes of design in the attempt to maintain demand.

The evolution of the general level of prices depends very much upon the strength of the labour movement. With constant prices and money-wage rates, a firm that has made an innovation which raises the value of

output per man by more than the cost of investment per man is enjoying a higher rate of profit for the time being. Trade unions feel that it is a right and a duty to get a share of this profit for their members. They demand higher money-wage rates and the prosperous firms may concede this without a fight and without a fully-offsetting rise in selling prices. They may actually welcome a rise in real-wage rates because it helps them in competition with smaller and more backward firms, which cannot survive a rise in costs.

In a closed economy (without foreign trade), a general rise in average wage rates proportional to the average increase in productivity would keep the overall price level constant, but this cannot occur. Wages rise fastest in the most profitable industries. Less profitable industries have to raise the wages that they pay in response, and the firms in those industries have to raise their selling prices in order to survive. Thus, a general rise in real wages is accompanied by a change in the pattern of prices. As the cost of labour in terms of commodities rises, some lines of employment (say, domestic help) are squeezed out. Others (say, collecting garbage) have to be mechanized to maintain a necessary service, for in many cases machines have become cheaper than men. Here we find a grain of truth in the orthodox conception of substitution between capital and labour.

When accumulation has been going on vigorously while the population has ceased to grow, a condition arises of scarcity of labour in the sense that the flow of investable finance from retained profits has risen relative to the number of employable workers. This enhances the bargaining power of labour. (Marx failed to emphasize that growth of population is inimical to the interests of the proletariat.) It also stimulates inventions of all kinds. Even capital-using innovations save labour in the sense of raising output per man of the work force as a whole.

When there is a strong capital-using bias in technical progress, it requires a higher flow of gross investment to maintain a constant long-run level of employment. If sufficient gross investment is not forthcoming, a reserve army of long-period unemployment is created again.

Even when they are not capital-using, innovations may require a greatly increased minimum size of investment. This enhances the competitive advantage of large against small businesses.

A major side effect of technical change is on the nature of work. It is characteristic of modern industry to require highly trained personnel, while it has no use for the labour power of a great mass of unskilled workers.

Thus (as Ricardo admitted) technical development, which from the

point of view of capitalism is progressive, may reduce the share of wages in the proceeds of industry and generate long-period unemployment. For a long time, this was hushed up in orthodox doctrine, but now it is becoming too painfully obvious to be ignored.

6

International Trade

The most powerful and all-pervasive doctrine in pre-Keynesian orthodoxy was the case in favour of free trade. This was not invented by the neoclassicists, but derived via Marshall from David Ricardo.

Ricardo intended his model to exist in historical time; he claimed that *removing* protection would *increase* wealth, but in two important respects his argument runs in terms of timeless equilibrium. In the famous story which begins with England and Portugal both producing both cloth and wine,[41] resources can be moved instantaneously, when trade begins, from one industry to another in each country. Labour-value prices rule in each country. This means that there is a uniform rate of profit and a uniform capital to labour ratio in each. Output per man of each commodity determines their relative prices within each country. When it becomes profitable to expand one industry, resources are moved out of the other without trouble or loss and without changing the capital to labour ratio in the country concerned. (It is curious that wine, as well as cloth, is produced in conditions of 'constant returns'.)

Here is the first case of analysis couched in terms of a movement through time, which is really a comparison of equilibrium positions.

The second case is even more striking. Ricardo did not allow overseas investment (which he disapproved of) into his model. The value of the flow of imports and exports had to be equal for each country. He relied upon gold flows and the quantity theory of money to establish equilibrium in the price levels of trading countries.

It is not legitimate to complain of Ricardo, who was hacking a pioneering path through unknown problems, but it is certainly permissible to reproach his successors for keeping the so-called theory of international trade on this narrow track ever since.

[41] *Works and Correspondence*, edited by Piero Sraffa, Cambridge University Press, 1951. Volume 1, *On the principles of political economy and taxation*, Chapter VII.

To broaden the discussion, the first question that we must ask is: What is a nation? In the equilibrium theory, from Marshall to Paul Samuelson,[42] and till today, a country is treated as a compact bundle of 'factors of production', at first in isolation, which remains physically unchanged as trade takes place. Samuelson prudently named his two factors 'land' and 'labour', but many of his followers postulate that each country is endowed with a particular 'quantity of capital'; though profit rates may differ, no financial flows take place.

Among modern industrial countries there is a great interpenetration of production of specialized components of traded commodities; rentiers in each country own placements in others; banking systems are interlocked; great corporations (sometimes operating under 'flags of convenience') install facilities in many countries and employ labour and technostructure personnel of many nationalities. They have become independent entities, each larger and more powerful than many nations, not burdened with patriotism for anything except their own command of capital. The native-born workers of a country regard themselves as a nation, but great capitalist businesses feel it their duty to 'maximize profits' by seeking cheap labour wherever they can find it.

There is one respect, however, in which a modern nation is a distinct economic entity: it has a current account of foreign payments and receipts and an exchange rate, which are of concern to its government and monetary authorities.

For monetary equilibrium, it is not necessary for the current account to be balanced. It is necessary that a surplus of foreign receipts is matched by equal net foreign lending or a deficit matched by borrowing. A surplus is correctly described as a *favourable* balance. It means that citizens of the home country are acquiring foreign assets and so improving its balance for the future. A deficit covered by borrowing may be welcomed if it is due to a high rate of investment at home, which is developing resources that will yield a surplus of exports in the future to repay the debt. But a deficit that is due merely to competitive weakness is highly unfavourable; moreover the interest on the loans necessary to meet it imposes a growing burden on the balance of payments, which makes it progressively more unfavourable.

[42] See Alfred Marshall, *Pure Theory of Foreign Trade*, originally published in 1879, republished 1930 in Scarce Tracts in Economic Political Science, No. 1, London; Paul Samuelson, 'International Trade and the Equalisation of Factor Prices', *Economic Journal*, Vol. 58, June 1948, pp. 163–84.

Ricardo, to make his case as dramatic as possible, gave Portugal a competitive advantage over England in the initial position. The output (say, per week) of Portuguese workers both of cloth and of wine was higher than that of English workers. If money wage rates (in terms of gold) had been more or less the same when trade began, England would have been unable to export anything and would have had a drain of gold equal to the total value of her imports. Substituting a Keynes–Kalecki theory of prices for the quantity theory of money, we may say that equilibrium could not have been reached until relative money-wage rates were higher in Portugal in the same ratio as average productivity.

There is a certain tendency for wage differentials to adjust to trade balances. Where output per man is higher in one country than in others, if wages are *not* sufficiently higher there is a competitive advantage in trade leading to high exports and so to high employment and a high rate of profit. Both influences tend to cause money-wage rates to rise. Unemployment and low profits may not actually push down wage rates, but prevent them from rising, so there is tendency towards balance. But the mechanism of differential wage rates is weak and sluggish in its operations.

It was found in the 1930s that British and German costs were roughly equal, while productivity in comparable lines was double in the United States, and wage rates 50 per cent higher.[43] Then the high real-wage country was the cheap labour country.

In recent times, with both money-wage rates and productivity rising everywhere, there has been some tendency for a faster rise of wage rates to accompany a faster relative increase in productivity,[44] but this has been much too weak to maintain equilibrium. It has been supplemented by large deliberate appreciations and depreciations of exchange rates, but these have proved to be less efficacious than economists once expected. Unbalance between the major industrial countries still continues to cause great strain in the international financial system.[45] (The problems of trade with so-called developing nations and with the OPEC countries are not discussed here. Nor is the trade of the socialist world. There are more than

[43] László Rostás, *Comparative Productivity in British and American Industry*, Cambridge, 1948.

[44] Richard Kahn, quoted in Joan Robinson, 'Reflections on the Theory of International Trade', *Collected Economic Papers*, Vol. V, p. 141.

[45] Martin Fetherston et al., *Economic Policy Review*, Dept. of Applied Economics, Cambridge, March 1977, Chapter 6.

enough questions to raise in one article about the problems of the advanced industrialized capitalist nations.)

The authorities of each nation desire to see a surplus on its current account balance of payments, though not all can succeed.

A surplus of exports is advantageous, first of all, in connection with the short-period problem of effective demand. A surplus of value of exports over value of imports represents 'foreign investment'. An increase in it has an employment and multiplier effect. Any increase in activity at home is liable to increase imports so that a boost to income and employment from an increase in the flow of home investment is partly offset by a reduction in foreign investment. A boost due to increasing exports or production of home substitutes for imports (when there is sufficient slack in the economy) does not reduce home investment, but creates conditions favourable to raising it. Thus, an export surplus is a more powerful stimulus to income than home investment.

In the beggar-my-neighbour scramble for trade during the great slump, every country was desperately trying to export its own unemployment. Every country had to join in, for any one that attempted to maintain employment without protecting its balance of trade (through tariffs, subsidies, depreciation, etc.) would have been beggared by the others.

From a long-run point of view, export-led growth is the basis of success. A country that has a competitive advantage in industrial production can maintain a high level of home investment, without fear of being checked by a balance-of-payments crisis. Capital accumulation and technical improvements then progressively enhance its competitive advantage. Employment is high and real-wage rates rising so that 'labour trouble' is kept at bay. Its financial position is strong. If it prefers an extra rise of home consumption to acquiring foreign assets, it can allow its exchange rate to appreciate and turn the terms of trade in its own favour. In all these respects, a country in a weak competitive position suffers the corresponding disadvantages.

When Ricardo set out the case against protection, he was supporting British economic interests. Free trade ruined Portuguese industry.[46] Free trade for *others* is in the interests of the strongest competitor in world markets, and a sufficiently strong competitor has no need for protection at home. Free trade doctrine, in practice, is a more subtle form of Mercantilism. When Britain was the workshop of the world, universal

[46] See Sandro Sideri, *Trade and Power: Informal colonialism in Anglo-Portuguese relations*, Rotterdam University Press, 1970.

free trade suited her interests. When (with the aid of protection) rival industries developed in Germany and the United States, she was still able to preserve free trade for her own exports in the Empire.[47] The historical tradition of attachment to free trade doctrine is so strong in England that even now, in her weakness, the idea of protectionism is considered shocking.

After 1945, the United States was far and away the strongest competitor and used her great influence to arrange free trade agreements. GATT, IMF, etc., but she has no objection to protection for her own industries when they are strongly pressed by Japan.

What Now?

The present situation raises new questions. The long boom of twenty-five years after 1945, interrupted only by shallow and local recessions, blew up into a violent inflation in 1973 and collapsed into a world-wide slump. The economists had sunk into complacency and now do not know what to say. Relatively high employment and continuous growth in the indicators of production and accumulation had been taken to show that an age of permanent prosperity had set in. It was natural scientists, not economists, who first pointed out that exponential growth in perpetuity is an impossibility for any physical entity. On the plane of doctrine, Keynes had been smothered in the neo-classical synthesis, and a new 'dynamic' version of Say's Law had come into operation.

Now that the Juggernaut car has come more or less to a halt, we must take stock of the problems that its passage leaves behind.

The consumption of resources, including air to breathe, has evidently impoverished the world; the long struggle over relative shares has implanted a chronic tendency to inflation in the industrial countries, which no resort to monetary stringency can master. The uneven development of trading nations has set insupportable strains on the international financial system. Growth of wealth has not after all removed poverty at home, and 'aid' has not reduced it abroad. Now unemployment exacerbates social problems and embitters politics.

In this situation, the cry is to get growth started again. The European countries in a weak competitive position plead with West Germany to

[47] Eric J. Hobsbawm, *Industry and Empire: An economic history of Britain since* 1750, London, Weidenfeld and Nicolson, 1968.

spend money on something or other to improve the market for the rest so that they can permit employment to increase. Any up turn in the indicators in the United States is greeted as a sign that we shall once more be pulled up out of the slough.

Here we come upon the greatest of all economic questions, but one that in fact is never asked: what is growth for? Under the shadow of the arms race and its diffusion into the Third World, perhaps no merely economic questions are really of great importance; but even if it is a secondary question, we ought to consider it.

The obvious answer is that there is apparently no way to reduce unemployment except by increasing industrial investment. There is no question of choosing between alternative uses for given resources. Past development has dug deep grooves by physical investment, creation of financial property, and specialization of the labour force; existing resources cannot be redeployed; our only hope is to pour more resources down the old grooves.

The problem of the use of resources, and the institutional setting that controls it, cannot be confined within the bounds of theoretical economic analysis, but the economic aspect of the matter ought to be discussed. What is the object of production in a modern industrial nation, and if we could have more of it (through technical change and capital accumulation), what should we use it for?

For the classical economists, such a question did not arise. The wealth of a nation was its investable surplus; real wages were part of the cost of production, like fodder for cattle, and luxury consumption was deprecated; the neoclassicists conceived the object of production to be provision for consumption. But consumption by whom, of what?

The question was supposed to be settled by appeal to the individual's freedom of choice, but there are three very large objections to such a solution.

The first arises from inequality of the distribution of purchasing power between individuals. The nature of accumulation under private enterprise necessarily generates inequality and is therefore condemned to meeting the trivial wants of a few before the urgent needs of the many.

Do we want renewed growth in order to maintain and enhance disparities in consumption? Have we not become disillusioned with the doctrine that 'disease, squalor and ignorance' will soon be cleared away by the 'trickle down' from ever-growing conspicuous consumption?

Secondly, many kinds of consumption that are chosen by some individuals generate disutility for others. The leading case is the spread of

private motor cars – the higher the level of consumption, the more uncomfortable life becomes; this fact is painfully obvious, but orthodox doctrine has not been able to accommodate it.

Thirdly, to keep the show going, it is necessary continually to introduce new commodities and create new wants. In a competitive society, a growth of consumption does not guarantee a growth of satisfaction.

Here is the problem. The task of deciding how resources should be allocated is not fulfilled by the market but by the great corporations who are in charge of the finance for development.

These questions involve the whole political and social system of the capitalist world; they cannot be decided by economic theory, but it would be decent, at least, if the economists admitted that they do not have an answer to them.

2

THE AGE OF GROWTH

THE slump from which we are told the United States economy is now recovering has been an extremely important event. It was the first serious recession since World War II. It brought to an end the epoch in which continuous steady growth in the industrial economies was generally taken for granted. Certainly, there were quite sharp setbacks, particularly in 1958 and 1966, but the very fact that they were overcome maintained confidence that a real recession was a thing of the past.

It was believed that this was a new era in which government policy could be relied upon to control the levers of economic activity. The spokesmen for capitalism were saying, in effect: we have to admit that the unemployment that prevailed in the interwar years was a serious defect in the free-market system. Now we are going to give you capitalism with full employment, so what have you got to complain of?

Indeed, capitalism without a serious slump for 25 years was something new in history. In Western Europe and in Japan, statistical GNP per capita had been growing for a long run of years at never less than per 4 per cent per annum. In North America growth was only at 2·5 per cent, but starting from a higher base, the great mass of consumption grew prodigiously, though poverty, which is largely relative, was not much reduced.

High consumption struck a blow in the cold war. When tourists from the affluent countries began to pass through the ex-iron curtain, they naturally came from the affluent classes; the slum dwellers stayed at home. The display of the tourists' possessions was quite a shock in the socialist world, creating envy and discontent.

Experience of *almost* continuous prosperity built up a belief in perpetual growth as a normal state of affairs.

The Gildersleeve Lecture delivered at Barnard College, New York, 2 March 1976. Reprinted in *Collected Economic Papers*, Vol. V, 1979.

4

THINKING ABOUT THINKING

My first publication, in 1932, was devoted to the methodology of economics. It was a small pamphlet called *Economics is a Serious Subject*. This was during what Professor Shackle has called the years of high theory[1] when it seemed that 'imperfect competition' was going to revolutionize the analysis of prices and when the discussions that brought Keynes from the *Treatise on Money* to the *General Theory* had already begun.[2]

It seemed, at the time, that economics was emerging from the long sleep of laisser faire doctrines, 'marginal products' and equilibrium under Say's Law and that it was an important subject, dealing with urgent problems. The title of my essay, however, turned on a pun. It opens as follows:

> The student's heart sinks when he is presented with a book on the Scope and Method of his subject. Let me make a start, he begs, and I will find out the scope and method as I go along. And the student is perfectly right. For a serious subject, in the academic sense, is neither more nor less than its own technique.

I never had the pamphlet reprinted because I soon ceased to believe in its main argument – that if the economists could avoid certain bad habits and arrive at a consistent set of assumptions, however abstract, they could approach reality step by step merely by making more complicated models.

I soon realized that to avoid unacceptable methods of argument is a necessary but not a sufficient condition for establishing a genuine discipline. But some of the negative points in the essay still seem to be

[1] G. L. S. Shackle, *The Years of High Theory*, CUP, Cambridge 1967.
[2] See JMK, Vol. XIII.

Collected Economics Papers, Vol. V, 1979.

valid forty years after it was written. One of those points concerns controversy among economists.

> Economic controversies sometimes occur in which one of the contestants is right and the other is wrong. One has made a logical error, and the other has seen it. But this is the rarest kind of controversy. More often, like the two knights in the story, they are fighting about whether a shield is black or white, only to find, after it is all over, that one side was black and the other was white. Now, conducting an economic controversy is a delicate business. It is fatal to be too rude – an interchange of: It's black. No it's not, it's white – never leads to any results. On the other hand it is fatal to be too polite. When you are looking at a black shield, and the other man says it is white, it is of no use to say: Perhaps so, but I think on balance the evidence in favour of its being black is stronger; and then, when he politely replies: But I think it is white, to part from him saying: Of course there is a lot of difference of opinion nowadays, and we each have a right to our own. The proper technique of controversy is to say: That's interesting – what makes you say it is white?
>
> Now when the argument is approached in this spirit the differences, other than logical, boil down to a difference of assumptions. One side of the shield is white, and the other is black, and there is no need to quarrel.
>
> But when the two rival sets of assumptions are examined and compared, the argument can continue in an amicable manner.

Some people consider the style of argument prevalent in Cambridge, England, too rude, but it is aimed at getting points clear. I have suffered far more, especially in the USA, from politeness, being fobbed off with compliments just when I was hoping to clinch an argument.

The children's story of the knights illustrates an important point. When controversies arise through confronting contradictory conclusions, they can easily be resolved by examining the arguments that led to them. Each party should set out clearly the assumptions on which his argument is based; by mutual criticism they can arrive at agreement about what consequences follow from what assumptions and then they can join in an amicable discussion about what evidence must be found to show which set of assumptions (if either) is relevant to the problem in hand.

For this method to be successful, both parties must follow it. An attempt by one party to proceed in this way is frustrated if the other continues to reiterate his conclusions or insists that his own set of assumptions is the

only one that can legitimately be made. Unfortunately, the greater part of economic controversies arise from confronting dogmas. The style of argument is that of theology, not of science. This has grown with the growth of a large and flourishing profession, in which jobs depend on supporting opinions acceptable to those in authority.

The concept of a change of paradigm, introduced by T. S. Kuhn,[3] has become very fashionable among economists. The Keynesian revolution had many features in common with the scientific revolutions that Kuhn describes, but the subsequent development of the subject was not at all like that of any natural science when a shift of paradigm has occurred. In economics, new ideas are treated, in theological style, as heresies and as far as possible kept out of the schools by drilling students in the habit of repeating the old dogmas, so as to prevent established orthodoxy from being undermined.

On the plane of practical affairs, the importance of the Keynesian revolution was to break through the inhibitions of laisser faire and make governments accept, in principle at least, responsibility for maintaining a 'high and stable level of employment'.

On the plane of academic theory, the importance of the Keynesian revolution was to show that all the familiar dogmas are set in a world without time and cannot survive the simple observation that decisions, in economic life, are necessarily taken in the light of uncertain expectations about their future consequences.

Orthodox theory reacted to this challenge, in true theological style, by inventing fanciful worlds in which the difference between the past and the future does not arise and devising intricate mathematical theorems about how an economy would operate if everyone in it had correct foresight about how everybody else was going to behave.

Professor Hahn defends this manoeuvre; he maintains that it is an important achievement to have formulated the orthodox theory 'so sharply as to enable such an unambiguous verdict to be reached' as that it has no practical application.[4] But the labour that has gone into that achievement could have been saved by recognizing that, at any moment in real life when a decision is taken, the past is already irrevocable and the future is still to come.

The Economics of Imperfect Competition, on which I was working with

[3] See *The Structure of Scientific Revolutions*, University of Chicago Press and Routledge and Kegan Paul, 1968.

[4] 'The Winter of our Discontent', a review of Janos Kornai, *Anti-Equilibrium*, *Economica*, August 1973, p. 324. Note the misprint in the last complete line of the page.

R. F. Kahn in 1932, was pre-Keynesian and it is based on a fudge – confusing comparisons of possible alternative equilibrium positions with the analysis of a process taking place through time. I postulated that every manufacturing firm is faced by a demand curve for its own product, showing how much could be sold at various prices, and that the firm finds out its position and shape by trial and error. For this to be feasible the demand curve would have to remain rigidly fixed for long enough for the firm to discover it, and the experiments of raising and lowering the price to find out the response of sales would have to have negligible cost and no reaction upon the behaviour of the firm's customers.

Keynes himself fudged his own argument. He defined aggregate supply price as 'the amount of the proceeds which the entrepreneurs expect to receive from the corresponding output' and appended this footnote:

> An entrepreneur, who has to reach a practical decision as to his scale of production, does not, of course, entertain a single undoubting expectation of what the sale-proceeds of a given output will be, but several hypothetical expectations held with varying degrees of probability and definiteness. By his expectation of proceeds I mean, therefore, that expectations of proceeds which, if it were held with certainty, would lead to the same behaviour as does the bundle of vague and more various possibilities which actually makes up his state of expectation when he reaches his decision.[5]

Furthermore he treated long-term expectations in the same way; the 'marginal efficiency of capital' is derived from the profits expected from investment, allowing for risk; the level of investment at any moment is said to be such as to equate the marginal efficiency of capital to the rate of interest (the cost of finance). Interest charges represent an obligation to pay certain definite sums of money. What is said to be equated to the rate of interest is an uncertain expectation of profit. But this statement is vacuous, for it is impossible to separate out the expected rate of profit from the allowances for the degree of uncertainty with which expectations are held. Keynes later denounced the conception that uncertainty in economic affairs can be reduced to calculable risks as one of the 'pretty, polite techniques, made for a well-panelled board room and a nicely regulated market' which 'tries to deal with the present by abstracting from the fact that we know very little about the future.'[6]

[5] *The General Theory*, JMK, Vol. VII, p. 24, note 2.

[6] 'The General Theory of Employment', *Quarterly Journal of Economics*, Feb. 1937, JMK, Vol. XIV, pp. 109–23.

This kind of fudging comes from a sort of instinctive self-defence mechanism. At a time of crisis (in Kuhn's sense) there is nothing solid and reliable in traditional theory – everything has to be thought out afresh. No question can properly be asked before every other question has been answered. In pursuing one line of argument, it is necessary to block off others, by fair means or foul, or else no question can ever be posed. I remember pointing out (when I was going through the proofs) that that footnote in the *General Theory* would not do, but Keynes left it unaltered – he could not afford to remove the block that was temporarily providing some space within which he could develop his system.

This, of course, is not a legitimate excuse for fudging; it is a fact about how original work gets done in our ill-disciplined discipline.

The basic fault in the method that I was pursuing in *Imperfect Competition*, and defending in my pamphlet, was to start the argument from a purely *a priori* set of assumptions – the assumptions that Pigou had distilled from Marshall – and then to introduce a minor improvement in them, instead of making a radical critique of the relationship between the traditional assumptions and the actual economy that they pretended to describe. All the same, the work was not wasted because, over the bridge of Kalecki's 'degree of monopoly' it led on to the modern theory of the determination of profit margins and so was linked up with the theory of employment.

My twin, Professor Chamberlin, spent many years protesting that his 'monopolistic competition' was quite different from my 'Imperfect Competition'. (It used to be said at Harvard at one time that any student could be sure of getting a good degree by abusing Mrs. Robinson.) This was partly, I think, due to human weakness. We had to share reviews and footnotes that Chamberlin would rather have had to himself. (The fact that I was quite bored with the subject annoyed him all the more.) But there was a deeper reason. I was delighted to find that I had proved (within the accepted assumptions) that it is not true to say that wages equal the marginal productivity of labour, while Chamberlin wanted to maintain that advertisement, salesmanship and monopolistic product differentiation in no way impaired the principle of consumer's sovereignty and the beneficial effect of the free play of market forces.

The one-sided controversy of Chamberlin against Robinson was a bad case of confronting the conclusions of two arguments without examining their assumptions. Where he and I set up the same questions (errors and omissions excepted) we found the same answers and where the questions were different, the answers were too. In some respects Chamberlin's

assumptions were more realistic than mine, though he did not want to draw realistic conclusions from them.

Nowadays we have both been swept aside in the revival of neoclassical orthodoxy which cannot admit any realism at all.

Keynes had to break out of the orthodoxy in which he had been brought up because he was considering a real problem – the causes of unemployment in an industrial economy – and he had to examine how the economy really works. Even in the well-disciplined natural sciences, it is recognized that an original idea comes in the first place by a flash of intuition. Keynes certainly was an intuitive thinker. In a serious subject, intuition must play over reality and draw hypotheses from it, to be worked over consciously and critically to see if reality does not reject them. Originality means discovery, not invention. It is not like designing an elegant façade for a new building but like exploring an old ruin and trying to make out what its ground-plan must have been.

Because Keynes was trying to understand how the economy works, he was unwittingly following the line of Ricardo and Marx, who were engaged in the same quest, each trying to understand the operation of capitalism in his own day. Keynes was clearing up a particular element in it (effective demand) that Ricardo had ignored and Marx imperfectly understood. This explains the apparent paradox that the post-Keynesians in Cambridge find an affinity with the classics.

Jevons declared: 'That able but wrong-headed man David Ricardo shunted the car of economic science onto the wrong track'. In fact Jevons himself shunted the train onto a loop line round which it still circulates, but Keynes and Kalecki managed to detach a few coaches and got them back onto the main track.

I had a very literary education and to this day I know only the mathematics that I was able to pick up in the course of trying to formalize economic arguments, but it seemed to me obvious that a quantity that is to be manipulated by the methods of applied mathematics must be specified as a number of some unit, and that the very definition of a unit implies its method of measurement.

I was quite naïve when I wrote my pamphlet. I thought that this fact had only to be mentioned to receive universal recognition.

I observed that, to make economics into a serious subject it was necessary to

> continue the labour of removing out of the tool-box of the analysts all tools which appear to involve conceptions that are not capable of

> measurement. If any reader of this essay practises any other serious subject, I must pause to explain why this is still necessary. Economists are subject to many vices, and one of them has been to talk about 'utility', which is a quantitative conception that there is no known way of measuring. Such a scandal must be frankly admitted. For confession and penitence must precede the recognition of economics as a serious subject.

Not all economic concepts can be reduced to strictly quantitative terms. To treat something that is in principle unmeasurable as though it were a quantity is a confusion of thought pretending to be scientifically precise.

Twenty years later when I made a similar point about the meaning of a 'quantity of capital', I was still naïve. I really thought that if I asked a reasonable question I ought to get a reasonable answer. I was quite surprised at the rage and indignation that my question aroused. 'Everyone except Joan Robinson knows perfectly well what capital means.' It became quite a joke in the profession. I once happened to hear a tape of a meeting at which a speaker was saying 'As Mrs. Robinson is not in the room, I suppose you do not object to my talking about capital.'

I only recently discovered that Thorstein Veblen had made my point, much better than I did, in 1908.

> Much is made of the doctrine that the two facts of 'capital' and 'capital goods' are conceptually distinct, though substantially identical. The two terms cover virtually the same facts as would be covered by the terms 'pecuniary capital' [finance] and 'instrumental equipment'.
>
> . . .
>
> The continuum in which the 'abiding entity' of capital resides is a continuity of ownership, not a physical fact. The continuity, in fact, is of an immaterial nature, a matter of legal rights, of contract, of purchase and sale. Just why this patent state of the case is overlooked, as it somewhat elaborately is, is not easily seen.[7]

In the natural sciences, controversies are settled in a few months, or at a time of crisis, in a year or two, but in the social so-called sciences, absurd misunderstanding can continue for sixty or a hundred years without being cleared up.

[7] 'Professor Clark's Economics', *Quarterly Journal of Economics*, Feb. 1908, reprinted in *The Place of Science in Modern Civilization*, B. W. Huebsch, 1919, pp. 195–7, and see below p. 116.

The cause of this difference, of course, lies in the difference of methods. My saying: 'A serious subject is neither more nor less than its own technique' was a half truth, but it is the important half. In the natural sciences, experiments can be repeated and observations checked so that a false hypothesis is quickly knocked out. I agree with Kuhn's view of science as a particular kind of social activity which is carried on for its own sake, with a particular set of accepted rules. That it enables us to understand an aspect of the universe is, so to speak, an accidental by-product of this activity. Economics is also a social activity but its rules are such that its by-products are much less impressive.

The modern style of so-called mathematical economics came into fashion after the period when my pamphlet was written. Mathematical logic is a powerful tool of thought, but its application in economic theory generally seems to consist merely of putting circular arguments into algebra. Mathematical theory of statistics, also, was developing fast. At first there were high hopes that observations of reality by the method of econometrics would produce truly scientific results.

Since I have confessed that I am no mathematician, my views on this subject might be thought to be those of the fox who had lost his tail, but that reproach could not be made to Norbert Wiener.[8]

> An econometrician will develop an elaborate and ingenious theory of demand and supply, inventories and unemployment, and the like, with a relative or total indifference to the methods by which these elusive quantities are observed or measured. Their quantitative theories are treated with the unquestioning respect with which the physicists of a less sophisticated age treated the concepts of the Newtonian physics. Very few econometricians are aware that if they are to imitate the procedure of modern physics and not its mere appearances, a mathematical economics must begin with a critical account of these quantitative notions and the means adopted for collecting and measuring them.

He continues: 'Difficult as it is to collect good physical data, it is far more difficult to collect long runs of economic or social data so that the whole of the run shall have a uniform significance.' This means that an attempt to test hypotheses by data in the form of time series is posing two questions at once – whether the forces at work were correctly diagnosed for one period and whether they have remained the same over subsequent

[8] See *God and Golem, Inc.*, cf. Chapter 1, note 7.

periods. When there are elements in the forces involved such as the militancy of trade unions or the effect of advertising on household expenditure, this difficulty appears to be insuperable.

Keynes' review of Tinbergen[9] pouring cold water on the pretentions of econometrics caused a great deal of offence but it seems to have turned out in the main to have been correct. Ragnar Frisch, himself a great practitioner, has sadly remarked that most of the work done in this field has been playometrics not econometrics.[10] Only for a few narrow and tightly specified questions has the method turned out to be fruitful.

Yet there have been some notable cases where hypotheses drawn from economic analysis have been broadly vindicated. Keynes in 1925 predicted that the return to the gold standard at an overvalued sterling exchange rate would be followed by a period of pressure to reduce wages which would be bitterly resisted. (In 1926 there was a general strike.)

In 1931, he pointed out that falling prices were putting a great strain on the banks. (In March 1933 the banking system in the USA came to a standstill.) In 1936 (following Keynes) I observed that a period of continuous near-full employment would lead to continuous inflation; and (most remarkable of all) Kalecki predicted in 1944 that after the war we should be living under the regime of a political trade cycle (stop-go). These predictions were not at all exact; they were not derived from studying time series, but from a diagnosis of how the contemporary economic system operated. It seems as though what success economics has had depends more upon insight than upon precision and that its affinity must be with history as much as with mathematics.

History can never give a final knockdown answer to any question. Each generation rewrites its own past in accord with its current ideology. Certainly, economics can never escape from ideology. In every human activity or line of inquiry there is always a right and a left, orthodox and radical views, defence of the status quo and demand for change. This is true even of the natural sciences at a time of crisis. As long as I have known economics, it has always been in crisis.

At the present time [1970], it seems that the neo-classical orthodoxy is quite discredited but I do not think that the swing of opinion against it owes so much to the exposure of its logical defects by Gunnar Myrdal, Maurice Dobb and Piero Sraffa as to the revolt of the young generation

[9] JMK, Vol. XIV.

[10] 'Econometrics in the world today' in *Essays in Honour of Sir Roy Harrod*, ed. W. Eltis, Oxford, 1970.

against an unjust society that began with the Civil Rights Campaign in the USA. Myrdal and Dobb have been available for thirty or forty years and no one would have understood Sraffa who was not in revolt already.

Then, the question may be raised: if the choice between one theory and another is always made by their ideological colour, not their logic, why is a reasonable theory any more use than a spurious one? Is there any point, after all, in trying to make economics into a serious subject?

At the present time, there are a great many radicals who seem to feel that any argument is justified by being anti-neoclassical no matter whether or not it is internally coherent or in accord with evidence.

I believe, however, that there is a lot of difference between good analysis and bad, apart from ideological tendencies. Logic is the same for everyone (though I could never get Professor Solow to admit it) and the reading of evidence, though always biassed to some extent, can be more or less fair. I do not think it was a waste of time to try to understand the great slump, post-war growth and the present crisis and, for understanding, an adequate system of analysis is indispensable. It was not a waste of time, either, to try to examine the neo-classicals to find out why their logic is at fault, as well as their opinions.

It is often said that one theory can be driven out only by another; the neoclassicals have a complete theory (though I maintain that it is nothing but a circular argument) and we need a better theory to supplant them. I do not agree. I think any other 'complete theory' would be only another box of tricks. What we need is a different habit of mind – to eschew fudging, to respect facts and to admit ignorance of what we do not know.

Honesty and hard work are required of radicals, while the orthodox can doze over their dogmas. But I do not think that radicals need fear that they will have to sacrifice their convictions in order to make economics a serious subject. My old saying about technique was a half truth. The other half concerns the subject to which technique is to be applied. I believe that the proper subject matter of economics is an examination of the manner of operation of various economic systems, particularly our own, and as long as our economy system continues to survive, a clear-sighted examination of it is more likely to favour radical views than to support the defenders of the status quo.

7

MARX, MARSHALL AND KEYNES

Three Views of Capitalism

THESE three names are associated with three attitudes towards the capitalist system. Marx represents revolutionary socialism, Marshall the complacent defence of capitalism and Keynes the disillusioned defence of capitalism. Marx seeks to understand the system in order to hasten its overthrow. Marshall seeks to make it acceptable by showing it in an agreeable light. Keynes seeks to find out what has gone wrong with it in order to devise means to save it from destroying itself.

To summarize in few words a whole complex structure of ideas is necessarily to falsify by over-simplification, but so long as we recognize the danger it may be legitimate to set out in a crude way the essential contrast between the economic theories which are the bases of these three points of view.

The central contention of Marx's scheme as we find it in Volume I of *Capital* is that, under capitalism, the real wages of the workers tend to be held permanently at a low level, while the capitalists receive as profit the excess of product over wages. The capitalists, he maintains, are not much interested in a luxurious standard of life for themselves. Under pressure of competition and the greed for more and more profit they invest the surplus in more and more capital, and they strive with each other each to raise the productivity of his own workers, so that the total product is ever increasing. Over the long run, the level of real wages is more likely to fall than to rise. The share of profits in total output grows ever greater as productivity increases and the rate of accumulation rises, until the inner contradictions of the system cause it to explode and a socialist revolution brings a new system into being.

Marshall's view of wages, profits and accumulation cannot be so clearly seen, partly because he concentrates attention on the details of relative prices, the fortunes of individual firms and supply and demand of particular

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Lectures delivered at the Delhi School of Economics, 1955. Published by the School as Occasional Paper No. 9.

commodities, while leaving the main outline into which these details fit extremely hazy. And partly because his whole system is based upon an unresolved conflict. The hard core of logical analysis in the *Principles* is purely static – it applies to an economy in which accumulation has come to an end – while all the problems that he discusses are connected with an economy in which wealth is growing as time goes by. In his view there is a *normal rate of profit* which represents the *supply price of capital*, but it is never clear whether this is the supply price of a certain amount of capital – the rate of profit at which there is neither growth nor decline in the total stock of capital – or whether it is the supply price of a certain rate of accumulation of capital. Profit is the *reward of waiting* – that is, of refraining from present consumption in order to enjoy future wealth – but it is never clear whether *waiting* means maintaining a stock of capital by refraining from consuming it or whether it means saving and adding to capital. It seems to mean sometimes one, sometimes the other and sometimes both at once, though Marshall is uneasily aware that they are not the same thing. This haziness makes his system impossible to describe in a clear way. But he states definitely enough that *waiting* is a factor of production and that the *real costs* of production are made up of efforts and sacrifices – efforts of the workers and sacrifices of the capitalists. The efforts are rewarded by wages and the sacrifices by profits. Taking the spirit of the argument which applies to a growing economy rather than the strict logic which requires a static economy, the capitalists invest and accumulate because profit is sufficient to counterbalance a sacrifice of present consumption. This causes total wealth to grow; the workers share in the benefit because wages rise with productivity while the supply price of capital remains more or less constant.

Keynes draws a sharp distinction between the two aspects of accumulation: saving – that is, refraining from consumption – and investing – that is, increasing the stock of productive capital. Marx's capitalists automatically save because they want to invest, so as to acquire more means of production in order to employ more labour and gain more profit. Marshall's capitalists automatically invest because they want to save, that is, to own more wealth.

Keynes points out that in a developed capitalist economy the two sides of accumulation are not automatically connected. Saving means spending less on consumption and narrowing the market for commodities, so that it reduces the profitability of investment. Investment means employing labour to produce goods which are not available to be consumed and so increases demand relatively to supply. The two sides of the process of accumulation are not linked together in such a way as to keep them in

harmony. On the contrary, the very nature of private enterprise causes them to have a chronic tendency to get out of gear. At some time the economy is trying to invest more than it can; the demand for labour for consumption and investment taken together exceeds the available supply and there is inflation. But this is rare apart from war-time. Normally the reverse situation prevails; investment is less than it easily could be and potential wealth is wasted in unemployment.

Each point of view bears the stamp of the period when it was conceived. Marx formed his ideas in the grim poverty of the forties. Marshall saw capitalism blossoming in peace and prosperity in the sixties. Keynes had to find an explanation for the morbid condition of 'poverty in the midst of plenty' in the period between the wars. But each has significance for other times, for in so far as each theory is valid it throws light upon essential characteristics of the capitalist system which have always been present in it and still have to be reckoned with.

Each, moreover, is bound up with a particular political attitude to the economic system which is highly relevant to the problems that confront us today.

Marx maintained that capitalism is bound to develop in such a way as to bring about its own destruction, and urged the workers to organize themselves to hasten its overthrow. Marshall argued that, in spite of some blemishes, it is a system which promotes the good of all. Keynes shows that it has deep-seated defects which, however, he believed are capable of being remedied. Marx is making propaganda against the system. Marshall is defending it and Keynes is criticizing in order to improve it.

Economic doctrines always come to us as propaganda. This is bound up with the very nature of the subject and to pretend that it is not so in the name of 'pure science' is a very unscientific refusal to accept the facts.

The element of propaganda is inherent in the subject because it is concerned with policy. It would be of no interest if it were not. If you want a subject that is worth pursuing for its intrinsic appeal without any view to consequences you would not be attending a lecture on economics. You would be, say, doing pure mathematics or studying the behaviour of birds.

The once orthodox *laisser-faire* theory evaded the issue by trying to show that there is no problem about choosing policies. Let everyone pursue his own self-interest and free competition will ensure the maximum benefit for everyone. This obviously cannot apply where any overall organization is necessary – the banking system, the railways, the national exchequer. But even where it is technically possible to run the system on a basis of catch-as-catch-can, there is an inconsistency at the very root of the argument. In

pursuing self-interest individuals find that it assists them to combine and agree not to compete. Monopolies, trade unions, political parties, arise out of the very process of competition and prevent it from being effective as a mechanism for ensuring the general good. Pure untrammelled individualism is not a practicable system, and the coherence of an economy depends upon the acceptance of limitations upon it. There must be a code of rules of the game, whether established by law or agreed by common consent. No set of rules of the game can ensure a perfect harmony of interests between all the groups in society, and any set of rules will be defended by those whom it favours and attacked by those whom different rules would suit better.

Economic theory, in its scientific aspect, is concerned with showing how a particular set of rules of the game operates, but in doing so it cannot help but make them appear in a favourable or an unfavourable light to the people who are playing the game. Even if a writer can school himself to perfect detachment he is still making propaganda, for his readers have interested views. Take, for example, a piece of pure analytical argument such as that the operation of the gold standard secures stability of the exchanges provided that money-wage rates are flexible. This means that it will not function well where Trade Unions are strong and prevent wages from falling when the preservation of the exchange rate requires that they should. This is a purely scientific statement and there is not much room for disagreement about it regarded as a description of the way the system works. But to some readers it will appear as strong propaganda against the trade unions, to others as strong propaganda against the gold standard.

This element of propaganda enters into even the most severely technical details of the subject. It cannot fail to be present when the broad issue of the operation of the system as a whole is under discussion.

Each of our three economists is concerned with describing the rules of the capitalist game, and therefore with criticizing or defending them. Marx shows that the rules are unfavourable to the workers, and for that very reason will not be tolerated for long. Marshall argues that the rules are framed in such a way as to produce the greatest possible growth of wealth, and that all classes benefit from sharing in it. Keynes is showing that the rules need to be amended so as to ensure that wealth will continue to grow.

The description and the evaluation cannot be separated, and to pretend that we are not interested in the evaluation is mere self-deception.

Marx is quite clear about his purpose. He is on the side of the workers and he makes the case against capitalism in order to encourage the workers to overthrow it.

Marshall was not openly and clearly on one side or the other in the clash of interests between workers and capitalists. His case is rather that if everyone will accept the system and not make a fuss about it, all will benefit together.

> In regard to sectional interests. Nearly all of them are changing their character and becoming increasingly plastic: but the chief change is the assimilation of the training, and consequently the capacity, of the working classes generally to those of the well-to-do. . . .
>
> We are indeed approaching rapidly to conditions which have no close precedent in the past, but are perhaps really more natural than those which they are supplanting – conditions under which the relations between the various industrial strata of a civilized nation are being based on reason, rather than tradition. . . . It is becoming clear that this and every other Western country can now afford to make increased sacrifices of material wealth for the purpose of raising the quality of life throughout their whole populations.[1]

Keynes is against waste and stupidity and unnecessary poverty. He is not so much interested in who gets the benefit of increased production, as in making sure that it takes place. He regards a greater equality of income as desirable but his attitude is 'moderately conservative'[2] and he holds that if only capitalism could be made to function efficiently it would be better than any alternative.

The burden of Marx's propaganda is that capitalism is pernicious and should be destroyed; of Marshall's, that it is beneficial and should be preserved; of Keynes', that it could be made fairly tolerable if people had a little sense.

Each of the three is trying to justify a particular view of the system and so is making propaganda for it. But each has sufficient faith in his own view to believe that the truth will bear him out, and each is trying to make a genuinely scientific approach to economic problems. They cannot help being propagandists, but they are scientists as well. To learn from them we first have to see what it is that they are driving at. Then we can make use of them as scientists while reserving the right to have our own opinion on questions of politics.

[1] *Industry and Trade*, pp. 4–5.
[2] *General Theory*, p. 377.

Ideas and Ideology

We must admit that every economic doctrine that is not trivial formalism contains political judgments. But it is the greatest possible folly to choose the doctrines that we want to accept by their political content. It is folly to reject a piece of analysis because we do not agree with the political judgment of the economist who puts it forward. Unfortunately, this approach to economics is very prevalent. The orthodox school has been largely stultified by refusing to learn from Marx. Because they do not like his politics they attend to his economics only to point out some errors in it, hoping that by refuting him on some points they will make his political doctrines harmless.

Thus the discussion of Marx has been mainly confined to criticizing the Labour Theory of Value. The labour theory is an omnibus title used to cover a number of aspects of the Marxian doctrine. One element in it is the theory of what determines the relative prices of commodities in long-run equilibrium. The orthodox economists can easily show that the view that prices are proportional to labour-time required for production is not an adequate theory of relative prices. By concentrating upon this question they succeeded in carrying the argument into a sphere where they could score a number of superficial points against the Marxists. They were not in the least interested in trying to learn from Marx or in inquiring what the relevance of these points was to the main issue.

In this they were very much helped by the Marxists, who instead of replying to all the intricate arguments about the theory of prices: so what? allowed themselves to be drawn into a number of sophistries in an endeavour to defend Marx even when he was not defensible.

Under the dust of all this controversy about inessentials the most valuable parts of Marx's theory was lost to sight by both parties.

To take one instance, the schema for expanding reproduction provide a very simple and quite indispensable approach to the problem of saving and investment and the balance between production of capital goods and demand for consumer goods. It was rediscovered and made the basis for the treatment of Keynes' problem by Kalecki and reinvented by Harrod and Domar as the basis for the theory of long-run development. If Marx had been studied as a serious economist, instead of being treated on the one hand as an infallible oracle and on the other as a butt for cheap sarcasm, it would have saved us all a great deal of time.

The Marxists have been just as bad as the orthodox economists in refusing to learn from those whose political views they dislike. Feeling on

the defensive, they regard it as a kind of treachery to admit any point made by Marx's critics, and insist upon defending him in every detail, so that they will not even concede to Marshall that the Labour Theory of Value is a crude account of the determination of relative prices which requires to be amended and elaborated in certain respects.

This inflexibility is particularly marked in their reaction to Keynes. Because they reject the idea that capitalism can be rescued from crises by economic measures carried out by governments they deny the logic of Keynes' argument. They point out that Keynes is subject to an illusion when he appeals to the State as though it were a benevolent impartial arbiter which can be relied upon to do the best for everyone if only it can be made to understand how to set about it. They maintain that the State is an organ of the capitalists and that therefore it is vain to look to it to carry out policies to prevent unemployment for the benefit of the workers.

There is much force in the first part of the argument but the second is a *non sequitur*. Capitalists do not like having crises. Unemployment is accompanied by losses. And nowadays they have a very strong reason to dislike unemployment itself, for it provides dangerous ammunition to their political enemies. In preventing unemployment the governments would be doing for them something that they want done but cannot do for themselves.

Marx in his day had a far more penetrating and subtle insight into the workings of the system than his modern followers. In discussing the legal limitation of the working day he showed how each individual capitalist had an interest in preventing legislation that would limit his power to exploit his workers. Yet collectively it favoured their interests, for excessive exploitation ruins the labour force on which they all depend. Thus, under the guise of resisting the demand for labour legislation put forward by the workers and the humanitarians, they allowed it to be carried out.

In the same way, while declaiming against Keynesian policies as an illegitimate interference with the proper functions of private enterprise, they in fact rely upon it to save them from themselves.

The foolishness of rejecting economic analysis because of the political doctrines with which it is associated is shown by the fact that, as it happens, the aspect of capitalism which each of the great economists illuminates provides the basis for political conclusions the opposite of his own.

The best defence of capitalism as an economic system can be made on the basis of Marx's analysis. This was realized by Schumpeter, and recently carried a stage further by his disciple Professor Galbraith.[3] They provide a

[3] *American Capitalism*.

tough, cynical and intelligent defence of the capitalist rules of the game which is far more effective than the soft, sophistical special pleading of the orthodox school.

Marx emphasizes the manner in which the capitalist rules of the game foster accumulation and technical progress. His capitalists are not interested in luxurious living. They exploit labour in order to accumulate, and they increase productivity in order to have a greater surplus to invest. 'The productiveness of labour is made to ripen as if in a hot-house.' They prevent the workers from receiving any share in the increased production, for if the workers consumed more there would be less accumulation and the growth of total wealth would be impeded.

This provides an account of the function of exploitation. It explains, incidentally, why in a socialist economy which is undertaking rapid development the standard of life rises at first very slowly, and why it is necessary, when private profit does not create a gap between wages and prices, for a gap to be created by taxation in order to provide the funds for accumulation.

When Keynes was describing the flourishing capitalism of the pre-1914 world, before he became preoccupied with the problem of unemployment, he set out an analysis which is essentially the same as that of Marx.

> Europe was so organized socially and economically as to secure the maximum accumulation of capital. While there was some continuous improvement in the daily conditions of life of the mass of the population, Society was so framed as to throw a great part of the increased income into the control of the class least likely to consume it. The new rich of the nineteenth century were not brought up to large expenditures, and preferred the power which investment gave them to the pleasures of immediate consumption. In fact, it was precisely the *inequality* of the distribution of wealth which made possible those vast accumulations of fixed wealth and of capital improvements which distinguished that age from all others. Herein lay, in fact, the main justification of the Capitalist System. If the rich had spent their new wealth on their own enjoyments, the world would long ago have found such a régime intolerable. But like bees they saved and accumulated, not less to the advantage of the whole community because they themselves held narrower ends in prospect.
>
> The immense accumulations of fixed capital which, to the great benefit of mankind, were built up during the half-century before the war, could never have come about in a Society where wealth was

> divided equitably. The railways of the world, which that age built as a monument to posterity, were, not less than the Pyramids of Egypt, the work of labour which was not free to consume in immediate enjoyment the full equivalent of its efforts.
>
> . . . . . .
>
> In writing thus I do not necessarily disparage the practices of that generation. In the unconscious recesses of its being Society knew what it was about. The cake was really very small in proportion to the appetites of consumption, and no one, if it were shared all round, would be much the better off by the cutting of it. Society was working not for the small pleasures of today but for the future security and improvement of the race – in fact for 'progress'.[4]

There is no disagreement here with Marx's analysis, though the purpose of the argument is to explain why capitalism survived rather than to show why it ought to be overthrown.

In order to make the case against capitalism it is necessary to turn to Marshall's argument. It is true that, in the main, profit is desired for the purpose of accumulation, but that is not the whole truth. Profit is also the basis for consumption by capitalists. They have to be 'rewarded for waiting' and they will not save, or even preserve wealth accumulated in the past, unless they are fattened up to a certain point by a high standard of life for themselves. For society to pay for saving by permitting a great inequality in consumption is a very wasteful and expensive method of getting the job done. It would be far more economical to dispossess the capitalists, put past accumulated wealth into the safekeeping of society where no one can get at it, to consume property 'in immediate gratification' at the expense of the future, and to decide the rate of accumulation to be carried out on a general view of the development of the economy as a whole rather than according to the whims of individuals.

Marshall's analysis can be used to show why socialism is necessary. According to Marshall's own argument, a greater real benefit is gained from a given income if it is equally distributed than if some individuals are enjoying such a luxurious standard of life that saving is no effort to them, while others are struggling to survive. If the object of production is to provide for the welfare of human beings it is very uneconomic to have the fruits of a given rate of production unequally distributed. But if incomes are equally distributed there would not be enough saving done to permit development. In order to be able to have a more economic distribution of

[4] *Economic Consequences of the Peace*, pp. 18–21.

income it is necessary for saving to be collective, and if the saving is done collectively, capital must be owned collectively.

If the capitalists fully lived up to Marx's description and really invested the whole surplus there would be no need for socialism. It is the rentier aspect of profit, as a source of private wealth, which Marshall emphasizes, that makes the strongest case for socialism; and the entrepreneur aspect of profit as the source of accumulation, which Marx emphasizes, that makes the strongest case for capitalism.

Keynes' analysis also provides a case for the opposite political conclusions. He shows, first that there is a natural tendency for an advanced capitalist economy to run into chronic stagnation, with permanent unemployment, and that it is by its very nature highly unstable. He argues that some measure of interference with the pure private-enterprise system is necessary to keep it running efficiently. In particular, governments must undertake a sufficient amount of investment to make up for the failure of private capitalists to keep investment continuously at the desirable level. But so long as a large part of investment is left in private hands it is necessary that the interference must not lead to a state of affairs in which the private section invests less just because governments are investing more. A high rate of accumulation necessarily leads to a decline in the profitability of further investment. It follows that, to keep up the level of demand for labour, wasteful investment is more effective than useful investment. 'Two pyramids, two masses for the dead, are twice as good as one; but not so two railways from London to York.'[5]

> In so far as millionaires find their satisfaction in building mighty mansions to contain their bodies when alive and pyramids to shelter them after death, or, repenting of their sins, erect cathedrals and endow monasteries or foreign missions, the day when abundance of capital will interfere with abundance of output may be postponed. 'To dig holes in the ground', paid for out of savings, will increase, not only employment, but the real national dividend of useful goods and services.[6]

Keynes' own purpose was to illustrate the paradoxes of capitalism and to plead for a rational control over investment, but the effect of his argument is to explain why it is that modern capitalism flourishes when governments are making investments in armaments. Instead of being a ruinous burden on a highly developed economy, the apparent economic waste of armaments is

[5] *General Theory*, p. 131.

[6] Ibid., p. 220.

really a method of maintaining prosperity. It follows that if there were no need for armaments it would be necessary to make useful investments and so to encroach upon the power and independence of the capitalists. The capitalists therefore prefer a situation in which armaments do seem necessary. This cure, most of us would agree, is even worse than the disease, and on the basis of Keynes' reasoning it can be argued that capitalism will not save itself from the tendency to unemployment by any other means.

Marx's analysis of capitalism shows its strong points, although his purpose was to attack it. Marshall's argument inadvertently shows the wastefulness of capitalism, although he meant to recommend it. Keynes in showing the need for remedies to the defects of capitalism also shows how dangerous the remedies may be.

To learn from the economists regarded as scientists it is necessary to separate what is valid in their description of the system from the propaganda that they make, overtly or unconsciously, each for his own ideology. The best way to separate out scientific ideas from ideology is to stand the ideology on its head and see how the ideas look the other way up. If they disintegrate with the ideology, they have no validity of their own. If they still make sense as a description of reality, then there is something to be learned from them, whether we like the ideology or not.

The Great Contradictions

It is foolish to refuse to learn from the ideas of an economist whose ideology we dislike. It is equally unwise to rely upon the theories of one whose ideology we approve.

An economic theory at best is only an hypothesis. It does not tell us what is the case. It suggests a possible explanation of some phenomenon and it cannot be accepted as correct until it has been tested by an appeal to the facts. The business of the disciples of a great economist is not to propagate his doctrines but to test his hypotheses. If the facts turn out not to fit an hypothesis, the hypothesis must be rejected. It is of no use to choose an hypothesis by the colour of the economist who puts it forward and then to reject the facts that do not agree with it.

Marx's hypothesis, in the simple form of his theory that he worked out and published in Volume I of *Capital* is that, taking it by and large, with exceptions and qualifications, it is to be expected that under capitalism real wages will remain more or less constant. He has two grounds for this point of view. One is purely metaphysical. Everything exchanges at its value; that

is, for the product of an amount of labour-time equal to that which is required to produce it.

> The value of labour-power is determined, as in the case of every other commodity, by the labour-time necessary for the production, and consequently also the reproduction, of this special article. So far as it has value, it represents no more than a definite quantity of the average labour of society incorporated in it.[7]

This is a metaphysical approach to the problem of the determination of wages. When we ask *why* do you believe that labour power exchanges for its value? he replies: Everything that is exchanged is exchanged for its value.

But he also has an analytical answer. The workers are weak and unorganized. Employers can make wages as low as they please subject to the technical necessity to keep the labour force in being. Thus wages are set at the conventional subsistence level. When an excess demand for labour due to rapid accumulation tends to drive them up, or when trade unions face the employers with bargaining power equal to their own and extort concessions from them, the system reacts in such a way as to bring wages down again. First, the mere fact that wages are higher means that there is less accumulation. When population is growing, a slowing up in accumulation causes the demand for labour to lag behind the supply. Secondly, to overcome a threatening scarcity of manpower, labour-saving inventions are made; output per head rises and a given amount of capital employs less labour. The consequent unemployment undermines the bargaining power of the workers. Thus the real-wage rate can never for long be maintained much above the level at which it was first established 'when the class of free labourers was formed'; that is, when capitalism first took over from peasant and artisan production.

Now, by and large, this hypothesis has failed to be verified. In fact, in the developed capitalist economies the level of wages has risen. The rise in productivity has been sufficient to permit both accumulation *and* a rise in the standard of life of the workers.

Lenin tried to explain this away, and latter-day Marxists have a stock answer which they always produce when challenged on this point. The rise in wages, they say, applies only to the imperialist countries. Profits have been maintained by colonial exploitation and the capitalists could therefore indulge the workers at home by allowing them higher wages. They are pampered 'palace slaves' sharing in the exploitation of the colonial workers.

This argument smacks of special pleading – an attempt to force the facts

[7] *Capital* (The Modern Library), p. 189.

to fit the hypothesis instead of reconsidering the hypothesis in the light of facts. The argument that the high rate of profit obtainable from exploiting low-wage labour in the colonies raises home wages does not seem very plausible. Capitalists expect to get more or less the same rate of profit wherever they invest; if profits abroad are high they do less investment at home. The demand for labour at home is therefore reduced, not increased, by the existence of cheap labour abroad.

There is no doubt that home labour in the imperialist countries has gained from colonial exploitation, but by a different mechanism. Low colonial wages have helped to make raw materials cheap and so have made the terms of trade favourable to the industrial nations. No doubt also some advantage to the workers spills over from the wealth of capitalists who have made fortunes abroad, through their taxable capacity, charity and the demand for services. But it would be absurd to suppose that more than a small fraction of the rise in the standard of life of the industrial workers, especially in America, can be accounted for in this way. Wages have risen because of the great technical productivity which has been fostered by capitalism and because the system operates in such a way as to keep the shares of wages in the growing total of production more or less constant.

The fact of rising real wages requires a very important modification of the central thesis of Marx's theory. It has turned out not to be the case that increasing misery drives the workers to rebellion. The capitalists have succeeded in buying them off by giving them a share in the product which capitalism brings into being. Moreover, the workers become saturated with capitalist ideology and look at life in terms of capitalist values. They have developed a state of mind in which they do not want the rules of the game to be altered. It is very noticeable today that Marxism flourishes best in countries where capitalism is least successful.

Marx himself became aware that this was going on during his own lifetime.

> The English proletarian movement in its old traditional Chartist form must perish completely before it can develop itself in a new form, capable of life. And yet one cannot foresee what this new form will look like. For the rest, it seems to me that [the new policy] is really bound up with the fact that the English proletariat is becoming more and more bourgeois, so that this most bourgeois of all nations is apparently aiming ultimately at the possession of a bourgeois aristocracy and a bourgeois proletariat as well as a bourgeoisie.[8]

[8] *Marx, Engels: Selected Correspondence* (Lawrence & Wishart), p. 115.

This is even more true of modern America than it was of England in the sixties.

Marx never succeeded in completing his great plan. The last two volumes of *Capital* are compilations from his notes, not fully worked out and to some extent confused and inconsistent. It has often been suggested that the reason why Marx was held up was because he could not find a way through the contradiction between his hypothesis and the facts around him.

The contradiction is much more striking today. It is now clear that the revolutionary transition to socialism does not come in the advanced capitalist nations, but in the most backward. It is easy enough to say, being wise after the event, that it is natural to expect 'the weakest link in the chain to break'. But there is much more in it than that. Current experience suggests that socialism is not a stage beyond capitalism but a substitute for it – a means by which the nations which did not share in the Industrial Revolution can imitate its technical achievements; a means to achieve rapid accumulation under a different set of rules of the game. This makes a drastic reconsideration of Marx's central hypothesis necessary. There is much to be learned from Marx's analysis of capitalism, but if we simply swallow it whole we are liable to be seriously misled.

On the question of the standard of life, Marshall's theory stands the test of experience better than Marx's. But Marshall's theory also contained a fatal flaw. The unemployment of the inter-war period revealed the crack in his system which Keynes penetrated in order to explode it.

Marshall, like Marx, failed to complete the great three-volume work that he projected.[9] Like Marx, he himself saw the weak spot in his own theory. His whole argument depends upon the beneficial effect of accumulation. But abstaining from present consumption in order to save is not the same thing as adding to the stock of capital. Marshall was aware of this flaw in his system, and anticipated Keynes' exposure of it.

> But though men have the power to purchase they may not choose to use it. For when confidence has been shaken by failures, capital cannot be got to start new companies or extend old ones. . . . Other trades, finding a poor market for their goods, produce less; they earn less, and therefore they buy less: the diminution of the demand for their wares makes them demand less of other trades. Thus commercial disorganization spreads: the disorganization of one trade throws others out of gear, and they react on it and increase its disorganization.

[9] He did, indeed, publish *Money, Credit and Commerce*, but it is a pale ghost of the third volume of the *Principles* which he orginally intended it to be.

> The chief cause of the evil is a want of confidence. The greater part of it would be removed almost in an instant if confidence could return, touch all industries with her magic wand and make them continue their production and their demand for the wares of others. . . . But the revival of industry comes about through the gradual and often simultaneous growth of confidence among many various trades; it begins as soon as traders think that prices will not continue to fall: and with a revival of industry prices rise.[10]

Here is the germ of the theory to account for crises and chronic stagnation with which Keynes exploded Marshall. Perhaps Marshall, like Marx, was frustrated by seeing the contradiction in his theory without being able to see a way through it.

The inadequacy of Keynes' doctrine does not lie in an inconsistency in the theory but in its narrow range. Keynes is discussing the problem of unemployment in a developed economy where there is productive capacity already in existence and all that is needed is a profitable market for its potential product. He is trying to find a cure for the diseases that beset wealthy nations. His argument throws little direct light on the problems of a country which suffers from a lack of productive capacity or on the kind of unemployment (which Marx deals with) that arises from having too little capital to be able to offer work to all available labour. It is of no use to apply Keynes' prescriptions in situations which they do not suit. Where lack of productive capacity is the problem, merely generating demand only leads to inflation, and expenditure for its own sake – building pyramids instead of railways – is clearly not what the situation demands.

In short, no economic theory gives us ready-made answers. Any theory that we follow blindly will lead us astray. To make good use of an economic theory we must first sort out the relations of the propagandist and the scientific elements in it, then by checking with experience, see how far the scientific element appears convincing, and finally recombine it with our own political views. The purpose of studying economics is not to acquire a set of ready-made answers to economic questions, but to learn how to avoid being deceived by economists.

[10] *Principles*, pp. 710–11. (8th Edition, original.)

The process has begun; but it is much impeded by the Cold War. The silly, twisted, and poisonous interpretation of developments in the socialist world that emanates not only from the press, but also from academic quarters, in the so-called free world, give ever-renewed support to the anti-liberal element within the Communist movement. Moreover, the young intellectual, patriotic though critical, is disinclined to speak up when what he says will be taken down and used in evidence against his country. It is we who are largely to blame for smothering him. Perhaps even this essay of mine will do more harm than good.

18

AN OPEN LETTER FROM A KEYNESIAN TO A MARXIST

I MUST warn you that you are going to find this letter very hard to follow. Not, I hope, because it is difficult (I am not going to bother you with algebra, or indifference curves) but because you will find it so extremely shocking that you will be too numb to take it in.

First I would like to make a personal statement. You are very polite, and try not to let me see it, but, as I am a bourgeois-economist, your only possible interest in listening to me is to hear which particular kind of nonsense I am going to talk. Still worse – I am a left-wing Keynesian. Please do not bother to be polite about that, because I know what you think about left-wing Keynesians.

You might almost say I am the archetypal left-wing Keynesian. I was drawing pinkish rather than bluish conclusions from the *General Theory* long before it was published. (I was in the privileged position of being one of a group of friends who worked with Keynes while it was being written.) Thus I was the very first drop that ever got into the jar labelled 'Left-wing Keynesian'. Moreover, I am quite a large percentage of the contents of the jar today, because so much of the rest has seeped out of it meanwhile. Now you know the worst.

But I want you to think about me dialectically. The first principle of the dialectic is that the meaning of a proposition depends on what it denies. Thus the very same proposition has two opposite meanings according to whether you come to it from above or from below. I know roughly from what angle you come to Keynes, and I quite see your point of view. Just use a little dialectic, and try to see mine.

I was a student at a time when vulgar economics was in a particularly vulgar state. There was Great Britain with never less than a million workers unemployed, and there was I with my supervisor teaching me

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Part of a pamphlet, *On Rereading Marx*, published by the Students' Bookshop, Cambridge, 1953; also in *Collected Economic Papers*, Vol. IV.

that it is logically impossible to have unemployment, because of Say's Law.

Now comes Keynes and proves that Say's Law is nonsense (so did Marx, of course, but my supervisor never drew my attention to Marx's view on the subject). Moreover (and that is where I am a left-wing Keynesian instead of the other kind), I see at a glance that Keynes is showing that unemployment is going to be a very tough nut to crack, because it is not just an accident – it has a function. In short, Keynes put into my head the very idea of the reserve army of labour that my supervisor had been so careful to keep out of it.

If you have the least little pinch of dialectic in you, you will see that the sentence 'I am a Keynesian' has a totally different meaning, when I say it, from what it would have if you said it (of course you never could).

The thing I am going to say that will make you too numb or too hot (according to temperament) to understand the rest of my letter is this: I understand Marx far and away better than you do. (I shall give you an interesting historical explanation of why this is so in a minute, if you are not completely frozen stiff or boiling over before you get to that bit.)

When I say I understand Marx better than you do, I don't mean to say that I know the text better than you do. If you start throwing quotations at me you will have me baffled in no time. In fact, I refuse to play before you begin.

What I mean is that I have Marx in my bones and you have him in your mouth. To take an example – the idea that constant capital is an embodiment of labour power expended in the past. To you this is something that has to be proved with a lot of Hegelian stuff and nonsense. Whereas I say (though I do not use such pompous terminology): 'Naturally – what else did you think it could be?'

That is why you got me so terribly muddled up. As you kept on proving it, I thought that what you were talking about was something else (I could never make out what) that needed to be proved.

Again, suppose we each want to recall some tricky point in *Capital*, for instance the schema at the end of Volume II. What do you do? You take down the volume and look it up. What do I do? I take the back of an old envelope and work it out.

Now I am going to say something still worse. Suppose that, just as a matter of interest, I do look it up, and I find that the answer on my old envelope is not the one that is actually in the book. What do I do? I check my working, and if I cannot find any error in it, I look for an error in the book. Now I suppose I might as well stop writing, because you think I am

stark staring mad. But if you can read on a moment longer I will try to explain.

I was brought up at Cambridge, as I told you, in a period when vulgar economics had reached the very depth of vulgarity. But all the same, inside the twaddle had been preserved a precious heritage – Ricardo's habit of thought.

It isn't a thing you can learn from books. If you wanted to learn to ride a bicycle, would you take a correspondence course on bicycle riding? No. You would borrow an old bicycle, and hop on and fall off and bark your shins and wobble about, and then all of a sudden, Hey presto! you can ride a bicycle. It was just like that being put through the economics course at Cambridge. Also like riding a bicycle, once you can do it, it is second nature.

When I am reading a passage in *Capital* I first have to make out which meaning of c Marx has in mind at that point, whether it is the total stock of embodied labour, or the annual flow of value given up by embodied labour (he does not often help by mentioning which it is – it has to be worked out from the context) and then I am off riding my bicycle, feeling perfectly at home.

A Marxist is quite different. He knows that what Marx says is bound to be right in either case, so why waste his own mental powers on working out whether c is a stock or a flow?

Then I come to a place where Marx says that he means the flow, although it is pretty clear from the context that he ought to mean the stock. Would you credit what I do? I get off my bicycle and put the error right, and then I jump on again and off I go.

Now, suppose I say to a Marxist: 'Look at this bit – does he mean the stock or the flow?' The Marxist says: 'c means constant capital,' and he gives me a little lecture about the philosophical meaning of constant capital. I say: 'Never mind about constant capital, hasn't he mistaken the stock for the flow?' Then the Marxist says: 'How could he make a mistake? Don't you know that he was a genius?' And he gives me a little lecture on Marx's genius. I think to myself: This man may be a Marxist, but he doesn't know much about geniuses. Your plodding mind goes step by step, and has time to be careful and avoids slips. Your genius wears seven-league boots, and goes striding along, leaving a paper-chase of little mistakes behind him (and who cares?). I say: 'Never mind about Marx's genius. *Is* this the stock or is it the flow?' Then the Marxist gets rather huffy and changes the subject. And I think to myself: This man may be a Marxist, but he doesn't know much about riding a bicycle.

The thing that is interesting and curious in all this is that the ideology which hung as a fog round my bicycle when I first got on to it should have been so different from Marx's ideology, and yet my bicycle should be just the same as his, with a few modern improvements and a few modern disimprovements. Here what I am going to say is more in your line, so you can relax for a minute.

Ricardo existed at a particular point when English history was going round a corner so sharply that the progressive and the reactionary positions changed places in a generation. He was just at the corner where the capitalists were about to supersede the old landed aristocracy as the effective ruling class. Ricardo was on the progressive side. His chief preoccupation was to show that landlords were parasites on society. In doing so he was to some extent the champion of the capitalists. They were part of the productive forces as against the parasites. He was pro-capitalist as against the landlords more than he was pro-worker as against capitalists (with the Iron Law of Wages, it was just too bad for the workers, whatever happened).

Ricardo was followed by two able and well-trained pupils – Marx and Marshall. Meanwhile English history had gone right round the corner, and landlords were not any longer the question. Now it was capitalists. Marx turned Ricardo's argument round this way: Capitalists are very much like landlords. And Marshall turned it round the other way: Landlords are very much like capitalists. Just round the corner in English history you see two bicycles of the very same make – one being ridden off to the left and the other to the right.

Marshall did something much more effective than changing the answer. He changed the question. For Ricardo the Theory of Value was a means of studying the distribution of total output between wages, rent and profit, each considered as a whole. This is a big question. Marshall turned the meaning of Value into a little question: Why does an egg cost more than a cup of tea? It may be a small question but it is a very difficult and complicated one. It takes a lot of time and a lot of algebra to work out the theory of it. So it kept all Marshall's pupils preoccupied for fifty years. They had no time to think about the big question, or even to remember that there was a big question, because they had to keep their noses right down to the grindstone, working out the theory of the price of a cup of tea.

Keynes changed the question back again. He started thinking in Ricardo's terms: output as a whole and why worry about a cup of tea? When you are thinking about output as a whole, relative prices come out

in the wash – including the relative price of money and labour. The price level comes into the argument, but it comes in as a complication, not as the main point. If you have had some practice on Ricardo's bicycle you do not need to stop and ask yourself what to do in a case like that, you just do it. You assume away the complication till you have got the main problem worked out. So Keynes began by getting money prices out of the way. Marshall's cup of tea dissolved into thin air. But if you cannot use money, what unit of value do you take? A man hour of labour time. It is the most handy and sensible measure of value, so naturally you take it. You do not have to prove anything, you just do it.

Well there you are – we are back on Ricardo's large questions, and we are using Marx's unit of value. What is it that you are complaining about?

Do not for heaven's sake bring Hegel into it. What business has Hegel putting his nose in between me and Ricardo?

18

THE NEW MERCANTILISM

I BEGAN to read for the Tripos in the last decade in which the doctrine of the universal benefits of free trade was still dominant. It was imposed upon our young minds as a dogma. We were being received into the fraternity of economists, who knew that free trade is right, unlike the silly plain man who supposed that protection might do his country good, and the misguided politician who supported the vested interests of particular industries. In the dark age before the light of Adam Smith dawned, there had been mercantilists who were both misguided, because they thought it proper for a government to operate in favour of the economic interests of its own country, though at the expense of others, and silly because they thought that it *was* in a country's interest to build up a trade surplus by restricting imports. When Keynes attacked the dominant orthodoxy, one of the things that grieved my teachers most was that he should try to rehabilitate the mercantilists, thus damaging the claim of the free-traders to superior benevolence and wisdom.

1

The economist's case for free trade is deployed by means of a model from which all relevant considerations are eliminated by the assumptions. Each country enjoys full employment. There is no migration of labour and no international investment, however great the differences in the level of profits in different countries may be. At the same time there is perfect mobility and adaptability of factors of production within each country. Perfect competition prevails. Fixed exchange rates are taken for granted. Equality between the values of imports and exports of each country is quickly established, in the face even of large disturbances, by movements of relative prices brought about through the international monetary mechanism. All this has to be granted before the argument begins. Yet

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An Inaugural Lecture, delivered at the University of Cambridge on 15 October 1965.

prescriptions for policy were drawn from it, with great confidence, to apply to a world which by no means conformed to the assumptions.

In practice the policy seemed to work, in the era that ended in 1914, just because the assumptions of the model were not fulfilled. There was enough unemployment to keep money-wage rates in check. There were massive migrations reallocating the supply of labour between countries of low and high economic opportunity; and there was a continuous, though fluctuating, flow of international investment.

Investment was typically made by the enterprise of developed industrial countries looking out (under the guidance of prospective profit) for supplies of primary products. The finance and the imports required in the developing country came in the main from the same source, so that surpluses of exports offset the capital outflow. By the time that loan charges and remittances of profits in the developing countries began to outweigh new borrowing, a sufficient flow of exports to provide for them would be built up (barring errors and accidents) for the object of the investment in the first place was precisely to develop the production of commodities for export to the ever expanding market of the industrial metropolis.

In this way a broad general tendency prevailed to harmony between flows of trade and capital movements.

When perfect harmony did not prevail, discrepancies were not difficult to eliminate. London was the money market of the world; the income account for sterling, taking trade and interest payments together, was always in surplus. When a deficit appeared in the overall balance of payments, causing a loss of gold, it was only necessary to raise the bank rate and cut down lending from London to fit the surplus. There was no need for heavy pressure operating through prices on the balance of trade, in the manner postulated for the economists' model.

On the other hand a borrowing country, when it found capital inflow falling short of its import surplus, was automatically obliged to curtail expenditure until unemployment and falling incomes cut down its imports to what it could pay for. For these countries, eliminating discrepancies was very disagreeable but they were not yet provided with economists to make their complaints articulate.

For England, the general system of free trade, fixed exchange rates, and uninhibited play of market forces was highly satisfactory as long as her economy held the dominant place in the expanding capitalist world. I say England deliberately for Ireland and Scotland suffered in the process.

We ought not to be surprised that what now seems such a flimsy construction as the economists' model should have appeared to hold so much weight and authority, for it did not really have to stand on its own logical base. It was the façade of a dogma with solid interests behind it.

In the 1920s, at the time when I was being brainwashed, the solid interests had already crumbled, for, in the immortal words of *1066 and All That*, after 1918 America became Top Nation, and that was a Bad Thing.

But the façade still stood. It was an eminent economist who persuaded the authorities that restoring the mere mechanism of the gold standard would restore the harmonious international financial relations in which it had been able to operate.

In the 1930s, the façade, along with the whole structure, was thoroughly pulverized in the great slump.

Each country, finding profits falling and unemployment growing, tried to save for itself a larger share in the shrunken total of world activity, by one means or another – tariffs, import quotas, subsidies, exchange depreciation and counter-depreciation – each exporting its own unemployment, as the phrase was, to the rest of the world. International trade was cut down all round relatively to home production, which itself had been drastically reduced. Over three years the total output of manufacturing industry in the capitalist countries fell by 40 per cent while international trade fell by 60 per cent.[1]

Certainly the free play of market forces was not operating, as in the model, to secure full employment and balanced trade for each country.

It was now seen that any one country that could succeed in cutting its imports (relatively to its exports) and substituting home production was so much the less badly off. Since all were trying to do it, none could gain much for long, but any that had refrained from joining the scramble would have found the world's unemployment being dumped upon it.

These considerations caused Keynes to repudiate the free-trade doctrine which he had once preached as fervently as any. We know now that free trade is not an equilibrium state that would be reached if each country individually followed its own enlightened self-interest. It could be achieved only by mutually accepted self-denying ordinances, establishing a code of behaviour that would be good for all if each observed it.

It was found possible to show, even within the terms of the economists' model, that, when each country individually pursues its own individual interests, they will pile up tariffs against each other. In the final position, with trade restricted all round, no one, considered separately, is likely to be better off than they would have been if they had all agreed not to begin, and certainly, taken together, they are much worse off. It follows, within the

[1] See USA Department of Commerce, *The United States in the World Economy*, p. 170.

terms of the model, where full employment is always guaranteed, that they should enter into a treaty which would impose free trade under the sanction of a mutually accepted rule.

But in reality, since full employment is not guaranteed, merely to agree to prohibit beggar-my-neighbour devices for checking imports and pushing exports would not be to the good of all. The same rule would inhibit also constructive remedies for unemployment from being undertaken by individual countries. When one country gives a boost to the world as a whole by increasing its home activity, its imports are liable to rise, while, until the rest of the world follows suit, the market for its exports is not better than before. In short it tends to develop a trade deficit, which it may not be able to finance. To be able to benefit the world by increasing employment at home, it must be free to reduce its *propensity* to import, so that its total *amount* of imports does not rise too fast. Of all bad-neighbourly conduct among trading nations, the worst is to go into a slump, and expedients necessary to prevent it have to be excused.

When the trading system for the capitalist world was being reconstructed after the last war, many agreements, such as GATT and IMF, were based upon the philosophy of mutual undertakings to avoid bad-neighbourly conduct of one kind or another, but it proved impossible to frame rules that would permit the right exceptions while ruling out the wrong ones.

The great slump is now a half-forgotten nightmare. Ever since the war, partly by good luck, partly by good management and partly by the arms race, overall effective demand has been kept from serious relapses. Nowadays governments are concerned not just to maintain employment, but to make national income grow. Nevertheless, the capitalist world is still always somewhat of a buyer's market, in the sense that capacity to produce exceeds what can be sold at a profitable price. Some countries have experienced spells of excessive demand, but this corrects itself only too soon. The chronic condition for industrial enterprise is to be looking round anxiously for prospects of sales. Since the total market does not grow fast enough to make room for all, each government feels it a worthy and commendable aim to increase its own share in world activity for the benefit of its own people.

This is the new mercantilism.

The fact that a section of the world economy has contracted out of the market system and is growing up beside it, is helpful to it to some extent, for the socialist countries believe in the old free-trade doctrine that the purpose of exports is to pay for imports, and they are always willing to buy

as much as they can sell. But political hostility and particular vested interests limit the amount of trade that they are allowed with the capitalist world, and so limit the amount of relief that they give.

For the rest, everyone is keen to sell and wary of buying. Every nation wants to have a surplus in its balance of trade. This is a game where the total scores add up to zero. Some can win only if others lose. The beautiful harmony of the free-trade model is far indeed to seek.

It is sometimes argued that the fact that common markets and free-trade areas are now in fashion proves that this is not an age of economic nationalism but just the reverse.

Adam Smith triumphed over the old mercantilists by observing that the division of labour depends upon the extent of the market. This principle has been vindicated beyond his wildest dreams by the economies of specialization introduced by modern technology and the innumerable animal, vegetable and mineral products unknown in his day. For any group of producers, provided that they can be sure of adequate demand, the greatest possible specialization is highly advantageous. And a large nation, with a large internal market within the orbit of its political control, has important economic advantages over a small one. The small nation has to weigh the prospects of gain from specialization against the security of home production for home consumption, while the large nation can enjoy a great deal of both.

A group of nations that can succeed in agreeing to behave as if, for certain purposes, they were one, thus scores a benefit for all of them in competition with the outside world.

The larger and more various the free-trade area in which an economy grows up the more efficient it will be, but it is not at all easy for national economies, once grown, to make the mutual sacrifices required to create a common market. The experiences of EEC illustrate the fallacy of the doctrine that free trade comes about of itself through the operation of enlightened self-interest. Even the East European socialist countries, who accept planning for specialization in principle, having been started off by Stalin on a false track of autarky, are finding it very difficult to move out of it into a rational system of trade.

2

The characteristic feature of the new mercantilism is that every nation wants to earn a surplus from the rest. I have already referred to the distinction between a country's income account and its overall balance of

payments. Precise definitions are very tricky; rough and ready categories will serve for now. Expenditure on income account includes payments for imports, visible and invisible, interest and profits due to creditors overseas, and recurrent government outlay abroad on military installations, etc. Receipts are the corresponding items on the other side of the account. Capital outflow comprises loans of all kinds from home citizens and institutions to foreign, government grants, purchases of foreign securities, and finance for direct investment carried out overseas by home companies. These are all included in the general category of foreign lending. The corresponding items on the other side of the account are the capital inflow, or foreign borrowing for short.

When, over any period of time, net lending, in this wide sense, falls short of a surplus on income account, or borrowing exceeds a deficit, the overall balance of payments is in surplus and there is an inflow into the monetary system of the country concerned of internationally liquid means of payment, such as gold or dollar balances. When net lending exceeds the surplus on income account, or net borrowing falls short of the deficit, the country is losing monetary reserves.

Now one of the reasons why countries want to have a surplus on income account is that it makes it possible to have an overall surplus so as to gain reserves. This is partly because an exact balance is not possible, and a surplus is a fault on the right side, and partly because it is highly desirable to have a good stock of reserves available to be paid out in an emergency, especially in these uncertain times when even the most respectable currencies are liable to sudden attacks of adverse speculation.

The free-traders used to mock at the old mercantilists for thinking that a country could grow rich by amassing treasure. The new mercantilists believe that it is not necessarily foolish to prefer to acquire sterile money rather than useful goods or profitable assets.

Apart from new mining, some countries can gain reserves only if others are losing them. (What is in effect a loss of reserves may take the form of accepting short-term liabilities, equivalent, as we used to put it, to an inflow of negative gold.)

At one time the United States was losing reserves quite cheerfully. Having an enormous surplus on income account after the war, American business got into the habit of financing investment abroad and American governments got into commitments of all kinds. The surplus failed to grow as fast as the outflow, till one fine day the United States found itself with an overall deficit and reserves flowing out. The stock of gold acquired from the overall surpluses of more than twenty years was grotesquely huge, and

the American authorities did not object to letting it begin to go. This was the correct, good-neighbourly policy. It was a very great benefit to the surplus countries who wanted to acquire reserves. For some time they have been battening upon it. But no stock is inexhaustible to a one-way flow, even the American stock of gold. Over the last few years the authorities have begun to worry, and to cut down overseas payments, and call in receipts. The surplus countries that had become accustomed to an inflow of reserves are worried when it threatens to dry up, and curtail their outgoings in turn, so that a spasm of contraction runs through the world financial system.

There is a lot of talk nowadays about international liquidity; the total stock of the net reserves of all countries taken together has failed to grow with the money value of the total trade that it has to serve. This is certainly a serious problem and it should be solved. But to solve it will not cure us of mercantilism. However great the total supply of liquidity, there will still be a deflationary kink in a financial system in which every country likes to gain reserves and hates to lose them. This complaint used to be made against the old-fashioned gold standard. Our modern sophisticated arrangements are haunted by it still.

The story of the American gold hoard is an illustration of how wrong Marshall was to choose as his motto *Natura non facit saltum* – nature does not proceed by sudden leaps. Economic history creeps in this petty pace from day to day, but over decades it can swing round sharp corners that leave equilibrium analysis gaping.

In the system of the new mercantilism, an inflow of reserves is a rather superficial aim. There are more solid reasons why a surplus on income account is advantageous. For one thing, it permits the home country's financiers to acquire foreign assets. Provided there is no fear of default, foreign assets are eligible from a purely financial point of view, simply because the world is larger and more varied than the home country. Finance can pick out the plums from a bigger pie. Even when default or confiscation sometime is vaguely feared, a profit rate which may be, say, 30 per cent per annum meanwhile, offers a good gamble.

The kind of capital outflow now in vogue is much unlike nineteenth-century colonial investment to supply exotic commodities for which there was a market already in view. Modern lending is largely mere placement – buying up assets that already exist. And when it is implementing real investment it is often investment to supply the recipient's home market, protected by tariffs or monopolistic conditions. For the receiving country this kind of investment may be an embarrassment. The remission of profits

will put a burden upon its future balance of payments; and in this age of economic nationalism it is dangerous and disagreeable to be bought up by foreign interests. By the same token, the lending country is gaining something over and above a high return on its money.

The high return goes primarily to the financiers. The most important benefit from a surplus on income account, which affects the whole economy, is that, provided that there are energetic enterprises and thrifty capitalists to take advantage of it, it permits home investment to go full steam ahead, while a deficit country is nervously pulling on the brake for fear of excessive imports. Investment in the strong country brings technical progress which improves its competitive position and makes its balance of trade all the stronger, while the weak country slips into stagnation or suffers distressing spasms of stop and go.

There is another hazard that has been introduced into the game in the post-war period. Partly because of long spells of near-full employment and partly because of a change in the internal balance of political forces, industrial countries have been experiencing a continuous process of rising money-wage rates. In the stagnant country, costs are pushed up, making its competitive position all the weaker, while the strong country can afford a greater rise, because output per head is increasing faster, and yet is subject to less pressure, because its workers' real earnings are visibly growing.

A strong country may find itself only too strong when the energy and competitive advantages of its industrialists give it such a large surplus that, from the point of view of the economy as a whole, home investment would offer a better use for its resources. An excessive surplus could be reduced, by appreciating the currency or allowing money-wage rates to rise faster, thus cutting down the competitive advantage that causes the excess. But this remedy cannot easily be applied in a measured dose. Industrial supply curves are usually horizontal, and the world demand curve at any moment strongly kinked. It is impossible to cut exports a little, by raising relative costs, without cutting them much too much. Even when its surplus is more than the country has a good use for, it would rather keep it than risk losing it.

Thus the authorities in each country, requiring to maintain employment for their own people and growth in their own national income, in the general environment of a buyer's market, have good reason to strive to gain a surplus in their trade and a rising share in world markets. In so far as some succeed, others fail.

Great Britain has been a notorious failure. I am not thinking of the sterling crisis and our troubles with the gnomes of Zurich, but of our

continuous, obstinate, unmanageable tendency to run into a deficit on income account. This is not only due to the complacency of our businessmen and the touchiness of our trade unions, which put us into a weak competitive position. It is due to the corner in economic history that we have to go round. The rapid descent from the position of Top Nation, and the pyrrhic victories of two wars, have left us with a propensity to import greater than we can any longer provide for.

From our own point of view, the indicated remedy is to cut inessential imports, and to restrict consumption for a time while devoting research and investment to import substitution, as well as to modernizing industry and education to improve our general efficiency. For us this would not be too uncomfortable and might even be turned to good account. But for the other mercantilist nations it would be a sad blow. Their full employment and their growth depend upon surpluses that, directly or indirectly, depend upon our deficit. Our deficit and our falling share in world markets have been going on long enough for the economies of the rest to become adapted to them. A kind of quasi-equilibrium has been built round them, which will be violently upset when they are reversed. And there is bound to be a formidable back-wash upon our own position, partly from retaliation and partly from the automatic chain reaction throughout the rest of the world of a fall in demand following a fall in sales.

This does not depend on which particular remedies we apply. To cut imports is an immediate blow to the exporters concerned. Exchange depreciation is considered a breach of faith. Various methods of pushing exports were ruled out by mutual agreements to avoid beggar-my-neighbour policies. But suppose that we suddenly became very efficient and began to recapture our market by offering excellently designed goods at eligible prices. Our competitors would suffer just as much from a loss of sales and would be obliged to react just as sharply as if we balanced our own trade by any other means.

The remedy favoured by the monetary authorities of the world, including the gnomes, is the old-fashioned one of a credit squeeze, inducing a sufficient slump to cut down imports and enough unemployment to check the rise in wages. This method maintains the authority of finance over industry. Moreover, we were used, in the old days of free trade, to make deficit nations swallow this bitter medicine, and there is some *schadenfreude* in seeing us drink it now.

But this remedy is not only the most intolerable for us; it is the most dangerous for the others, especially now, when several countries for various reasons have had to slacken their rate of growth, so that an actual recession

in any one might threaten the whole regime of near-full employment for all.

The actual sums involved in the British deficit, though serious for us, are not large in relation to the volume of world trade. With common sense and goodwill, it would be possible to limit the damage or even turn it to advantage. But there is no tradition to help us. The free-trade doctrine, ignoring the leaps and twists of economic history, simply denied that such a problem could occur. In the era of the new mercantilism the problem is recognized so well that all the world stands around shouting at us that whatever we do is bound to be wrong.

3

All this concerns the relations between the industrial capitalist nations. The greatest change that has come over the world since the war is the emergence of many new nations, existing at a low economic level, determined to begin to share in the benefits of modern technology. The most striking thing that modern technology has done for them so far is to reduce death rates, while leaving their primitive birth rates unchecked. A terrifying growth of population is making it all the more necessary for them to increase production.

Most were provided by colonial investment with one or two export commodities. This gives them something to start on. All but the most besottedly fanatical free-traders would concede their right to cut down inessential imports and use their export earnings to import know-how and investment goods to lay a basis for development.

Such earnings, however, are far from adequate. Technological developments have limited demand for the ex-colonial products, relatively to supplies available, partly because of the growth of synthetic substitutes and partly because the wealthy mercantilists countries foster their own agriculture, and keep as much of the market as they can to themselves. Commerce in commodities is conducted on competitive principles, while the prices of industrial products are administered on a cost-plus basis, so that they have been drifting upwards with the continuous rise of money-wage rates. The result has been sluggish growth in the sales of the ex-colonial commodities and a downward trend in their purchasing power over manufactures. Moreover, the free play of market forces, which in the economists' model produces an equilibrium beneficial to all, in reality generates unpredictable fluctuations in export earnings, that make

consistent planning impossible and turn the choice of investment projects into a gamble.

Export earnings from commodities provide limited ammunition for growth, also, just because they were the product of colonial investment and are still earmarked to pay for it. This is markedly the case in the Latin-American economies, which came into a colonial relationship to the United States after they had won national independence from Spain and Portugal. Nowadays many of these countries are paying back 30 or 40 per cent of all their export earnings as profits and interest to foreign capitalists.[2] These payments are being made, in the main, not for sophisticated know-how and up-to-date equipment supplied by the metropolitan industry, but merely for extracting their own natural wealth from their own soil.

Another legacy from colonialism which impedes development is the tastes and habits of the middle class that grew up within it. Having become accustomed to an imported style of life, these people find it very hard to give up imported consumption goods, so that such export earnings as do come in are not easy to mobilize for investment.

In spite of these limitations, considerable development has gone on and many amongst the new nations are beginning to export industrial products. Now they come hard up against the mercantilism of the wealthy countries, who hate cheap imports.

When England was the leading exporter of manufactures, India, for instance, in the sacred name of free trade, was forbidden to protect her handicraft workers or foster her infant capitalist industry (though protection for infant industries was admitted as an exception in the economists' doctrine). When a duty on imported cloth was imposed for revenue purposes it had to be offset by a corresponding excise to prevent local production from enjoying a competitive advantage.

The free-traders argued that the manufactures from Lancashire were far and away cheaper and better than homespun so that it was a clear benefit to the Indian consumer to allow imports to undercut and wipe out handicraft production. They failed to notice that, while the Indian economy had to bear the whole cost of the imports, the consumer gained only the difference; at the same time the handicraftsman was thrown into agriculture, already over-supplied with labour, and lost his earnings to his rival in Lancashire.

Now the boot is on the other foot, and Lancashire is being undercut by cheap imports. Free trade is no longer in fashion and Lancashire has to be protected. To do ourselves justice, we have gone much further than other well-to-do nations in permitting manufactured imports from developing

[2] See United Nations, *Proceedings of UNCTAD*, v. 87–8.

countries, though by no means going to the whole length of free trade. In general the new mercantilist system is brutally obstructive to them.

It seems after all that the free-trade doctrine is just a more subtle form of mercantilism. It is believed only by those who will gain an advantage from it.

Nowadays the wealthy capitalist nations make a great thing of the aid that they are giving to the new nations. Military aid, intended to steel them against Communism, actually encourages them to go in for cold or hot wars against each other, which is most inimical to economic growth. Much of the civilian so-called aid is made on financial terms which are building up a Latin-American situation for the future in Asia and Africa, though here, once more, we can take credit for starting a line in interest-free loans. Even aid which is really a gift is not unambiguous. Individuals who advocate and administer aid to the developing countries are sincerely concerned to help them to overcome poverty and to establish their independence, but the programme as a whole is based upon a contradiction. Its underlying purpose is to prop up a number of conservative, feudal and fascist governments, which can be relied upon in return to respect foreign property. In short the aim of aid is to perpetuate the system that makes aid necessary.

If the wealthy countries were genuinely anxious to put the new nations on their feet they would use their funds to compensate the capitalists at home, and present the developing countries with the equity in their own resources; and to find alternative employment for the workers at home so as to be able to permit and encourage imports.

But this would be a complete reversal of the new mercantilist system. In each era the rules for international economic relations are moulded to suit the views of the country that is then the most powerful. Therefore it is generally impossible to get the rules altered.

The Russian people have a way of expressing their view about the Soviet régime by passing around extremely acid jokes. There was one after the first manned sputnik. A journalist comes to interview Gagarin's wife: 'And how did you feel when your husband went up into space?' 'I was not there. I was out queueing for milk.' 'Well, how did you feel when he came down?' 'I had not got back yet.' The joke is not really against the Soviets but against the modern world. Considering the fantastic technical mastery and lavish expenditure shown by investment in horror weapons, and supersonic flight, and the moon race, surely with a little common sense and goodwill we could relieve all the housewives of want and discomfort. But it would have to be genuine common sense and genuine goodwill, not a disguise for national interests.

11

THE MEANING OF CAPITAL

THE controversies over so-called capital theory arose out of the search for a model appropriate to a modern western economy, which would allow for an analysis of accumulation and of the distribution of the net product of industry between wages and profits.

1

The old orthodoxy, which relied heavily on Say's Law and a natural tendency to the establishment of equilibrium with full employment, had been discredited in the depression of the 1930s. Keynes had cleared the way for a new approach. He broke down the old dichotomy between *Principles* and *Money*, treating the financial system as part of the general functioning of the economy. He observed that, because prediction of the future is necessarily uncertain, behaviour affecting economic life (or private life, for that matter) cannot be governed by strictly rational calculations of the outcome. He pointed out that accumulation depends upon decision about investment taken by business firms and governments, not by decisions about saving taken by households, and he drew a clear distinction (which was confused in the old orthodoxy) between interest, as the price that a businessman pays for the use of finance to be committed to an investment, and profit, which is the return that he hopes to get on it. He pointed out that wage rates are settled in terms of money and the level of real wages depends upon the operation of the economy as a whole. All this cleared the ground for a model appropriate to modern capitalism, but Keynes' own construction was confined to dealing with short-period analysis.

In a short-period situation, here and now, the organization of industry, stocks of equipment, the training of the labour force and the habits of consumers are already settled. These elements in the situation are changing very slowly and for practical purposes may be taken as constant. The model is designed to deal with the causes and consequences of the changes in

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employment of labour and utilization of given physical resources which occur with swings of effective demand.

The stock of means of production ('capital goods') in existence at a moment of time can be represented by a who's who of particular items. The value of the stock is not a very precise concept. Businesses reckon book value in terms of the accounting conventions that they choose to follow. The stock exchange value of a corporation depends upon the market's estimate of future profits and on the level of interest rates. Market expectations are notoriously unstable and interest rates are influenced by monetary policy or, in any one financial centre, by events in others.

Since the value of capital is not a precise concept, the *rate* of profit is not precise. This did not matter for Keynes. He needed to consider only the flow of actual gross profits today and the expected return in the future on finance invested today. Finance to be invested is a definite sum of money, with whatever purchasing power it has today over labour time and physical inputs, but the expected return is far from definite; it is based upon extrapolation of past experience, guesswork or convention, coloured by the subjective mood, 'animal spirits', in which investment plans are being drawn up.

This was sufficient for short-period analysis, but once Keynes' theory was accepted, long-run accumulation became the centre of interest; it was therefore necessary to come to grips with concepts of the quantity of capital and the rate of profit in the economy as a whole.

2

The 'mainstream teaching' being developed, particularly in the United States, seemed to be based upon three distinct types of model, often mixed up together.

In the first, the economy is represented by a grand co-operative without private property. Society saves, and society enjoys the benefit of the increased income which accumulation provides. To make sense of Frank Ramsey's elegant formula for the optimum rate of saving, it is necessary to suppose that output consists of some kind of homogeneous substance that can be consumed or used as means of production. Saving, that is, the excess of output over consumption, is added to stock and increases future production. The growth of output with the growth of stock is subject to diminishing returns, and so is the growth of utility for society as a whole with the growth of consumption.

The second type of model is based on the general equilibrium of Walras.

Here there is a stock of specific means of production, often called 'machines'. To overcome the problem of amortisation, machines are sometimes assumed to be indefinitely durable or, alternatively, subject to 'radio-active decay' so that their value at any moment is independent of their age. From one point of view this is similar to the short-period concept of a stock of equipment in existence at a moment of time, but from another point of view it is quite different. There is no utilization function, showing how output varies with employment. Labour and machines are fully utilized in equilibrium and the machines can be used, in different combinations, to make a great variety of alternative outputs, exhibited on a 'production-possibility surface'. The main emphasis of the analysis is on exchange. Production consists of hiring various inputs and combining them in various proportions. When the market is in equilibrium, the rentals of the various inputs required for each output absorb its value and there is no profit. This concept of equilibrium requires an exact definition of the number of workers in the economy (natives and immigrants?) and the hours of work per week and per year corresponding to 'full employment'.

The third type of model was derived from Marshall, vulgarized by J. B. Clark.[1] Here 'capital' is a factor of production, along with land and labour. The returns to factors are governed by their marginal productivities. 'Capital' is embodied in 'machines'; the marginal productivity of 'machines' governs the interest received by rentiers. There is a separate item for profits, which is the return to 'enterprise' or the 'co-ordinating function', that is, the management of business.

The concept of 'capital' as something distinct from physical means of production is connected with business experience. A new business sets out with a sum of money, whether owned by the proprietors or borrowed at interest. The money is invested in means of production and work in progress. So long as the business is successful, the value of the original investment is kept intact. It may be augmented by further investment financed out of profits or by further borrowing. A part of gross profit is treated as an amortisation fund. With the passage of time, the original form of the investment may cease to be the most profitable and the first stock of means of production is replaced by another, embodying a different technique or aimed at a different market. Thus the initial finance (so long as the business is successful) continues to exist as a sum of value being continuously embodied in different forms of productive capacity. But finance arises out of relationships within an economy. How can finance be treated as a factor of production?

[1] See *The Distribution of Wealth. A Theory of Wages, Interest and Profits*, 1899.

J. B. Clark blithely treated 'capital' as a quantity of something which could be embodied in various kinds of 'capital goods' and changed from one embodiment to another, but he did not try to explain what this quantity consisted of. Marshall at one moment pronounced that the factors of production should be regarded as land, labour and waiting.[2] Waiting means owning a stock of wealth. Thus the stock of capital is represented by the sum of the value of all assets owned by the individuals and institutions that the economy comprises. But Marshall was well aware that the value of assets is influenced by the level of the rate of interest and he admitted that it is impossible to derive the rate of interest from the value of capital without arguing in a circle. Wicksell was troubled by the same problem. Just before the eruption of the Keynesian revolution, Dennis Robertson posed the question of the meaning of a quantity of capital in terms of his story of ten men with nine spades.[3]

Apparently unaware that this problem had never been solved, the mainstream economists were drawing production functions of the form $O=f(K, L)$, the quantity of output is a function of the quantity of inputs of labour and 'capital'. Moreover, they were using this formula to interpret statistics of the performance of industry, and treating the actual levels of wages and profits as the marginal products of labour and capital. In an article published in 1953, I revived the old question and asked whether K, the quantity of capital, was supposed to be a sum of money or a list of 'machines'.

One answer was that a production function can be drawn up in terms of specified inputs, and that the value of 'capital' is an unnecessary concept. But these inputs, seemingly, were not produced by profit-seeking investment. They may have fallen from heaven, like Marshall's meteoric stones; there is no means of discussing how further accumulation will take place.

The more usual answer was to set up a model in which physical products are as like as possible to money. Ouput consists of a single homogeneous, divisible commodity, say, butter, which is both consumable and can be turned into a stock of means of production. The stock is 'malleable'; a stock of butter which has been used for one type of production can be withdrawn and moulded into another form without cost and without change in quantity. (This model is not quite the same as Frank Ramsey's co-operative, because the income of 'society' is divided between wages and profits.)

[2] *Principles*, first edition (1890), p. 614 n. 1. In later editions the same concept is overlaid with various complications.

[3] 'Wage grumbles', *Economic Fragments*.

The butter model made it possible to revive all the propositions of pre-Keynesian orthodoxy. Say's Law prevails; saving governs accumulations; uncertainty disappears, for one investment can be turned instantaneously into another when circumstances change. Interest paid to rentiers is identified with profits accruing to firms. There is a well-behaved production function in labour and the stock of butter; when the ratio of the stock to the labour force is rising as accumulation goes on, the butter wage rises and the rate of butter profit on butter capital falls. Most remarkable of all, technical progress raises the productivity of the stock of butter without cost and without changing its quantity. (At first there was a mistake in the argument here that was put right by Professor Rymes.)[4]

This model was described as a parable. A parable, in the usual sense, is a story drawn from everyday life intended to explain a mystery; in this case it is the mystery which is expected to explain everyday life.

In order to interpret a time-series of statistics, the stock of butter in the model was identified with the book value of physical assets of firms comprised by US industry. As the relative shares of wages and profits in value added were fairly constant in the period studied, it was possible to go through the motions of fitting a Cobb-Douglas production function to the figures. But it was found that the ratio of the value of capital to value of output was fairly constant through time, thus (with a constant share of profit) the *ex-post* overall rate of profit on capital must have been constant over the period, while the average real-wage rate rose in step with the rise of output per head. On a production function representing the 'state of technical knowledge', rising real wages entail a falling rate of profit. Evidently, the statistics, at each point of observation were drawn from a different state of technology. The figures might be interpreted to show that technical progress over a period had been roughly neutral; they could not exhibit a production function, or marginal productivities, 'in a given state of technical knowledge', as the mainstream theory required.

There was some argument about the problem of 'measuring capital' but there was no answer to the old problem that, if the total stock of capital is a sum of value, it already presupposes the overall rate of profit, whereas if it is a list of 'machines' there is no unit in which it can be reckoned as a quantity.

For some purposes, for instance a comparison between the industries in various countries, a very rough measure of the physical capital to labour ratio could be used, say horse power per man employed. But then it will not generally be found that where this ratio is highest, the rate of profit on capital is lowest.

[4] See *On Concepts of Capital and Technical Change*, Cambridge University Press, 1971.

The famous Leontief paradox was a result of this confusion. Because physical capital per man (by any measure) was highest in the United States, it was supposed that 'capital' there should be the cheapest factor of production and that therefore US exports should be more 'capital intensive' than imports. Leontief's calculation showed that the value of capital per man was on the average less in the export industries. This seems to indicate that, while US industry (at that time) was generally superior to its rivals in productivity, the superiority was most marked in the industries producing productive equipment. Why should this be considered a paradox?

The lack of an acceptable definition of a 'quantity of capital' was masked by the manner in which main-line teaching was (and still is) divided into two mutually exclusive departments. Micro theory was based on a mixture of the Walrasian model, in which there is an endowment of ready-made inputs (meteoric stones) with zero profits in equilibrium, and the Pigovian model in which each firm can borrow as much finance as it chooses at a given rate of interest and 'equilibrium firms' have earnings such that net profits exactly cover the interest bill. Macro theory was concerned with Keynes and the slump. Thus there was no place in the syllabus for a discussion of the mode of operation of a modern capitalist economy considered as a whole. 'Capital theory' was regarded as an esoteric doctrine which had no application to any question of general interest.

3

The discussion which I had tried to revive in 1953 took a new turn with the publication of Piero Sraffa's *Production of Commodities by Means of Commodities* in 1960.

In Sraffa's model, the treatment of physical capital, though highly simplified, is less fanciful than either meteoric stones or a stock of butter. We are presented with, so to speak, a snapshot of a process of production going on in a particular industrial economy. A particular labour force is producing a particular flow of output by means of a particular technique, specified in a system of equations. The technique dictates what physical inputs, in what proportions, are required for labour to produce the output, over what period of time. Stocks of inputs are continuously reproduced as they are used up (long-lived equipment is treated in a separate model which however, can be fitted into the same argument). The net output of any period is the excess of the product over stocks of inputs existing at the beginning of the period. Thus output consists of a list of quantities of particular commodities, independent of prices. Now, everything in physical terms

remaining the same, the share of wages in net output is run through every value from unity to zero. Corresponding to each value of the share of wages is a set of prices (in any numeraire) for all outputs and inputs, and a uniform rate of profit on the value of the stocks of inputs at these prices.

These calculations must be regarded purely as an intellectual experiment. In reality neither the real-wage rate nor the rate of profit could be zero, and it is unnatural to suppose that the composition of output would be the same with widely different levels of real wages. In an actual economy of which a snapshot is taken, some particular pattern of prices is ruling. The 'changes' of the share of wages in the argument are not actual historical events, only calculations by the observing economist.

Sraffa was not trying to construct a model for positive analysis, though the concept of a technique of production as an input-output table in physical terms is certainly very useful. His own purpose was purely negative – to provide a prelude to the critique of economic theory.

The theory that Sraffa was preparing to criticize was the Marshallian orthodoxy that prevailed when he began to work on these ideas in the 1920s; but objections to his argument have been drawn mainly from the general equilibrium doctrines prevalent today. One objection is that he 'leaves out demand'. This objection does not stand. If we people his model with firms and households then, when a particular rate of profit obtains, firms are carrying out gross investment in order to earn profits from sales and households are purchasing goods at prices that yield the ruling rate of profit. The pattern of demand is evidently appropriate to the flow of production along with the distribution of income, and the flow of production is appropriate to the pattern of demand.

Another objection is that a Sraffa system is only a special case of general equilibrium with 'fixed coefficients', that is, with only one possible combination of inputs. This betrays a basic difference between two conceptions of the process of production. In the general equilibrium model, the story begins with an arbitrary stock of ready-made inputs which can be combined in various ways to produce a variety of different outputs. In Sraffa's model, the stock of inputs in existence today was the result of investments made in the past in order to produce today's output with the technique which is in use today. Which concept is the less inappropriate to an industrial economy?

Sraffa did in fact introduce a variety of techniques into his model. Where several techniques are known, it is assumed that, given the prevailing share of wages in net output, the technique has been chosen which maximizes profits when prices are such as to make the rate of profit

uniform throughout the economy. Making quite orthodox assumptions about the character of technology, Sraffa showed that the same technique may be eligible at widely different rates of profit. It was this which alerted the mainstream economists to the fact that their orthodoxy was being questioned.

4

The furore about 'reswitching' raged around the conception of a pseudo-production function. There is supposed to be a book of blueprints specifying all possible techniques for producing a flow of net output of a given composition with a given labour force. Each technique is a Sraffa system of equations requiring a specific stock of inputs, which are continually reproduced as they are used up, and involving a particular time-pattern in the process of production. The techniques are listed in order of net output per unit of labour. Corresponding to each share of wages in net output is a profit-maximizing technique. Inferior techniques are eliminated, so that each technique in the book is eligible at at least one rate of profit. Each point represents an economy on a steady-state growth path. The stock of means of production in existence at that point has been produced in the light of expectations of profit which are turning out to be correct 'today' and are therefore renewed for the future. Since expectations are held with perfect confidence, we may suppose that the ruling rate of interest is equal to the rate of profit, but it is the rate of profit, determined by technical conditions and the share of wages in net output, that governs the rate of interest, not vice versa. (But here Piero Sraffa himself does not agree with my intepretation of his model.) In an uncertain world, of course, positive (or even zero) net investment will not take place unless interest rates are appreciably lower than expected profits.

Between each pair of techniques is a switch point at which the ratio of the two values of capital is equal to the ratio of the flows of profit per annum, so that the rate of profit is the same for both.

Contrasting this construction with the well-behaved production function in the butter economy, we see, first of all, that the production function is continuously differentiable, for the smallest difference in the stock of butter per man employed entails a difference in output per man, while the pseudo-production function may have wide gaps between switch points, over which the same output per head is associated with a falling rate of profit and rising share of wages. Moreover, however dense the pages of the book of blueprints, there must always be a discontinuity in engineering

terms between one technique and the next. On both constructions a higher share of wages is associated with a lower rate of profit; the most fundamental rule of the production function is that a larger stock of butter per man is associated with higher output, whereas on the pseudo-production function there is no presumption that a technique giving higher output per man requires a higher value of capital at the rate of profit at which it is eligible. And even when two techniques are compared at the same rate of profit, it is not necessarily the case, on the pseudo-production function, that a lower rate of profit is associated with a higher value of capital per man and a higher output per head. In short, a more labour-intensive technique may be eligible at a lower rate of profit than another which provides a higher output per man.

This was the point that caused all the trouble. A pseudo-production function may contain backward switch points at which a technique with a higher output per head than the next is eligible at a higher rate of profit. This may be associated with 'reswitching', since at the lowest rate of profit the eligible technique must be one with a high output per head.

The reason for these differences between the two constructions is obvious. The well-behaved production function conflates the concept of the value of capital with a stock of physical means of production while the pseudo-production function distinguishes between the physical means of production required for a particular technique and its value at various rates of profit.

After some hesitation, Professor Samuelson accepted the logic of the pseudo-production function. In the *Summing Up* of the debate ten years ago,[5] he even referred to 'a general blueprint technology model of Joan Robinson and MIT type' but his interpretation of it was (and still is) very different from mine. He recognized that each point on a pseudo function is supposed to represent an economy in a steady state, in which inputs are being reproduced in unchanged physical form, and yet he supposed that saving could raise an economy from one point to the position at another. He envisages a process of accumulation creeping up the pseudo-production function from lower to higher shares of wages, and higher to lower rates of profit. But an increase in gross investment above the rate required to maintain a steady state would entail an enlargement of investment industries (which would have to shrink again when a new steady state was reached). The former pattern of prices would be upset. Inputs appropriate to one technique would have to be scrapped and replaced by those appropriate to another. And how are we to imagine that the prospect

[5] 'Paradoxes in capital theory', *Quarterly Journal of Economics*, November 1966, p. 578.

of a lower rate of profit in the future induces these changes to be made?

A steady state implies that everyone concerned holds perfectly confident expectations that the future will continue to reproduce the past. If those expectations fail to be fulfilled, the economy is thrown into short-period disequilibrium and analysis has to be conducted in Keynesian terms.

This is nothing to do with 'reswitching'. Professor Samuelson's first reaction to Sraffa had been to construct a special case of a pseudo-production function (the 'surrogate production function')[6] in which, at each point, labour-value prices rule, so that the cost of the stock of means of production, for each economy, is independent of the rate of profit. A higher value of capital is then always associated with a higher net output per head. On such a pseudo-production function, backward switch points cannot occur. But, like the general case, it can be used only for comparisons of supposed steady-state economies, not for analysing a process of accumulation changing the value of capital per man.

A similar difficulty arises in arguing from Walrasian general equilibrium: At a point on the production-possibility surface at which supply and demand are in equilibrium for each commodity, buyers and sellers evidently expect the same prices which obtain today to be ruling next week. A change in demand ruptures the equilibrium, disappoints expectations – some for the better and some for the worse – and requires investment in one kind of stock and disinvestment in others. Here also, further developments can be analysed only in Keynesian terms.

The notion that conditions of demand allocate scarce means between alternative uses might apply to the case of an independent peasant deciding what crops to grow to feed his family, but in modern industry the greater part of resources, at any moment, are committed, in fixed equipment, to a narrow range of uses. The question of allocation concerns new investment, but both the level and form of investment are decided, for the most part, from political motives (armaments, hospitals) and from judgments of their own interests by the great corporations. It can hardly be identified with the beneficient operations of a hidden hand in a perfectly competitive market.

The exposition both of general equilibrium and of long-run accumulation seems generally to be conducted by drawing a two-dimensional diagram on a blackboard and then introducing historical events into it. A change cannot be depicted on the plane surface of the blackboard. Changes occur in time, and as soon as a point moves off the

[6] 'Parable and realism in capital theory: the surrogate production function', *Review of Economic Studies*, 1962, XXIX, 193–206.

blackboard into the third dimension of time, it is no longer bound by the relationships shown in the diagram.

It seems as though, all this while, mainstream teaching has been inculcating defective methodology.

5

Since the mainstream flows awry, we must return to the source. The classical economists did not treat society as a co-operative and they did not treat capital as a quantity of homogeneous stuff. For them, finance was the means of organizing labour and physical inputs to produce outputs, and gross profit was derived from the excess of physical output over the physical wage bill. Keynes condemned Ricardo for his neglect of short-period instability but, as Luigi Pasinetti says: 'Keynes' theory of effective demand, which has remained so impervious to reconciliation with marginal economic theory, raises almost no problem when directly inserted into the earlier discussions of the Classical economists.'[7]

This is still more true of Michał Kalecki's version of the theory of employment, which grew out of the Marxian schema of expanded reproduction and which related imperfect competition to the Marxian concept of exploitation.

Pasinetti continues:

> Similarly . . . the post-Keynesian theories of economic growth and income distribution, which have required so many artificial assumptions in the efforts to reconcile them with marginal productivity theory, encounter almost no difficulty when directly grafted on to Classical economic dynamics.[8]

The pseudo-production function was a very useful piece of scaffolding but it is not to be incorporated in the construction of a dynamic theory. Obviously, two stocks of inputs appropriate to two different techniques cannot co-exist in time and space. There is no book of ready-drawn blueprints appropriate to different rates of interest. As accumulation goes on, technology evolves, and no technique is blueprinted before it is about to be used. Moreover, no stock of means of production in real life is ever perfectly adjusted to the expectations of profit being entertained when it is in use. The pseudo-production function was not a model for the analysis of

[7] *Growth and Income Distribution*, Cambridge University Press (1974), p. ix.

[8] Ibid.

capitalism but a device to smoke out the contradictions in mainstream teaching.

The controversy has been a great waste of mental energy, for

> He who is convinced against his will
> Is of the same opinion still.

It is high time to abandon the mainstream and take to the turbulent waters of truly dynamic analysis.

8

THE PRODUCTION FUNCTION AND THE THEORY OF CAPITAL

Introduction

THE dominance in neo-classical economic teaching of the concept of a production function, in which the relative prices of the factors of production are exhibited as a function of the ratio in which they are employed in a given state of technical knowledge, has had an enervating effect upon the development of the subject, for by concentrating upon the question of the proportions of factors it has distracted attention from the more difficult but more rewarding questions of the influences governing the supplies of the factors and of the causes and consequences of changes in technical knowledge.

Moreover, the production function has been a powerful instrument of miseducation. The student of economic theory is taught to write $O=f(L, C)$ where L is a quantity of labour, C a quantity of capital and O a rate of output of commodities.[1] He is instructed to assume all workers alike, and to measure L in man-hours of labour; he is told something about the index-number problem involved in choosing a unit of output; and then he is hurried on to the next question, in the hope that he will forget to ask in what units C is measured. Before ever he does ask, he has become a professor, and so sloppy habits of thought are handed on from one generation to the next.

The question is certainly not an easy one to answer. The capital in existence at any moment may be treated simply as 'part of the environment in which labour works'.[2] We then have a production function in terms of labour alone. This is the right procedure for the short period within which

[1] Throughout this essay we shall be abstracting from land as a factor of production, so we will not bother the student with it.

[2] Keynes, *General Theory*, p. 214.

Part of an article published in the *Review of Economic Studies*, 1953–4, Vol. XXI (2), No. 55. Excisions have entailed a few words of alteration in the original text.

the supply of concrete capital goods does not alter, but outside the short period it is a very weak line to take, for it means that we cannot distinguish a change in the stock of capital (which can be made over the long run by accumulation) from a change in the weather (an act of God).

We may look upon a stock of capital as the specific list of all the goods in existence at any moment (including work-in-progress in the pipe-lines of production). But this again is of no use outside the strict bounds of the short period, for any change in the ratio of capital to labour involves a reorganization of methods of production and requires a change in the shapes, sizes and specifications of many or all the goods appearing in the original list.[3]

As soon as we leave the short period, however, a host of difficulties appear. Should capital be valued according to its future earning power or its past costs?

When we know the future expected rate of output associated with a certain capital good, and expected future prices and costs, then, if we are given a rate of interest, we can value the capital good as a discounted stream of future profit which it will earn. But to do so, we have to begin by taking the rate of interest as given, whereas the main purpose of the production function is to show how wages and the rate of interest (regarded as the wages of capital) are determined by technical conditions and the factor ratio.

Are we then to value capital goods by their cost of production? Clearly money cost of production is neither here nor there unless we can specify the purchasing power of money, but we may cost the capital goods in terms of wage units; that is, in effect, to measure their cost in terms of a unit of standard labour.

To treat capital as a quantity of labour-time expended in the past is congenial to the production-function point of view, for it corresponds to the essential nature of capital regarded as a factor of production. Investment consists, in essence, in employing labour now in a way which will yield its fruits in the future while saving is making current products available for the workers to consume in the meantime; and the productiveness of capital consists in the fact that a unit of labour that was expended at a certain time in the past is more valuable today than a unit expended today, because its fruits are already ripe.

[3] In Professor Robertson's example, when a tenth man joins nine who are digging a hole, nine more expensive spades are turned into nine cheaper spades and a bucket to fetch beer. (*Economic Fragments*, p. 47.)

But here we encounter a fundamental difficulty which lies at the root of the whole problem of capital. A unit of labour is never expended in a pure form. All work is done with the assistance of goods of some kind or another. When Adam delved and Eve span there were evidently a spade and a spindle already in existence. The cost of capital includes the cost of capital goods, and since they must be constructed before they can be used, part of the cost of capital is interest over the period of time between the moment when work was done in constructing capital goods and the time when they are producing a stream of output. This is not just a consequence of capitalism, for equally in a socialist society a unit of labour, expended today, which will yield a product in five years' time, is not the same thing as a unit which will yield a product tomorrow.

Finally, even if it were possible to measure capital simply in terms of labour-time, we still should not have answered the question: Of what units is C composed? When we are discussing accumulation, it is natural to think of capital as measured in terms of product. The process of accumulation consists in refraining from consuming current output in order to add to the stock of wealth. But when we consider what addition to productive resources a given amount of accumulation makes, we must measure capital in labour units, for the addition to the stock of productive equipment made by adding an increment of capital depends upon how much work is done in constructing it, not upon the cost, in terms of final product, of an hour's labour. Thus, as we move from one point on a production function to another, measuring capital in terms of product, we have to know the product-wage rate in order to see the effect upon production of changing the ratio of capital to labour. Or if we measure in labour units, we have to know the product-wage in order to see how much accumulation would be required to produce a given increment of capital. But the wage rate alters with the ratio of the factors: one symbol, C, cannot stand both for a quantity of product and a quantity of labour-time.

All the same, the problem which the production function professes to analyse, although it has been too much puffed up by the attention paid to it, is a genuine problem. Today, in country Alpha, a length of roadway is being cleared by a few men with bulldozers; in Beta a road (of near enough the same quality) is being made by some hundreds of men with picks and ox-carts. In Gamma thousands of men are working with wooden shovels and little baskets to remove the soil. When all possible allowances have been made for differences in national character and climate, and for differences in the state of knowledge, it seems pretty clear that the main reason for this state of affairs is that capital in some sense is more plentiful in

Alpha than in Gamma. Looked at from the point of view of an individual capitalist, it would not pay to use Alpha methods in Gamma (even if unlimited finance were available) at the rate of interest which is ruling, and looked at from the point of view of society, it would need a prodigious effort of accumulation to raise all the labour available in Gamma even to the Beta level of technique. The problem is a real one. We cannot abandon the production function without an effort to rescue the element of common sense that has been entangled in it.

The Quantity of Capital

'Capital' is not what capital is called, it is what its name is called. The capital goods in existence at a moment of time are all the goods in existence at that moment. It is not all the things in existence. It includes neither a rubbish heap nor Mont Blanc. The characteristic by which 'goods' are specified is that they have value; that is, purchasing power over each other. Thus, in country Alpha an empty petrol tin is not a 'good', whereas in Gamma, where old tins are a source of valuable industrial raw material, it is.

The list of goods is quite specific. It is so many actual particular objects, called blast furnaces, overcoats, etc., etc. Goods grouped under the same name differ from each other in the details of their physical specifications and these must not be overlooked. Differences in their ages are also important. A blast furnace twenty years old is not equivalent to a brand new one of the same specification in other respects, nor is an egg twenty days old equivalent to a brand new one. There is another relevant characteristic of the goods. An overcoat requires one body to wear it, and an egg one mouth to eat it. Without one body, or one mouth, they are useless, and two bodies or mouths (at a given moment of time) cannot share in using them. But a blast furnace can be used by a certain range of numbers of bodies to turn iron ore into iron. Therefore the description of a blast furnace includes an account of its rate of output as a function of the number of bodies operating it. (When long-period equilibrium prevails, the number of bodies actually working each piece of equipment is the number which is technically most appropriate to it.)

There is another aspect of the goods which is quite different. Of two overcoats, completely similar in all the above respects, one is on the body of Mrs. Jones, who is purring with inward delight at her fine appearance. Another is on the body of Mrs. Snooks, who is grizzling because, her husband's income being what it is, she is obliged to buy mass-produced clothes. In what follows we shall not discuss this aspect of goods at all. We

take it that an overcoat (Mark IV) is an overcoat (Mark IV), and no nonsense.

Now, this enormous who's who of individual goods is not a thing that we can handle at all easily. To express it as a *quantity* of goods we have to evaluate the items of which it is composed. We can evaluate the goods in terms of the real cost of producing them – that is, the work and the formerly existing goods required to make them, or in terms of their value expressed in some unit of purchasing power; or we can evaluate them according to their productivity – that is, what the stock of goods will become in the future if work is done in conjunction with it.

In a position of equilibrium all three evaluations yield equivalent results; there is a quantity which can be translated from one number to another by changing the unit. This is the definition of equilibrium. It entails that there have been no events over the relevant period of past time which have disturbed the relation between the various valuations of a given stock of goods, and that the human beings in the situation are expecting the future to be just like the past – entirely devoid of such disturbing events. Then the rate of profit ruling today is the rate which was expected to rule today when the decision to invest in any capital good now extant was made, and the expected future receipts, capitalized at the current rate of profit, are equal to the cost of the capital goods which are expected to produce them.

When an unexpected event occurs, the three ways of evaluating the stock of goods part company and no amount of juggling with units will bring them together again.

We are accustomed to talk of the rate of profit on capital earned by a business as though profits and capital were both sums of money. Capital when it consists of as yet uninvested finance is a sum of money, and the net receipts of a business are sums of money. But the two never co-exist in time. While the capital is a sum of money, the profits are not yet being earned. When the profits (quasi-rents) are being earned, the capital has ceased to be money and become a plant. All sorts of things may happen which cause the value of the plant to diverge from its original cost. When an event has occurred, say a fall in prices, which was not foreseen when investment in the plant was made, how do we regard the capital represented by the plant?

The man of deeds, who has decisions to make, is considering how future prospects have altered. He is concerned with new finance or accrued amortization funds, which he must decide how to use. He cannot do anything about the plant (unless the situation is so desperate that he decides to scrap it). He is not particularly interested (except when he has to make

out a case before a Royal Commission) in how the man of words, who is measuring capital, chooses to value the plant.[4]

The man of words has a wide choice of possible methods of evaluation, but none of them is very satisfactory. First, capital may be conceived of as consisting either in the cost or in the value of the plant. If cost is the measure, should money cost actually incurred be reckoned? It is only of historical interest, for the purchasing power of money has since changed. Is the money cost to be deflated? Then by what index? Or is capital to be measured at current replacement cost? The situation may be such that no one in his senses would build a plant like this one if he were to build now. Replacement cost may be purely academic. But even if the plant is, in fact, due to be replaced by a replica of itself at some future date, we still have to ask what proportion of the value of a brand new plant is represented by this elderly plant? And the answer to that question involves future earnings, not cost alone.

If the capital is to be measured by value, how do we decide what the present value of the plant is? The price at which it could be sold as an integral whole has not much significance, as the market for such transactions is narrow. To take its price on the Stock Exchange (if it is quoted) is to go before a tribunal whose credentials are dubious. If the capital-measurer makes his own judgment, he takes what he regards as likely to be the future earnings of the plant and discounts them at what he regards as the right rate of interest for the purpose, thus triumphantly showing that the most probable rate of profit on the capital invested in the plant is equal to the most appropriate rate of interest.

All these puzzles arise because there is a gap in time between investing money capital and receiving money profits, and in that gap events may occur which alter the value of money.

To abstract from uncertainty means to postulate that no such events occur, so that the *ex ante* expectations which govern the actions of the man of deeds are never out of gear with the *ex-post* experience which governs the pronouncements of the man of words, and to say that equilibrium obtains is to say that no such events have occurred for some time, or are thought liable to occur in the future.

The ambiguity of the conception of a quantity of capital is connected with a profound methodological error, which makes the major part of neo-classical doctrine spurious.

The neo-classical economist thinks of a position of equilibrium as a

[4] 'A man of words but not of deeds
Is like a garden full of weeds.'
This is sadly true of the theory of capital.

position towards which an economy is tending to move as time goes by. But it is impossible for a system to *get into* a position of equilibrium, for the very nature of equilibrium is that the system is already in it, and has been in it for a certain length of past time.

Time is unlike space in two very striking respects. In space, bodies moving from A to B may pass bodies moving from B to A, but in time the strictest possible rule of one-way traffic is always in force. And in space the distance from A to B is of the same order of magnitude (whatever allowance you like to make for the Trade Winds) as the distance from B to A; but in time the distance from today to tomorrow is twenty-four hours, while the distance from today to yesterday is infinite, as the poets have often remarked. Therefore a space metaphor applied to time is a very tricky knife to handle, and the concept of equilibrium often cuts the arm that wields it.

When an event has occurred we are thrown back upon the who's who of goods in existence, and the 'quantity of capital' ceases to have any other meaning. Then only that part of the theory of value which treats of the short period, in which the physical stock of capital equipment is given, has any application.

Long-Period Equilibrium

One notion of equilibrium is that it is reached (with a constant labour force) when the stock of capital and the rate of profit are such that there is no motive for further accumulation. This is associated with the idea of an ultimate thorough-going stationary state,[5] in which the rate of profit is equal to the 'supply price of waiting'. In this situation an accidental increase in the stock of capital above the equilibrium quantity would depress the rate of profit below this supply price, and cause the additional capital to be consumed; while any reduction would raise the rate of profit, and cause the deficiency to be made good. Equilibrium prevails when the stock of capital is such that the rate of profit is equal to the supply price of that quantity of capital.

But this notion is a very treacherous one. Why should the supply price of waiting be assumed positive? In Adam Smith's forest there was no property in capital and no profit (the means of production, wild deer and beavers, were plentiful and unappropriated). But there might still be waiting and interest. Suppose that some hunters wish to consume more than their kill, and others wish to carry consuming power into the future. Then the latter could lend to the former today, out of today's catch, against a

[5] Pigou, *The Economics of Stationary States*.

promise of repayment in the future. The rate of interest (excess of repayment over original loan) would settle at the level which equated supply and demand for loans. Whether it was positive or negative would depend upon whether spendthrifts or prudent family men happened to predominate in the community. There is no *a priori* presumption in favour of a positive rate. Thus, the rate of interest cannot be accounted for as the 'cost of waiting'.

The reason why there is always a demand for loans at a positive rate of interest, in an economy where there is property in the means of production and means of production are scarce, is that finance expended now can be used to employ labour in productive processes which will yield a surplus in the future over costs of production. Interest is positive because profits are positive (though at the same time the cost and difficulty of obtaining finance play a part in keeping productive equipment scarce, and so contribute to maintaining the level of profits).

Where the 'supply price of waiting' is very low or negative, the ultimate stationary equilibrium cannot be reached until the rate of profit has fallen equally low, capital has ceased to be scarce and capitalism has ceased to be capitalism. Therefore this type of equilibrium is not worth discussing.

The other way of approaching the question is simply to postulate that the stock of capital in existence at any moment is the amount that has been accumulated up to date, and that the reason why it is not larger is that it takes time to grow. At any moment, on this view, there is a certain stock of capital in existence. If the rate of profit and the desire to own more wealth are such as to induce accumulation, the stock of capital is growing and, provided that labour is available or population growing, the system may be in process of expanding without any disturbance to the conditions of equilibrium. (If two snapshots were taken of the economy at two different dates, the stock of capital, the amount of employment and the rate of output would all be larger, in the second photograph, by a certain percentage, but there would be no other difference.) If the stock of capital is being kept constant over time, that is merely a special case in which the rate of accumulation happens to be zero. (The two snapshots would then be indistinguishable.)

In the internal structure of the economy conditions of long-period equilibrium may then be assumed to prevail. Each type of product sells at its normal long-run supply price. For any one type of commodity, profit, at the rate ruling in the system as a whole on the cost of capital equipment engaged in producing it, is part of the long-run supply price of the commodity, for no commodity will continue to be produced unless capital

invested for the purpose of producing it yields at least the same rate of profit as the rest. (It is assumed that capitalists are free to move from one line of production to another.) Thus the 'costs of production' which determine supply price consist of wages and profits. In this context the notion of a quantity of capital presents no difficulty, for, to any one capitalist, capital is a quantity of value, or generalized purchasing power, and, in a given equilibrium situation, a unit of any commodity can be used as a measure of purchasing power.

Since the system is in equilibrium in all its parts, the ruling rate of profit is being obtained on capital which is being used to produce capital goods, and enters into their 'cost of production'. Profit on that part of the cost of capital represented by this profit is then a component of the 'cost of production' of final output. A capitalist who buys a machine ready made pays a price for it which includes profit to the capitalist who sells it. The profit a capitalist who has the machine built in his own workshops will expect to receive, from sales of the final output, includes profit on the interest (at a notional rate equal to the ruling rate of profit) on the cost of having the machine built reckoned over the period of construction. For when he builds the machine himself he has a longer waiting period between starting to invest and receiving the first profit. If he could not earn profit on the notional interest cost, he would prefer to make an investment where there was a shorter waiting period, so that he could receive actual profit earlier. The actual profit he could plough into investment; thus acquiring (over the same waiting period) the same quantity of capital as in the case where he builds the machine for himself. (He would also have the advantage that he could change his mind and consume the profit, whereas in the first case he is committed to the whole scheme of investment once he begins.) Thus, investments with a long gestation period will not be made unless they are expected to yield a profit on the element of capital cost represented by compound interest over the gestation period (if there were uncertainty, they would have to be expected to yield more, to compensate for the greater rigidity of the investment plan).

We need not go back to Adam to search for the first pure unit of labour that contributed to the construction of existing equipment. The capital goods in being today have mutually contributed to producing each other, and each is assumed to have received the appropriate amount of profit for doing so.

So much for the supply price of an item of new equipment. How are we to reckon the supply price of part-worn equipment? Investment in new equipment is not made unless its gross earnings (excess of output over wages

bill in terms of output) are expected to be sufficient to amortize the investment over its working life, allowing for interest at the ruling rate on accrued amortization funds, as well as providing profit at the ruling rate. The supply price of an equipment which has been working for a certain time may be regarded as its initial cost accumulated up to date at compound interest, *minus* its gross earnings also accumulated from the dates at which they accrued up to the present, for this corresponds to the expectations which induced capitalists in the past to make the investment concened.

Since initial cost is incurred at the beginning, and earnings accrue over time, the element of interest on cost in the above calculation exceeds the element of interest on earnings. Thus when an equipment has yielded a quarter of its expected total earnings, its supply price, in this sense, is somewhat more than three-quarters of its initial cost; half-way through, somewhat more than half its initial cost, and so forth, the difference at any moment being larger the higher the rate of interest. Over its life the accumulated interest on its earnings, so to say, catches up upon the accumulated interest on its cost, so that at the end of its life it is fully paid off and its supply price (abstracting from scrap value) has fallen to zero.

The value of an equipment depends upon its expected future earnings. It may be regarded as future earnings discounted back to the present at a rate corresponding to the ruling rate of interest. In equilibrium conditions the supply price (in the above sense) and the value of an equipment are equal at all stages of its life.[6]

Equilibrium requires that the stock of items of equipment operated by all the capitalists producing a particular commodity is continuously being maintained. This entails that the age composition of the stock of equipment is such that the amortization funds provided by the stock as a whole are being continuously spent on replacements. When the stock of equipment is in balance there is no need to inquire whether a particular worker is occupied in producing final output or in replacing plant. The whole of a given labour force is producing a stream of final output and at the same time maintaining the stock of equipment for future production. Nor is it necessary to inquire what book-keeping methods are used in reckoning

[6] The equalization of the value of two annuities at any point of time entails their equalization at any other point of time. If the cost of a new machine is equal, at the moment when it is brand new, to the discounted value of its expected gross earnings, it follows that, at any later point of time, the accumulated value of the original cost and gross earnings up to date will, if expectations have been proved correct up to date and are unaffected for the future, be equal to the present value of the remaining gross earnings expected over the future. Cf. Wicksell, 'Real capital and interest', *Lectures* (English edition), Vol. I, p. 276.

amortization quotas. These affect the relations between individual capitalists, but cancel out for the group as a whole.

In equilibrium the age composition of the stock of equipment is stable, but the total stock may be in course of expanding. The average age of the plants making up a balanced stock of stable age composition varies with the length of life of individual plants. If the total stock is remaining constant over time, the average age is equal to half the length of life. If the stock has been growing, the proportion of younger plants is greater and average age is less than half the life span. (There is an exact analogy with the age composition of a stable population.)

The amount of capital embodied in a stock of equipment is the sum of the supply prices (reckoned as above) of the plants of which it is composed, and the ratio of the amount of capital to the sum of the costs of the plants when each was brand new is higher the greater the rate of interest.[7]

Equilibrium requires that the rate of profit ruling today was expected to be ruling today when investment in any plant now extant was made, and the expectation of future profits obtaining today was expected to obtain today. Thus the value of capital in existence today is equal to its supply price calculated in this manner. The heavy weight which this method of valuing

[7] The order of magnitude of the influence of the rate of interest is shown by the formula provided in the Mathematical Addendum by D. G. Champernowne and R. F. Kahn.* For this formula it is necessary to assume (*a*) that the total stock of capital is constant over time, (*b*) that earnings are at an even rate over the life of the plant. C is the capital value of an investment, K the initial outlay, r the rate of interest and T the period over which the asset earns. For values of rT less than 2 we use the approximation $C/K=\frac{1}{2}(1+\frac{1}{6}rT)$.

On the basis, when the rate of interest is, for example, 6 per cent, a machine of ten years' life costing £100 when new must earn £13·3 per annum surplus over the current outlay on working it (including current repairs). The yield will then be 6 per cent on a capital value of £55.

A group of ten such machines of ages zero to nine years have a pattern of values, at any moment, which corresponds to the pattern over time of a single machine. It requires an annual outlay on renewals of £100 permanently to maintain the stock of machines. They represent a capital value of £550 and yield a return of £33 per annum.

If the rate of interest were 10 per cent, rT would be equal to 1 and the capital value (abstracting from a higher initial cost of machines due to the higher interest rate) would be £583; the earnings of each machine would then have to be £15·8 to yield the required rate of profit.

If the length of life of machines was twenty years, and the rate of interest 5 per cent, capital value would again be £583, and each machine would have to yield £7·9 per annum (£5 for amortization and £2·9 for interest); at 10 per cent, rT would be equal to 2; the capital value would then be £666, and each machine would have to yield £11·7 per annum.

* This appears as an appendix to my *Accumulation of Capital*.

capital puts upon the assumptions of equilibrium emphasizes the impossibility of valuing capital in an uncertain world. In a world where unexpected events occur which alter values, the points of view of the man of deeds, making investment decisions about the future, and of the man of words making observations about the past, are irreconcilable, and all we can do is botch up some conventional method of measuring capital that will satisfy neither of them.

Wages and Profits

The neo-classical system is based on the postulate that, in the long run, the rate of real wages tends to be such that all available labour is employed. In spite of the atrocities that have been committed in its name there is obviously a solid core of sense in this proposition. To return to our road builders, employment per unit of output is much higher in Gamma than in Alpha, and it seems obvious that this is connected with the fact that real wages there are much lower – that the plethora of labour keeps real wages down, and so helps to get itself employed. Let us try to see what this means.

The basic data of the system are: the labour force, the amount of capital and the state of technical knowledge, expressed as the hierarchy, ranged according to degrees of mechanization, of the possible techniques of production. In order to satisfy the neo-classical postulate of full employment, the given amount of capital must employ the given amount of labour.

At any given wage rate, the interplay of competition between capitalists, each seeking to maximize his own profits, is assumed to ensure that the technique will be chosen that maximizes the rate of profit. Thus, the technique is a function of the wage rate. The outfit of productive equipment in existence is determined by the technique and the total amount of capital. A given outfit of equipment offers a given amount of employment. Thus, we have the amount of employment as a function of the wage rate. We can then state the neo-classical postulate: the wage rate is assumed to be such that the technique of production is such that the given quantity of capital employs the given labour force. It is necessary to postulate that the amount of real wages (which is not the same thing as the wage bill but is governed by it) in relation to the cost of subsistence is at least sufficient to maintain the given labour force in being.

The condition that the given amount of capital employs the given amount of labour thus entails a particular rate of profit. But the value of the stock of concrete capital goods is affected by this rate of profit and the

amount of 'capital' that we started with cannot be defined independently of it.

What becomes of the neo-classical doctrine if we read it the other way round: that the rate of profit tends to be such as to permit all the capital that comes into existence to be employed? Suppose that the wage rate has been established at a level which yields some conventional minimum real wage, and that, the technique having been chosen which maximizes the rate of profit, the quantity of capital in existence does not employ all available labour, so that there is a reserve of unemployment. Accumulation can then proceed with unchanging technique and constant rate of profit until all available labour is employed. If population is increasing at least as fast as capital is accumulating, full employment is never attained, and the expansion of the economy can continue indefinitely (we have postulated that there is no scarcity of land, including all non-produced means of production).

So far the argument is dismally simple. What are we supposed to imagine to happen when there is full employment in the long-period sense, that is, when there is sufficient plant in existence to employ all available labour? One line of argument is to suppose that the capitalists who are accumulating act in a blindly individualistic manner, so that a scramble for labour sets in; the money-wage rate is bid up, and prices rise in an indefinite spiral. (It is of no use to bring the financial mechanism into the argument, for if the supply of the medium of exchange is limited, the interest rate is driven up; but what the situation requires is a fall in the rate of interest, to encourage the use of more mechanized techniques.)

Or we may postulate that the capitalists, while fully competitive in selling, observe a convention against bidding for labour – each confines himself to employing a certain share of the constant labour force. Then anyone who wishes to increase the amount of capital that he operates shifts to a more mechanized technique. Those who first make the change may be supposed to compete for wider markets and so to reduce prices relatively to money wages. A higher degree of mechanization then becomes eligible, and the switch to more mechanized techniques proceeds at a sufficient rate to absorb new capital as it accrues. Alternatively, we might imagine that an excessive number of plants of the less mechanized type are actually built, and that their redundancy, relatively to labour to man them, reduces profit margins, so that the wage rate rises and induces mechanization. (Whichever line we follow the argument is necessarily highly artificial, for in reality the state of trade is the dominant influence on investment. The situation which promotes the mechanization of production is full employment and full

order books, that is to say, a scarcity of labour relatively to effective demand, but the equilibrium assumptions do not permit us to say anything about effective demand.)

Somehow or other, accumulation may be conceived to push down the rate of profit, and raise the factor ratio.

But the very notion of accumulation proceeding under equilibrium conditions at changing factor ratios bristles with difficulties. The rate at which the factor ratio changes is not governed in any simple way by the pace at which accumulation goes on – it depends upon the form which technical innovations take and the movement of the overall level of real wages. Moreover, the effect of a given change in technique depends upon the speed at which it is made, relatively to the length of life of plant. If capital per man is rising rapidly some capitalists' plants appropriate to a variety of degrees of mechanization will be operating side by side.

Even if we can find a way through these complications, there remains the formidable problem of how to treat expectations when the rate of profit is altering. An unforeseen fall in the rate of profit ruptures the conditions of equilibrium. Capitalists who are operating on borrowed funds can no longer earn the interest they have contracted to pay, and those operating their own capital find themselves in possession of a type of plant that they would not have built if they had known what the rate of profit was going to be.

Thus, the assumptions of equilibrium become entangled in self-contradictions if they are applied to the problem of accumulation going on through time with a changing profit rate. To discuss accumulation we must look through the eyes of the man of deeds, taking decisions about the future, while to account for what has been accumulated we must look back over the accidents of past history. The two points of view meet only in the who's who of goods in existence today, which is never in an equilibrium relationship with the situation that obtains today.

In short, the comparison between equilibrium positions with different factor ratios cannot be used to analyse changes in the factor ratio taking place through time, and it is impossible to discuss changes (as opposed to differences) in neo-classical terms.

The production function, it seems, has a very limited relevance to actual problems, and after all these labours we can add little to the platitudes with which we began: in country Gamma, where the road builders use wooden shovels, if more capital had been accumulated in the past, relatively to labour available for employment, the level of real wages would probably have been higher and the technique of production more mechanized, and,

given the amount of capital accumulated, the more mechanized the technique of production, the smaller the amount of employment would have been.

POSTSCRIPT

I have included here only the negative part of this article as the constructive parts are expanded in my book, *The Accumulation of Capital*. The trouble which I was trying to expose arose from burdening the concept of a production function with inappropriate tasks. The notion of a range of possible techniques, co-existing in time in the form of projects, amongst which choices are made by firms or investment planners when new productive capacity is being set up, has a genuine operational meaning (though it is very difficult to apply in the complicated situations that arise in reality). In that context, it is appropriate to measure the investible resources about to be committed in terms of value. The difficulties that present themselves arise out of the uncertainty of the future and can be imagined to disappear in conditions of perfect tranquillity.

When presented with the task of determining the distribution of the product of industry between labour and capital, the neo-classical production function comes to grief (even in the most perfect tranquillity) on the failure to distinguish between 'capital' in the sense of means of production with particular technical characteristics and 'capital' in the sense of a command over finance.

When presented with the task of analysing a process of accumulation, the production function comes to grief on the failure to distinguish between comparisons of equilibrium positions and movements from one to another.

The remarks about equilibrium on page 78 above seemed very queer to Sir Dennis Robertson,[8] and, indeed, they are not well worded. My point was this: a state of equilibrium is one in which each individual is satisfied that he could not do better for himself by changing his behaviour. Applied to long-lived capital equipment, this means that the stock in existence today is in all respects what it would have been if those concerned had known, at relevant dates in the past, what expectations about the future they would be holding today. But periods affected by different decisions overlap and the relevant past stretches back indefinitely. Thus, an economy can be following an equilibrium path today only if it has been following it for some time already. A thorough-going stationary state is a limiting case in which nothing changes except the date as the economy moves along its equilibrium path.

[8] *Lectures on Economic Principles*, Vol. I, p. 95.

BEYOND FULL EMPLOYMENT

TEN years before the war, while the world slump deepened, Keynes was working out the theoretical basis for the view, which was always obvious to common sense, that when there is unemployment of workers and of productive capacity, in a market economy, an increase in expenditure in terms of money increases output in terms of goods.

Why was it necessary to have a theory to prove something so obvious, and why did it need a long and bitter argument to establish it? How was it that the opposite view, which was not only contrary to common sense but also completely devoid of application to reality, could have acquired all the weight and power of an established orthodoxy? If we knew the answer, we would understand the mechanism by which a society provides itself with the ideology that it needs.

Keynes found it

> . . . something of a curiosity and a mystery. It must have been due to a complex of suitabilities in the doctrine to the environment into which it was projected. That it reached conclusions quite different from what the ordinary uninstructed person would expect, added, I suppose, to its intellectual prestige. That its teaching, translated into practice, was austere and often unpalatable, lent it virtue. That it was adapted to carry a vast and consistent logical superstructure, gave it beauty. That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress, and the attempt to change such things as likely on the whole to do more harm than good, commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social force behind authority.[1]

Certainly, it was well entrenched when Keynes began to attack it. In 1929 the British Treasury propounded the doctrine that government expenditure financed by borrowing would not increase the total of outlay—it would merely deflect an unchanged total of saving from foreign to home investment. A little

[1] *General Theory*, pp. 32–33.

Annals of Collective Economy (Liège), April-June, 1961.

later a learned representative of the Austrian school of economics came to London to teach that an increase in private expenditure would actually reduce employment.

To hack a way through the briars of rooted prejudice, Keynes had to concentrate on the central point—increased expenditure increases employment, by creating a profitable market, quite apart from whether it comes from the government, from private firms or from the general public; quite apart from whether it is useful in itself or wisely chosen.

Even in economic theory, old fallacies at last die out before new logic. By the time that war broke out the theoretical battle was pretty well won. War-time experience of full employment gave a crude and convincing demonstration that the old theory was wrong, and the conception that it was the business of governments to secure 'a high and stable level of employment' was officially accepted in England and America. It had long been an established orthodoxy in Sweden and soon spread to other nations, though to this very day resisted by some.

The old struggle has left a permanent mark on the new orthodoxy. The problem was conceived in terms of unemployment; the Keynesian doctrine was set out in terms of remedies for unemployment; the new policy is aimed at avoiding a return to unemployment. It seems quite natural that full employment should become an end in itself.

Keynes himself, who was bitterly contemptuous, in some moods, of the whole set of social and moral values based on capitalism, came out in the end as the defender of the market economy.

If this one blemish could be removed, the system was the 'best in sight'.

> Our criticism of the accepted classical theory of economics has consisted not so much in finding logical flaws in its analysis as in pointing out that its tacit assumptions are seldom or never satisfied, with the result that it cannot solve the economic problems of the actual world. But if our central controls succeed in establishing an aggregate volume of output corresponding to full employment as nearly as is practicable, the classical theory comes into its own again from this point onwards. If we suppose the volume of output to be given, i.e. to be determined by forces outside the classical scheme of thought, then there is no objection to be raised against the classical analysis of the manner in which private self-interest will determine what in particular is produced, in what proportions the factors of production will be combined to produce it, and how the value of the final product will be distributed between them. Again, if we have dealt otherwise with the problem of thrift, there is no objection to be raised against the modern classical theory as to the degree of consilience between private and public advantage in conditions of perfect and imperfect competition respectively. Thus, apart from the necessity of central controls to bring about an adjustment between the propensity to consume and the inducement to invest, there is no more reason to socialize economic life than there was before.[1]

Certainly one must admit that capitalism with full employment which we have known since the war, is an impressive sight—the rapid growth in many countries, the spread of luxury and the reduction of misery; the greater freedom and self-respect of individuals, no longer cringing to keep a job or rotting without one. Corruption, crime and swindling have grown too, but even swindling is more lusty and cheerful in a seller's market.

In England certainly, and, I believe in all the prosperous capitalist nations, socialist ideals are in full retreat. The Labour Party, in particular, was foolish enough to maintain that a Conservative government would never be able to maintain employment, and they are left with nothing to offer when they have been proved wrong. Full-employment capitalism can easily afford to buy off opposition with higher earnings, social security, the educational ladder. Indeed, full-employment capitalism needs and knows how to get, a prosperous bourgeoisified working class to make a market for its output. The remnants of the bad old times, the slum dwellers, the aged on miserable pensions, the exploited immigrants, are isolated and cannot raise much political interest in getting their wrongs righted.

The success is very striking, but it is by no means complete. It has not been at all a simple matter to combine full employment with freedom of the market.

There are two major difficulties for a government pledged to a 'high and stable level of employment' and at the same time pledged to foster the greatest liberty for private enterprise and give the profit motive full play.

The first difficulty concerns a country's foreign balance—not only the necessity to make exports pay for imports, but the financial balance of the flow over the foreign exchanges of payments

[1] *General Theory*, p. 378.

of all kinds, including capital movements and speculative transactions.

There was a short time during the break-up of the gold standard after 1931 and again so long as war-time controls lasted, when it was possible for a national government to pursue an independent monetary policy. As controls have been dismantled and more and more freedom of convertibility of currencies has been restored, we have drifted back again on to something like the gold standard. The characteristic of the gold standard was that exchange rates were practically fixed and, for the leading financial centres of the capitalist world, there was a more or less unified money market. Consequently financial conditions in any one centre were sensitive to what was happening in others. If one raised interest rates, it attracted funds from others and forced them to follow it upwards. If one had a persistently favourable balance of payments—that is a surplus on the balance of trade on income account (exports over imports) not matched by a corresponding net outflow of lending—it was sucking up liquidity from the others (drawing gold and other reserves from them) and forcing them to take defensive action.

This system always worked on the principle of 'heads I win and tails you lose'. The centre gaining reserves was in a strong position and was able, if it wanted to, to lower interest rates, expand activity or increase lending. But it might very well prefer to go on gaining reserves. The centres in a weak position were obliged to check the loss of reserves, by raising interest rates and restricting activity. This kind of deflationary twist has come back into the world money market and now it is much more dangerous than before. When the gold standard was firmly and unquestionably established, speculation on exchange movements had no scope. With the imperfect, half-hearted gold standard of today, weakness in one centre sets speculative movements running against it, in the expectation that its exchange may be depreciated; and strength in one centre sets speculation running against the others, on rumours that its exchange may be appreciated. The exchanges therefore are even more of a preoccupation for national authorities than they used to be, and their freedom to make the monetary policy that suits their own internal conditions grows more and more restricted as the freedoms of the financiers and the speculators are enlarged.

The other major difficulty (which is partly connected with the problem of maintaining the balance of payments but also exists in its own right) is that, with the institutions of liberal capitalism, as they are nowadays, a high level of employment leads to continuously rising wages and prices. This is connected with the balance-of-payments problem, because if costs rise faster in one country than in others it loses competitive advantages in trade, which is a serious matter in itself and may moreover lead to rumours that the exchange will have to be depreciated to remedy it. Also, quite apart from this, it is troublesome in many ways to have a constantly falling purchasing power of money. It causes arbitrary hardships which are cruel to some (in England pensioners have suffered bitterly) and arbitrary gains that are demoralizing to others. A general expectation that inflation will continue requires an adaptation of institutions and habits which is a great nuisance to all concerned.

There is a lot of argument nowadays as to whether inflation comes from 'demand pull' or 'cost push'. From one point of view this is a meaningless question. A rise in demand, by itself, with constant money-wage rates, raises prices somewhat, and puts up profit margins. It does not cause prices to go on rising. A rise in money-wage rates raises both costs of production and the flow of money demand, so that prices go up. The situation that caused the rise is then reproduced and wages rise again. This can produce a continuous rise of prices. But high demand creates a situation favourable to rising wages. When there is less unemployment, a higher cost of living and higher profits, obviously the workers are in a strong position to demand higher wage rates and employers in a weak position to refuse. Demand pull and cost push are two sides of the same coin.

The only operative question is how much would demand have to fall to prevent prices from rising? The answer is a matter of fact. Experience in some countries has been that a check to demand sufficient to reduce the economy to stagnation and prevent real output from growing is not enough to keep wages from rising. As things are, a buoyant economy with a stable value of money seems to be an unattainable ideal.

These two difficulties are problems of machinery, not of economic reality. This can be seen if we compare the situation in a country like, say, Poland with ours. Poland also has a problem

of the balance of payments, but it is a *real* problem. There is no difficulty about matching payments with receipts—the difficulty is to have enough receipts from exports to pay for what she would like to buy. Financial and speculative movements have no scope, because foreign transactions are centrally controlled. She has a real difficulty in running the economy with a high level of investment, and at the same time providing goods for the workers to consume, but the discontent of workers cannot set wages and prices chasing each other, for money-wages are centrally controlled.

In the capitalist countries the real difficulties are much less than in Poland, for their real productivity and potential wealth is much greater and their need for rapid investment less. But their difficulties with the machinery for managing the economy are enormously greater.

Kalecki[1] long ago predicted that, when governments understood how to overcome the old commercial trade cycle, we should experience a political trade cycle.

High employment leading to rising wages would cause complaints about inflation; removing fear of the sack would cause complaints about lack of labour discipline; a cry for the return to 'sound finance' would be set up (supported, as Kalecki shrewdly predicted, by not a few economists). Budget surplus and a credit squeeze would then bring about a recession. But the return of unemployment would be frightening to a government needing votes at the next election. Relaxation would boost investment again. And so on round.*

This has turned out a remarkably good likeness of England under Conservative rule.

All the same, the political trade cycle is very mild compared to the real one, and by and large it seems right to say that full employment is now a firmly established article of Conservative orthodoxy.

But full employment is nonsensical as an orthodox policy. When orthodoxy maintained that nothing could be done, Keynes had to prove that anything is better than nothing. As soon as it is

[1] 'Political Aspects of Full Employment', in *Political Quarterly*, Oct.-Dec. 1943.

* Cf. p. 99.

accepted that we must have full employment in any case, the question to be discussed is *what* should be done.

Keynes's paradoxes—build pyramids, dig holes in the ground—have been taken literally. In U.S.A. in 1958, it is estimated[1] that expenditure on what is euphemistically called 'defence' was running at more than 11 per cent of the gross national product and in the U.K. at nearly 8 per cent, which is about equal in each country to the volume of productive industrial investment.[2] This means that without any extra sacrifice or any greater inflationary pressure than has been experienced, the annual increment of industrial productive capacity could have been about doubled if the arms race had been halted. And though such a policy is officially repudiated, there is strong evidence that stepping up military expenditure is relied upon by the U.S. administration as a corrective when a recession is threatened.[3]

It is the acceptance of full employment as an end in itself that permits democratic public opinion to allow such huge holes in the ground to be dug without any protest.

From the first, those of us who were labelled as 'left-wing Keynesians' maintained that the existence of unemployed resources should be regarded not as a troublesome problem but as a glorious opportunity—an opportunity to do something useful. The superficial success of the full employment policy based on the arms race has made left-wing Keynesians unpopular. I have sometimes wondered if I was the only one still extant. But now I am cheered to find that Mr. Khrushchev has joined us. He now proclaims that it is an error to suppose that capitalist prosperity needs an arms race—there are plenty of good and useful things to do.

What do we want to use our resources for? Keynes, in his conservative mood, pretended that the question need not be asked. The passage that I quoted just now is preceded by this:

> The State will have to exercise a guiding influence on the propensity to consume, partly through its scheme of taxation, partly by fixing the rate of interest, and partly, perhaps, in other ways. Furthermore, it seems unlikely that the influence of banking policy on the rate of interest will be sufficient by itself to determine an

[1] *Economic Review*, National Institute of Economic and Social Research, July 1960.
[2] *World Economic Survey* 1959, United Nations, p. 23.
[3] *World Economic Survey* 1958, United Nations, p. 186.

> optimum rate of investment. I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment; though this need not exclude all manner of compromises and of devices by which public authority will co-operate with private initiative. But beyond this no obvious case is made out for a system of State Socialism which would embrace most of the economic life of the community. It is not the ownership of the instruments of production which it is important for the State to assume. If the State is able to determine the aggregate amount of resources devoted to augmenting the instruments and the basic rate of reward to those who own them, it will have accomplished all that is necessary. Moreover, the necessary measures of socialization can be introduced gradually and without a break in the general traditions of society.

And he adds:

> I see no reason to suppose that the existing system seriously misemploys the factors of production which are in use. . . . It is in determining the volume, not the direction, of actual employment that the existing system has broken down.

But how can the volume be affected in the abstract, without concretely affecting its content? The means to support effective demand must encourage either investment or consumption. If investment, the methods found to increase capital formation cannot be separated from the objective—cheap money helps housing; a remission of business taxes helps the large firms, schemes such as industrial estates help the small; there is no such thing as investment in the abstract. If it is to be consumption, expenditure on social services helps the poor and tax remissions help the rich. There is no such thing as consumption in the abstract either.

Since Keynes's day, the problems of who is to benefit have been covered up by the cry for economic growth. The poor showing of the United Kingdom, which always seems to come bottom of the class in the annual U.N. examination, is a matter of grave concern. A better showing in the figures for growth is felt to be the prime objective that we should be aiming at.

Why do we worry about growth? Partly for very cogent reasons. A trading nation must keep up with the competitive pace set by others, and innovations, technical progress, and falling costs are not seen in a stagnating economy. When real income is growing we can afford to raise money wages without suffering rising prices,

so that the inflation problem is much eased, which reacts also on foreign trade. Social problems are more easily dealt with if no one has to suffer a loss to help others to a gain.

There are cogent reasons. But largely, I think, the cry for growth is just international 'keeping up with the Jones's'. We don't like to think of others growing when we do not.

The main reason why we have such a poor show in the United Kingdom is the way our full employment policy has been worked. When we are in the downward phase of the political trade cycle, the easy and pleasant solution is to reduce taxes and encourage consumption. When restraint is called for, it is a credit squeeze and less investment that pull in the reins. And when investment is restrained while arms expenditure is kept up, all the more restraint is needed on the growth-promoting element in investment. This is certainly improvident and is leading to a progressive weakening of our international position, which is all the more alarming in contrast to the spectacular successes of our old rivals, Germany and Japan, who seem to thrive on recovering from defeat in war even more than we suffer from enjoying victory.

But what is it that should grow? What is national wealth? The real national product that appears in the blue books is the volume of sales of goods and services, corrected for changes in prices. It is what is sold that counts. 'Productive' investment is investment that creates capacity to increase sales. Cleaning up slums, improving health and education, preserving wild country, are not counted as 'productive' activities. The issue is not between what is useful to society and what is not, but between what creates a field for profitable enterprise and what does not.

It is all matter of how the payment is collected. Anything that can be sold to individual buyers can be made to yield profits, but what has to be paid for collectively requires taxes. Buying goods is a pleasure and paying taxes is a burden.

Once more, it is a matter of financial machinery, not of economic reality. In the socialist countries, the distinction between taxes and profits has no importance. Investment, education and social services are all paid for in the turnover tax which is part of the prices of goods sold. In the U.S.S.R. it has recently been announced that income tax is to be abolished; this is sometimes presented as a matter for wonder and envy to the groaning

tax-payer in the West. But the real wonder is why the U.S.S.R. ever had an income-tax at all.

In the socialist system, the main fund for government expenditure is collected—in the same way as businesses in the West collect part of their funds for investment—out of profit margins. And the fund can be disposed of, for investment, say, in building factories or in building schools, as policy dictates. Neither one can claim to be more 'productive' than the other.

This question of the machinery for collecting payment goes very deep. Galbraith gives a telling account of the lush prosperity of the American 'affluent society' in terms of goods to buy and its penury and squalor in all public services. In England we are not so far gone, either in the affluence or the squalor. But it is a very strange thing to see what we can 'afford' and what is too great a 'burden' on national resources. We can afford office buildings of palatial grandeur, but not enough schools of the simplest kind. We can afford any number of advertising agents, but we cannot pay teachers sufficient salaries to keep up recruitment. We can fill the shops with gleaming piles of goods, but cannot let an old-age pensioner have enough money to buy a new overcoat.

The question of what we want to do with national resources is never put in these terms. It is disguised under the problems of machinery. No one likes to pay taxes.

The convention that what is profitable is productive serves to keep the whole question from being discussed. Create a full employment economy, where profits are easy to make, and you have a productive economy. No need to ask what is produced or who gets the benefit.

But we cannot really escape from having to think what should be done with our resources. Phrases about growth, about the free play of the market, the natural channels of trade and all the rest of it, cannot disguise the fact that political decisions are involved in economic policy.

And when we begin to think about the aims of policy, we cannot avoid thinking about the means. To discuss what kind of machinery would be required to carry out a different policy cuts much deeper than to discuss what policy should be.

It is easy to understand why full employment as an end in itself has been adopted as the banner of modern conservatism.

3

OBSTACLES TO FULL EMPLOYMENT

VARIOUS definitions of 'full employment' have been used by English writers. Keynes originally used a definition in terms of Marshall's concept of 'disutility of labour'.[1] Beveridge says there is full employment when there are more unfilled vacancies than unemployed workers.[2] Others call full employment the level of employment at which money-wage rates begin to rise.

On all these definitions there may be large numbers of workers unemployed when 'full employment' is said to exist. It is preferable to take a simple-minded definition, and to say that there is 'full employment' when no one is unemployed.

There is a difficulty in giving a precise definition of 'available labour'. Hours of work may vary. The number of married women 'available' for employment may not be clear cut. But if we can take a rough working definition of 'available labour' then we may say that 'full employment' exists when all available labour is employed.

This is a state of affairs that can never be completely attained. In a changing world there are always bound to be, at any moment, some workers who have left one job and have not yet found another.

Technical changes and changes in tastes both at home and in foreign markets bring about shifts in demand between industries. Although seasonal unemployment could be very much reduced by dovetailing operations with different seasonal peaks, there is probably an irreducible minimum of seasonal unemployment in some districts. Changes in occupation for personal reasons will always be going on. So long as such shifts in employment are taking place, there is always likely to be some unemployment even when the general demand for labour is very high. Thus completely full employment can never be seen.

[1] *General Theory of Employment, Interest and Money*, p. 15.

[2] *Full Employment in a Free Society*, p. 18.

Nationaløkonomisk Tidsskrift, 1946. This paper is based on a lecture given to the Nationaløkonomisk Forening at Copenhagen on 6 December 1946.

Nor is completely full employment desirable. The attainment of full employment, in this absolute sense, would require strict controls, including direction of labour. To raise the average of employment from 86 per cent (the average for Great Britain, 1921–38) to, say, 95 per cent, would be compatible with a much greater amount of individual liberty than to raise it from 95 per cent to 98 per cent. To raise it from 95 per cent to 98 per cent (not momentarily – but on the average) would involve great sacrifices of liberty, and to raise it from 98 per cent to 100 per cent would involve complete conscription of labour.

No one regards 100 per cent employment as a desirable objective. 'Full employment policy' does not mean aiming at 100 per cent employment, but aiming at a continuous level of employment as near to 100 per cent as is practicable with the methods of control which are acceptable to the public. In what follows I shall use the phrase 'full employment' loosely, to mean 'as near full employment as is reasonable'.

This use of language, though not exact, is sufficiently clear for all practical purposes.

In England, we are now living under a regime where it is generally accepted that it is the duty of government to maintain full employment. This was accepted even before the Labour Government came into power. For us, this is a great revolution in ideas. During the great slump of the '30s it was the orthodox and official view that government action could not increase employment. In 1929, when Lloyd George was running an election campaign on the promise to abolish unemployment by means of government outlay on public works, the Treasury enunciated the doctrine that government outlay could not, in fact, increase the total level of investment.[3]

Looking back now, it seems almost incredible that such views should have been taken seriously. There are still in England many who are sceptical or unsympathetic about the new policy, but they have to use far more subtle and sophisticated arguments than the 'Treasury View' of 1929.

The change in official and orthodox ideas is of the greatest importance. But up to the present we are living in a fool's paradise. We have accepted a full employment policy, and we are in fact enjoying a high level of employment. There is some unemployment in certain areas, where reconversion to peace-time production is held up for want of buildings. Apart from this there is substantially 'full employment' in the sense of as high a level of employment as is reasonable to expect.

But this is largely a coincidence. It has little to do with the new policy,

[3] Command Paper, 3331.

because just now there would be full employment in any case. At the moment we are living in an inflationary situation – that is, there is an excess of demand over supply for labour as a whole. The acute shortage of houses, due to bombing and to the cessation of building during the war; the drive for exports, which is being conducted not in order to maintain employment, but in order to balance our trade; the great reduction in private stocks of clothes, furniture, and so forth combined with war-time savings ready to be spent on goods as soon as they become available; and the requirements of industry for reconversion to peace-time production – all these add up to an effective demand for labour in excess of supply.

The consequent tendency to inflation is kept in check by the methods evolved during the war. Heavy taxation, rationing, control of prices, a vague and unformulated, but nevertheless fairly successful wages policy, control of imports, licensing of private investment, propaganda for saving, in short, all war-time methods of checking inflation are still in force. These methods are fairly well understood by the Government, and accepted with more or less good-natured grumbling by the public.

If it were possible to keep up permanently a condition of near-inflation and run the machine on the brakes – that is, with controls to curb excessive demand – employment policy would be straightforward and comparatively easy to manage.

The real test of the new policy will come when there is a fall in demand. How will it be met? The danger may come from within or from without. Let us first consider the internal danger. There may be a fall in the rate of private investment when the reconstruction boom comes to an end, but this is unlikely to be serious. Industrial investment, in equipping factories and so forth, has never been a very large part of all home investment. The main bulk of home investment is in building and civil engineering. If the Government can control the rate of building, the investment plans of nationalized industries, and the timing of large schemes, such as the electrification of rural districts, then it should be possible to plan for a steady level in the great bulk of investment. This in itself would help to steady private investment because it would go a long way towards stabilizing incomes, and therefore the general level of profits. Further, by consultation and persuasion, without overt control, the large firms can probably be induced to fit their investment plans into a national scheme. And a small uncontrolled fringe would probably not be very unstable.

The White Paper on Employment Policy[4] issued by the late Coalition Government was not based upon this point of view. It was based rather on

[4] Command Paper 6527.

the conception of 'counter-cyclical' government investment, that is, the idea that the Government should step in and increase its own investment when private investment falls off, and slow down its own investment when private investment increases. In my view, this policy is fundamentally wrong. It means giving private enterprise the first choice. When private firms choose to make investment they can. When they no longer want labour, the Government will use the labour for something or other. When private investment recovers, the Government must release labour again, so that it can be used for profitable investment. This whole point of view is subject to the gravest objection. Once we have accepted the idea that it is the business of the Government to see that labour is always employed, we must go on to admit that it is the business of the Government to see that labour is employed in the most useful possible way: that is to say, that schemes of investment should be directed to meet the needs of the community, and not to suit the whims and fancies of profit-seeking firms.

Indeed, it is impossible for the State to divest itself of responsibility for the direction of employment once it has accepted responsibility for the total amount of employment. There are many in England at present who advocate the use of 'global methods' designed to affect the total employment without exercising any discrimination over the allocation of labour between uses. But this is in fact impossible. Any policy, even if it is purely global in conception, will produce concrete results and have an influence upon the direction of employment. The decision not to interfere with private investment is itself a positive decision.

Thus the responsibility for deciding how the influence of the State upon the direction of employment is to be used cannot be escaped.

The problem of deciding what are the 'needs of society' and of adjudicating between conflicting needs is by no means simple. There is no one Platonic ideal of the 'best use of the nation's resources'. Conflicts of interest and conflicts of ideology are bound to persist. But somehow or other a democracy does decide what it wants. In England at present there is no doubt that the people want more than, in fact, can be done at all quickly. Housing – first in the sense of some kind of a roof over everyone's head, later in the sense of improving the disgraceful condition of our great cities and our backward rural districts. Re-equipment of industry – not for the sake of profit, but for the sake of meeting our desperate foreign trade position and for raising the general standard of production and therefore of consumption. Improvement of our education and our health services, which involves large investment in building and equipment as well as in training of personnel. Improvements in the efficiency and amenity of our

transport system. Improvements in the amenity of the countryside (there are many cottages in England which are without gas or electricity and even without piped water) which are desirable both for their own sake and to check the drift away from agriculture, which is one of our serious economic problems. These and many other 'social needs' are agreed by the nation, in the vague and yet definite sense in which democracies do agree upon their needs.

The task of deciding between these needs, and reducing them to a scheme of priorities, must be the duty of the Government. The methods to be used are still in course of evolution, and no doubt they will work clumsily, and be the subject of much dispute and criticism. But a merely passive policy of compensating the vagaries of private enterprise would be the least hopeful of all possible methods of solving the problems involved.

The 'counter-cyclical' policy is subject to another objection. It is very unpractical. It is not at all easy to switch on and off schemes of investment at a moment's notice, or even at six months' notice. Besides, private and public investment are often closely bound up together. You cannot have factories built during the boom and wait for the next slump to make roads up to their gates. It is essential for a sane employment policy that investment should be planned as a whole and not merely stabilized by 'counter-cyclical' public works.

The second branch of the White Paper policy is to maintain consumption when investment falls off. When investment falls, incomes decline and there is 'secondary unemployment' due to the fact that consumers have less money to spend. The suggestion is that, at such a moment, the purchasing power of consumers should be increased, and the general level of demand for consumption goods kept up, so as to fend off the 'tertiary unemployment' which follows when consumer goods industries become less profitable, and investment in them in turn falls off.

The prejudice which still exists in the British Treasury (or which, at any rate, still existed when the White Paper was written) made it impossible to advocate remission of taxation and the deliberate creation of a budget deficit as a means of maintaining purchasing power. They did, however, suggest the creation of a deficit in the social insurance funds by reducing weekly contributions when demand threatens to fall. This would make rather a feeble contribution to solving the problem. Many more or less fanciful schemes for regulating purchasing power have been suggested by English economists. These seem often to be rather perverse. There is something repugnant to common sense in the idea of giving money to people to spend just in order to keep up the market for goods and make

industry profitable. Ordinary people consider that they should be given money either because they deserve it, or because they need it, not just in order to make a market. It is necessary to provide at least the appearance of equity in releasing purchasing power even if the motive is to stabilize employment. The least arbitrary of these schemes is the device of 'deferred pay' invented by Lord Keynes as a measure of war-time finance. Part of the income tax paid is credited to the individual to be refunded at the decision of the Government. This provides a fund of purchasing power which people regard as their own money, which can be released when demand for consumer goods is threatening to fall.

This scheme was used, to a small extent, during the war, and the arrears of tax credited to the public are held up at present, to be released when the supply of consumer goods becomes adequate – that is to say, when normal demand no longer exceeds supply. The release of the credits would provide a stimulus to demand which could be regulated, in time and in amount, so as to give a salutary shock to the economy when a failure of demand is threatening. There is no reason why this system should not be permanent, so that there are always arrears of potential purchasing power in hand, to be released when required to maintain demand.

These methods can be used to prevent an internal failure of demand. But for Great Britain, and equally in Denmark, the main danger does not lie inside the country, but outside – that is, in a fall in demand for exports, whether due to a slump in the outside world or to a long-period change.

This would present a difficult situation even for a fully planned economy. It creates two problems – how to maintain employment and how to deal with the balance of payments.

If demand falls in export industries, work must be found for the labour released. If exports are highly specialized, this is by no means an easy matter. It is of little use just to increase purchasing power in general. Plans should be drawn up specifically for (*a*) buying up and using or storing products formerly exported, (*b*) turning labour to alternative products, or (*c*) arranging an alternative foreign outlet to replace the lost market. Such plans are not easy to work out satisfactorily, and although there is much talk in England now about employment policy, it may be doubted that plans on these lines are actually being prepared. If the world slump were to come soon there would be little difficulty, for the home market is starved of goods, and would eagerly absorb what is at present being exported. So far as miscellaneous consumer goods are concerned, actually the same goods could be sold at home. And where the same goods are not appropriate, alternative uses for labour could easily be found. For a country whose

exports are primarily agricultural the difficulty would probably be greater, and alternative employment might be harder to arrange.

If the immediate problem of maintaining employment is solved by switching labour from the foreign to the home market, the further problem will arise of switching it back again when the foreign market recovers. This must require a fairly high degree of control over industry. For if we are to do without the brutal methods of a market economy – unemployment and bankruptcy – we must have other means of directing production.

The problem of maintaining employment when export demand falls off is complicated and difficult enough, but if it is solved a worse difficulty remains – the problem of the balance of payments.

The 'natural' remedy for a fall in exports, under *laisser-faire* conditions, is a fall in employment and in income, which reduces demand for imports also (though not necessarily to the same extent). But if employment is successfully maintained, then the demand for imports does not fall, and the balance of trade runs into a deficit. For a country with ample monetary reserves this would not matter. But for Great Britain it would present a very serious problem. Discussions are going on now as to means to help countries which do their duty to the world by maintaining their demand for imports in face of a slump elsewhere. Let us hope that some world agreement will be arrived at on these lines, for the provisions of the Bretton Woods fund only scratch the surface of the problem.

The main remedy for a trade deficit envisaged under Bretton Woods is exchange depreciation. But this is not a remedy appropriate to the disease. If the trouble is caused by a decline in total world demand, there is first of all very little reason to expect that depreciation would bring about a recovery of exports for a particular country. Depreciation works by reducing the *relative* price of the country's exports, and, in a general slump, there are probably very few commodities for which price-elasticity of demand is high. Moreover, even if it does do good from the point of view of the country in question, it can do so only at the expense of other countries, for it works by improving the competitive position of the depreciating country, and securing for it a larger share of the shrunken world trade, by reducing the share of its rival producers. No remedy is beneficial to the world as a whole that does not increase the total of world demand.

Behind this balance of trade problem again lies a further difficulty – the difficulty of distinguishing cyclical from long-period changes in foreign demand. The remedies required are quite different in the two cases. If demand for exports has fallen temporarily, the capacity of the export industries should be preserved with the utmost care, and any transfer of

labour from them made with an eye to restoring it to them as soon as possible. Imports should be kept up as far as reserves permit. But if the change is permanent it is necessary as quickly as possible to reduce the productive capacity of the trade which has lost its market – to foster, if possible, alternative exports, and if that cannot be done, to set about cutting down imports. Thus a mis-diagnosis of the situation would lead to a totally wrong policy being pursued; the medicine for one disease is poison in another, and diagnosis will never be easy, since long-run and cyclical changes are often mixed up together.

At the present time, framing of policy is particularly difficult, for one great unanswerable question hangs over everything – what will the USA do in the coming slump? We can be pretty sure that history will not repeat itself, and economists planning now for the return of the 1930s would be like the generals who are accused in peace-time of planning to win the last war.

The most that one can say is, that we must prepare for a flexible policy and for an intelligent and quick response to events.

Flexibility requires control. It is a popular error that bureaucracy is less flexible than private enterprise. It may be so in detail, but when large-scale adaptations have to be made, central control is far more flexible. It may take two months to get an answer to a letter from a government department, but it takes twenty years for an industry under private enterprise to readjust itself to a fall in demand.

For this reason, full-employment policy requires a high degree of central control over the economic system. Just how much control remains to be seen. The problem of combining the necessary degree of control with the traditional methods of democracy is the dominating political problem of the present time.

If all these problems are successfully solved, certain difficulties arise from the very success of the full-employment policy.

For people who have a secure income in any case, full employment is a great nuisance. There are no domestic servants, the theatres are always full and the holiday resorts overcrowded. Goods are in short supply, not because less are produced, but because other people are consuming more. Shopkeepers become over-bearing instead of obsequious.

For managers in industry discipline is hard to preserve because workers are no longer frightened of losing their jobs.

Unpleasant tasks such as coal-mining cannot recruit labour on the old terms.

All these 'drawbacks' are, of course, the reverse side of the advantages of full employment for the mass of the people.

Finally, there is the problem of preserving the value of money. If the demand for labour is strong, money-wage rates tend to rise, and since the demand for commodities is also high, prices rise with costs. A successful employment policy, just because it is successful, entails a chronic danger of inflation.

Up till now, in England, the 'vicious spiral' has been kept within bounds, but we have no definite wages policy, nor are we likely to have one, for individual Trade Unions are jealous of their independence.

The danger of an all-round rise in wages could probably be dealt with by an over-all understanding with the Trade Unions, but the problem of relative wage changes is not easy to solve. There are many trades, of which mining is the chief example, where wages are obviously too low, whether we consider it from the human point of view of the disagreeableness and danger of the work, or from the economic point of view of the need to attract labour away from less onerous occupations. So long as unemployment was general, a completely irrational wage system could persist, but once there is full employment, wages must conform broadly to the text-book rule of equalizing the 'net advantages' of different occupations. The process of raising wages which are too low, involves raising the general level of wages (no one advocates lowering wages rates which are relatively high) and therefore is likely to involve a rise in the cost of living. Thus even right and necessary wage changes contain the threat of the 'vicious spiral'.

All this sounds pessimistic, but only because dangers and difficulties can be clearly foreseen. Whatever may happen, we are better off if our eyes are open, and nothing that can happen now can be so bad as the blind misery of the great slump.

17

BEGGAR-MY-NEIGHBOUR REMEDIES FOR UNEMPLOYMENT

FOR any one country an increase in the balance of trade is equivalent to an increase in investment and normally leads (given the level of home investment) to an increase in employment.[1] An expansion of export industries, or of home industries rival to imports, causes a primary increase in employment, while the expenditure of additional incomes earned in these industries leads, in so far as it falls upon home-produced goods, to a secondary increase in employment. But an increase in employment brought about in this way is of a totally different nature from an increase due to home investment. For an increase in home investment brings about a net increase in employment for the world as a whole, while an increase in the balance of trade of one country at best leaves the level of employment for the world as a whole unaffected.[2] A decline in the imports of one country is a decline in the exports of other countries, and the balance of trade for the world as a whole is always equal to zero.[3]

In times of general unemployment a game of beggar-my-neighbour is played between the nations, each one endeavouring to throw a larger share of the burden upon the others. As soon as one suceeds in increasing its trade balance at the expense of the rest, others retaliate, and the total volume of international trade sinks continuously, relatively to the total volume of world activity. Political, strategic and sentimental considerations add fuel to the fire, and the flames of economic nationalism blaze ever higher and higher.

In the process not only is the efficiency of world production impaired by

[1] See below, p. 192, note 5 for an exceptional case.

[2] Unless it happens that the multiplier is higher than the average for the world in the country whose balance increases.

[3] The visible balances of all countries normally add up to a negative figure, since exports are reckoned f.o.b. and imports c.i.f. But this is compensated by a corresponding item in the invisible account, representing shipping and handling costs.

From *Essays in the Theory of Employment*, 1937.

the sacrifice of international division of labour, but the total of world activity is also likely to be reduced. For while an increase in the balance of trade of one country creates a situation in which its home rate of interest tends to fall, the corresponding reduction in the balances of the rest tends to raise their rates of interest, and owing to the apprehensive and cautious tradition which dominates the policy of monetary authorities, they are chronically more inclined to foster a rise in the rate of interest when the balance of trade is reduced than to permit a fall when it is increased. The beggar-my-neighbour game is therefore likely to be accompanied by a rise in the rate of interest for the world as a whole and consequently by a decline in world activity.

The principal devices by which the balance of trade can be increased are (1) exchange depreciation, (2) reductions in wages (which may take the form of increasing hours of work at the same weekly wage), (3) subsidies to exports and (4) restriction of imports by means of tariffs and quotas. To borrow a trope from Mr. D. H. Robertson, there are four suits in the pack, and a trick can be taken by playing a higher card out of any suit.

Before proceeding any further it is necessary to make a digression, for it has sometimes been denied that the restriction of imports will increase home employment.[4] This view appears to arise from a confusion as to the nature of the classical argument for free trade. The classical argument states that (with certain well-known exceptions) the pursuit of profit will bring about the specialization of resources and the distribution of trade between nations in such a way that the maximum of efficiency is achieved. Any arbitrary interference with the channels of trade will therefore lead to a decline in efficiency, and a reduction in the amount of output obtained from a given amount of resources. This argument, on its own ground, is unexceptionable. But in the nature of the case it can throw no light upon the division of a given total of employment between nations. It tells us that, with given employment, output per head will be higher when trade is free. It cannot tell us that when one country increases its share in world employment, at the expense of reducing output per unit of employment, its total output will be reduced. Still less can it tell us that employment in any one country cannot be increased by increasing its balance of trade. Indeed it is obvious to common sense that a tax upon imported goods will lead to an increase in the output of rival home-produced goods, just as a tax

[4] See *General Theory*, p. 334. Mr. Keynes offers himself as a sacrifice. But (*pace* Sir William Beveridge) it was never the orthodox view that a tariff cannot lead to an increase in employment in the short period; see Pigou, *Public Finance*, p. 224.

upon any commodity will stimulate the output of substitutes for it.[5]

The popular view that free trade is all very well so long as all nations are free-traders, but that when other nations erect tariffs we must erect tariffs too, is countered by the argument that it would be just as sensible to drop rocks into our harbours because other nations have rocky coasts.[6] This argument, once more, is unexceptionable on its own ground. The tariffs of foreign nations (except in so far as they can be modified by bargaining) are simply a fact of nature from the point of view of the home authorities, and the maximum of specialization that is possible in face of them still yields the maximum of efficiency. But when the game of beggar-my-neighbour has been played for one or two rounds, and foreign nations have stimulated their exports and cut down their imports by every device in their power, the burden of unemployment upon any country which refuses to join in the game will become intolerable and the demand for some form of retaliation irresistible. The popular view that tariffs must be answered by tariffs has therefore much practical force, though the question still remains open from which suit in any given circumstances it is wisest to play a card.

Exchange depreciation and a reduction in the level of money wages lead to an increase in the balance of trade, provided that each stands above the optimum level. A subsidy to exports will increase the balance of trade provided that foreign demand has an elasticity greater than unity,[7] while restriction of imports by quotas will increase the balance of trade provided that home demand has an elasticity greater than unity. These four

[5] The argument is backed up by the contention that 'exports pay for imports', see, e.g. Beveridge and others, *Tariffs: the Case Examined*, Chapter VI. It is admitted that in some circumstances imports may be curtailed without exports falling to an equal extent, but this entails an increase in foreign lending, and it is argued that if foreign lending increases, home investment must decline (loc cit., p. 57). Now when the imposition of a tariff increases the balance of trade the increase in foreign lending which is required to prevent a rise in the exchange rate is brought about by a fall in the home rate of interest, and this is calculated to increase, not diminish, the volume of home investment. The flaw in the argument consists in overlooking the fact that an increase in home income will increase saving, so that increased foreign lending is not made at the expense of lending at home.

The classical, as opposed to the neo-classical, argument is usually set out upon the assumption that full employment is the normal state, and in the classical system of analysis the question of a beggar-my-neighbour increase in home employment does not arise.

[6] Beveridge, op. cit., p. 110.

[7] When the foreign demand is inelastic a tax on exports (as in Germany in 1922) or restriction of output (as in many raw-material-producing countries in recent years) will increase the balance of trade, while at the same time reducing the amount of employment in the export industries, and increasing the ratio of profits to wages in them. In these circumstances, therefore, an induced increase in the balance of trade may be accompanied by no increase, or even a decrease, in the level of employment.

expedients are thus all limited in their scope. A tariff reduces the volume of imports, and tends to reduce their foreign price, even when home demand is inelastic. Total expenditure by home consumers upon imports, including tax payments, may increase, but the payment to foreigners must be reduced. Tariffs thus provide an expedient for increasing the balance of trade which can still be used when all else fails.

We must now consider the effect upon home employment of an increase in the balance of trade brought about by each of the four expedients. To simplify the discussion we may postulate that the funds necessary for a subsidy are raised, or the receipts from import duties expended, in such a way as not to interfere with the distribution of income or to alter thriftiness in the home country.[8] Each expedient must be supposed to produce its own full effect. For instance, it must not be supposed that the influence of a fall in the exchange rate on the balance of trade is counteracted by a rise in money wages, or that a tariff leads to a rise in the exchange rate.

A fall in the exchange rate, or in money wages, causes a primary increase in employment in export industries, and in industries producing goods rival to imports.[9] For a given increase in the value of exports (in terms of home wage units) the increase in employment will be greater the greater is the elasticity of supply, and for a given decrease in the value of imports it will be greater the greater is the elasticity of foreign supply and the greater is the elasticity of supply in the rival home industries. It is possible that an increase in the balance of trade may lead to no primary increase in employment. For instance, suppose that the elasticity of home supply of export goods is zero and the elasticity of demand for import goods unity. Then a fall in the exchange rate will lead to a proportional increase in the value of exports, without any increase in their volume, and consequently without any increase in employment in the industries producing them, while the value of imports and the output of rival commodities will be unchanged.

In the case of a subsidy the primary increase in employment is in the

[8] The manner in which funds are raised or receipts expended is, of course, of the utmost importance, but analysis of the effects of changes in fiscal policy on employment can easily be superimposed upon the analysis here set out. For instance if receipts from import duties are paid into a sinking fund, or used to relieve taxation on the rich in such a way as to increase their savings, there will be an increase in thriftiness which will counteract the effect upon employment of increased foreign investment.

[9] If the elasticity of demand for imports is less than unity, there will be a primary decrease in employment in these industries, since additional expenditure upon imports will be made at their expense, but in this case a given increase in the balance of trade must entail so much the greater increase in exports.

export industries alone,[10] while in the case of a tariff the primary increase is in the industries rival to imports[11] and in the industries benefited by the expenditure of the receipts from duties.[12] In the case of quotas the primary increase is in the rival industries alone.

In each case, the increase in incomes due to the increased balance of trade will lead to secondary employment. Thus even when there is no primary increase in employment at all, total employment will increase as a result of the increased balance of trade. The lower are the elasticities of supply in the industries primarily affected the greater will be the increase in profits, relatively to wages, in them, and the smaller the increase in expenditure coming from them. Thus the secondary increase in employment is likely to be smaller the smaller is the increase in primary employment.

We must next consider the effect of the various expedients upon real income per unit of employment. Output per unit of employment normally falls off as employment increases. For a given increase in employment the decline in output per unit of employment will be greater in the case of subsidies, tariffs or quotas than in the case of exchange depreciation or a fall in wages, since advance is being made upon a narrower front. This is merely another way of stating the classical argument that the mal-distribution of resources due to an artificial stimulus of particular industries leads to a decline in output for a given level of employment.

The change in income per unit of employment will also be influenced by the effect of the various expedients upon the terms of trade. An improvement in the terms of trade, that is, a rise in the price of exports relatively to the price of imports represents an increase in incomes, per unit of employment, earned in export industries, relatively to the cost of imported commodities. If the total value of imports and of exports is more or less commensurate an improvement in the terms of trade will therefore bring about a rise in the average real income per unit of employment for the country as a whole.

A fall in money wages which affects all industries equally, is equivalent, as we have seen, to an equal proportional fall in the exchange except in respect to obligations fixed in terms of home currency. Abstracting from

[10] While there may be a primary decrease in employment in industries whose costs are raised as a result of the increase in output of export goods or whose receipts are reduced by the collection of funds for the subsidy.

[11] While there may be a primary decrease in employment in the industries whose costs are raised.

[12] In general, the more elastic is the demand for imports the larger will be the increase in the output of the rival industries and the smaller the proceeds of the duties.

them for the moment, we may conduct our discussion in terms of exchange depreciation alone, the argument being made applicable to a fall in wages by means of reckoning prices and incomes in terms of home wage units.

A fall in the exchange rate, which stimulates the output of export goods and reduces the demand for import goods, leads to a fall in the world price of both types of goods, and a rise in the home price. Since the prices of both types of goods move in the same direction it is impossible to say out of hand what the effect will be upon the terms of trade.

The fall in the world price of export goods in the first instance will be greater the less elastic is the foreign demand for them, and the more elastic is the home supply; while the fall in the price of import goods will be greater the more elastic is the home demand and the less elastic is the foreign supply. It can be seen that if the elasticity of foreign demand for exports is equal to the elasticity of foreign supply of imports, while the elasticity of home supply of exports is equal to the elasticity of home demand for imports, the initial effect of a fall in the exchange rate will be to move both sets of prices to the same extent, so that the terms of trade are unchanged. Further, if the foreign elasticity of supply exceeds the foreign elasticity of demand in the same proportion as the home elasticity of demand exceeds the home elasticity of supply, the terms of trade are unchanged.[13]

In general, each country is more specialized in respect to the goods which it produces than in respect to the goods which it consumes, so that any one country plays a more dominant role in the world supply of those goods which it exports than it plays in the world market for those goods which it imports. In general, therefore, the world demand for the exports of one country is less elastic than the world supply to it of those goods which it imports. So far as the foreign elasticities are concerned, there is thus a strong presumption that a fall in the exchange rate will turn the terms of trade in the unfavourable direction.

Each country imports a large number of commodities which cannot be produced at home, so that the elasticity of demand for imports tends to be low. The elasticity of supply of exports will depend upon the particular types of goods in question, and upon the general state of trade. In slump conditions, such as prevail when the game of beggar-my-neighbour is most

[13] Let p be the home price of imports and q of exports. Let ϵh and ϵf be the elasticities of home demand for imports and foreign demand for exports, and ηh and ηf the elasticities of home supply of exports and foreign supply of imports. Then the adverse change in the terms of trade is $\frac{\delta p}{p} - \frac{\delta q}{q}$, which is equal to $k\left(\frac{\eta f}{\epsilon h + \eta f} - \frac{\epsilon f}{\eta h + \epsilon f}\right)$. Thus the change in the terms of trade is adverse or favourable according $\frac{\eta h}{\epsilon h}$ is greater or less than $\frac{\epsilon f}{\eta f}$.

in vogue, the elasticity of supply of all commodities, except certain agricultural products, is likely to be high. It is thus only in exceptional cases that the home elasticity of demand can exceed the home elasticity of supply to a sufficient extent to compensate for the excess of the foreign elasticity of supply over the foreign elasticity of demand, and in general a fall in the exchange rate must be expected to cause a deterioration in the terms of trade.

An exceptional case would occur if the home supply of exportable goods were perfectly inelastic. There would then be no fall in the world price of exports, while unless either home demand for import goods is perfectly inelastic or the foreign supply of them perfectly elastic, there will be some fall in the price of imports, and the terms of trade will become favourable when the exchange rate falls. Thus for an agricultural country which produces a considerable proportion of the world supply of some commodity, the drawbacks of an inelastic world demand for its exports may be overcome by a sufficiently inelastic home supply. A country for which an inelastic foreign demand is combined with a highly elastic home supply will suffer a serious deterioration in the terms of trade as a result of exchange depreciation.

The importance of the home country in world markets will also affect the result. The change in world prices brought about by exchange depreciation will in general be smaller the smaller is the country concerned, and the narrower will be the range of the possible changes in the terms of trade. A large country is likely to suffer a greater deterioration in the terms of trade, when its exchange depreciates, than a small country, but at the same time it is only for a very large country that a favourable movement in the terms of trade can possibly occur, for it is only a large country which can exercise an appreciable influence on the world prices of the goods which it imports.

The effect upon the terms of trade of a fall in money wages differs from the effect of depreciation in so far as there are foreign obligations fixed in terms of home currency. These are unaffected by a fall in the exchange rate, while a fall in wages raises the cost of payments and the value of receipts in terms of home wage units. Thus, in so far as payments fixed in terms of home currency are an appreciable element in invisible imports, the deleterious effect of a fall in wages upon the terms of trade will be greater than the effect of a corresponding depreciation in the exchange, while a given increase in the balance of trade, in terms of wage units, will require a larger fall in wages, and so entail larger changes in the prices of other imports and exports. In so far as receipts fixed in terms of home currency are

an appreciable element in invisible exports, the deleterious effect of a fall in the exchange rate will be greater.

A subsidy to exports leads to a fall in the world price of export goods which will be greater the less elastic is foreign demand and the more elastic is home supply. In so far as the price of import goods is affected at all, it must be raised. The output of export goods is increased, and their price in the home market, in which they are not subsidized, is raised,[14] so that the price of imports which are rival in the home market to exportable goods may be raised. A subsidy to exports therefore causes an unfavourable movement in the terms of trade.[15] In this respect a subsidy is necessarily more deleterious than exchange depreciation or a fall in money wages.

A tariff leads to a fall in the world price of import goods, which will be greater the less elastic is foreign supply and the more elastic is home demand.[16] In so far as it affects the price of exports it must raise them. Raw materials entering into export goods may be subject to duties, while the increase in the output of home goods which are substitutes for imports may raise the price of the exportable goods. A tariff therefore has a favourable effect upon the terms of trade.

Neither a tariff nor a subsidy can normally be applied to the invisible exports and imports (with the exception of shipping services). Where it is possible to increase the invisible balance by means of exchange depreciation without any adverse effect upon the terms of trade (for instance when the main invisible export consists of receipts fixed in terms of foreign currency), the advantage of a tariff, as opposed to exchange depreciation, is *pro tanto* diminished, and the disadvantage of subsidies increased.

The restriction of imports by means of quotas does not have the same effect upon the terms of trade as a tariff, since it leads to a rise in the home price of import goods, while preventing the restriction in home consumption from lowering the foreign price. A quota upon imports has much the same effect as an increase in the degree of monopoly amongst foreign suppliers. It leads to a deterioration in the terms of trade, while the benefit from the raised price to the home consumer, which goes to the exchequer under a tariff, goes to the foreign producers under a quota.

We have so far considered the terms of trade only in the light of the

[14] Services such as transport must be regarded as exports in so far as they enter into the production of export goods.

[15] Income per unit of output in the export trades is not reduced, but real income per unit of output for the country as a whole is reduced by the levy of funds to pay the subsidy.

[16] This is known as 'making the foreigner pay the tax'. If foreign supply is perfectly inelastic, price to the home consumer is not raised by the import duty at all and 'the foreigner pays the whole of the tax'.

elasticities of home and foreign supply and demand. Any increase in the balance of trade, by whichever expedient it is brought about, will lead to an increase in home incomes and activity. It will therefore raise both the demand curve for imports and the supply curve of exports. But the effect of increased incomes in raising the demand for consumable imports, and the effect of increased activity in raising the demand for raw materials, will normally be far greater than the effect of increased home consumption in reducing the supply of goods available for export. Increased activity is therefore likely to have a larger effect in raising the price of imports than in raising the price of exports, and therefore tells in the direction of worsening the terms of trade. The presumption that the terms of trade will deteriorate as a result of a fall in the exchange rate or of wages is therefore increased, the deterioration due to a subsidy or to quotas is enhanced, and the improvement due to a tariff mitigated, by the effect of increased activity.

The effect of changes in the terms of trade upon income per unit of employment must be combined with the effects, discussed above,[17] of the distribution of home activity between different groups of industries. The beneficial effects of a tariff upon the terms of trade may offset the deleterious effects of concentrating output in a narrower group of industries, and in favourable circumstances may even lead to an increase in income per unit of employment. Exchange depreciation and wage cuts occupy the intermediate position on both counts; while subsidies and quotas are the most deleterious, on both counts, of all the expedients for increasing the balance of trade.

The change in real wages which is brought about by the various expedients is not necessarily commensurate with the change in real income per unit of employment, for wage earners may consume goods of various types in different proportions from the average for the country as a whole, while, in the case of a tariff, the benefit to wage earners of the expenditure of tax receipts is not necessarily, or usually, commensurate with the contribution which they make to them. For a given increase in the balance of trade, the rise in the home price of export goods is greatest in the case of a subsidy, and the rise in the price of import goods, and of home goods which are rival to them, greatest in the case of tariffs, while a fall in the exchange rate or in money wages has an intermediate effect upon both sets of prices (prices being calculated in wages units, in the case of a fall in money wages). Thus for a country whose export goods are an unimportant element in the consumption of wage earners the fall in real wages will be least for a subsidy, greater for depreciation, and greatest for tariffs, while for a country

[17] See p. 193–194.

which exports food-stuffs and imports the luxuries of the rich the order of preference is reversed. Quotas, which are commonly applied to agricultural commodities and so raise the price of food-stuffs, and which make no contribution to fiscal revenue, bring about the largest fall in real wages of all the expedients for increasing the balance of trade.

The various expedients have important effects upon the distribution of income and activity between industries within the home country. An increase in the balance of trade is accompanied by a rise in the home price of export goods, or of goods which are rival to imports, or of both together, so that an increase in the balance of trade increases not only activity, but also income per unit of output, in the industries concerned in producing these goods. Now, when the game of beggar-my-neighbour is being hotly played, these industries suffer a decline in incomes relatively to the industries which are not subject to foreign competition,[18] and an improvement in their situation may be regarded as desirable for its own sake, apart from any increase in the total of activity and incomes of the country. This consideration is of particular importance in so far as it affects agricultural commodities, since the agricultural community is in general poorer than the industrial. Any policy which is designed to increase the exports, or reduce the imports, of agricultural commodities has the effect of turning the terms of trade between agriculture and industry inside the home country in favour of agriculture, and so of reducing the inequality in their earnings. Such policies are widely held to be beneficial, in spite of the fall in the average of real wages which they necessarily bring about.[19]

Certain special considerations apply to each of the four expedients. We have treated a reduction in wages as being in general equivalent to a fall in the exchange rate, but there is one difference between the two which is of the utmost importance. Even if obligations to foreigners fixed in terms of home currency are unimportant, internal indebtedness still has to be

[18] Even in a country so greatly dependent upon foreign trade as Great Britain these industries occupy much less than half the working population, while the multiplier appears to be normally something in the neighbourhood of 2. Thus a given decline in employment in the foreign trade industries causes an almost equal absolute, and therefore a smaller proportionate, decline in employment in the home trade industries. This is known as 'the problem of the unsheltered industries'.

[19] A fall in the exchange rate, or an all-round reduction in wages, will benefit the export industries even when they bring about no increase, or even a decrease, in the balance of trade, while quotas will always benefit the home industries protected by them, and subsidises the industries which receive them. These expedients may therefore be resorted to in certain circumstances entirely for the sake of the industries concerned, without regard to their effect upon the general level of activity, while tariffs are often designed for the benefit of particular groups without much regard to their incidental effect in improving the balance of trade.

considered. A cut in wages leads to a redistribution of real income in favour of the fixed-income classes, and an increase in the burden of indebtedness within the home country. For this reason a cut in wages is undesirable so long as any other expedient will serve, even if it can be brought about smoothly without the distress and wastage of industrial disputes, and even if it can be made equal in all industries so as to avoid arbitrary redistribution of income and activity between them.

Depreciation of the exchange rate has the disadvantage of being regarded as a breach of international good faith, while the apprehension of a fall may have serious effects upon the international financial position of the home country.

Tariffs and subsidies bring well-known political evils in their train, from which the more general, automatic and inhuman mechanism of exchange depreciation is comparatively free, while tariffs foster monopoly by violently reducing the elasticity of demand for home goods formerly subject to foreign competition, and so making the gains of monopolization more tempting to the home producers. Tariffs, it is true, have the advantage that they are selective, and may be devised in such a way as to bring about the minimum decrease in real wages for a given increase in employment, but actually they are not always devised with this end in view.

All expedients are subject to the objection that they are calculated to promote retaliation; indeed this is the very nature of the beggar-my-neighbour game. Which expedient is the least dangerous from this point of view will depend upon general political considerations.

When a nation, hard pressed in the game, is determined to take a trick, the decision as to which suit it is wisest to play must be taken in the light of all the considerations set out above, as they apply to the particular situation of the nation concerned at the particular moment when the decision is taken.

From an un-nationalist point of view all are equally objectionable, since each is designed to benefit one nation at the expense of the rest. But there are circumstances in which a limited indulgence in them cannot be regarded as a crime. First of all, they may be justified by the plea of self-defence, and secondly they may be used merely to cancel out a benefit to the rest of the world that would otherwise result from the policy of one nation. An increase in home investment in one country tends to increase activity in the rest of the world, and measures designed to protect the balance of trade when home investment increases merely cause a larger share of the reward of virtue to fall to the virtuous nation, while measures which protect the balance of trade when money wages rise at home merely prevent the rest of the world from gaining an advantage, and leave it no worse than before.

fashioned questions we have adopted the old-fashioned convention of assuming a constant actual and expected purchasing power of money over consumption goods, so that the rate of profit on capital has the same meaning in real and in money terms. When the questions have been dealt with on this basis, it will be necessary to take them to pieces again to discuss the complications that have to be incorporated into the analysis in a world in which there is no unit of value that has an agreed and unambiguous meaning.

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THE THEORY OF THE FIRM

The so-called theory of the firm that was being debated before imperfect competition came into fashion [1] (and which survives in many modern textbooks) arose from the attempt to find an answer to "Marshall's dilemma." [2] If competition means that each producer can sell as much as he pleases at the going market price, then to maximize profits he goes on expanding output so long as marginal cost is less than price. But if long-period average costs fall as output expands, because of economies of scale, marginal cost is less than average cost. There is no position of long-period equilibrium until one firm has established a monopoly. To resolve this contradiction, Pigou introduced the idea of an optimum size of firm. A firm, on this view, consists of a unit of the factor of production, "management"; there are diminishing returns, after a certain point, from the application of the other factors, labor and capital, to this unit. Diseconomies of large-scale management set in, offsetting the economies of specialization. The long-period average-cost curve for

[1] See "Increasing Returns and the Representative Firm: A Symposium," *Economic Journal* (March 1930).

[2] Cf. above, p. 58.

the firm has a U shape; at the minimum point, in equilibrium, long-period marginal cost, long-period average cost, and the price of the commodity being produced are all equal. (The argument is simple only when the firms in one industry are producing a single homogeneous output.) The optimum size of firm relative to the market in which it is operating must be small enough to establish a sufficiently large number of firms to keep competition going.

At each moment the firm is maximizing its current profits by selling the output at which marginal short-period cost is equal to price. When price exceeds long-run average cost a supernormal profit is attracting new competition; when it is below, investment is being siphoned off into other industries. Costs include the rate of interest on finance. In equilibrium, price (and short-period marginal cost) exceeds average prime cost by a sufficient margin to permit quasi-rents to accrue at the level which will provide for replacement and normal profit on the investment involved at a rate equal to the ruling rate of interest.

A variant of the scheme was set out in Hicks' *Value and Capital* (a book which had an important influence in the revival of orthodoxy after Keynes). There, it is tacitly assumed that each industry consists of a fixed number of firms so that, for every commodity, the price (equal to marginal cost) is an increasing function of the level of output. In this scheme, Walrasian prices governed by supply and demand take the place of Pigovian costs of production including normal profits.

PERFECT AND IMPERFECT COMPETITION

The short-period analysis of prices in both schemes depends upon competitive conditions, not in a vague Marshallian sense, but on the strict assumptions of an indefinitely large number of independent sellers in a perfect market, which entails a perfectly elastic demand, at the ruling market price, for the product of

each seller. Each firm is producing its short-period capacity output (unless it has temporarily gone out of business because the ruling price is below its average prime cost). The limit on output is set by rising marginal cost; for any greater output, marginal cost would exceed the selling price.

In the slump it was sufficiently obvious that plants were not being operated at full capacity with rising marginal costs; the upshot of the debate which broke out in the 1930s was that firms set prices by adding a gross margin to prime costs; below designed capacity, prime costs per unit of output is a constant or decreasing function of the level of output; if prime cost is identified with marginal cost, clearly it is much less than price. To reconcile this with the assumption of profit-maximizing policy, the idea was introduced that marginal revenue is related to price by the formula $e/e\text{-}1$, where e is the elasticity of demand from the point of view of the individual seller; but since this e, if it exists at all, can only be a calculation in the minds of individuals concerned with price policy, it does not add much to the argument.[3]

Even in prosperous times it is unusual for most plants to be working to capacity—if capacity were the limit to output there would be no need for advertisement. In a normal situation, it seems, there are many firms which would produce a larger output if it could be sold at the going price. Customers distribute themselves among rival sellers according to inertia, proximity, genuine differences in needs or tastes, and response to the blandishments of salesmanship. Moreover, when an acute seller's market is being enjoyed with full-capacity operation, it is prudent to allow delivery dates to lengthen rather than to choke off excess demand by high prices. Thus the system of analysis ac-

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[3] For an account of my own contribution to this debate, see the Preface to the second edition of *The Economics of Imperfect Competition* (London: Macmillan, 1969).

cording to which price equals marginal cost, so that the level of gross profits is governed by the excess of marginal cost over average prime cost, is seen to be without application.

With this, the notion of wages equal to value of marginal product also collapses. When a plant is being worked below designed capacity with constant average prime costs, a loss of one man-shift of work entails a loss of the average value of output of one man.

In general in modern industry, it seems that the wage bill is about half of value added. In the typical case, then, the value of marginal product of labor is twice the wage. Hicks was quite correct in saying that to abandon the assumption of perfect competition "must have very destructive consequences for economic theory" if economic theory means nothing more than Walrasian general equilibrium.[4]

The long-period aspect of the Pigovian scheme is even less convincing. The individual firm is not supposed to be aiming at the optimum size. It is aiming at maximizing the flow of net profit to be got in any situation. Then whenever a firm finds itself with a rate of profit in excess of the rate of interest, it surely must be carrying out investment in order to get more profit in the future. The argument is concerned with a stationary state, with fixed "resources"; it is intended to show how given resources are allocated between different uses; a constant total of "capital" is washing about between different industries finding the level at which the rate of profit is equalized. But once profit-maximizing firms are allowed into the story, how can accumulation be kept out?

The essence of the competitive process is that some firms take business away from others. Those which are successful grow faster than industry as a whole, those which are least successful

[4] See *Value and Capital,* p. 83 (Oxford: Clarendon Press, 1939).

cease to exist. Pigou's concept of managerial diseconomies of scale, perhaps, can be applied to the kind of business where "the entrepreneur" is a particular individual. As a business grows beyond the scope of one-man management it runs into difficulties.[5] But this is an exceptional case. At any moment there may be a number of individuals who have found a satisfactory niche and manage to maintain independence, but the majority of businesses are either growing, being forced out of existence by the growth of others, or being absorbed into some larger organization.

Why do firms grow? Some contemporary writers are inclined to treat growth as a specially modern phenomenon arising from the divorce between control and property in the modern corporation, legally owned by a floating population of shareholders and operated by a cadre of salaried managers; they seem to suggest that there was a past period to which the textbook scheme applied. Yet obviously the successful family businesses of the early nineteenth century must have been just as keen on growth as any modern corporation. Anyone who is in business naturally wants the business to survive (particularly if his own heirs and successors are involved) and to survive it is necessary to grow. When a business is prosperous it is making profits; for that very reason it is threatened with competition; it would be feckless to distribute the whole net profit to the family for consumption; part must be ploughed back in increasing capacity so as to supply a growing market, to prevent others coming in, or to diversify production if the original market is not expanding. Any one, by growing, is threatening the position of others, who retaliate by expanding their own capacity, reducing production costs, changing the design of commodities, or introducing new devices of salesmanship. Thus each has to run to keep up with the rest.

[5] See E. A. G. Robinson, *The Structure of Competitive Industry, Cambridge Handbook* (London: Nisbet, 1931).

As we have seen, the very fact that investment is going on is generating opportunities for profitable sales,[6] so that as long as growth goes on, it can go on. The determination of firms to grow by reinvesting profits was characteristic of capitalism from the start; indeed, if it were not the case, capitalism would never have happened.

MONOPOLY AND OLIGOPOLY

The way out of Marshall's dilemma is in the opposite direction. Where competition is vigorous, there must be a tendency toward monopoly, which is often held up at the stage of oligopoly when a few powerful firms prefer armed neutrality to the final battle for supremacy.

Marshall accounted for growth by economies of scale [7] which give a firm a competitive advantage by reducing costs of production. This is of importance where technology demands large indivisible investments but in general the advantage to a firm of size is mainly in size itself—that is, in financial power. In Marshall's day, a particular business operated in a particular industry in which it had the technical know-how and the market connections required. Now the large corporation can jump from one industry to another, employing its own experts or buying up a smaller concern already established there. The modern development of conglomerates provides clear evidence that it is financial power, rather than technical economies of scale, that permits firms to continue to grow when they are already large.

While the reduction in the number of independent firms gen-

[6] See above, p. 46.

[7] In Marshall both internal and external economies accrue to the individual firm. As usual with him, the concepts are not clear-cut. Pigou distinguished between economies of scale to the firm and economies of scale to the "industry" producing a particular commodity. This is a logical set of concepts which it is not easy to apply in reality.

erates monopoly in particular industries in particular countries, the breakdown in the barriers between industries and between national economies increases competitiveness. In the textbook theory of the firm, a monopolist, faced by a known and stationary demand-curve for the commodity that he controls, restricts output to the level at which marginal revenue is equal to marginal cost and so extracts the maximum possible profit from the market. There are, certainly, examples of monopolies which conform more or less to the textbook pattern, but in general the great firms are far from restricting output—they are continuously expanding capacity, conquering new markets, producing new commodities, and exploiting new techniques. The level of profit margins and the rate of profit on investment that they enjoy are in general higher than those in stagnant markets where competition still prevails, because in expanding markets they can catch the profits that they need to finance expansion. Modern industry is a system not so much of monopolistic competition as of competitive monopolies.

The command of finance by the great firms gives them freedom to follow their own devices, manipulating not only the market economy but also national and international policy. ("What's good for General Motors is good for the United States.") The breach which this makes in the textbook scheme is much more serious than the abandonment of the doctrine that prices are governed by marginal costs which followed from the recognition of imperfect competition. It destroys the basis of the doctrine that the pursuit of profit allocates resources between alternative uses to the benefit of society as a whole.

CHOICE OF TECHNIQUE

It is an absurd, though unfortunately common, error to suppose that substitution between labor and capital is exhibited by a movement from one point to another along a pseudo-pro-

duction function.[8] Each point represents a situation in which prices and wages have been expected, over a long past, to be what they are today, so that all investments have been made in the form that promises to yield the maximum net return to the investor. The effect of a change in factor prices cannot be discussed in these terms. Time, so to say, runs at right angles to the page at each point on the curve. To move from one point to another we would have either to rewrite past history or to embark upon a long future. In dynamic conditions, changes in the composition of demand, changes in technique, and changes in costs of specific factors of production are continuously going on. Investments are always made in less than perfect knowledge of present possibilities and less than perfect confidence in expectations about the future. The stock of capital in existence today is not that which would have been chosen if the future, that is now today, had been correctly foreseen in the past. It is not composed of units of the most appropriate technique; it contains numerous fossils from earlier periods of techniques which were chosen in conditions different from those obtaining today. Nor is it ever being maintained in a constant form. It is continually being done over as gross investment replaces one set of capital goods by another set appropriate to a new complex of expectations. To discuss the choice of technique, we must look, not at the total stock of capital as at a point on a pseudo-production function, but at the investment plans which are being made at each moment.

In the Pigovian scheme any firm can borrow as much or as little as it pleases at the ruling rate of interest. In an equilibrium position, no firm is planning to make any net investment, for if it expanded its productive capacity, managerial diseconomies would cause average costs to rise and the additional returns from

[8] E.g., R. M. Solow, "On the Rate of Return: Reply to Pasinetti," *Economic Journal* (June 1970).

an increment of output would not be enough to cover the increment on the interest bill for the additional finance. The technique of production that it has chosen is controlled by the rate of interest and the level of wages, according to the rule that a given output is produced at minimum cost. In a dynamic economy the rate of interest may, perhaps, be supposed to have some influence on the amount of investment which is being planned at any moment,[9] but there is no reason why it should influence the choice of technique. With the finance that it is planning to invest, the firm must be supposed to prefer a plan promising a greater increment of profit to one promising less, irrespective of what it had to pay for the finance.[10] But the problem of choosing between plans is indefinitely complicated; decisions may actually be made on hunch or on some conventional rule such as a pay-off period.[11] When sophisticated estimates are made of discounted cash flow, it is the expected rate of profit that comes into the calculation, not the rate of interest. There is an important way, however, that the distribution of available finance between firms affects the techniques that are adopted—that is, when the minimum size of an efficient installation is very large. Then only a powerful firm can attempt it. Smaller firms have to be content with less ambitious projects. The powerful firm undertakes such an investment only when it has sufficient control over the market to be confident of a satisfactory return,[12] while the small-scale competitive producers have to be satisfied with a lower rate.

[9] Cf. above, p. 31.

[10] Cf. M. Kalecki, *Essays in the Theory of Economic Fluctuations* (London: Allen & Unwin, 1939).

[11] N. Kaldor and J. A. Mirrlees, "A New Model of Economic Growth," *Review of Economic Studies* (June 1962).

[12] This point was forcefully made by Schumpeter. See *Capitalism, Socialism and Democracy* (New York: Harper, 1942), Chapter 8. See also J. K. Galbraith, *The New Industrial State* (New York: Houghton Mifflin, 1967), Chapter 19.

The most important influence upon the choice of technique is not the cost of finance or "factor prices" but the rate of investment relative to the availability of labor. When, as may happen in the early stages of industrialization, an individual firm can employ as much labor as it likes at a constant wage rate, it may be supposed to find the technique that promises the highest return per unit of investment and carry on its expansion by gradually increasing employment with the same type of equipment. If a new technique is offered which is superior to that in use, in the sense that at current prices it both reduces the cost of investment per man and reduces the wage bill per unit of output, then a keen profit-maximizer will install it, but there is no great compulsion to do so.

The situation is very different in an environment of near-full employment. A large firm whose plants provide an appreciable proportion of the jobs in particular regions has to consider, when planning investment, how much more labor it will be able to recruit. It will generally find it necessary to carry out expansion, at least partly, by raising investment per man employed. It is not provided with a predigested "book of blueprints" of techniques; it must find out what the possibilities are and assess them as best it may. Nor is there any reason to suppose that the process necessarily involves "capital deepening" and a fall in the rate of profit. In the course of exploring ways of raising output per head it will often succeed in developing superior techniques. The successful firms have no great objection to allowing money-wage rates to rise; they may even be bidding for labor by offering various inducements to attract men from other employers. Small firms using labor-intensive techniques must then mechanize or go out of business. Those which survive may well find themselves more prosperous in the end. Since, as output per head rises, prices are likely to rise less than in proportion to wage rates, it is possible to see long spells of accumulation in which real-wage rates are rising but the rate of profit

is not falling. In this sense, "substitution of capital for labor" is the essence of industrial development, but it has nothing whatever to do with the factor prices shown on a pseudo-production function.

MACRO AND MICRO THEORY

There have been many accounts of the behavior of particular firms (investigations connected with anti-monopoly legislation in various countries are a rich source) and statistical inquiries into the behavior of gross margins, the profitability of different types of organization, and so forth. This has mainly been pure description without benefit of theory or it has befuddled itself with attempts to fit into an inappropriate analytical scheme. A theory of the firm appropriate to a dynamic economy is in its infancy.[13]

Meanwhile, it is necessary to develop a general theory of accumulation within which a micro theory can be elaborated. At the first stage, a firm can be simply identified with the capital that it controls; the size and number of firms making up the whole industrial structure are not important in themselves. The interaction between firms, however, is important as a determinant

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[13] A "new wave" was started twelve years ago by Edith Penrose with *The Theory of the Growth of the Firm* (Oxford: Blackwell, 1959), which has been followed up by W. Baumol, *Business Behavior, Value and Growth* (New York: Harcourt, Brace & Jovanovich), R. Marris, *Managerial Capitalism* (London: Macmillan, 1964), M. Gordon, *The Investment, Financing and Valuation of the Corporation* (Homewood, Ill.: Richard D. Irwin, 1964), and many others. In each of their models the policy of the firm is to aim at growth, restrained by a diversity of limitations. Any simple formula to describe the motivation of firms is unlikely to be satisfactory because their behavior is highly complex and various. The neo-neoclassical hypothesis that the aim of a firm is to maximize the present value of its shares does not seem to say anything very precise, for the main influence on the present value of shares is the expectations which the market holds about the future growth of their value.

of accumulation and technical progress in industry as a whole. The behavior of a particular firm may be discussed in terms of its reaction to prospective profits, but accumulation cannot be explained in terms of prospects of profit which have an objective basis apart from the investment that is induced by them. When firms are cautious and reluctant to invest except for a high rate of return, the return that they actually get will be low, because sluggish investment and high profit margins restrict effective demand. The prospect of profit for each depends on what the rest are doing.

In any case, accumulation cannot be accounted for only by the prospect of profits. If investors were solely concerned to find the best return on the finance that they command, the less successful firms would stop investing and place their funds by buying shares of the more successful. As Keynes remarked, "Enterprise only pretends to itself to be mainly actuated by its own prospectus, however candid and sincere." [14] The state of the "animal spirits," which is largely a function of the energy and competitiveness of groups of firms, is the most important factor in capitalist development, though it by no means follows that the most energetic enterprise necessarily produces the most beneficial results for society as a whole.

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[14] *General Theory,* p. 160.

8

GROWTH MODELS

For the classical economists, economic growth brought about by capital accumulation and technical progress was the central problem; in the neoclassical era it was little discussed, except vaguely by Marshall, who retained something of the tradition of Ricardo; after the Keynesian Revolution it came back into fashion.

The treatment of growth in von Neumann's ultra-classical model is brutally simple. A technically specified wage is the cost of labor and bodies are becoming available to carry it out at the rate at which the output of wage goods is growing. The first long-run Keynesian model was proposed by Harrod. For him, the "natural" rate of growth of the effective supply of labor is given exogenously and the rate of growth of the economy may or may not keep up with it. In the neo-neoclassical models that have since proliferated, the natural rate of growth is automatically realized by some kind of equilibrating mechanism.

HARROD

The great strength of Harrod's model is that it is not an equilibrium scheme. It is a projection into the long-period of the concepts of the General Theory. Accumulation comes about through

by the same author

Economics of Imperfect Competition
Introduction to The Theory of Employment
Essay on Marxian Economics
The Rate of Interest and Other Essays
Accumulation of Capital
Essays in the Theory of Economic Growth
(*Macmillan*)
Essays in The Theory of Employment
Collected Economic Papers
(*Blackwell*)
Economic Philosophy
(*C. A. Watts*)
ETC.

JOAN ROBINSON

ECONOMICS

An Awkward Corner

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PREFACE

This book was being written in the summer of 1966, when current happenings provided a painful illustration of its main thesis. I do not think that there is much hope that events while it is in the press will prove it wrong.

Some quasi-technical terms are italicised where they first occur and their meaning is indicated.

Notes which contain some argument or information are numbered. Those which are only references are marked by letters.

JOAN ROBINSON
August 1966
Cambridge

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INTRODUCTION

IT is impossible to understand the economic system in which we are living if we try to interpret it as a rational scheme. It has to be understood as an awkward phase in a continuing process of historical development.

No doubt in every age economic life has been a scene of conflict and compromise, defended by rationalizations that did not fit with experience. Fifty years ago, Sunday-school children were taught to sing:

> The rich man in his castle,
> The poor man at his gate,
> God made them high and lowly
> And ordered their estate.

In this century, the conflicts are more acute, the compromises more uncertain and the rationalizations more unconvincing because history has been going on so fast.

Keynes described the capitalist economy before 1914:

'Europe was so organized socially and economically as to secure the maximum accumulation of capital. While there was some continuous improvement in the daily conditions of life of the mass of the population, Society was so framed as to throw a great part of the increased income into the control of the class least likely to consume it. The new rich of the nineteenth century were not brought up to large expenditures, and preferred the power which investment gave them to the pleasures of immediate consumption. In fact, it was precisely the inequality of the distribution of wealth which made possible those vast accumulations of fixed wealth and of capital improvements which distinguished that age from all others. Herein lay, in fact, the main justification of the Capitalist System. If the rich had spent their new wealth on their own enjoyments, the world

would long ago have found such a regime intolerable. But like bees they saved and accumulated, not less to the advantage of the whole community because they themselves held narrower ends in prospect.

The immense accumulations of fixed capital which, to the great benefit of mankind, were built up during the half century before the war, could never have come about in a Society where wealth was divided equitably. The railways of the world, which that age built as a monument to posterity, were, not less than the Pyramids of Egypt, the work of labour which was not free to consume in immediate enjoyment the full equivalent of its efforts.

Thus this remarkable system depended for its growth on a double bluff or deception. On the one hand the labouring classes accepted from ignorance or powerlessness, or were compelled, persuaded, or cajoled by custom, convention, authority, and the well-established order of Society into accepting, a situation in which they could call their own very little of the cake, that they and Nature and the capitalists were co-operating to produce. And on the other hand the capitalist classes were allowed to call the best part of the cake theirs and were theoretically free to consume it, on the tacit underlying condition that they consumed very little of it in practice. The duty of "saving" became nine-tenths of virtue and the growth of the cake the object of true religion. There grew round the non-consumption of the cake all those instincts of puritanism which in other ages has withdrawn itself from the world and has neglected the arts of production as well as those of enjoyment. And so the cake increased; but to what end was not clearly contemplated. Individuals would be exhorted not so much to abstain as to defer, and to cultivate the pleasures of security and anticipation. Saving was for old age or for your children; but this was only in theory—the virtue of the cake was that it was never to be consumed, neither by you nor by your children after you.

In writing thus I do not necessarily disparage the

practices of that generation. In the unconscious recesses of its being Society knew what it was about. The cake was really very small in proportion to the appetites of consumption, and no one, if it were shared all round, would be much better off by the cutting of it. Society was working not for the small pleasures of today but for the future security and improvement of the race—in fact for 'progress.'[a]

Writing in 1918, Keynes thought that the war had smashed this system up, but it staggered to its feet again. Not the war, but the great slump of the thirties struck the mortal blow. It is painful to reflect that, if a British government after 1931 had known how to make full employment by peaceful means, the Nazis would have had no appeal. But full employment, in the democratic countries, had to wait for a new war, and ever since, cold and hot wars have made a great contribution to maintaining it. The Western world learned by the collapse of the market economy (from which the Soviet Union was immune) that the cake was already large and that when it is not cut it dries up and crumbles away. But we have no philosophy to guide us in sharing it out. The old hymn throws the glamour of feudalism over inequality. It did not say:

> The rich man in his board room
> The poor man in his slum.

Now what story are the children to be told?

It is impossible to imagine the huge accumulation that made modern industries possible without the 'double deception' of bitter exploitation on the one side, and devoted profit seekers on the other. Social justice and political equality would have strangled the system before it could grow. The institutions and the habits of mind built up during the period when the surplus was being squeezed out survive after they have ceased to be useful and have not yet been replaced.

The notions of *laisser faire*[1], that business men know what is best, are contradicted by the evident need for planning to maintain 'a high and stable level of employment.' The notion that property confers obligations to justify privilege is contradicted by the separation of ownership from control in modern business. The notion that governments have only to see fair play between employers and employed is contradicted by the requirements of control over money incomes and prices. The notion that the free play of supply and demand produce a viable system of international trade is contradicted by the payments crises from which no country is immune for long.

These contractions arise from the need to readjust the organization of Society to the fantastic capacity for production of material wealth that the application of science to technology has made possible.

Such problems arise within the Western industrial nations. Meanwhile, their situation in the world has changed still more dramatically. They are now rivalled by socialist nations which have installed modern industry far more rapidly than they did themselves and surrounded by a third world where misery is growing faster than wealth. These internal problems, however, are matter enough for this little book.

I

INCOMES AND PRICES

THE economic problem that bites most nigh to every citizen is the problem of rising prices. In the last fifteen years money incomes, overall for the country as a whole, have risen more than prices; what is called consumption in *real* terms (the value of purchases of goods and services divided by an index of prices) has increased substantially.[2] But the rise in real incomes has been arbitrarily distributed amongst families. Some are much better off, many have gained little and some are even worse off.

Generally it is those who are in any case in a weak position who suffer most as the prices of what they need to buy rise faster than their incomes—ill-organized workers, pensioners, widows and orphans who have been left with fixed-interest securities. Moreover, prices rise more or less continuously while the income, from wages, salaries or social security benefits, of any one group rises only at intervals. At a particular moment, the majority find that their real income has fallen since last year while a few, whose pay has recently gone up, are enjoying a temporary relative advantage. The other side of the coin is the gain, at the expense of their creditors, to government and business who have obligations fixed in terms of money, and the 'unearned increment' of wealth dropping into the laps of those who happen to own particular pieces of land or works of art fashionable with the dealers.

The old doctrine that once inflation starts it is bound to go all the way to total collapse has been discredited. The economy adapts itself in various ways to the expectation of a gradually falling value of money. For instance, the widows and orphans now invest in equities whose money value rises (if they are well chosen) with prices. The law is amended to permit this and new institutions such as unit

trusts are created to enable them to spread their risks. The leap-frog game of rising incomes spreads from the trade unions to the professions. Those are are in the strongest position protect themselves; those who suffer most are the least articulate. Thus inflation nowadays does not get such a bad press as it used to do.

The most powerful objection to inflation is not that it is cruel, tiresome and demoralizing at home but that it is destructive in international competition. A country which is in any case in a weak position is driven to desperation when (with a fixed exchange rate between currencies) its costs are rising faster than those of its competitors. It is for this reason that it has become a prime object of policy in this country to check the rise of prices.

PRICES AND COSTS

The relation between wages and prices is often stated in a vague general way. Wages are the largest element in costs and an important element in demand, so that if money-wage rates rise, prices of commodities are bound to rise also. At the same time, higher prices raise the cost of living, setting up a demand for higher wages, and so the vicious circle is joined.

The relation of prices to wages can be analysed more exactly. The prices at which goods are sold to the public, generally speaking, are set by the firms which produce them. Prices are governed by costs, but costs are not a simple concept. *Prime* costs—wages, materials, power etc. —vary more or less directly with output week by week, and the *overhead* expenses of running the business, the upkeep and depreciation of plant, and net profit have to be recovered from a year's output. What average cost per unit of output will be has to be estimated in advance on the basis of an estimation of what output will be sold.

The usual method of forming prices is to add to prime cost a percentage *gross margin* calculated to yield whatever net profit it is reasonable and safe to aim at.[b] Wholesale

and retail margins are added to the producer's price. Thus the whole structure of prices is based upon prime costs. Apart from his own wage bill, each producer's prime cost consists of payments to others, which in turn cover prime costs with a margin, so that, apart from imported raw materials, prime costs are governed by wage costs. Thus a general rise in the level of money-wage rates leads to a more or less proportionate rise in prices. The money to buy the goods at higher prices is provided by the higher wages and the higher profits that accompany them and so, apart from foreign trade, there is no check upon the process.

There are other influences on the general level of prices. Moderate swings in demand generally affect output, leaving margins unchanged, but a sharp increase in overall demand (such as may come about when there is a cut in taxes or an increase in expenditure on investment or armaments, which generate income without providing anything for it to be spent on) creates a *seller's market* for a number of industries, in which the output that could be sold with the normal margin is greater than can be produced with existing capacity. Some meet this situation by lengthening delivery dates but some meet it by raising prices. Thus an increase in demand ahead of an increase of capacity to provide for it is liable to raise prices relatively to money-wage rates.

The prices of raw materials which are sold in competitive markets are not subject to the mark-up system, and vary sharply under the influence of supply and demand.[c]

Moreover, margins are not completely rigid. There is a general tendency for an upward drift in margins, for where a line is profitable *non-price competition* sets in, by advertising and sales pressure of various kinds. As with an armaments race, selling costs undertaken by one competitor force others to reply, so that all find their costs have gone up, and prices have to be kept high to cover them. (When you buy a packet of goods, you are contributing to the cost of

persuading you to buy it.) On the other hand, a competitor will occasionally break into a market with a new method of selling and bring margins tumbling down. At times, also, for reasons of long-term strategy or in response to public policy, a group of firms may keep prices constant, allowing margins to shrink, when wages rise, 'absorbing', as they put it, the rise in costs.[3] When this happens on a wide scale, the sellers are agreeably surprised to find that profits per annum do not fall, for spending by the public has not been cut, and with higher real incomes they are buying more goods; overall, the increase in output sold more or less compensates for the reduced profit per unit. The effect, of course, is not spread evenly. Some sellers lose while others positively gain.

Increasing productivity has a general tendency to reduce prices. Investment increasing the stock of productive capital, technical improvements and the entry of new commodities into mass production, raise output per man employed, and so, at given money-wage rates, reduce costs per unit. Provided that an upward drift of margins does not cancel the benefit, the effect of rising wages on prices is thus mitigated.

Influences such as these, which play upon the relation of prices to money wages, may have an important affect on real wages, but their influence upon the absolute level of prices is limited compared to the influence of wage rates, for they can influence only the proportion of prices to wages, while wages can be multiplied without limit.

Trade unionists often object to rising wages being blamed for rising prices. Why pick out wages? What about other incomes? But it is not a question of anyone behaving badly according to the rules of the game. When prices rise it is right and proper for workers to demand a rise of wages, and this prevents prices from relapsing again. When wages rise, it is normal for businesses to raise prices, not by the amount but by the proportion in which prime costs have gone up. When the incomes of one group are raised it is

perfectly proper for others to ask for as much. When there is a high level of employment overall there is an acute scarcity of labour of some particular skills or in particular districts. Efficient, go-ahead firms, which can see a profitable market if only they could get more hands, attract labour by offering various inducements over and above the standard wage rates (such as overtime on Sunday with a day off on Monday). *Wage drift* due to this competition may lead rather than follow trade union demands. From time to time a revision of standard rates puts a rachet below the level to which earnings have drifted since the last bargain was made. To expand sales in a profitable market is the first duty of a business, and to catch a share of the profit for its members is the first duty of a trade union. No one is behaving badly. It is no one's fault. It is how the system works.

A NEW ORTHODOXY

The proposition that, in an industrial economy, the level of money-wage rates governs the level of prices was an essential element in the analysis of Keynes' *General Theory of Employment, Interest and Money*, published in 1936. The part of his argument which concerned the need for government policy to maintain 'a high and stable level of employment' was accepted into the canon of received orthodoxy in this country even before the end of the war in 1945 but the part which concerned wages and prices was resisted much longer. It was easy to predict that if we stumbled into near-full employment with institutions and attitudes unchanged, the balance of power in wage-bargaining would tip in favour of the workers, so that a vicious spiral of wages and prices would become chronic.[4] Yet it took about fifteen years of experience for the point to really sink home. Many professional economists and most Chancellors of the Exchequer continued to maintain that the movement of prices was something to do with the management of the monetary system.

Perhaps the idea that the value of money lies in relations between people, not in a solid, objective standard against which individuals can measure themselves, was a greater blow, even than the idea of employment policy, to the complex of vague but powerful traditions inherited from the heyday of laisser faire. Moreover monetary policy can be presented as a technical matter to be left to 'experts' without bringing conflicts of interest sharply to the surface. And the plain man, who prefers to think in simple terms of right and wrong, did not like to be told that two good things, full employment and stable prices, might be in conflict with each other.

However, that may be, a new orthodoxy has at last become established, and now the cry is all for *incomes policy*.[5]

INCOMES POLICY

There is one school of thought which contends that, since the trouble arises from near-full employment, let us give it up. Supporters of this view maintain that a 'moderate' amount of unemployment, say between two and three per cent over all, would be sufficient to keep wages in check and secure stable prices.[d] The evidence for this view is very sketchy. It might need much more. But, in any case, deliberately to adopt such a cold-blooded policy is out of the question. Even the deflationary measures of July 1966 were *intended* to bring only a temporary increase in unemployment as a side effect of redeployment of labour between industries. For incomes policy reliance was placed upon a freeze of wages.

Incomes policy is an expedient to cope with a pressing situation. There is no articulate philosophy behind it. The philosophy which it implies is both a rejection and an acceptance of laisser faire. It emphatically rejects laisser faire, since it expresses an acknowledgement that the free play of the market does not establish an equilibrium price level, rather a progressive degeneration in the value of

money. At the same time it tacitly accepts the distribution of real income that the market throws up.

An ideal policy for stable prices (leaving the international aspect aside for a moment) requires the general overall *average* of money wage rates to rise at the same rate as the general average of output per head, and it requires the *average* of prices to be constant—falling for the most progressive industries and rising where productivity fails to rise at the average rate. (All these averages are more or less roughly expressed by index numbers which cannot be perfectly precise, so that even the ideal is not quite unambiguous.) Such a programme entails constant profit margins and a constant share of wages in the proceeds of industry (when the overall ratio of capital to output is not changing appreciably); capital then receives its share from a constant overall average rate of profit on the gradually growing total of capital invested. This implies that the share of wages in the value of output is acceptable.

Such a philosophy was at one time consciously and articulately adopted in Holland. The economists worked out the percentage change in national income every year, and the trade unions agreed to the same percentage rise in wages. (After working successfully for some time, putting Holland into an excellent competitive position in international trade, the policy was eroded by the demand of expanding firms to be allowed to compete for labour and finally had to be relaxed because higher wage rates in Germany were attracting labour over the frontier.[e])

The British labour movement was built up through a struggle for a larger share of the cake, and whatever its knights may privately believe, they cannot openly surrender and agree to the laisser faire doctrine that the 'factors of production' each get just what they deserve.

Nor would it be merely a verbal surrender. Certainly *most* of the benefit of raising the general level of wage rates is lost through rising prices, but not quite all. If pressure on wages were relaxed, it is very likely that falling costs

due to increasing productivity would be 'absorbed' the other way round, prices being held more or less constant and margins allowed to rise. The proper *quid pro quo* for wage restraint is cutting prices in the more progressive industries.

Even this is not at all satisfactory from the trade-union point of view. Workers are interested in the prices of what they buy, not of what they produce. The employees of each business want their own business to be profitable and to share in the swag, no matter whether the profits are monopolistic or not. How can the overall bargain be implemented when, in each particular case, neither side has an interest in fulfilling its terms?

Moreover each group of workers feels that they have a right to expect some benefit from increased efficiency in their own industry. Indeed, the best hope of getting British industry out of the doldrums is to enlist the workers in the cause of improving productivity, not only by eschewing restrictive practices and senseless demarkation disputes, but by actively co-operating with management, and spurring it on, to reduce costs. Incomes policy is often proclaimed in terms of limiting the rise of wages to the rise of output, as though each occupation should be rewarded for its own productivity. Relative differences in the proceeds of different branches of production and trade are partly due to differences in the personal efficiency of the workers concerned, but much more they are due to the luck of the draw in competing for market demand, in the technical conditions of particular lines of production, and in the energy and skill of management. Workers in the less progressive industries are not to blame. The basic principle of the market system is that the benefits of progress are passed on to the community as a whole, not bottled up in the industries where they happen to arise. A wage system based on differential productivity would prove unworkable even before it began.

These difficulties are concerned with the overall distribution of income between work and property. There are great difficulties also arising from the relative earnings offered by various types of work. The valuations which society puts upon different occupations are highly arbitrary. They have their roots in a long past history. In an era of near-full employment and growing educational opportunities, supply and demand work upon them, but the market works very sluggishly. Conscious policy is needed to remedy anomalies which threaten to dry up recruitment to some necessary service—say coal miners or school teachers. But once we begin to think about it, what is not anomalous? The whole affair seems to correspond very ill with our notions of justice and morality.[1]

Overlaying all this are the anomalies introduced by the very process of inflation. The leap-frog system by which rates of pay are raised for one group after another leaves always some one who is due for a rise. To start off fair with incomes policy, the tail should be allowed to catch up while the head of the line is held still. This is admitted in principle, but very imperfectly applied—the judges found it easier to catch up than the seamen. To enforce overall restraint, beginning at any particular date, leaves many rankling grievances behind, and the trade unions are put into an impossible position when they are required to administer a policy that their members feel to be unfair, and which indeed is so.

The problem of prices under full employment brings sharply into focus the contradictions of modern capitalism. However, a perfect incomes policy is, in any case, a Utopian scheme; rough and unfair as it may be, it may succeed in slowing down the rate of rise of costs relatively to those of other industrial nations, so as to give this one a better chance in international trade. This, far more than any search for social justice, is its primary aim.

II

THE BALANCE OF TRADE

THE problems of international trade lie deeper than relative rates of inflation. There is no particular reason to expect trade for each country to balance in a market economy. Nations, in various shapes and sizes, are formed by history and geography without any regard to economic convenience. As population grows and tastes and technology change, the pattern of demand and supply of various goods and services in the trading world is constantly shifting; at any moment the inhabitants of one patch of the earth's surface find that their resources, natural or accumulated, their skills and inventiveness, their market connections and business acumen, make it easy to sell more to the rest than they need to buy from them, while another is finding it very hard.

THE BRITISH DEFICIT

The British economy today is at an awkward corner in economic history. Already before 1914 her dominating position in world trade was beginning to slip. Two wars and the slump in between raised up rival local production in many markets. Lancashire now has to be defended against cheap textiles from countries whose indigenous industries she was once encouraged to ruin in the name of free trade. The other great staple export, coal, has been knocked out by technical developments. Rentier income—interest and profits on overseas investments built up in the era of trade surpluses and imperialist land grabbing—was an important substitute for exports. This was much reduced by the mobilization of foreign securities to pay for wartime supplies, and heavy debts were incurred (for wars also are conducted largely on market principles). Former privileges were lost with the dissolution of empire. The superior

efficiency of United States industry, not fully offset by higher wage rates, and the fast rise of Western Europe and Japan, has stiffened competition in export markets that England could once dominate without excessive exertion. On the other hand, the growth of population, continuous near-full employment and rising consumption increase demand for imports. High activity in a country without natural resources requires high imports of raw materials. Recently there has been a marked rise in manufactured imports also, for our modern rivals are competing with us, not only in third markets, but also at home.

It is natural enough that new competitors should raise their share in trade at the expense of an old one, but that does not make it any less painful. The failure of British industry to maintain its competitive position is partly due to complacency. The British business man thinks that British is best, and if the silly foreigners do not know it, that is their loss. This attitude shows itself both in lackadaisical salesmanship and in poor performance in design. It is partly due to the buoyant internal market, which makes profits easier to get at home, partly to reliance on traditional markets, which, as bad luck will have it, are those where income, and therefore demand, is growing relatively slowly and partly to an unfortunate choice in the industries to develop.

Rising costs have made matters worse, and relatively low prices would have helped to overcome other drawbacks, but it is vain to suppose that even a perfectly successful incomes policy by itself would do the trick.[8]

The tradition of laisser faire, that business men know best what is good for us, is sadly damaged by this experience, and its defenders now have to fall back on the argument of despair—that anything else would be worse.

But our troubles are not due only to the operation of the market system. A great contribution has been made to them by an inappropriate foreign policy.

Whether it was invented for that purpose or not, the

effect of the Cold War, in USA, has been to permit the 'military-industrial complex' to consume a great part of the fantastic productivity of American industry, thus keeping up prosperity and fending off depressions without having to resort to any means that challenge the principles of laisser faire. For the British economy it has been not helpful but disastrous. Expenditure on armaments absorbs as much as the whole of industrial investment in money terms[6] and takes a more than proportionate share of high technical skill and scientific ability. This has weakened our competitive power to an extent that cannot be estimated. (The flying start in post-war reconstruction both in Germany and Japan was much assisted by the prohibition on re-armament which compelled them to use their investable resources productively.) We have been obliged to lose the production of men kept under arms, and incur costs for keeping them overseas which throws a serious burden on to our balance of trade. The expenses of 'keeping the peace' by fighting little wars east of Suez used to be borne by India (the British balance of payments even profited from it when officers and administrators came home with their pensions). Now keeping up the show of strength when the substance has been lost weakens us still further.

Over and above all this, there is some aid to developing countries and a considerable balance of overseas investment by British firms in excess of foreign long term investment in this country. We need therefore a substantial surplus on the balance of trade to cover these outgoings, whereas actually we have a deficit. The balance meanwhile is covered by short-term borrowing, which gives rise to the financial problems discussed in the next chapter.[7]

STOP AND GO

Weakness in the balance of payments and slow growth of productivity set up a vicious spiral. To modernize industry there must be investment, but when investment is high activity is high. Imports are sucked in and the attraction of

the booming home market slackens the search for outlets for export. To counter a deterioration in the balance of trade, the traditional remedy is a credit squeeze. When the laisser faire system was run from London this mechanism appeared easy and smooth. The balance on *income account* (the balance of trade *plus* net income from foreign capital) was continuously favourable.[8] An overall deficit merely meant that the outflow of lending was excessive. A rise in Bank Rate was found to be sufficient to check it. On the basis of this experience the economists built up the myth of the power of monetary policy to control the economy. Bankers naturally like to believe in it for it asserts the authority of finance over industry. A check to borrowing, according to this theory, will curb demand, bring down prices, and 'restore equilibrium'.[h]

To act on the balance of trade (as opposed to the balance of lending) by monetary policy requires sufficient reduction in activity to cut imports—a brutal and wasteful remedy that cures the disease by killing the patient.

The strongest upholders of traditional ideas would not face actually carrying the policy through, but the periodic jerk to industrial growth each time it began to speed up was confusing and discouraging. No doubt this experience contributed to making the long-run problem worse. The panic of July 1966 pretended to be something different but in substance was pretty much in this tradition.

Slow growth, in turn, contributes to rising costs; a wages policy is much easier to carry out if the permitted average rise is say five per cent a year, than when it is two per cent. It allows more room for necessary relative adjustments to be made without raising the average too fast. Moreover a perceptible rise of real wages itself reduces dissatisfaction and so relieves pressure for more. Thus slow growth makes growth slower.

REMEDIES

It is clear enough that the old policy has come to a dead end. What other remedies are to be had? The best, of

course, would be a miraculous upsurge of zeal and energy in British industry, but the authorities do not seem able to find a spring to release it. Most people do not want to be strenuously efficient. They prefer to rub along, doing no worse than their neighbours, getting what enjoyment they can out of private life. This no doubt is a very sensible attitude to take. It is extremely tiresome, after winning the war, to be pushed around by defeated nations setting a pace of competition hotter than we care for.

Ambivalence

Whatever policy we do pursue we are sure to be complained of abroad. Our deficit is a scandal, upsetting the financial stability of the world in one way, but to remove the deficit, by whatever means, will upset it in another way, for, while it runs, the rest of the trading nations are benefiting from it. The capitalist world is normally a *buyer's market* in the sense that there is capacity to produce more than can be sold at a satisfactory price. Any one country that is buying more than it sells is helping to maintain profits and employment for the rest. To cut down the British deficit means to cut down the surplus of the rest, and whatever means is found to do it, the result cannot but be painful for them.

This introduces a kind of ambivalence into British policy. We are bound to offend, yet we cannot afford to lose friends. The objection to any measures that are proposed is precisely that they might do some good.

For instance, in 1964, a surcharge of fifteen per cent on manufactured imports was imposed. This was not intended permanently to redress the trade balance. It was a crisis measure intended to cause a sharp temporary fall in imports. Before it had had time to have much effect, complaints from abroad led to its reduction to ten per cent and it was announced that it would be removed in the autumn of 1966 (by which time a worse crisis had blown up).

Protection

The surcharge, in fact, was a breach of our engagements, In the era of reconstruction after the last war, one more attempt was made to restore the laisser-faire rules of the game, though with some modifications. The General Agreement on Tariffs and Trade outlawed various methods of subsidizing exports; it aimed at a general reduction of protective import duties and meanwhile prohibited any increase in preferences designed to steer trade into particular channels, except for the hundred per cent preference of a customs union, which the theology of free trade illogically allows to be acceptable.[9]

In any case protection cannot offer a permanent solution for the British problem. Protection in the short run helps the balance of trade by checking imports and steering demand to home goods, though dearer and less desirable than foreign alternatives, but, for this very reason, it takes off the pressure of competition from home industries and makes the long-run situation all the worse. On the other hand, to press ahead with GATT and secure an all-round reduction of tariffs would not solve the problem either, for our failure to export enough is by no means only due to the tariffs of other nations.

Devaluation

Another element in the post-war reconstruction was the institution of the International Monetary Fund, based upon the principle that exchange depreciation should not be permitted except to deal with a 'fundamental disequilibrium' in the balance of payments. If ever there was a case of fundamental disequilibrium, it is the case of Britain today, but a devaluation of sterling is by no means acceptable to the world financial authorities. No major country has autonomous control over its exchange rate. It can only depreciate if others are willing to be appreciated. At some stage no doubt a general realignment of exchange rates will have to be made. Meanwhile if we were free to suit

ourselves, a devaluation of sterling would be helpful, but far from a reliable cure.

Devaluation works by making all foreign goods dearer at home and home goods cheaper abroad. Thus it offers a general protection against imports and gives exports a competitive advantage. By the same token, it makes exports, and home goods rival to imports, relatively profitable to produce. In a situation where there is some unemployment and unused capacity in many lines, a devaluation increases activity and improves the balance of trade at one stroke. But when there is near-full employment already it is liable merely to increase the pressure of demand for labour, while the rise in price of imports increases the pressure for higher money-wage rates, so that before long the competitive advantage of lower home costs is completely lost.[10]

In short, so long as we slop along with near-full employment and laisser faire in all other respects, there is no way out of the wood.

Customs Union

The policy of joining the six nations who arrogate to themselves the name of Europe has been recommended as a solution for our problems. When the Common Market was first being discussed, the British scorned it. To compensate, the Free Trade Area was proposed, thus, as the wits remarked, setting Europe at sixes and sevens.[11] When the Six were seen to be more successful than ourselves, and their competition began to bite more painfully, we offered to join on terms of our own and were refused admittance. In 1966 ambivalence reigns.

Much wider issues are involved than questions of trade. In this country there is great objection to any sacrifice of national sovereignty and resentment at the prospect of damaging Commonwealth interests to please new partners. The Prime Minister has declared that Britain has the 'political will' to join, but the issue has not been put to the electorate, and opinion is evidently deeply divided. On the

other side, equally deep divisions exist, connected in particular with the relations between the United States and West Germany.

As far as mere trade is concerned, there does not seem to be any motive for the EEC to enlarge itself. The advantage of a customs union lies in countries offering each other a market, giving preference to imports from members in exchange for a preference in return, so that industries of each can specialize, develop productive capacity with a secure outlet, and gain the advantage of economies of scale. The preferences are given at the expense of outsiders. The wider the union, the less the advantage that it offers compared to the changes and chances of free trade.

From our point of view, there is no presumption, rather the reverse, that the gain to our exports from freer access to markets in the EEC would offset the increase of imports due to their access to ours. Suppose that our deficit grew, instead of declining, after joining the Six? Each of them has its own mixture of control with laisser faire, in many ways much more successful than our own,[12] but in relations between them the market rules of the game are strictly imposed. When full employment cannot be achieved with balanced trade, it is full employment that has to give way. Italy was recently subjected to this treatment[13] and there is no reason to suppose that we should be spared.

OTHER'S TROUBLES

An exceptionally large unbalance in international trade has been created by the violent swing of history that swept away the dominating position of Britain in the world economy, leaving unchanged the institutions and attitudes that belonged to it. But every country is liable to run into trouble at one time or another.

Just now the United States is suffering from a deficit of a very different kind from ours. Her favourable balance on income account is very large, but not large enough to match the outflow of government overseas expenditure and

of private capital seeking profitable investments abroad.[14] Fast growth, for instance in Italy and Japan, has to be curbed when imports run ahead of exports. France has several times escaped by means of devaluation.

It is even possible, though rare, for a country to have *too* favourable a balance of trade. The kaleidescope of competition may bring up a surplus of exports for a country whose government has no overseas obligations and whose capitalists have no particular desire to lend abroad. The balance is paid for by the rest of the world losing monetary reserves to the surplus country. According to the old orthodoxy, this should lead to easy credit and a stimulus to investment. But if there is already near-full employment the only consequence would be inflation. Investment at home could increase only if employment in the export industries was reduced. A situation of this kind, in Germany, has led to one of the very rare examples of an exchange rate being deliberately appreciated in order to reduce the competitive advantage of one country that was distressing the rest of the world.[15]

HAPPIER DAYS

How was it that the laisser-faire system seemed to work smoothly before 1914, without causing these continual embarrassments?

There were three main reasons. First, there was one principal source both of exports and of finance for the geographical expansion of capitalism. Investments were made in the New World or in colonial territories, where local industry could not provide the capital goods, and local incomes could not provide the saving. Investments, therefore, generated a surplus of imports, calling forth exports which came mainly from Great Britain. At the same time local institutions could not provide finance, so that overseas lending was called forth, which largely came from the same source. Thus there was a more or less harmonious development in the patterns of surpluses and

deficits on income account and of lending and borrowing, thrown up by untrammelled operation of the market system. The monetary mechanism had only to regulate minor discrepancies. When the mechanism was restored, in the Twenties, without the underlying harmony, it broke its teeth. The problems that it has to deal with in the Sixties are still more indigestible.

Second, British overseas investments were made, guided by the search for profit, mainly to open up sources of supply of food and raw materials for which a market was already in sight at home. Thus the investments were developing a flow of exports to match the interest and profits claimed by the capital that financed them.

Finally, no one in those days was bothering about employment. For the surplus country, when a fall in exports caused a slump at home, it was just too bad. So long as sterling remained strong, no action was required. In a deficit country which could not continue to attract profit-seeking loans, income had to fall till the deficit was eliminated. Deficit countries which were free to manage their own affairs resorted to protection to set up import-saving industries at home, and those which were not free remained 'underdeveloped'.

These were the good old days for us. But the smooth appearance of the system, when viewed from London, was partly an illusion. Under the surface, tensions were building up which presently broke it to pieces. It is foolish to feel nostalgia for a past that was all the time running on to produce the present.

III

INTERNATIONAL FINANCE

THE problems of trade and capital movements between each country and the rest break surface from time to time in the form of a financial crisis.

Even in the heyday of laisser faire the national currency was admitted to be a proper concern of governments; since the national authorities were concerned about the currency, they had to be concerned about the balance of payments.

MEANING OF MONEY

Money is whatever is acceptable as a means of payment. Within one country some medium, such as treasury notes, can be constituted as legal tender, but there is no way of making the currency of one country acceptable in another merely by decree.

Official legal-tender money is supplemented, within each country, by credit. A claim upon a reputable institution such as a bank is acceptable by a third party. From this develops the convenient habit of holding deposits in a bank, transferable by cheque. The bank must keep a reserve of legal tender (partly in the form of a deposit with the national central bank) to meet any possible excess, day by day, of claims upon it over payments coming in; to maintain a good reputation its reserve ratio has to be seen to be ample. When a suspicion gets about that a bank might not be able to meet all the claims upon it, there is a *run*, each depositor hoping to get his money out before the others.

Nowadays, banks are hedged round with legal and conventional rules, in each country, precisely to prevent them from getting into such a situation, but the international credit system is still in a primitive stage of development.

International Reserves

For any one country the great bulk of in and out payments with the rest of the world as a whole cancel each other in the ordinary way, leaving from day to day a small balance on either side. Mutual convertibility of currencies, so that an excess of receipts from one can be set off against a deficit from another, is a great convenience to all concerned. An internationally acceptable medium of exchange is then required to settle differences between in and out payments of each country with the rest of the world. The duty of preserving the convertibility of its own currency falls upon the central bank of each country (in USA the Federal Reserve Board). Each central bank, therefore, has to hold a reserve of international currency, in somewhat the same way as an ordinary bank has to hold a reserve of national currency.

By a long historical tradition gold has become established as an internationally acceptable means of payment. There is a mysterious aura about it that makes it the symbol and embodyment of *value*, but as things are nowadays its value, that is its purchasing power over everything else, depends upon the price in terms of their own currencies that central banks will pay for it and the purchasing power over other things of those currencies.

Since 1933 the price of gold in terms of dollars has not changed, while everything else has risen in price. The value of gold in terms of everything else has therefore fallen. Moreover, the real value of the flow of trade and capital movements has grown and the number of countries taking part in the system has grown too.[16] For this very reason a system has developed of supplementing gold by claims upon an acceptable currency.[17] The dollar is an acceptable currency because of the dominant place of the United States in the capitalist world today, and sterling is acceptable because of a hangover from the dominant place it used to hold in the past and because of the great sophistication of the facilities for dealing in money that were then

developed in London. A balance in a respectable currency, so long as there is confidence in its convertibility and no fear that it will be used for political purposes, is superior to gold since it can earn interest, and can be passed around, when it has to be drawn upon, at much less cost. Not only central banks but all kinds of financial institutions find it convenient to hold balances in one or other of these *key currencies*.

Competition for reserves

This system is by no means satisfactory. At the present time both the key currencies, for different reasons, are suffering from a tendency to develop deficits and lose reserves. The traditional reaction of the monetary authority to a loss of reserves is to raise interest rates so as to make its currency more attractive. In so far as it succeeds in attracting deposits from foreign financiers, who now find it a more eligible place to hold their balances, it is offsetting its deficit on account of trade and long-term lending by short-term borrowing. This checks the outflow of reserves. So far so good. But it has solved its own problem largely by attracting balances away from other currencies, and so weakening them. Their authorities in turn have to raise interest rates to defend *their* reserves. The rise in interest rates and the credit squeeze required to make it effective set a drag upon investment in each country. Fortunately it has not so far succeeded in precipitating a world slump but it is pushing in that direction.

Before 1914

This deflationary twist in the international monetary system was not felt in this country when the gold standard was operated from London, because of the great strength of sterling. In a world boom, when investment was high, if lending ran ahead of the surplus on income account, a small rise in Bank Rate was sufficient to pull it back. The check to inflation was felt in the borrowing countries, not

here. Where world investment was low, lending fell off (for lack of borrowers) faster than the surplus of exports was reduced (by lack of buyers) so that sterling was strong. Unemployment due to the fall of exports did not have to be exacerbated by a credit squeeze at home.

1925-31

When the gold standard was restored, in 1925, sterling was weak, partly because of a greatly reduced surplus on income account, in the aftermath of the 1914-18 war, and partly because a rate of exchange with the dollar that was high in relation to relative costs was adopted under the influence of sentimental notions of prestige.[i] We had then been landed with the need for credit restriction when there was already unemployment. From this self-torment we were rescued by a crisis of confidence in sterling in 1931 which ran us out of reserves and so enforced depreciation of sterling. Meanwhile the capitalist world had plunged into the great slump; unemployment went on growing, but here the devaluation helped to brake it somewhat.[j] In 1933 Roosevelt devalued the dollar, by raising the dollar price of gold, not because the reserves were not ample, but because he thought it might help to relieve the slump at home.

A crisis of confidence

After the experiences of the Thirties, perfect confidence in the exchange value of any currency cannot be restored. When there is reason to expect that a currency might be devalued, there is a *flight*, similar to the run on a bank whose depositors fear it may be going to close its doors, everyone wanting to get their balances out of the weak currency and into a strong one before the devaluation occurs. The weakness of sterling, due to its persistent tendency to fall into a deficit on income account, combined with its position as a key currency holding large and volatile deposits, makes it chronically vulnerable.

Flights may also be set going for political reasons. An 'opening to the left' in one country meets with disapproval of financiers at home and abroad that expresses itself in a preference for other currencies. The position of a Labour government committed to maintaining the exchange value of sterling is peculiarly awkward, for it has to persuade its supporters that it is more radical than the Conservatives while persuading the international financiers that it is even less so.

The financial crisis arises out of the real problem of the balance of trade but it is something extra. It has, so to speak, a life of its own. It was, perhaps, possible to argue in 1964 than a devaluation of sterling would not by itself produce an adequate surplus of exports and that if the other measures required were taken it would not be necessary. On this view the policy of 'saving the pound' was justified so far as the real problem is concerned (though no doubt the decision was taken from political rather than economic motives). But, granting for the sake of argument that that view was correct, it is obvious that the repressive measures necessary to attempt to carry out the policy in face of a crisis of confidence makes all our problems so much the harder to solve.

International Liquidity

One way of increasing the supply of international money would be to raise the price of gold. This could be done between one day and the next by the Federal Reserve Board raising the price in terms of dollars that it pays for gold presented to it. Other currencies would follow suit. (Some might take advantage of the opportunity to raise their price a bit more, thus devaluing against the dollar and getting a competitive advantage against the United States.)

This policy has been persuasively advocated,[k] but it has serious drawbacks. The benefit of the rise in reserves would be arbitrarily distributed amongst central banks. The two

main gold producers, South Africa and USSR, who are not particularly popular in the capitalist world, would benefit from an arbitrary rise in the purchasing power of their exports. Above all, the prestige of gold would be so much raised and the prestige of the key currencies so completely shattered, that over the long run the available supply of acceptable international money would be reduced rather than increased.

A more rational expedient was proposed by Keynes when the post-war reconstruction of the world economy was being discussed.[l] He advocated setting up what was in effect a super-central bank, which would accept an agreed amount of deposits from national central banks, that could then be drawn upon in terms of a super-reserve currency which he proposed to name *bancor*. Bancor would have to be hedged around with safeguards to ensure its acceptability. Once acceptability as international money was established, it would constitute synthetic gold given out in the first instance in agreed quantities on some acceptable principle. and capable of being increased as the needs of the world financial community required. This scheme was rejected, under American influence, in favour of the International Monetary Fund, which only provides national governments with rights to borrow on somewhat onerous terms. The present highly unsatisfactory situation has set a current of opinion running in favour of some kind of bancor,[m] though it is always very difficult for sovereign nations to agree upon any kind of sensible scheme.

Sterling

The special difficulty of sterling is something over and above the general problem of international liquidity. A situation where, for historical reasons, a great mass of short-term liabilities is held in a currency which is blatantly and obviously subject to risk of devaluation, necessarily gives rise to flights or threats of flights from time to time. To maintain sterling as a key currency the international

financial authorities should have provided such large reserves as to appear convincingly ample to depositors, so as to maintain confidence. The measures necessary to restore the balance of trade could then have been undertaken without the added nuisance of a financial crisis. But that is not the sort of thing that international financial authorities do (partly because they believe that necessary measures never are undertaken without financial pressure). They patch up the situation with loans after a crisis of confidence has developed. Consequently the loans have to be drawn upon; the need to repay them is an added burden to the future balance of payments, and so the last state is worse than the first.

CAPITAL MOVEMENTS

The case of sterling in 1964 is only a particularly dramatic illustration of the fact that in the system of international financial relations now in force there are no generally accepted principles governing the exchange rates between national currencies.

The gold standard

The gold standard which broke up in 1914 had developed by a historical process without being consciously planned to work as it did. The monetary authority of each major financial centre undertook to buy and sell gold at a fixed price in its own currency. The price for gold which each chose fixed the rates of exchange between them within narrow limits. Convertability with gold was the ark of the covenant; the maintenance of the exchange rate was the dominant aim of all economic policy.

The rules of the game established under the gold standard ensured that no country could lend on balance to the rest more than its surplus on income account. When it did so, the offer of its currency on the exchanges exceeded the demand, the exchange rate fell below the gold parity, so that it became profitable to export gold. The consequent

drain on the gold reserve had to be stopped. By the same token no country could run a deficit on income account in excess of the inflow of capital that it was able to attract.

The other way round, it was possible for a country to lend less than its surplus on income account and so attract gold from the others, but this was not playing the game according to the rules. Its proper course was to reduce interest rates, which was intended both to increase its outflow of capital and to boost home demand so as to reduce its surplus.

British lending

The old gold-standard rule that a country cannot have a capital outflow greater than its surplus on income account is no longer in force. Great Britain is still carrying out overseas investment in spite of a deficit on income account. This adds to the weakness of sterling and has to be offset by short-term borrowing. Net purchase of foreign securities outside the sterling area[18] by British citizens is not allowed. The long-term lending is mainly in the form of direct investment in overseas enterprises and retention of profits earned on the spot.

From the point of view of the British balance of payments, it is defended on the ground that it will yield a future benefit, both in the form of remittances of profits and in the form of orders for suppliers of equipment and so forth which would otherwise go to rival exporters, so that prospective relief in the future justifies the extra strain in the present.[19] The cogency of this argument depends upon what other measures are available to redress the balance.

The aid being given to developing countries (a miserable trickle compared to all the talk about it) is mainly tied, to be spent only on British goods. In so far as it catches exports that would not otherwise be made, it is no burden on the balance of payments.

US lending

The capital outflow from the United States is partly in the form of purchases of securities representing capital that already exists. Owners of wealth in USA happen to find some foreign securities attractive. The payment of interest or dividends on these securities is then a future burden on the balance of payments of the country that sold them and will require a corresponding surplus on its balance of trade.

Besides this, the outflow of private capital from USA is financing investment, largely in the form of subsidiary branches of the great American corporations. This is no longer mainly of the colonial type, developing resources which will set up a flow of exports to match the profits that have to be paid to US shareholders. It is now largely directed to taking advantage of the market in a developed country.[20] Indeed, the subsidiary companies foster imports more than exports, for they set up a demand for spare parts etc. from their parent companies and give rise to remittances from expatriate staff. If Marx were right that capital seeks labour to exploit, the overpopulated countries of Asia, Africa and Latin America would be developing fast. Nowadays capital seeks a market for its products and provides itself with robots to substitute for labour. The local capitalists, with whom they compete, and governments fearing loss of independence, resent the system which allows this to go on.

A country, such as France, which has no deficit on income account but is yet receiving foreign capital in this way, matches the long-term borrowing that is taking place by short-term lending, that is, by acquiring dollar balances. General de Gaulle, regarding this is a swindle, demands payment in gold. This is one element in the weakness of the dollar. To defend the dollar, interest rates are forced up, and sterling catches a side blow.

EXCHANGE RATES

The second rule of the gold standard game was that any country where costs rose relatively to others, or which for any reason lost ground in international competition, should suffer sufficient unemployment to bring its costs down. Convertability was sacrosanct; everything else must give way to it. It was this rule that proved unplayable in the great slump and caused the gold standard, partially restored in the Twenties, to break down in the Thirties.

Adjustable peg

The concept underlying the foundation of the International Monetary Fund was that currencies would be maintained (within certain limits) at the exchange rates ruling when it was set up, and that permission to change a rate would be granted by the Fund only in case of 'fundamental disequilibrium'. This concept is exceedingly vague. No attempt was made to define the criteria by which it should be judged. In any case the system was put afloat too soon in the choppy waters of post-war reconstruction and faith in the authority of the IMF was not established. Now exchange rates are the sport of national and international political pressures, with the unsatisfactory results that we see.

Floating rates

In the absence of any acceptable principles governing exchange rates, there is a school of thought which maintains that they should be left free for the market to settle.

When it is put in terms of the balance of trade, the argument sounds very attractive. Let each country maintain full employment. If it is not exporting enough to pay for the imports it then draws in, let the exchange rate fall, stimulating exports and restricting imports (provided, of course, that the benefit is not too quickly offset by a faster rise in money-wage rates) till balance is restored.

Admittedly, if the market were really free, violent and unhelpful perturbations would occur. To prevent this, central banks would have to maintain day to day stability in the exchanges, temporarily losing or gaining reserves,

while allowing movements appropriate to the competitive position of each country in trade.

What this means, in effect, is not that exchange rates would be settled by the market, but by the good sense and mutual helpfulness of central bankers finding the pattern of exchange rates that puts each country's balance right.

This would be all very well if payments for imports and exports of goods and services were the only transactions giving rise to demand and supply for foreign currency. But even if speculative movements could somehow be neutralized, long-term capital movements remain. In recent times, the dollar has been weak because capital outflows exceed an enormous surplus on an income account. Under the free market system, this would lead to a depreciation of the dollar, intended to make the surplus still greater. Other nations, faced with a growing deficit in trade, would have to depreciate in turn. The only result would be a general scramble to see who could get down lowest. If there is no right pattern of exchange rates that suits everyone, the central bankers cannot find it out.

The clash of national interests with international laisser faire produces a system of exchange rates that cannot be defended on philosophical principles. We have to live with it all the same.

IV

EMPLOYMENT AND GROWTH

WHATEVER may be the difficulties and confusions of partial laisser faire, it is greatly to be preferred to total laisser faire. In 1918 we were looking back with nostalgia to a pre-war world of prosperity and progress. In 1945 we were looking back to the fetid misery of continuous unemployment. Wartime experience of super-full employment had taught the people that the pre-war breakdown of the system was not inevitable and Keynes had produced a diagnosis of how it came about. A cure for unemployment after the war was the most insistent demand of democracy, and successive governments have met it pretty well.[21]

NEAR-FULL EMPLOYMENT

We should not be complacent. The persistence of unemployment in Scotland and still more in Northern Ireland is a serious blemish.[22] There has been some attempt to provide schemes for training workers for the skills that are in demand, schemes to soften the shock when a firm reduces its labour force, schemes to control the geographical development of industry to fit with the provision of housing; schemes to help married women to combine work for wages with work in the home, but they are in a rudimentary state. There is a great deal, in detail, that still needs to be done. But, by and large, the duty which governments now accept, of maintaining a 'high and stable level of employment' has been fairly well fulfilled.

The future is by no means secure. We have not yet seen whether the rest of the capitalist world could weather a serious recession in the United States; we cannot foresee how the trading nations in general and this country in particular will muddle themselves out of the international monetary

system they have muddled themselves into. But there is good reason to hope that nothing quite so stupid as the great slump will be allowed to occur.

In spite of the nuisance of rising prices, there are many incidental advantages of a high demand for labour, besides the main point—the avoidance of waste and misery. Management has to become more humane. Seasonal and casual trades are pushed into regulating themselves so as to be able to offer steady work. Dirty, ineligible jobs are cleaned up and made respectable. Firms which see a profitable market in prospect but cannot get hands have a strong motive to mechanize production, and the traditional fear of the workers that machines take the bread out of a man's mouth is reduced, if not yet fully overcome.

All this is very much to the good. Yet pursuing full employment as an end in itself is precisely what has landed the British economy in its present difficulties.

Functional Finance

The post-war orthodoxy was based upon a simplified version of Keynes' General Theory. In a market economy, the amount of employment offered depends upon the total money outlay, or *effective demand.* Demand is generated by expenditure for consumption; investment in the creation of capital equipment, buildings and stocks of materials and commodities; government outlay; and the production of exports. Expenditure for consumption depends upon income net of taxation; expenditure upon imports absorbs outlay without generating demand at home. According to the post-war orthodoxy, given the surplus or deficit in the balance of trade and the amount of investment which profit-seeking firms want to carry out, the government should regulate the overall level of effective demand through the budget. A deficiency of effective demand, leading to unemployment and under-utilization of productive capacity indicates that an increase in government outlay is required, or a reduction of taxation permitting an

increase in consumption. To supplement budgetary policy, the balance of trade can be influenced by commercial policy, and investment by credit policy.

It was quite alien to this point of view to consider that a surplus of exports, investment to modernize industry, government outlay for many purposes and consumption by the populace are all desirable uses for the nation's resources, or to inquire how the allocation between them ought to be made. Only the global total was considered to be proper object of policy.[23]

Employment policy since the war has been carried out more or less on these lines, reducing taxation when demand seemed to be flagging and squeezing credit when it seemed to be rising too fast. The aim of policy was to maintain the overall level of employment, without paying attention to what employment should be for.

Work for what?

Once the idea of employment policy has been accepted, full employment is no longer a rational aim. A rational policy would be to consider what the resources of the economy had best be used for, to work out a consistent plan, and steer them into the appropriate channels. This does not require the regimentation of labour. Even in the war, direction of labour, in the civilian sector, was very little used. Control operated upon the jobs that employers could offer.

The regime of near-full employment without planned use of resources came into being through a process of democratic competition. The Labour Party twitted the Conservatives with being incapable of preventing unemployment. The Conservatives twitted Labour with being devoted to austerity and regimentation. A Labour government carried out a bonfire of controls. Conservatives expelled from their ranks the advocates of sound finance. The choice of what employment should be for was left to the market to decide (apart from some public investment and expansion of social services) and the old laisser-faire

doctrine, that what is most profitable is best, reasserted its sway.

There are many grounds—moral, aesthetic, and political—for objecting to this system, on which opinions may differ; there is one about which it is impossible to disagree. Under the cover of easy profits and rising consumption, the balance of trade was allowed to drift until it has become clear to all that something must be done about it.

Defective Steering Gear

When near-full employment already obtains, it is not easy to shift its direction with only the instruments of policy which the new orthodoxy permits.

An increase in investment, without a reduction in consumption, merely adds to inflationary pressure. But if consumption is cut to make way for investment, profitability is reduced and the motive for investment impaired.

To increase exports immediately it is necessary to deflect goods which are saleable abroad away from the home market[24] and to make it easy for those firms which could increase the production for export to get labour. In the long run it is necessary to deflect investment and the recruitment of skilled workers and technicians into export industries. Resources have to be got *out* of the home market, as well as *into* the export market. Similarly if imports are cut down, the money that would have been spent upon them is deflected into the home market. Measures to boost the balance of trade have to be backed up by measures to reduce expenditure at home. But any overall measure such as a credit squeeze, a cut in government outlay or a stiff budget, is a blow with a blunt instrument. It is bound to lose much valuable activity that makes no contribution to the main problem. The wastefulness of an overall deflation of demand is not measured only by the unemployment of men who have been pushed out of one job and not pulled into another. There is also much useless sacrifice of output through short-time and slack working, and, worst of all,

discouragement to investment and innovation, blocking the only hope of long-run improvement.

Redeployment

When manufacturing and service industries have grown accustomed to near-full employment, a drop in demand that appears likely to be temporary, is more often met by short-time working than by dismissing labour. There is a general tendency to treat more and more of the labour force as permanent employees, like the staff. From a long-run point of view it is highly desirable to make industrial relations more civilized. From a short-run point of view, *hoarding labour* is an impediment to movements of workers between occupations that would help to get economic activity into better shape. This reinforces the contention that overall indiscriminate deflation will not bring about the redeployment of the labour force that the situation requires.

The new device of a selective employment tax, intended to reduce recruitment of men into services so as to make them available for industry, is a step in the direction of discrimination but the discrimination is extremely crude.

One way Out

There is one kind of import that we could cut down without increasing inflationary pressure in the home market; that is, delusions of grandeur. To reduce military commitments overseas would bring a direct relief to the balance of payments while at the same time releasing manpower and other rescources for productive use.

ECONOMIC GROWTH

Once near-full employment has been achieved *growth* becomes the criterion of economic success. Growth is measured by an index of overall national product valued at constant prices. Since the division of national income between work and property is fairly constant, a high rate

of growth of national income means a high rate of growth in real wages.

Ever since the war the capitalist nations in general have felt themselves challenged by the spectacle of much more rapid growth in the socialist world, with which only Japan could compete. Amongst themselves, the performance of the United States and Britain has been markedly behind Western Europe. The absolute level of productivity in the United States is so much higher than in the rest, that they need not worry (they have plenty of other things to worry about) but Britain has been deeply chagrined by seeing the statistical measure of real wages in France and Germany surpassing hers and in Italy creeping up towards it.

Productivity

The chief engine of economic growth in a market economy (given the available labour force) is the application of technical improvements to production which comes about through the competitive struggle of firms seeking profitable outlets for investment.

The growth in the capitalist sector of the world since the war is a very remarkable phenomenon. Even in British industry productivity has been growing much faster than ever it did in the great age of her economic supremacy.[25] The system seems to have taken another lease of life and has adapted itself to exploiting the ever growing opportunities of applying scientific technology to production, though it has not yet shown whether it is capable of doing so in conditions of assured peace.

The virtuous spiral

Within the capitalist world, relatively rapid growth is a great advantage. It leaves room for money wages to rise without raising costs. It gives a competitive advantage in international trade and so allows home investment to boom without fear of provoking a financial crisis. Investment promotes productivity. Rising productivity improves the

country's competitive position, and so on round—the contrary of the vicious circle of slow growth and weak balance of trade which we know only too well.

Growth for what?

Yet, apart from the requirements of the balance of trade, growth for its own sake is not a rational objective of policy. It would be a rational use of growing resources to remove poverty, to clear up the hideous legacy of the industrial revolution, to build the schools and hospitals and train the personnel that the social services urgently require, as well as to modernize industry. It would be necessary to carry out technical and social research to see what needs to be done. The rate of return in benefit to society of investment would certainly be shown to be very high, so that such a policy would require growth for a long time to come. Growth should be the consequence, not the aim, of rational economic policy.

Distribution

To concentrate upon growth as the criterion of success distracts attention from the allocation of resources between public and private uses and from the distribution of income between families.[26] When growth is going on fast enough, all elements growing in proportion, the social services will grow, the lowest incomes will grow, the worst evils of poverty will be gradually overcome and so the demand for change in the philosophy and institutions of laisser faire can be fended off. Even with the low rate, by modern standards, of 2 per cent per annum, national income doubles within a generation. The ideology of growth is designed to prevent us from asking what we want to do with it.

The British Plan

The concept of growth as an end in itself is well exemplified in the so-called National Plan produced in 1965. This

was based on the idea that growth at the rate of 3.2 per cent per annum was practicable. Industries were asked to specify what outputs they could expect and what inputs they would need in a market growing at 4 per cent (allowing for .8 per cent growth of population), and the projections so obtained were then reconciled into a consistent scheme. The so-called planners did not feel called upon to suggest how the projection should be realized, still less whether it would be a good thing if it were.

Population

This argument concerns the growth of national income per head. Growth of population absorbs investment to provide social and industrial capital for growing numbers, and so reduces the rate of growth of income per head, not to mention the fall in amenities due to the reduction of space per head.

Immigration of workers similarly reduces the rate of growth per head, especially if they bring dependents with them, but it increases the growth of profit. So long as effective demand is kept up, additional workers make it possible to utilize existing equipment more fully, and provide an opportunity for investment in additional equipment without the need to seek out labour-saving methods, which may require an increase in investment per man employed and make profits harder to come by. Thus the objection of native workers to immigration, which takes the unpleasant form of xenophobia and colour prejudice, is justified by class interest. Meanwhile superstitions, rooted in chauvinism as well as religion, oppose the spread of facilities to prevent unwanted births.

V

MONOPOLY AND COMPETITION

ACCORDING to laisser-faire doctrine, competition between producers ensures that the best use is made of the economic resources of society to meet its economic needs. On this view, so long as competition prevails, there is no possible advantage from government interference with the free play of the market but distortions due to monopoly ought to be prevented.

FREE MARKETS

There is one sphere in which the market has free play, this is in dealing in certain animal, mineral and vegetable products which provide raw materials and food supplies for the wealthy industrialized nations. Demand for them varies with the general state of trade and with changes in tastes and techniques. Supplies vary with natural conditions such as droughts and plagues, with political events in the producing regions, and with the development of fresh sources of supply. The vagaries of supply and demand bring about violent movements in prices. If traders in these commodities could foresee what will happen next they would buy in and hold stocks when prices were abnormally low and unload when they were rising, thus making demand responsive to supply and supply responsive to demand. In turbulent conditions, however, foresight cannot be correct. Traders will often be buying on a rising market and selling on a falling market, exaggerating fluctuations instead of ironing them out.

Since, in the nature of the case, production of this sort is concentrated in particular regions, whole communities are dependent upon one or another commodity; the free play of competition therefore causes violent swings in their incomes. For this reason, the primary producers inside the

well-developed industrial countries are sheltered from competition by various schemes of regulation; the whole brunt of the market system is borne by the so-called developing countries, whose export earnings depend upon one commodity (or when they are lucky two or three) for which they were fostered as a source of supply in colonial days. The hazards of trade reduce their planning for development to a gamble and set them to cutting each others throats by competing for sales in a buyer's market.

The balance of power is with the manufacturers who import these materials, for when supplies are excessive they can enjoy low prices; when the market goes up, they recover from the public at home by adding the additional cost into their selling prices; when supplies of one kind of material are deficient they can usually switch over to using a substitute, which sometimes turns out to be even preferable once they have adapted their manufactures to it. For this reason they have put up a powerful resistance to various schemes that have been proposed to regulate trade in a manner that would limit their freedom to take advantage of the play of the market. But for the industrial nations as a whole this system has a serious drawback; the suppliers of raw materials are buyers of manufactures (including the investment goods required for development); violent fluctuations in the incomes of their customers cause fluctuations in the demand for their exports, which are a considerable nuisance, as well as giving rise to the reproach that all their fine talk about aiding development is mere hypocrisy.

The one case where free competition operates is not a very good example of its supposed benificence.

REGIONAL PROSPERITY

Where a particular industry, such as shipbuilding, subject to foreign competition, is concentrated in a particular region, the situation there is somewhat similar to that of a primary-producing country. The income of the region

fluctuates with the state of demand for a particular output. For this reason, a pre-condition for near-full employment was a policy for geographical development, aimed at getting a mixed bag of industries in each district, and promoting the location of growing industries side by side with those that are shrinking—for instance, engineering in Lancashire to make up for cotton. The policy has not been completely successful. There are backward regions in Great Britain as in all the advanced countries. The drift of population and of wealth to the South East is hard to check. But, by and large, there is a fairly uniform level of wages for comparable jobs, all over the country, and a fairly uniform level of profit on capital for comparable types of business. That is to say, that (unlike primary production) the incomes drawn from an industry are independent of the prices at which its output is sold. Prices are governed by costs instead of incomes being governed by prices.

IMPERFECT COMPETITION

The manner in which manufactured goods are sold is unlike the marketing of primary commodities. Instead of output, already produced, being thrown on the market and sold for what it will fetch, the manufacturer offers to sell, at a price which he choses, as much as the market will take.

Economists make a great deal of fuss about the theory of prices, but to a businessman it appears as though prices pretty well settle themselves; his preoccupation is with getting sales. 'Of course the price has got to be right' he will say. That is, he does not want to lose sales by setting a margin which will give his competitors an advantage; at the same time he does not want to lose potential profit by charging a lower price than that at which he expects to be able to sell a reasonable level of output. Thus the price that each charges depends very much upon what the others are doing.

A scoop

New commodities are put on the market at prices governed by those for which they are substitutes. When there has been a dramatic fall in costs, this may lead, for a time, to Himalayan profits—the first ball point was sold at the price of a high-class fountain pen.

Price Leadership

For established lines, the margin that one producer will choose is governed by the prices that others are charging for similar goods.

This naturally sets up a tendency to blunt the edge of competition. The mildest kind of collusive behaviour is the institution of *price leadership*. One firm is tacitly recognized by the rest as the bell wether. When its price goes up, they all go up. No one will cut price until it does. The firms compete through salesmanship of all kinds and through the design and packaging of their products, but eschew competing in price.

Restrictive Practices

Formal agreements are sometimes set up to take advantage of a strong demand for some new product. Margins are set high and the market shared out by agreement. The price is regulated by the level at which the highest-cost producers are viable; the low-cost producers limit output and enjoy high margins.

More often rings are formed as a defence against price cutting in a buyer's market. When demand has fallen so that it is impossible to sell normal capacity output at the pre-existing price, it suits the firms best to maintain the price and allow output to fall, for if one began to cut price, attempting to get a larger share of the market, the rest would have to follow, and they would all end up with not much more output and much lower margins.

In a deep slump, mere fellow feeling is not strong enough

to prevent price cutting and rings are formed in order to share the limited market so that all can survive.

Rings formed defensively persist after demand has revived and are used to enhance its profitability. They commonly resort to various devices to keep non-members off the grass—for instance making it worthwhile to retailers to refuse to handle their goods. They impede technical progress by resisting innovations, setting a drag on the growth of the more efficient producers inside the ring and strangling would-be competitors outside.

During the slump, public opinion and legal decisions rather favoured agreements that were seen to be primarily a defence against cut-throat competition. In the post-war era of seller's markets they are seen as grabbing an unwarranted share of profits for themselves and as impeding growth and progress.

Legislation against *restrictive practices* has had some success. It is not easy to make firms compete if they do not want to but it is possible to remove impediments from those who do want to compete.[27]

A notable example of this is the prohibition of *resale price maintenance*, under which all retailers were obliged to maintain the level of margins, on a wide-range of goods, that old-fashioned shops found satisfactory. This system was holding up the development of self-service stores, which is now roaring ahead.

Monopoly

The main count against rings and restrictive practices is that they prevent the more efficient firms from knocking on the less efficient as fast as they might. When competition is unrestrained and carried on with vigour, the size of firms grows and the number in any one industry falls. The logical end of competition is monopoly.

A large and powerful firm enjoys economies of scale. It can afford to carry on research. It can risk pioneering new methods of production and new commodities. It can pro-

vide good conditions of work, and is not averse to paying high wages which embarrass its weaker competitors.

On the other hand, since excess capacity is the thief of profit, it may prefer to keep investment in the rear of demand, and so ensure a certain degree of scarcity for its products. It may grow sluggish and suffer from bureaucratic hardening of the arteries. The dominating position in its markets that it won by superior efficiency may be defended by dirty tricks. Its research may turn from making discoveries of its own to frustrating the discoveries of others.

The benefits and the drawbacks to the economy of the existence of powerful monopolistic firms spring from the same source. Legislation cannot do much to secure the one without the other.

Part of the revulsion in favour of competition under post-war prosperity was the institution of a Monopolies Commission. Its task is to review cases where serious abuse of monopoly power is suspected. No doubt it has done some good in establishing a code of proper behaviour.

The drive against monopoly is regarded partly as a *quid pro quo* for wage restraint. It has no doubt contributed to the all round reduction in profit margins which has been experienced in recent years.

Oligopoly

The typical form of modern industry is neither competition nor monopoly but *oligopoly*—each market is dominated by a few large firms, surrounded by small fry who fill various niches—often very profitable—that are left vacant, in specialized production, bespoke work, distribution and so forth.

The process of competitive struggle, big fish eating the little ones, often comes to rest before the final emergence of a monopoly. Then two or three firms remain, each not daring to challenge the rest to the final round. They then continue to exist, each striving to maintain its share in the principal markets that they serve, largely by sales pressure

of various kinds,[28] and meanwhile nibbling away on the flanks, expanding into other markets still occupied by weak competitors.[n]

Oligopolistic competition occasionally takes the form of a price war in some particular range of products, but most of the time it is concentrated upon designing new varieties of commodities and methods of production. So long as the oligopolists keep each other on their toes this is the most progressive of all forms of industry (in spite of the wastes of non-price competition), but if they fall into a mood of live and let live they may become as sluggish as outright monopolists.

Robots

The mechanization of industry is continuously raising output per man hour, that is reducing the amount of work required to produce a unit of output. With automation this process has taken a great leap forward and is now invading clerical work at a rapid pace. This threatens to reduce the share of wages and increase the share of profits in the proceeds of industry. So far its effect has not been much felt, but it may well be creeping up upon us under cover of the present short-period scarcity of labour.

When output is not growing fast enough to provide an outlet for investment to absorb saving out of profits, an upward drift in the share of profit sets a drag on the growth of effective demand so that *technological unemployment* tends to emerge. In such a situation, to stimulate rentier consumption would help to maintain effective demand, but this is a remedy for unemployment scarcely more rational than the famous expedient of paying men to dig holes in the ground and fill them up again.

A more acceptable policy would be to require generous severance pay and to provide appropriate retraining schemes to increase *mobility of labour* without excessive hardship; to raise hourly wages and shorten the standard week or to increase holidays with pay, to shorten the standard

year, so as to permit the workers as a whole to take out their share of the potential increase of national income in the form of leisure; and to mop up the redundant saving out of profits by taxation to be spent on social services. It is not inevitable that growing productivity should be a cause of misery.[29]

GOVERNMENT BUSINESS

There are certain industries—for instance railways, electricity and gas—which, for efficiency of operation, have to have a monopoly in each district because they have to have a network of lines of supply. For this reason it has always been recognized, except by the most fanatical supporters of laisser faire, that they have to be controlled in the public interest. Since, moreover, a unified national network offers technical advantages, it is generally agreed that these services should be nationalized.

The coal industry was nationalized rather because it had got itself into a mess under private enterprise. The nationalization of steel is proposed on the ground that the basic investment industry ought to be controlled in the public interest.

The services provided by the government are the most important for comfort—compare the benefit of having electric light rather than oil lamps with the benefit derived from any other item in the household bills, apart from the necessities of life—and they are the most basic for production.

The nationalized industries are instructed to follow a price policy that covers costs, so that expansion has to take place through government borrowing. Private enterprise raises the greater part of the finance for its investments out of profits. (When you buy a packet of goods, over and above the cost of producing, advertising and selling it, you are generally paying a subscription to the expansion of the firm concerned.)

Public corporations are designed partly to defend the

consumer from the ill effects of commercialism—broadcasting to check the erosion of taste, and air lines the erosion of safety, by the pursuit of profit.

The medical and education services make the greatest contribution both to welfare of individuals and to providing industry with an adequate labour force. To correct the worst effects of inequality of income they have to be provided out of taxation.

There are other services which might well be provided in the same way, and we are constantly being promised positive action to set up public enterprises where private enterprise has neglected an opportunity to develop new technology or where an old established industry is suffering from hardening of the arteries;° the old slogans of laisser faire—that government outlay is more inflationary than private and government services less valuable to the nation than those that earn profits—are still often heard, but they carry less weight at a time when there is so much dissatisfaction about the slow growth of productivity in private industry in Britain and failure to keep abreast of its rivals in Europe.

CONSUMER'S SOVEREIGNTY

There is an enormous fall-out of benefit to the consumer from the competitive search for profit in private-enterprise industry. We owe to the search for ever new markets —to name only two examples—stylish ready-to-wear clothing, which has contributed to democracy by breaking down class distinctions; and the development of household gadgets, which first stepped into the vacuum in middle class families caused by the disappearance of domestic servants and are now beginning to lighten the toil of working-class wives.

All the same, it is absurd to maintain that the private enterprise system is directed towards supplying consumer's needs. Rather, consumers are the pasture on which enterprise feeds. We are used to a system that is run for the benefit of producers, in which the advantage to consumers

is merely incidental, and since each of us has a strong, concentrated interest in his position as an income-earner and a weak, diffused interest in his position as a consumer, the system is found to be generally acceptable. This tolerance is illustrated by certain characteristics of the system which are quite familiar but rarely rouse protest.

Take, for instance, the question of durability. There are many objects of daily use, untouched by fashion, in which resistance to wear and tear is a great benefit to the buyer. The producer, of course, prefers frequent replacement. The producer controls design and quality. Moreover it is to the producer's interest to speed up the wheel of fashion and spread its influence over ever wider fields, inducing *psychological obsolescence* of models already sold by making small improvements in new models or merely by changing appearances, so as to appear to the consumer's desire to show off to the Joneses.

A second example is the manner in which goods are sold. Manufacturers commonly compete with each other in the terms that they offer to retailers. The shopkeeper then ceases to be his customer's friend, offering the best possible selection of goods and the best advice. He is induced to push some products and refuses to offer others (which might suit the customer better) because they do not carry such a large margin for him.

The main example of this phenomenon, of course, is advertisement. In the sacred name of competition we have to allow the advertisers to debauch public taste with snobbery and vulgarization of sex. When they try to raise the tone with reproductions of old masters and quotations from Shakespeare, they are still more nauseating.

A case for advertisement is sometimes made out on the ground that it provides information about the commodities available in the market. If so, the information that it conveys is often erroneous—for instance that tigers are good at driving motor cars or that drinking stout promotes muscular development.

Specialist agencies carry out elaborate research, not to find out what the housewife needs, but to discover how she reacts to various types of salesmanship. A large part of advertisement is devoted to *creating wants* for useless or harmful merchandise, in order to supply them. The consumer would clearly be better off without the wants and without the supplies. Specialist journals to some extent provide genuine information and criticism of design in particular fields; *Which* is making a gallant attempt to perform the same service for the general market; the mass of consumers, however, are too much doped to pay attention.

This system of competition in salesmanship no doubt, is the best system we have got, but it is idle to pretend that it operates, as the text books claim, so as to produce the maximum satisfaction possible with given economic resources.

VI

WORK AND PROPERTY

KEYNES' description of capitalists who 'were allowed to call the best part of the cake theirs . . . on the tacit underlying condition that they consumed very little of it' applied to the old-style entrepreneur managing a business that he had built up from his own resources. There are still sometimes great fortunes acquired by individual tycoons and there are still family businesses which have not yet become public companies or been absorbed into one of the great amalgamations. In the main, industry and trade are now dominated by *managerial capitalism*, that is by companies nominally owned by a shifting population of shareholders and actually run by salaried staff.

RENTIER INCOME

The principle of limited liability enabled managerial capitalism to grow up over the last hundred years. An owner of wealth can spread his risks by holding shares in many companies about whose business he knows nothing except what may affect their value on the Stock Exchange. His rights as an owner of a company concern him only in cases of emergency. The return on shares, from his point of view, is merely an alternative to interest on a loan, and his role in business is simply that of a *rentier*, just as much as though his wealth were placed in gilt-edged government bonds or derived from rent of land.

Unearned income

Rentier property, as a social institution, provides a number of conveniences. It pays a premium on savings designed to carry purchasing power forward to a time when family needs will be greater. It provides for widows and

orphans in the middle class. It provides endowments for many worthy institutions. The returns which insurance companies and pension schemes get on their funds improve the terms that they can offer. For the most part, however, its function is only to provide what the Inland Revenue rightly describes as *unearned income* to the heirs of entrepreneurs and to contribute taxes to the exchequer, just as rent from land provides unearned income to the heirs of feudalism.

The Stock Exchange

Amongst possible placements from which rentier income can be derived, shares issued by limited liability companies of all kinds are particularly attractive, especially in a period of chronic inflation. But a share is a *share* in the fortunes of a company. In the hurly-burly of competition individual fortunes cannot be foreseen. Moreover taxation distorts relative yields in a complicated way, and the market as a whole is liable to swing up and down with changes in level of rates of interest (which, as we have seen, are connected with the international financial situation), with waves of sentiment and with the interpretation that it puts upon political events. Dealing in shares is by no means a simple matter. A great apparatus of jobbers, brokers, advisers and financiers has been created to assist the rentier in placing his wealth. The game of spotting winners then develops as a by-product that swallows up the original purpose for which the institution was created. This game is not easy and it can be lucrative. It therefore attracts a great deal of high-class brain power from more constructive activities.

Redundancy

The contribution which the capital market makes to providing finance for industry is very small in relation to the resources that go into keeping up the whole affair. The existence of the market facilitates raising finance by new issues, but this is a minor part of the finance which industry

absorbs, since the greater part is provided from retained profits.[30]

For its hierarchy of managers, a company takes on a life of its own, like a college or a regiment; their loyalty is to the company as such rather than to the shareholders. From their point of view the distribution of dividends is a necessary evil; the proper use for profits is investment to enlarge the operation of the company.

In this way we have drifted unconsciously into a highly peculiar economic system. The net earnings of a company belong to its shareholders. They receive them either in the form of dividends or in the form of the rise in the value of shares corresponding to the earning power of additional investments financed by retained profits. They are free to spend these capital gains for consumption. In so far as they do not spend them, the system so to speak credits them with saving. The wealth generated by technical progress, capital accumulation, work and business acumen, thus drop into the laps of rentiers while they sit at home or occupy themselves with other tasks.

The old excuse for the existence of a wealthy class—that they are necessary to provide savings—has worn extremely thin. On the contrary, it is their consumption which is a draft upon the nation's resources.

The excuse that the stock exchange provides a good guide to profitability and so channels finance to where it can best be used, was never convincing and it was laughed out of court by Keynes' description of the manner in which the market operators, like those who go in for a newspaper competition to select the most beautiful film star, make their gains by 'anticipating what average opinion expects average opinion to be'.[p]

OWNERSHIP AND CONTROL

To a certain extent, the divorce between ownership and control has softened the rigour of laisser-faire capitalism. The managers must pursue profits for their firm to survive

and grow, but good reputation and humane labour relations may also be their object. Equally, so may be an easy life and long weekends.

The freedom of managers is, however, circumscribed by the legal fiction that the shareholders own the company. The group of rentiers who, at any particular moment, hold the company's shares regard them merely as an eligible placement for a fraction of their private wealth. They see no objection to selling their holdings to anyone who offers favourable terms. Thus when, for good reasons or bad, the stock exchange value of a company falls below the potential profitability of its real assets, it is in danger of a *take-over bid* from another company or an individual tycoon who can buy up the business behind its own back, throw out the board of directors, prune the management and switch to a more profitable, though not necessarily a more admirable, line than was being pursued before.

The market (especially in England) values shares more by dividends than by earnings. Thus, to make itself less tempting for a take over by keeping up its *valuation ratio* (the stock exchange value of the shares over the value of the earning assets based on expected profitability) the management must pay out more dividends than they would like.[q]

THE NATION AS RENTIER

In spite of its drawbacks, managers generally value the freedom that this peculiar system gives them. For the most part, they dislike the idea of being nationalized or even of being financed by a public body which would have a right to supervise them. The great financial institutions such as insurance companies, which actually own a great deal of industry, lean backwards not to interfere. In principle, there is no reason why the state should not also enjoy ownership without control where management by private enterprise is considered preferable. A budget surplus *above the line*, that is on income account,[31] instead of being used

to check the growth of the national debt could be used to buy industrial shares.

In a period when there is continuous economic growth in real terms (cancelling out the falling value of money) through rising productivity, when land, labour and capital each receive fairly constant overall shares in net national income, the total of private property is growing, but the prospect of a long run rise in the value of any particular company is highly speculative so that it is heavily discounted in its present value. If, for the sake of argument, we suppose that a good lot were taken over, they could each be bought at market price, and the value of the lot would be certain to rise, giving a fair profit to the nation (not to mention the unfair profit due to inflation). Rentier consumption would be *pro tanto* stabilized, and its erstwhile growth could be devoted to public expenditure, public saving through a budget surplus, or reduction of taxes on earned income. This is not so much a programme as an illustration of the nature of rentier wealth.

The corresponding proposal to take over property in land has often been advocated. The longer it is put off, the greater the unearned increment of private wealth.

INHERITED WEALTH

The large fortunes built up during the process of accumulation that Keynes described, as well as those inherited from feudalism, have left a permanent legacy of great inequality of property. It perpetuates itself, for one finds it easy to make money if one has some, and next to impossible if one has not.

Progressive Taxation

Inequality is not accepted by the democratic conscience and has to be combated by taxation. The apparatus of taxation is expensive; whatever criteria of taxable capacity are devised are necessarily somewhat arbitrary and set up meaningless distortions in the values of different kinds of

property; a great deal of highly expert man-power is devoted to advising rentiers and businessmen on legal tax avoidance (not to mention the other kind); the legislative, administrative and legal apparatus of the country is burdened with the task of making the tax system fair, or appear fair, as between equal incomes, and the definition of income for tax purposes has developed an elaborate body of theology which is a constant source of dispute. In short, the whole affair is a great nuisance.

In spite of all, inequality remains. Progressive taxation has made scarcely a dent in it.[32]

Standards of life

Inequality in post-tax income and capital gains gives rise to inequalities in consumption which make it very hard to persuade the trade unions that incomes policy is on the level.

Families with high incomes cannot be prevented from spending them on what they most need, and so the two-tier system of health and education services is perpetuated, and contributes to perpetuating inequality.

A drastic remedy

The concept of the nation as rentier points the way out of this situation. Concentrations of private property could be wiped out in a generation by confiscatory death duties (leaving a reasonable life interest to widows and orphans, and buttressed by equally heavy taxation on gifts). The titles to property could be handed over in the form in which it exists, to be held like any other endowment of a trust, and the income from it devoted to public purposes. This would not merely check the growth of rentier income, as nationalization with compensation does, but take a large bite out of it.[33] In particular, the reduction of fee-paying demand would make it possible to unify and improve the health and educational services.

Salaries

There is another source of inequality also connected with the share of profit in the proceeds of industry—the high salaries and perquisites of business executives. They, even more than the pay of skilled workers, are subject to wage drift in the competition between firms for the best men. They subject education, research and the learned professions to a brain drain which has to be answered by setting up comparable salary scales—infecting the republic of letters with demoralizing commercialism.

This could be checked by the Inland Revenue refusing to allow, as costs for tax purposes, salaries above a certain multiple of the average wage. There would of course be a great outcry about *incentives*, but incentives are relative. 'The game can be played just as well for lower stakes once the players are used to them.'

Why not?

The obstacles to such schemes are neither technical nor legal. They lie in the political opposition that could be rallied against them at home and the threat of flights of capital and capitalists to more congenial shores. (In the Common Market they could not be attempted until the whole of Christian Democracy was converted to the idea.)

The main obstacle, all the same, to eliminating functionless wealth is lack of imagination in developing ideas and institutions appropriate to an economy that has got over the hump of heavy accumulation and needs to find a rational way of enjoying the benefit.

CONCLUSION

IN the foregoing, the problems of partial laisser faire have been illustrated by reference to British experience. The reader, no doubt, is anxious to ask: What should be done? On this I can only offer my own opinion for whatever it is worth.

It seems to me that the people of this country are not in the mood for radical change. They prefer a loose-jointed, ramshackle economic system to one streamlined for efficiency and speed. They are willing to accept much that is irrational and unjust for the sake of preserving the continuity of our political institutions and the glorious flummery of Church and State.

But, at least the rising generation, resents privilege and snobbishness and demands genuine equality of opportunity for everyone to use what talents he may have. They are perfectly ready to shed the last rags of empire and settle down to being a small country devoted to neutrality and peace.

The transition to such a line of policy could not be quick and easy, but if the aim was clear, the way would be found. After all, we knew how to set up the machinery that was required to mobilize the economy for war. It could not be so hard to get a sufficient grip upon it to deal with our present misfortunes.

It will be objected that the war was a matter of life and death. Patriotism and enlightened self-interest combined to suspend privileges which would never be given up in peacetime. But the evident failure of laisser faire with near-full employment once more rallies enlightened self-interest to accept whatever is necessary to make the system work. Besides, the argument cuts both ways. The people responded to the call of blood, sweat and tears to save the country from destruction and to defeat Fascism.

They are not so ready to make sacrifices in order to support an ambivalent, vacillating policy that, pretending to maintain national greatness, is undermining its economic and moral basis.

While drawing upon the hump of resources locked up in military expenditure it would probably be necessary to curtail the overall growth of consumption for some time, to get the balance of trade in order and disentangle sterling from the international monetary system by paying off the short-term indebtedness which keeps it in thrall. Meanwhile we could overcome the worst poverty, and, once we were round the corner, we could set about to make a country where all can be comfortable, cheerful and free to follow their fancies.

This is a selfish ideal. Democracies are selfish. They think of the nation, not of the world. Two menaces hang over the world today—the rise of population ahead of economic development which is spreading desperate misery in the southern continents, and the American crusade against communism, which threatens worse horrors than it is already perpetrating and meanwhile prevents each economic system from settling into peaceful co-existence with the other and using its resources to meet its urgent needs. Compared to these, our problems are trivial, but until we have settled those little problems we are powerless to use any influence at all to contribute to the great ones.

NOTES

INTRODUCTION

[a] *Economic Consequences of the Peace*, pp. 16–17.

[1] I use laisser faire in a broad sense to mean the complex of ideas and policies that grew up with the 'remarkable system' that Keynes described. Its principle tenet was that the sole duty of government in economic affairs was to preserve the value of money at home and abroad by balancing the budget and maintaining convertibility of the currency with gold.

The expression has become naturalized; in what follows it is printed without italics.

1 INCOMES AND PRICES

[2] Total consumer's expenditure (including rent) reckoned at prices ruling in 1958 was £13,106 million in 1950 and £18,943 million in 1964, an increase of about 45 per cent. In this period, the resident population rose by about 8 per cent, so that there was an average increase in consumption per head, man, woman and child, of about 34 per cent.

(National Income and Expenditure, 1965 and *Statistical Abstract*, 1965).

[b] This view of the determination of prices is based on the theory first formulated by Michael Kalecki in *Essays in the Theory of Economic Fluctuation*, 1939. It has been supported by statistical observations in *Wages and Employment in the Trade Cycle* by R. R. Neild, 1963.

[c] See below, p. 53.

[3] In 1965 it appears that the prices of manufactures rose less than wages, while prices of materials were more or less constant, as follows:

	1958 = 100	
	1964	1965
Earnings per head	137·5	146·1
Price of manufactures	111·5	116·7

(National Institute of Economic and Social Research, *Economic Review*, May 1966.)

On the other hand, prices do not always fall with costs.

The Cohen Council in 1959 (see below note 5) was reporting on the aftermath of the first recession since the war that had raised unemployment to more than 2·5 per cent. Wages had risen very little over the preceding year and raw material prices had fallen. The Council deduced that for many industries costs must have fallen and strongly urged that prices should be cut. The spokesmen of industry, however, thought this a strange doctrine.

> There are ambiguities in its suggestion that industry should reduce prices. It is one thing to reduce prices and thereby expand demand and output; it is another to hold prices below their market level with the object of curbing profits or dividends.
>
> (A statement by the Federation of British Industries reported in *The Times*, August 7th 1959).

It is possible that since that date the industrialists have grown more sophisticated.

[4]The following appeared in *The Times*, January 23, 1943:

> Unemployment in a private-enterprise economy has not only the function of preserving discipline in industry, but also indirectly the function of preserving the value of money. If free wage-bargaining, as we have known it hitherto, is continued in conditions of full employment, there would be a constant upward pressure upon money wage-rates . . . In peace-time the vicious spiral of wages and prices might become chronic.
>
> (Joan Robinson, *Collected Economic Papers*, Vol. I, p. 85.)

[5] The White Paper of 1944 on *Employment Policy* (Cmd 6527) marked the official acceptance of the view that it was possible and necessary for government action to maintain a

'high and stable level of employment'. It was not until 1957 that doubts about the orthodox view of prices led to the appointment of the *Council on Prices, Productivity and Incomes* (the Cohen Council). Its first two reports, however, supported orthodoxy. The third, in 1959, when Professor Phelps Brown had succeeded Sir Dennis Robertson as the Council's economist, seeks to analyse the determination of prices in terms of costs and profit margins.

In the same year the Report of the Radcliffe Committee on the *Workings of the Monetary System* undermined belief in orthodoxy by showing how weak was the control of the authorities over the monetary system, and how uncertain the effects of monetary policy in the economy. In 1961 a National Economic Development Council, and a National Incomes Council (Neddy and Nicky), were set up. These were the first tentative and rudimentary attempts to produce new organs for economic planning in this country. They provide a symbol of official recognition of the end of laisser faire.

Neddy still survives, but is now overshadowed by the Department of Economic Affairs. Nicky was wound up by the Labour Government in 1964 and superseded by the Prices and Incomes Board.

[d]See J. C. R. Dow, *The Management of the British Economy 1945–60*, p. 403.

[e] See *U. N. World Economic Survey* 1964, Part II, p. 42. This section of the *Survey* gives an account of the general state of opinion on the question of incomes policy in the industrial nations.

[f] Cf. Barbara Wootton, *Social Foundations of Wage Policy*, especially chapter II, 'Some Economic Curiosities of the British Wage Structure.'

II THE BALANCE OF TRADE

[g] A summary and analysis of the various factors retarding British exports is given by M. Panic and T. Seward, The Problem of UK Exports, Oxford Institute of Statistics,

Bulletin, Vol. 28, No. 1, 1966. The behaviour of imports is described and the need for import-saving investment argued in 'Re-thinking Foreign Trade Policy,' by Austin Robinson (*Three Banks Review*, Dec. 1963.)

[6] In 1964 expenditure on armaments was £2,000 million, about 7 per cent of gross national product. In the same year gross private investment in plant, machinery and vehicles was £1,800 million. The whole of gross investment in fixed capital (including the purchase price of sites) was £5,800 million.

Expenditure on the health service was £1,100 million and on education £1,400 million.

(*National Income and Expenditure*, 1965)

[7] The categories, income account, long-term capital account and counterbalancing monetary movements, are not clear cut; each shades into the other at the edges. Different countries publish their accounts in different forms. For instance, the US Department of Commerce includes in monetary movements some items that in the UK accounts appear as capital. The treatment of re-investment on the spot of profits accruing abroad is partly included in the US outflow of capital, but not for the UK.

However, for purposes of the present discussion, we need only consider the broad headings. The income account is made up of receipts and payments for imports and exports (visible trade), receipts and payments for services for shipping, insurance, etc., and receipts and payments for interest and profits from overseas assets (the invisible items).

In the accounts, governments military expenditure overseas appears as an invisible import. In setting out the accounts here and in note 11 below this is shown as a separate item.

Long term capital account consists of purchases of foreign securities, private and government loans and direct investment in enterprises overseas.

The position of the UK balance of payments for 1964 as follows:

	£ million
Deficit on income account	−138
Overseas military expenditure	−274
Net capital outflow	−344
Errors and omissions	+ 35
Balance of monetary movements	721

(Errors and omissions is the balancing item which reconciles the records of the income account with records of monetary movements.) (*National Income and Expenditure*, 1965)

The increase in exports necessary to achieve balance if there were no cuts in outflows would be a little less than 3 per cent of gross nation product. Something more would be required to repay the credits used up during successive crises.

[8] See Phyllis Deane and W. A. Cole, *British Economic Growth, 1688–1959*, pp. 33–8 for a summary of history of the balance of payments. The surplus on income account was at its height in the decade before 1914. The balance dwindled after the war and turned negative in the thirties.

[h] The *locus classicus* for the economists' myth is the Cunliffe Report of 1918. See 'A Note on Bank Rate,' Joan Robinson, *Collected Economic Papers*, Vol. II.

[9] The GATT agreement made an exception for preferential arrangements that were intended to lead to a customs union or free trade area.

[10] There were special circumstances in 1931 which made depreciation of sterling unquestionably advantageous to the British economy. The currencies of our principal rivals remained pegged to gold until the dollar was devalued in 1933 and the franc in 1936, so that we had an advantage in exports, while our principal suppliers of raw materials kept their currencies aligned with ours (this was the original meaning of the 'sterling area') so that we did not suffer a rise in home prices. There was unemployment and under-capacity working in all lines, so that exports could respond

to an increase in demand. Liberating the balance of payments from pressure made possible a dramatic fall in interest rates and a relaxation of credit that helped to encourage a housing boom. Unemployment continued to grow in 1932 as the world slid deeper into the slump, but the contrast between the recovery that began slowly thereafter with the continued agony of the gold bloc is clear evidence of the beneficial effects of abandoning the exchange rate which the Labour government had destroyed itself to save.

The consequences of the devaluation in 1949 are not so easy to diagnose. At that time the trading world was dominated by dollar scarcity—that is, an overall surplus on the US balance of payments. The UK, as in 1964, was suffering from a growing deficit in the balance of trade. It has been suggested that the US authorities were in favour of devaluation of sterling (see J. C. R. Dow, *Management of the British Economy, 1945–60*, p. 41). The British authorities were hesitant. Their hands were forced by a flight due to the belief that devaluation was in prospect.

It was followed by a marked rise in exports, which, however, lasted for only two years, because the Korean war and U.S. rearmament produced a world boom followed by a recession. The argument that external circumstances would in any case have produced much the same result, and that the long-run benefit of the devaluation was wiped out by money-wage rates rising faster than they would have done if it had not occurred, can be set against the view that exports would have benefited much less by the boom and suffered far more in the long run without its help. At the best, it was by no means such an obvious success as the rupture of the gold standard in 1931.

[11] The EEC (Belgium, France, Germany, Italy, Luxembourg, and the Netherlands, with associates) was initiated in 1957. Beginning on the basis of preparing to set up a customs union—a common tariff against imports from outside—it developed some features of a general economic union administered by a supernational civil service. The

EFTA (Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the UK, with Finland as an associate) was initiated in 1959 with a view to forming a free-trade area—each country to have its own tariff against the outside world but none against each other's industrial goods. The scheme is to come into full force at the end of 1966.

[12] Andrew Shonfield, in *Modern Capitalism*, describes the manner in which the various countries have adapted themselves, each in its own style, to the requirements of national economic planning. French administration and German control through the banks (behind a smoke-screen of laisser faire slogans) permit a high degree of discrimination, between individual firms and between of industries, while we are frustrated by the British tradition that the duty of the civil service is to keep the ring for contending private interests and to see fair play without fear or favour, so that only global controls can be used. 'The economy tended to be treated as an undifferentiated mass with a more or less uniform capacity for response, not as an articulated nervous system which would react very differently to particular stimuli occurring in different places.' (*op. cit.*, p. 101).

[13] In 1963 in Italy personal consumption rose by 10 per cent compared to the preceding year, imports by 21 per cent and exports by only 7 per cent. A severely deflationary policy was adopted with the result that investment was reduced by 7 per cent in 1964. Exports recovered and imports fell. The overall growth rate has been cut from 6 per cent per annum to 3 per cent. The process of absorbing workers from the underdeveloped South into industry, which had been going merrily on, has suffered a setback. This is the orthodox way of dealing with an adverse balance of trade. (*U.N. World Economic Survey, 1964*)

[14] Over the post-war period the United States built up a massive surplus on her balance of trade. She has an unbeatable competitive position in manufacturers because of technical superiority combined with massive unemployment which keeps money-wage rates in check (though the

present war boom is making the authorities begin to think about wages policy). She is the leading supplier of several primary commodities and she has a growing income from overseas investments.

Over the years 1953–5 the surplus on income account was more than offset by military expenditure overseas and public and private capital outflow. The overall deficit was falling during those years and in 1956 and '57 there was a substantial overall surplus. A hard dollar began to be regarded as part of the order of nature. In 1958, in spite of a continuing rise in the surplus on income account, outflows caught up; ever since there has been an overall deficit, making the dollar soft, to the embarrassment of all concerned. (See D. MacDougal, *The Dollar Problem, a reappraisal* 1960. Essays in International Finance, No. 35, Princeton University).

The balance of payments for 1964 was as follows:

	$ millions
Balance on goods and services	+9780
Government military net expenditure overseas	−2060
Grants, etc.	−3120
Private net capital outflow	−6235
Errors and omissions	−1165
Balance of monetary movements	2800

(Bank of Internation Settlements, *Annual Report 1966.*)

[15] In March 1961 the mark was appreciated by about 5 per cent. A surplus on income account for some years had led to piling up of reserves, since the West German financial institutions were not habituated to foreign lending. Usually the monetary authorities of a country do not really dislike amassing reserves, even though it is no good to them and a great nuisance to the rest of the world. Presumably the decision to appreciate was taken under pressure from outside. A truly voluntary appreciation was

made by the Netherlands, whose exchange rate moved with the mark. She already had as large a surplus of exports as she had any use for; a sudden boost to exports in her main market and rise in prices for a large part of her imports would have created undesirable inflation. This is a rare case.

III INTERNATIONAL FINANCE

[16] Between 1953 and 1963 the total value of imports was rising at the rate of 7·1 per cent per annum while the stocks of monetary gold rose at 1 per cent per annum. (See R. F. Harrod, *Reforming the World's Money*, p. 71).

[17] Over the same period total reserves were rising at the rate of 2·7 per cent per annum, mainly in the form of dollar balances. Before 1940, total reserves were about equal to one year's total imports. (*Loc. cit.*). In 1964 total reserves of the non-socialist world were $68,970 million, of which $40·860 were in the form of gold. (*UN World Economic Survey 1965*, Part II, p. 49).

[i] See J. M. Keynes, *The Economic Consequences of Mr Churchill* (1925), reprinted in *Essays in Persuasion.*

[j] See above, note 10.

[k] See R. F. Harrod, *op. cit.*, chapter 3.

[l] Keynes' scheme is set out in *Proposals for an International Clearing Union* (1943), Cmd 6437.

[m] The case is argued and connected with the problem of development in *International Monetary Issues and the Developing Countries* (1965), the report of a committee appointed by the United Nations Conference on Trade and Development.

[18] The sterling area, in the modern sense, consists of countries whose monetary reserves are held in London. It corresponds broadly to the Commonwealth and ex-Commonwealth, plus Kuwait and the Republic of Ireland, minus Canada. The greater part of British overseas investment, apart from that of the oil companies, is in areas of the Commonwealth and ex-Commonwealth that are already well developed and offer a profitable market.

[19] It is sometimes argued that foreign lending is undesirable because the investment had better be made at home. This is a fallacy. Home investment is not held back by lack of finance (and if it were, financial remedies could be found). It is held up by lack of labour and other resources, or, to put the same point in another way, it is held up by the need to avoid additional inflationary pressure in a near-full employment economy. To make room for home investment, we should be trying to restrain inessential consumption, not putting obstacles in the way of exports.

[20] 'America as the "land of opportunity" is beginning to lose that title in the eyes of many US businessmen. These businessmen increasingly are deciding that markets abroad —not those in this country—offer the biggest potential for future growth. The feeling grows that the US market, while huge, is relatively "saturated".

'It is overseas that businessmen see the big, untapped market with hundreds of millions of customers waiting—and increasingly able to buy—all kinds of products and services.

'To go after this market, US firms are building and expanding factories all around the world. Since 1958, more than 2,100 American companies have started new operations in Western Europe alone'.

U.S. News and World Report, June 1 1964. Quoted by Baran and Sweezy, *Monopoly Capital*, p. 198.

IV EMPLOYMENT AND GROWTH

[21] Between 1921 and 1938 overall statistical unemployment never fell as low as 9 per cent of the labour force, and, in the worst year of the slump, reached 22 per cent. In some industries the average of unemployment over these years was more than 40 per cent. Beveridge, *Full Employment in a Free Society* gives the history of this experience (pp. 47–69).

Advocating a new policy, he thought it quite optimistic

to argue that unemployment need not be more on an average, good years with bad, of 3 per cent. In fact (apart from the fuel crisis of 1947) the figure for unemployment has not touched 3 per cent since the war, and out of the last fifteen years (up to the crisis of 1966) has been above 2 per cent only in seven. (*Ministry of Labour Gazette*).

[22] While the statistical measure of unemployment for UK as a whole was mainly below 2 per cent, in Scotland it rarely fell below 3 per cent. In Northern Ireland it was sometimes above 10 per cent and has fallen below 7 per cent only since 1964. (*Ministry of Labour Gazette*).

[23] Beveridge's *Full Employment in a Free Society* provides an example of the thinking of that period, rather advanced in its day. He lays down three rules for national finance:

> 'The first rule is that total outlay at all times must be sufficient for full employment. This is a categorical imperative taking precedence over all other rules, and over-riding them if they are in conflict with it. The second rule is that, subject to this over-riding categorical imperative, outlay should be directed by regard to social priorities. The third rule is that subject both to the first and second rule, it is better to provide the means for outlay by taxing than by borrowing.' (p. 147).

The meaning of the third rule is that government investment need not create rentier wealth. In so far as it is financed from taxation the corresponding saving is carried out by the economy as a whole and the wealth created belongs to the nation. To produce a given effect on demand, greater outlay is required if it is covered by taxation, which falls partly on income that would have been saved. The rule entails that, when enough revenue cannot be raised for the expenditure required to maintain full employment, even current outlay should be made from a deficit rather than not made at all.

The second rule applies to the outlay made as a contribution to the employment policy. It is better to do something useful than to dig holes and fill them again, but to dig holes

is better than to do nothing. (The thought that the holes might take a form that was worse than nothing was still blessedly remote). Profit seeking enterprise is to have the first claim on the labour force, government outlay on something or other is to provide employment for the workers that it does not require.

[24] The proposal to cut home demand in order to promote exports is often met (generally by the businessmen concerned) with the argument that a reduction in output for the home market will raise unit costs and so curtail, instead of helping, export sales, and by the argument that exports are the 'overspill from a healthy home market'.

Looked at from a long-period point of view there is some sense in this (though there are many examples of industries specialized to export) but from a short-period point of view it is obvious nonsense. When there is limited capacity in a particular industry, fully occupied, so that delivery dates are long, a cut in one lot of orders makes it easier to fulfil others.

[25] Various estimates have been made of the rate of growth before 1914 and after 1945. These show the latter as appreciably higher than the former. Angus Maddison, *Economic Growth of the West* (1964), gives the rate of growth of output per head of population from 1870–1913 as 1·3 per cent per annum, and from 1950–1960 as 2·2 per cent.

During the latter period no western country except USA and Canada had a lower growth rate than UK. For France the rate was 3·5 per cent per annum, for the Netherlands 3·6 and for Germany 6·5 (*op. cit.* p. 30).

[26] In the old orthodox academic system of ideas exploded by Keynes, the share of wages in the product of industry was determined by the *marginal productivity* of labour. This doctrine is still taught, although it is evidently irrelevant to modern conditions, and indeed never succeeded in getting itself satisfactorily stated, even on its own unrealistic assumptions.

On a long view it is clear that trade union organization,

supported by social legislation, has been an important influence in increasing the share of wages. More immediately, it is influenced by the relation of investment to the propensity to save and by the degree of competition acting upon profit margins. A higher overall level of investment (including outlay on armaments), unless offset by a spontaneous increase in saving, keeps up demand for consumption goods relatively to the supply and so maintains a higher level of prices at given money-wage rates. Weaker competition tends to show itself in higher profit margins and a lower level of utilization of capacity.

Taxation of profits does not raise the relative share of wages, since the corresponding expenditure comes back to profits. An increase in the degree of competition or restraint on prices when money wages are rising increases real wages, but if this goes beyond a certain point it merely creates such a strong seller's market that margins are pushed up again.

There is a catch in the system that prevents any frontal assault on the share of profits from getting very far.

V MONOPOLY AND COMPETITION

[27] The common-law principle that agreements in restraint of trade are not enforceable was much eroded by judgments during the depression. After the war anti-monopoly legislation began to be introduced. The Monopolies Commission, set up in 1948, had little effect except in research. The Restrictive Practises Court set up in 1956 deals with agreements and a reconstituted Monopolies Commission examines cases of individual firms which dominate an industry. Resale Price Maintenance was outlawed (with a few exceptions, including the Net Book Agreement) in 1964 under the Conservative government.

[28] A typical example is provided by the case of detergents, which was the subject of a report by the Monopolies Commission in 1966. The Commission showed that for a turnover of £62 million selling costs by the two producers

concerned was £17 million. They recommended a cut in wholesale prices of 20 per cent to be provided for by a cut of 40 per cent in advertising expenditure.

At a press conference which followed the publication of the Report several interesting comments were made. The Aims of Industry said: 'The advertising expenditure of the two main household detergent producers shows how fiercely competitive the industry is.' The chairman of one of the companies said: 'We think the commission have seriously underestimated the role of advertising in the manufacturing and marketing of consumer goods and the great contribution it makes to securing economies throughout the business . . . Exercising her choice in competitive conditions in a free market, the British housewife has struck a good balance between the high cost of unlimited choice and the low cost of no choice at all.' (*The Times*, August 11, 1966).

The argument here is that high advertising costs makes entry into the market impracticable and so secures the economies of scale for the large and powerful firm. It did not occur to the spokesman that to take advantage of low costs by low prices might be an equally effective form of competition.

[n] J. Stiendl, *Maturity and Stagnation in American Capitalism* (1952), analyses the effects of the oligopoly system in terms of US data. A more sympathetic account of it is given by J. K. Galbraith, *American Capitalism* (1957).

[29] Marginal productivity theory suggests that real wages should be kept down to encourage the use of labour-saving methods of production. This would make matters worse by checking the growth of effective demand. Provided that effective demand is kept up, workers dispelled from industry can be absorbed into service trades. This is already happening at a rapid rate. See note 32.

[o] See the Labour Party's Manifestos: *Signposts for the Sixties* (1961), *New Britain* (1964), and *Time for Decision* (1966).

VI WORK AND PROPERTY

[30] The figures for 1964 for the company sector are as follows:

	£ million	
Gross fixed capital formation	2,106	
Increase in value of stocks and work in progress	683	
Gross investment		2,789
Gross saving		2,759
Net contribution of external finance		30

(*National Income and Expenditure*, 1965)

[p] See *General Theory*, p. 156.

[q] Cf. Robin Marris, *Economic Theory of Managerial Capitalism*.

[31] As with the balance of payments, the distinction between the income and capital account in the budget is partly a matter of convention. The underlying conception is that items below the line are those which it is considered legitimate to finance by borrowing, according to ordinary business principles. A surplus above the line represents collective saving. It permits government investment to be financed *pro tanto* without adding to the national debt or permits part of the debt to be retired. According to Beveridge's rules (see note 23 above) the distinction between above and below the line expenditure is not important. What matters is that the total outlay should be sufficient to maintain effective demand.

[32] In 1911–13, 1 per cent of the population owned 69 per cent of property, and 5 per cent, 87 per cent of property. In 1960 the corresponding proportions were reduced only to 42 per cent and 75 per cent. In the latter period, 99 per cent of income from property went to 10 per cent of the population. See J. E. Meade, *Efficiency, Equality and the Ownership of Property*, p. 27. Professor Meade

attempts to reconcile a programme for reducing inequality with a belief in marginal productivity theory.

[33] The *euthanasia of the rentier* was conceived by Keynes (*General Theory*, p. 376) in his vision of a world in which investment had saturated all possible uses for productive capital and the rate of profit had fallen very low. This prospect now seems more remote than it did to him. Rentier consumption, however, could be eliminated while savings out of profits are still needed to finance investment. Dissipation of property by endowment of charities would give the wealth owners a last fling, enabling them to choose their heirs instead of leaving all to the discretion of future governments. In so far as they set about dissaving by dissipating wealth in consumption, there would have to be a corresponding increase of taxation, leading to public saving through a budget surplus, which would be an alternative way of acquiring wealth for the nation.

POSTSCRIPT

The Crisis of 1966

A reserve currency holding volatile foreign deposits, a weak balance of payments, the competition for popularity and mutual recriminations habitual in a two-party democracy, and the existence of a school of thought favouring devaluation, set the stage for periodical financial crises.

In 1964 the Conservative government refrained from imposing deflation in the face of an alarming rise in the deficit in the balance of payments. In spite of apparent prosperity, low unemployment and an exceptionally fine summer, they lost the election in the autumn, though narrowly. The new government advertised the deficit as a reproach to their opponents. This, combined with the fact that the electoral victory had gone to a party called Labour, provoked a flight from sterling. The crisis was patched up by means of international support. Gradually the balances returned and the situation was restored to its original precarious position.

During 1965, the deficit on the balance of payments was reduced until it was a little less than the overseas military expenditure. The government put about a forecast that balance would be achieved by the end of 1966. Their chief reliance (apart from restrictions on overseas investment) appeared to be on a credit squeeze, and on incomes policy.

In the course of 1966 a general rise in interest rates, due to the weak dollar and to anti-inflationary policies in Europe, nullified the effect of the rise in rates in London; it became clear that the deficit in the British balance of payments was not being eliminated, and incomes policy ran into trouble with the seamen's strike. The flight from sterling was renewed. A further turn of the screw in the credit squeeze failed to halt it.

On July 14th the Prime Minister announced that on July 20th he would introduce measures to deal with the crisis. These consisted of an appeal for a general wage freeze (to be made compulsory later if voluntary agreement failed); cuts in proposed public investment; increased taxes on consumer goods and restrictions on hire purchase; and a cut in the tourist allowance of foreign currency. A cut of £100 million in overseas military expenditure and foreign aid was included in the packet. It turned out, however, that the cuts in military expenditure had already been promised in the budget. Only the cut in aid was new.

The Prime Minister declared his intention to preserve the position of Britain as a world power and of sterling as a world currency.

The July measures of 1966, in so far as they were not a mere expression of panic, may be supposed to be designed to operate at three levels—to restore confidence in the sterling exchange rate, to produce an immediate improvement in the balance of trade, and to contribute to a long-term solution of the underlying problem.

So far as the first objective was concerned, the dramatic style in which the whole affair was conducted was more calculated to arouse than to allay the fears of overseas holders of sterling.

So far as the real effect on the balance of payments was concerned, there were two opposite tendencies.

On the one side it seemed that the Labour government was prepared to cause more unemployment than any Conservative government would dare to do. By sufficiently reducing activity at home it is possible to produce a shock effect on imports, stocks being allowed to run down, which can bring about a surplus on income account for the time being. Keeping activity at a reduced level thereafter checks the rise in imports, while there may be some improvement in the situation of exports as a result of slack in the home market.

On the other hand the numerous severe grievances and evident injustices caused by a sudden wage freeze, the opposition aroused in the trade union movement and the piling up of claims for the end of the six months period seemed likely to have a negative effect on wage restraint, which might not be offset by the rise in unemployment.

The contribution to the long-term problem of the July measures was wholely negative. Cuts in investment, the rupture of productivity agreements required by the wage freeze and the renewal of the restrictiveness of trade-union mentality engendered by reviving fears of unemployment threaten a reduction in even the slow rate of growth which was the basic cause of the poor performance of the British economy in recent years.

The one hopeful feature of the situation is the growing support (not only on the left) for the point of view expressed in the *Conclusion* above. Perhaps in the end the facts of life, like a sheepdog with an awkward flock, will finally nudge democracy towards common sense.