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THE GENERAL THEORY OF EMPLOYMENT INTEREST AND MONEY

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current phenomenon; and if we reduce the marginal efficiency of capital to the same status, we cut ourselves off from taking any direct account of the influence of the future in our analysis of the existing equilibrium.

The fact that the assumptions of the static state often underlie present-day economic theory, imports into it a large element of unreality. But the introduction of the concepts of user cost and of the marginal efficiency of capital, as defined above, will have the effect, I think, of bringing it back to reality, whilst reducing to a minimum the necessary degree of adaptation.

It is by reason of the existence of durable equipment that the economic future is linked to the present. It is, therefore, consonant with, and agreeable to, our broad principles of thought, that the expectation of the future should affect the present through the demand price for durable equipment.

Chapter 12

THE STATE OF LONG-TERM EXPECTATION

I

We have seen in the previous chapter that the scale of investment depends on the relation between the rate of interest and the schedule of the marginal efficiency of capital corresponding to different scales of current investment, whilst the marginal efficiency of capital depends on the relation between the supply price of a capital-asset and its prospective yield. In this chapter we shall consider in more detail some of the factors which determine the prospective yield of an asset.

The considerations upon which expectations of prospective yields are based are partly existing facts which we can assume to be known more or less for certain, and partly future events which can only be forecasted with more or less confidence. Amongst the first may be mentioned the existing stock of various types of capital-assets and of capital-assets in general and the strength of the existing consumers' demand for goods which require for their efficient production a relatively larger assistance from capital. Amongst the latter are future changes in the type and quantity of the stock of capital-assets and in the tastes of the consumer, the strength of effective demand from time to time during the life of the investment under consideration, and the changes in the wage-unit in terms of money which may occur during its life. We may sum up the state of psychological expectation which covers the latter as being the *state of long-term expectation*;—as distinguished from the short-term expectation upon the basis of which a producer estimates what he will get for a product when it is finished if he decides to begin producing it to-day with the existing plant, which we examined in chapter 5.

II

It would be foolish, in forming our expectations, to attach great weight to matters which are very uncertain.[1] It is reasonable, therefore, to be guided to a considerable degree by the facts about which we feel somewhat confident, even though they may be less decisively relevant to the issue than other facts about which our knowledge is vague and scanty. For this reason the facts of the existing situation enter, in a sense disproportionately, into the formation of our long-term expectations; our usual practice being to take the existing situation and to project it into the future, modified only to the extent that we have more or less definite reasons for expecting a change.

The state of long-term expectation, upon which our decisions are based, does not solely depend, therefore, on the most probable forecast we can make. It also depends on the *confidence* with which we make this forecast—on how highly we rate the likelihood of our best forecast turning out quite wrong. If we expect large changes but are very uncertain as to what precise form these changes will take, then our confidence will be weak.

The *state of confidence*, as they term it, is a matter to which practical men always pay the closest and most anxious attention. But economists have not analysed it carefully and have been content, as a rule, to discuss

[1] By 'very uncertain' I do not mean the same thing as 'very improbable'. Cf. my *Treatise on Probability* [*JMK*, vol. VIII], chap. 6, on 'The Weight of Arguments'.

it in general terms. In particular it has not been made clear that its relevance to economic problems comes in through its important influence on the schedule of the marginal efficiency of capital. There are not two separate factors affecting the rate of investment, namely, the schedule of the marginal efficiency of capital and the state of confidence. The state of confidence is relevant because it is one of the major factors determining the former, which is the same thing as the investment demand-schedule.

There is, however, not much to be said about the state of confidence *a priori*. Our conclusions must mainly depend upon the actual observation of markets and business psychology. This is the reason why the ensuing digression is on a different level of abstraction from most of this book.

For convenience of exposition we shall assume in the following discussion of the state of confidence that there are no changes in the rate of interest; and we shall write, throughout the following sections, as if changes in the values of investments were solely due to changes in the expectation of their prospective yields and not at all to changes in the rate of interest at which these prospective yields are capitalised. The effect of changes in the rate of interest is, however, easily superimposed on the effect of changes in the state of confidence.

III

The outstanding fact is the extreme precariousness of the basis of knowledge on which our estimates of prospective yield have to be made. Our knowledge of the factors which will govern the yield of an investment some years hence is usually very slight and often negligible. If we speak frankly, we have to admit that our basis of knowledge for estimating the yield ten years hence of a railway, a copper mine, a textile factory, the goodwill of a patent medicine, an Atlantic liner, a building in the City of London amounts to little and sometimes to nothing; or even five years hence. In fact, those who seriously attempt to make any such estimate are often so much in the minority that their behaviour does not govern the market.

In former times, when enterprises were mainly owned by those who undertook them or by their friends and associates, investment depended on a sufficient supply of individuals of sanguine temperament and constructive impulses who embarked on business as a way of life, not really relying on a precise calculation of prospective profit. The affair was partly a lottery, though with the ultimate result largely governed by whether the abilities and character of the managers were above or below the average. Some would fail and some would succeed. But even after the event no one would know whether the average results in terms of the sums invested had exceeded, equalled or fallen short of the prevailing rate of interest; though, if we exclude the exploitation of natural resources and monopolies, it is probable that the actual average results of investments, even during periods of progress and prosperity, have disappointed the hopes which prompted them. Business men play a mixed game of skill and chance, the average results of which to the players are not known by those who take a hand. If human nature felt no temptation to take a chance, no satisfaction (profit apart) in constructing a factory, a railway, a mine or a farm, there might not be much investment merely as a result of cold calculation.

Decisions to invest in private business of the old-fashioned type were, however, decisions largely irrevocable, not only for the community as a whole, but also for the individual. With the separation between ownership and management which prevails to-day and with the development of organised investment markets, a new factor of great importance has entered in, which sometimes facilitates investment but sometimes adds

greatly to the instability of the system. In the absence of security markets, there is no object in frequently attempting to revalue an investment to which we are committed. But the Stock Exchange revalues many investments every day and the revaluations give a frequent opportunity to the individual (though not to the community as a whole) to revise his commitments. It is as though a farmer, having tapped his barometer after breakfast, could decide to remove his capital from the farming business between 10 and 11 in the morning and reconsider whether he should return to it later in the week. But the daily revaluations of the Stock Exchange, though they are primarily made to facilitate transfers of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment. For there is no sense in building up a new enterprise at a cost greater than that at which a similar existing enterprise can be purchased; whilst there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit.[1] Thus certain classes of investment are governed by the average expectation of those who deal on the Stock Exchange as revealed in the price of shares, rather than by the genuine expectations of the professional entrepreneur.[2] How then are these highly significant daily, even hourly, revaluations of existing investments carried out in practice?

[1] In my *Treatise on Money* (vol. ii. p. 195) [*JMK*, vol. VI, p. 174] I pointed out that when a company's shares are quoted very high so that it can raise more capital by issuing more shares on favourable terms, this has the same effect as if it could borrow at a low rate of interest. I should now describe this by saying that a high quotation for existing equities involves an increase in the marginal efficiency of the corresponding type of capital and therefore has the same effect (since investment depends on a comparison between the marginal efficiency of capital and the rate of interest) as a fall in the rate of interest.

[2] This does not apply, of course, to classes of enterprise which are not readily marketable or to which no negotiable instrument closely corresponds. The categories falling within this exception were formerly extensive. But measured as a proportion of the total value of new investment they are rapidly declining in importance.

IV

In practice we have tacitly agreed, as a rule, to fall back on what is, in truth, a *convention*. The essence of this convention—though it does not, of course, work out quite so simply—lies in assuming that the existing state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change. This does not mean that we really believe that the existing state of affairs will continue indefinitely. We know from extensive experience that this is most unlikely. The actual results of an investment over a long term of years very seldom agree with the initial expectation. Nor can we rationalise our behaviour by arguing that to a man in a state of ignorance errors in either direction are equally probable, so that there remains a mean actuarial expectation based on equi-probabilities. For it can easily be shown that the assumption of arithmetically equal probabilities based on a state of ignorance leads to absurdities. We are assuming, in effect, that the existing market valuation, however arrived at, is uniquely *correct* in relation to our existing knowledge of the facts which will influence the yield of the investment, and that it will only change in proportion to changes in this knowledge; though, philosophically speaking, it cannot be uniquely correct, since our existing knowledge does not provide a sufficient basis for a calculated mathematical expectation. In point of fact, all sorts of considerations enter into the market valuation which are in no way relevant to the prospective yield.

Nevertheless the above conventional method of calculation will be compatible with a considerable measure of continuity and stability in our affairs, *so long as we can rely on the maintenance of the convention.*

For if there exist organised investment markets and if we can rely on the maintenance of the convention, an investor can legitimately encourage himself with the

idea that the only risk he runs is that of a genuine change in the news *over the near future*, as to the likelihood of which he can attempt to form his own judgment, and which is unlikely to be very large. For, assuming that the convention holds good, it is only these changes which can affect the value of his investment, and he need not lose his sleep merely because he has not any notion what his investment will be worth ten years hence. Thus investment becomes reasonably 'safe' for the individual investor over short periods, and hence over a succession of short periods however many, if he can fairly rely on there being no breakdown in the convention and on his therefore having an opportunity to revise his judgment and change his investment, before there has been time for much to happen. Investments which are 'fixed' for the community are thus made 'liquid' for the individual.

It has been, I am sure, on the basis of some such procedure as this that our leading investment markets have been developed. But it is not surprising that a convention, in an absolute view of things so arbitrary, should have its weak points. It is its precariousness which creates no small part of our contemporary problem of securing sufficient investment.

V

Some of the factors which accentuate this precariousness may be briefly mentioned.

(1) As a result of the gradual increase in the proportion of the equity in the community's aggregate capital investment which is owned by persons who do not manage and have no special knowledge of the circumstances, either actual or prospective, of the business in question, the element of real knowledge in the valuation of investments by whose who own them or contemplate purchasing them has seriously declined.

(2) Day-to-day fluctuations in the profits of existing

investments, which are obviously of an ephemeral and non-significant character, tend to have an altogether excessive, and even an absurd, influence on the market. It is said, for example, that the shares of American companies which manufacture ice tend to sell at a higher price in summer when their profits are seasonally high than in winter when no one wants ice. The recurrence of a bank-holiday may raise the market valuation of the British railway system by several million pounds.

(3) A conventional valuation which is established as the outcome of the mass psychology of a large number of ignorant individuals is liable to change violently as the result of a sudden fluctuation of opinion due to factors which do not really make much difference to the prospective yield; since there will be no strong roots of conviction to hold it steady. In abnormal times in particular, when the hypothesis of an indefinite continuance of the existing state of affairs is less plausible than usual even though there are no express grounds to anticipate a definite change, the market will be subject to waves of optimistic and pessimistic sentiment, which are unreasoning and yet in a sense legitimate where no solid basis exists for a reasonable calculation.

(4) But there is one feature in particular which deserves our attention. It might have been supposed that competition between expert professionals, possessing judgment and knowledge beyond that of the average private investor, would correct the vagaries of the ignorant individual left to himself. It happens, however, that the energies and skill of the professional investor and speculator are mainly occupied otherwise. For most of these persons are, in fact, largely concerned, not with making superior long-term forecasts of the probable yield of an investment over its whole life, but with foreseeing changes in the conventional basis of valuation a short time ahead of the general public. They are concerned, not with what an investment is

really worth to a man who buys it 'for keeps', but with what the market will value it at, under the influence of mass psychology, three months or a year hence. Moreover, this behaviour is not the outcome of a wrong-headed propensity. It is an inevitable result of an investment market organised along the lines described. For it is not sensible to pay 25 for an investment of which you believe the prospective yield to justify a value of 30, if you also believe that the market will value it at 20 three months hence.

Thus the professional investor is forced to concern himself with the anticipation of impending changes, in the news or in the atmosphere, of the kind by which experience shows that the mass psychology of the market is most influenced. This is the inevitable result of investment markets organised with a view to so-called 'liquidity'. Of the maxims of orthodox finance none, surely, is more anti-social than the fetish of liquidity, the doctrine that it is a positive virtue on the part of investment institutions to concentrate their resources upon the holding of 'liquid' securities. It forgets that there is no such thing as liquidity of investment for the community as a whole. The social object of skilled investment should be to defeat the dark forces of time and ignorance which envelop our future. The actual, private object of the most skilled investment to-day is 'to beat the gun', as the Americans so well express it, to outwit the crowd, and to pass the bad, or depreciating, half-crown to the other fellow.

This battle of wits to anticipate the basis of conventional valuation a few months hence, rather than the prospective yield of an investment over a long term of years, does not even require gulls amongst the public to feed the maws of the professional;—it can be played by professionals amongst themselves. Nor is it necessary that anyone should keep his simple faith in the conventional basis of valuation having any genuine long-term validity. For it is, so to speak, a game of Snap, of Old Maid, of Musical Chairs—a pastime in which he is victor who says *Snap* neither too soon nor too late, who passed the Old Maid to his neighbour before the game is over, who secures a chair for himself when the music stops. These games can be played with zest and enjoyment, though all the players know that it is the Old Maid which is circulating, or that when the music stops some of the players will find themselves unseated.

Or, to change the metaphor slightly, professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the best of one's judgment, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practise the fourth, fifth and higher degrees.

If the reader interjects that there must surely be large profits to be gained from the other players in the long run by a skilled individual who, unperturbed by the prevailing pastime, continues to purchase investments on the best genuine long-term expectations he can frame, he must be answered, first of all, that there are, indeed, such serious-minded individuals and that it makes a vast difference to an investment market whether or not they predominate in their influence over the game-players. But we must also add that there are

several factors which jeopardise the predominance of such individuals in modern investment markets. Investment based on genuine long-term expectation is so difficult to-day as to be scarcely practicable. He who attempts it must surely lead much more laborious days and run greater risks than he who tries to guess better than the crowd how the crowd will behave; and, given equal intelligence, he may make more disastrous mistakes. There is no clear evidence from experience that the investment policy which is socially advantageous coincides with that which is most profitable. It needs *more* intelligence to defeat the forces of time and our ignorance of the future than to beat the gun. Moreover, life is not long enough;—human nature desires quick results, there is a peculiar zest in making money quickly, and remoter gains are discounted by the average man at a very high rate. The game of professional investment is intolerably boring and over-exacting to anyone who is entirely exempt from the gambling instinct; whilst he who has it must pay to this propensity the appropriate toll. Furthermore, an investor who proposes to ignore near-term market fluctuations needs greater resources for safety and must not operate on so large a scale, if at all, with borrowed money—a further reason for the higher return from the pastime to a given stock of intelligence and resources. Finally it is the long-term investor, he who most promotes the public interest, who will in practice come in for most criticism, wherever investment funds are managed by committees or boards or banks.[1] For it is in the essence of his behaviour that he should be eccentric, unconventional and rash in the eyes of average opinion. If he is successful, that will only confirm the general belief in his rashness; and if

[1] The practice, usually considered prudent, by which an investment trust or an insurance office frequently calculates not only the income from its investment portfolio but also its capital valuation in the market, may also tend to direct too much attention to short-term fluctuations in the latter.

in the short run he is unsuccessful, which is very likely, he will not receive much mercy. Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally.

(5) So far we have had chiefly in mind the state of confidence of the speculator or speculative investor himself and may have seemed to be tacitly assuming that, if he himself is satisfied with the prospects, he has unlimited command over money at the market rate of interest. This is, of course, not the case. Thus we must also take account of the other facet of the state of confidence, namely, the confidence of the lending institutions towards those who seek to borrow from them, sometimes described as the state of credit. A collapse in the price of equities, which has had disastrous reactions on the marginal efficiency of capital, may have been due to the weakening either of speculative confidence or of the state of credit. But whereas the weakening of either is enough to cause a collapse, recovery requires the revival of *both*. For whilst the weakening of credit is sufficient to bring about a collapse, its strengthening, though a necessary condition of recovery, is not a sufficient condition.

VI

These considerations should not lie beyond the purview of the economist. But they must be relegated to their right perspective. If I may be allowed to appropriate the term *speculation* for the activity of forecasting the psychology of the market, and the term *enterprise* for the activity of forecasting the prospective yield of assets over their whole life, it is by no means always the case that speculation predominates over enterprise. As the organisation of investment markets improves, the risk of the predominance of speculation does, however, increase. In one of the greatest investment markets in the world, namely, New York, the

influence of speculation (in the above sense) is enormous. Even outside the field of finance, Americans are apt to be unduly interested in discovering what average opinion believes average opinion to be; and this national weakness finds its nemesis in the stock market. It is rare, one is told, for an American to invest, as many Englishmen still do, 'for income'; and he will not readily purchase an investment except in the hope of capital appreciation. This is only another way of saying that, when he purchases an investment, the American is attaching his hopes, not so much to its prospective yield, as to a favourable change in the conventional basis of valuation, i.e. that he is, in the above sense, a speculator. Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done. The measure of success attained by Wall Street, regarded as an institution of which the proper social purpose is to direct new investment into the most profitable channels in terms of future yield, cannot be claimed as one of the outstanding triumphs of *laissez-faire* capitalism—which is not surprising, if I am right in thinking that the best brains of Wall Street have been in fact directed towards a different object.

These tendencies are a scarcely avoidable outcome of our having successfully organised 'liquid' investment markets. It is usually agreed that casinos should, in the public interest, be inaccessible and expensive. And perhaps the same is true of stock exchanges. That the sins of the London Stock Exchange are less than those of Wall Street may be due, not so much to differences in national character, as to the fact that to the average Englishman Throgmorton Street is, compared with Wall Street to the average American, inaccessible and very expensive. The jobber's 'turn', the high brokerage charges and the heavy transfer tax payable to the Exchequer, which attend dealings on the London Stock Exchange, sufficiently diminish the liquidity of the market (although the practice of fortnightly accounts operates the other way) to rule out a large proportion of the transaction characteristic of Wall Street.[1] The introduction of a substantial government transfer tax on all transactions might prove the most serviceable reform available, with a view to mitigating the predominance of speculation over enterprise in the United States.

The spectacle of modern investment markets has sometimes moved me towards the conclusion that to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave cause, might be a useful remedy for our contemporary evils. For this would force the investor to direct his mind to the long-term prospects and to those only. But a little consideration of this expedient brings us up against a dilemma, and shows us how the liquidity of investment markets often facilitates, though it sometimes impedes, the course of new investment. For the fact that each individual investor flatters himself that his commitment is 'liquid' (though this cannot be true for all investors collectively) calms his nerves and makes him much more willing to run a risk. If individual purchases of investments were rendered illiquid, this might seriously impede new investment, so long as *alternative ways* in which to hold his savings are available to the individual. This is the dilemma. So long as it is open to the individual to employ his wealth in hoarding or lending *money*, the alternative of purchasing actual capital assets cannot be rendered sufficiently attractive (especially to the man who does

[1] It is said that, when Wall Street is active, at least a half of the purchases or sales of investments are entered upon with an intention on the part of the speculator to reverse them *the same day*. This is often true of the commodity exchanges also.

not manage the capital assets and knows very little about them), except by organising markets wherein these assets can be easily realised for money.

The only radical cure for the crises of confidence which afflict the economic life of the modern world would be to allow the individual no choice between consuming his income and ordering the production of the specific capital-asset which, even though it be on precarious evidence, impresses him as the most promising investment available to him. It might be that, at times when he was more than usually assailed by doubts concerning the future, he would turn in his perplexity towards more consumption and less new investment. But that would avoid the disastrous, cumulative and far-reaching repercussions of its being open to him, when thus assailed by doubts, to spend his income neither on the one nor on the other.

Those who have emphasised the social dangers of the hoarding of money have, of course, had something similar to the above in mind. But they have overlooked the possibility that the phenomenon can occur without any change, or at least any commensurate change, in the hoarding of money

VII

Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than on a mathematical expectation, whether moral or hedonistic or economic. Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits—of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities. Enterprise only pretends to itself to be mainly actuated by the statements in its own prospectus, however candid and sincere. Only a little more than an expedition to the South Pole, is it based on an exact calculation of benefits to come. Thus if the animal spirits are dimmed and the spontaneous optimism falters, leaving us to depend on nothing but a mathematical expectation, enterprise will fade and die;—though fears of loss may have a basis no more reasonable than hopes of profit had before.

It is safe to say that enterprise which depends on hopes stretching into the future benefits the community as a whole. But individual initiative will only be adequate when reasonable calculation is supplemented and supported by animal spirits, so that the thought of ultimate loss which often overtakes pioneers, as experience undoubtedly tells us and them, is put aside as a healthy man puts aside the expectation of death.

This means, unfortunately, not only that slumps and depressions are exaggerated in degree, but that economic prosperity is excessively dependent on a political and social atmosphere which is congenial to the average business man. If the fear of a Labour Government or a New Deal depresses enterprise, this need not be the result either of a reasonable calculation or of a plot with political intent;—it is the mere consequence of upsetting the delicate balance of spontaneous optimism. In estimating the prospects of investment, we must have regard, therefore, to the nerves and hysteria and even the digestions and reactions to the weather of those upon whose spontaneous activity it largely depends.

We should not conclude from this that everything depends on waves of irrational psychology. On the contrary, the state of long-term expectation is often steady, and, even when it is not, the other factors exert their compensating effects. We are merely reminding ourselves that human decisions affecting the future, whether personal or political or economic, cannot

depend on strict mathematical expectation, since the basis for making such calculations does not exist; and that it is our innate urge to activity which makes the wheels go round, our rational selves choosing between the alternatives as best we are able, calculating where we can, but often falling back for our motive on whim or sentiment or chance.

VIII

There are, moreover, certain important factors which somewhat mitigate in practice the effects of our ignorance of the future. Owing to the operation of compound interest combined with the likelihood of obsolescence with the passage of time, there are many individual investments of which the prospective yield is legitimately dominated by the returns of the comparatively near future. In the case of the most important class of very long-term investments, namely buildings, the risk can be frequently transferred from the investor to the occupier, or at least shared between them, by means of long-term contracts, the risk being outweighed in the mind of the occupier by the advantages of continuity and security of tenure. In the case of another important class of long-term investments, namely public utilities, a substantial proportion of the prospective yield is practically guaranteed by monopoly privileges coupled with the right to charge such rates as will provide a certain stipulated margin. Finally there is a growing class of investments entered upon by, or at the risk of, public authorities, which are frankly influenced in making the investment by a general presumption of there being prospective social advantages from the investment, whatever its commercial yield may prove to be within a wide range, and without seeking to be satisfied that the mathematical expectation of the yield is at least equal to the current rate of interest,—though the rate which the public authority has to pay may still play a decisive part in determining the scale of investment operations which it can afford.

Thus after giving full weight to the importance of the influence of short-period changes in the state of long-term expectation as distinct from changes in the rate of interest, we are still entitled to return to the latter as exercising, at any rate, in normal circumstances, a great, though not a decisive, influence on the rate of investment. Only experience, however, can show how far management of the rate of interest is capable of continuously stimulating the appropriate volume of investment.

For my own part I am now somewhat sceptical of the success of a merely monetary policy directed towards influencing the rate of interest. I expect to see the State, which is in a position to calculate the marginal efficiency of capital-goods on long views and on the basis of the general social advantage, taking an ever greater responsibility for directly organising investment; since it seems likely that the fluctuations in the market estimation of the marginal efficiency of different types of capital, calculated on the principles I have described above, will be too great to be offset by any practicable changes in the rate of interest.

Chapter 13

THE GENERAL THEORY OF THE RATE OF INTEREST

I

We have shown in chapter 11 that, whilst there are forces causing the rate of investment to rise or fall so as to keep the marginal efficiency of capital equal to the rate of interest, yet the marginal efficiency of capital is, in itself, a different thing from the ruling rate of interest. The schedule of the marginal efficiency of capital may be said to govern the terms on which loanable funds are demanded for the purpose of new investment; whilst the rate of interest governs the terms on which funds are being currently supplied. To complete our theory, therefore, we need to know what determines the rate of interest.

In chapter 14 and its Appendix we shall consider the answers to this question which have been given hitherto. Broadly speaking, we shall find that they make the rate of interest to depend on the interaction of the schedule of the marginal efficiency of capital with the psychological propensity to save. But the notion that the rate of interest is the balancing factor which brings the demand for saving in the shape of new investment forthcoming at a given rate of interest into equality with the supply of saving which results at that rate of interest from the community's psychological propensity to save, breaks down as soon as we perceive that it is impossible to deduce the rate of interest merely from a knowledge of these two factors.

cultural products—still stood at a very high level. The 'New Deal' partly consisted in a strenuous attempt to reduce these stocks—by curtailment of current output and in all sorts of ways. The reduction of stocks to a normal level was a necessary process—a phase which had to be endured. But so long as it lasted, namely, about two years, it constituted a substantial offset to the loan expenditure which was being incurred in other directions. Only when it had been completed was the way prepared for substantial recovery.

Recent American experience has also afforded good examples of the part played by fluctuations in the stocks of finished and unfinished goods—'inventories' as it is becoming usual to call them—in causing the minor oscillations within the main movement of the trade cycle. Manufacturers, setting industry in motion to provide for a scale of consumption which is expected to prevail some months later, are apt to make minor miscalculations, generally in the direction of running a little ahead of the facts. When they discover their mistake they have to contract for a short time to a level below that of current consumption so as to allow for the absorption of the excess inventories; and the difference of pace between running a little ahead and dropping back again has proved sufficient in its effect on the current rate of investment to display itself quite clearly against the background of the excellently complete statistics now available in the United States.

Chapter 23

NOTES ON MERCANTILISM, THE USURY LAWS, STAMPED MONEY AND THEORIES OF UNDER-CONSUMPTION

I

For some two hundred years both economic theorists and practical men did not doubt that there is a peculiar advantage to a country in a favourable balance of trade, and grave danger in an unfavourable balance, particularly if it results in an efflux of the precious metals. But for the past one hundred years there has been a remarkable divergence of opinion. The majority of statesmen and practical men in most countries, and nearly half of them even in Great Britain, the home of the opposite view, have remained faithful to the ancient doctrine; whereas almost all economic theorists have held that anxiety concerning such matters is absolutely groundless except on a very short view, since the mechanism of foreign trade is self-adjusting and attempts to interfere with it are not only futile, but greatly impoverish those who practise them because they forfeit the advantages of the international division of labour. It will be convenient, in accordance with tradition, to designate the older opinion as *mercantilism* and the newer as *free trade*, though these terms, since each of them has both a broader and a narrower signification, must be interpreted with reference to the context.

Generally speaking, modern economists have maintained not merely that there is, as a rule, a balance of gain from the international division of labour sufficient to outweigh such advantages as mercantilist practice can fairly claim, but that the mercantilist argument is based, from start to finish, on an intellectual confusion.

Marshall,[1] for example, although his references to mercantilism are not altogether unsympathetic, had no regard for their central theory as such and does not even mention those elements of truth in their contentions which I shall examine below.[2] In the same way, the theoretical concessions which free-trade economists have been ready to make in contemporary controversies, relating, for example, to the encouragement of infant industries or to the improvement of the terms of trade, are not concerned with the real substance of the mercantilist case. During the fiscal controversy of the first quarter of the present century I do not remember that any concession was ever allowed by economists to the claim that protection might increase domestic employment. It will be fairest, perhaps, to quote, as an example, what I wrote myself. So lately as 1923, as a faithful pupil of the classical school who did not at that time doubt what he had been taught and entertained on this matter no reserves at all, I wrote: 'If there is one thing that Protection can *not* do, it is to cure Unemployment...There are some arguments for Protection, based upon its securing possible but improbable advantages, to which there is no simple answer. But the claim to cure Unemployment involves the Protectionist fallacy in its grossest and crudest form.'[3] As for earlier mercantilist theory, no

1 *Vide* his *Industry and Trade*, Appendix D; *Money, Credit and Commerce*, p. 130; and *Principles of Economics*, Appendix I.

2 His view of them is well summed up in a footnote to the first edition of his *Principles*, p. 51: 'Much study has been given both in England and Germany to medieval opinions as to the relation of money to national wealth. On the whole they are to be regarded as confused through want of a clear understanding of the functions of money, rather than as wrong in consequence of a deliberate assumption that the increase in the net wealth of a nation can be effected only by an increase of the stores of the precious metals in her.'

3 *The Nation and the Athenaeum*, November 24, 1923 [*JMK*, vol. XVIII].

intelligible account was available; and we were brought up to believe that it was little better than nonsense. So absolutely overwhelming and complete has been the domination of the classical school.

II

Let me first state in my own terms what now seems to me to be the element of scientific truth in mercantilist doctrine. We will then compare this with the actual arguments of the mercantilists. It should be understood that the advantages claimed are avowedly national advantages and are unlikely to benefit the world as a whole.

When a country is growing in wealth somewhat rapidly, the further progress of this happy state of affairs is liable to be interrupted, in conditions of *laissez-faire*, by the insufficiency of the inducements to new investment. Given the social and political environment and the national characteristics which determine the propensity to consume, the well-being of a progressive state essentially depends, for the reasons we have already explained, on the sufficiency of such inducements. They may be found either in home investment or in foreign investment (including in the latter the accumulation of the precious metals), which, between them, make up aggregate investment. In conditions in which the quantity of aggregate investment is determined by the profit motive alone, the opportunities for home investment will be governed, in the long run, by the domestic rate of interest; whilst the volume of foreign investment is necessarily determined by the size of the favourable balance of trade. Thus, in a society where there is no question of direct investment under the aegis of public authority, the economic objects, with which it is reasonable for the government to be preoccupied, are the domestic rate of interest and the balance of foreign trade.

Now, if the wage-unit is somewhat stable and not liable to spontaneous changes of significant magnitude (a condition which is almost always satisfied), if the state of liquidity-preference is somewhat stable, taken as an average of its short-period fluctuations, and if banking conventions are also stable, the rate of interest will tend to be governed by the quantity of the precious metals, measured in terms of the wage-unit, available to satisfy the community's desire for liquidity. At the same time, in an age in which substantial foreign loans and the outright ownership of wealth located abroad are scarcely practicable, increases and decreases in the quantity of the precious metals will largely depend on whether the balance of trade is favourable or unfavourable.

Thus, as it happens, a preoccupation on the part of the authorities with a favourable balance of trade served *both* purposes; and was, furthermore, the only available means of promoting them. At a time when the authorities had no direct control over the domestic rate of interest or the other inducements to home investment, measures to increase the favourable balance of trade were the only *direct* means at their disposal for increasing foreign investment; and, at the same time, the effect of a favourable balance of trade on the influx of the precious metals was their only *indirect* means of reducing the domestic rate of interest and so increasing the inducement to home investment.

There are, however, two limitations on the success of this policy which must not be overlooked. If the domestic rate of interest falls so low that the volume of investment is sufficiently stimulated to raise employment to a level which breaks through some of the critical points at which the wage-unit rises, the increase in the domestic level of costs will begin to react unfavourably on the balance of foreign trade, so that the effort to increase the latter will have overreached and defeated itself. Again, if the domestic rate of interest

falls so low relatively to rates of interest elsewhere as to stimulate a volume of foreign lending which is disproportionate to the favourable balance, there may ensue an efflux of the precious metals sufficient to reverse the advantages previously obtained. The risk of one or other of these limitations becoming operative is increased in the case of a country which is large and internationally important by the fact that, in conditions where the current output of the precious metals from the mines is on a relatively small scale, an influx of money into one country means an efflux from another; so that the adverse effects of rising costs and falling rates of interest at home may be accentuated (if the mercantilist policy is pushed too far) by falling costs and rising rates of interest abroad.

The economic history of Spain in the latter part of the fifteenth and in the sixteenth centuries provides an example of a country whose foreign trade was destroyed by the effect on the wage-unit of an excessive abundance of the precious metals. Great Britain in the pre-war years of the twentieth century provides an example of a country in which the excessive facilities for foreign lending and the purchase of properties abroad frequently stood in the way of the decline in the domestic rate of interest which was required to ensure full employment at home. The history of India at all times has provided an example of a country impoverished by a preference for liquidity amounting to so strong a passion that even an enormous and chronic influx of the precious metals has been insufficient to bring down the rate of interest to a level which was compatible with the growth of real wealth.

Nevertheless, if we contemplate a society with a somewhat stable wage-unit, with national characteristics which determine the propensity to consume and the preference for liquidity, and with a monetary system which rigidly links the quantity of money to the stock of the precious metals, it will be essential for the maintenance of prosperity that the authorities should pay close attention to the state of the balance of trade. For a favourable balance, provided it is not too large, will prove extremely stimulating; whilst an unfavourable balance may soon produce a state of persistent depression.

It does not follow from this that the maximum degree of restriction of imports will promote the maximum favourable balance of trade. The earlier mercantilists laid great emphasis on this and were often to be found opposing trade restrictions because on a long view they were liable to operate adversely to a favourable balance. It is, indeed, arguable that in the special circumstances of mid-nineteenth-century Great Britain an almost complete freedom of trade was the policy most conducive to the development of a favourable balance. Contemporary experience of trade restrictions in post-war Europe offers manifold examples of ill-conceived impediments on freedom which, designed to improve the favourable balance, had in fact a contrary tendency.

For this and other reasons the reader must not reach a premature conclusion as to the *practical* policy to which our argument leads up. There are strong presumptions of a general character against trade restrictions unless they can be justified on special grounds. The advantages of the international division of labour are real and substantial, even though the classical school greatly overstressed them. The fact that the advantage which our own country gains from a favourable balance is liable to involve an equal disadvantage to some other country (a point to which the mercantilists were fully alive) means not only that great moderation is necessary, so that a country secures for itself no larger a share of the stock of the precious metals than is fair and reasonable, but also that an immoderate policy may lead to a senseless international competition for a favourable balance which injures all

alike.[1] And finally, a policy of trade restrictions is a treacherous instrument even for the attainment of its ostensible object, since private interest, administrative incompetence and the intrinsic difficulty of the task may divert it into producing results directly opposite to those intended.

Thus, the weight of my criticism is directed against the inadequacy of the *theoretical* foundations of the *laissez-faire* doctrine upon which I was brought up and which for many years I taught;—against the notion that the rate of interest and the volume of investment are self-adjusting at the optimum level, so that preoccupation with the balance of trade is a waste of time. For we, the faculty of economists, prove to have been guilty of presumptuous error in treating as a puerile obsession what for centuries has been a prime object of practical statecraft.

Under the influence of this faulty theory the City of London gradually devised the most dangerous technique for the maintenance of equilibrium which can possibly be imagined, namely, the technique of bank rate coupled with a rigid parity of the foreign exchanges. For this meant that the objective of maintaining a domestic rate of interest consistent with full employment was wholly ruled out. Since, in practice, it is impossible to neglect the balance of payments, a means of controlling it was evolved which, instead of protecting the domestic rate of interest, sacrificed it to the operation of blind forces. Recently, practical bankers in London have learnt much, and one can almost hope that in Great Britain the technique of bank rate will never be used again to protect the foreign balance in conditions in which it is likely to cause unemployment at home.

Regarded as the theory of the individual firm and

[1] The remedy of an elastic wage-unit, so that a depression is met by a reduction of wages, is liable, for the same reason, to be a means of benefiting ourselves at the expense of our neighbours.

of the distribution of the product resulting from the employment of a given quantity of resources, the classical theory has made a contribution to economic thinking which cannot be impugned. It is impossible to think clearly on the subject without this theory as a part of one's apparatus of thought. I must not be supposed to question this in calling attention to their neglect of what was valuable in their predecessors. Nevertheless, as a contribution to statecraft, which is concerned with the economic system as a whole and with securing the optimum employment of the system's entire resources, the methods of the early pioneers of economic thinking in the sixteenth and seventeenth centuries may have attained to fragments of practical wisdom which the unrealistic abstractions of Ricardo first forgot and then obliterated. There was wisdom in their intense preoccupation with keeping down the rate of interest by means of usury laws (to which we will return later in this chapter), by maintaining the domestic stock of money and by discouraging rises in the wage-unit; and in their readiness in the last resort to restore the stock of money by devaluation, if it had become plainly deficient through an unavoidable foreign drain, a rise in the wage-unit,[1] or any other cause.

III

The early pioneers of economic thinking may have hit upon their maxims of practical wisdom without having had much cognisance of the underlying theoretical grounds. Let us, therefore, examine briefly the reasons they gave as well as what they recommended. This is

[1] Experience since the age of Solon at least, and probably, if we had the statistics, for many centuries before that, indicates what a knowledge of human nature would lead us to expect, namely, that there is a steady tendency for the wage-unit to rise over long periods of time and that it can be reduced only amidst the decay and dissolution of economic society. Thus, apart altogether from progress and increasing population, a gradually increasing stock of money has proved imperative.

made easy by reference to Professor Heckscher's great work on *Mercantilism*, in which the essential characteristics of economic thought over a period of two centuries are made available for the first time to the general economic reader. The quotations which follow are mainly taken from his pages.[1]

(1) Mercantilists' thought never supposed that there was a self-adjusting tendency by which the rate of interest would be established at the appropriate level. On the contrary they were emphatic that an unduly high rate of interest was the main obstacle to the growth of wealth; and they were even aware that the rate of interest depended on liquidity-preference and the quantity of money. They were concerned both with diminishing liquidity-preference and with increasing the quantity of money, and several of them made it clear that their preoccupation with increasing the quantity of money was due to their desire to diminish the rate of interest. Professor Heckscher sums up this aspect of their theory as follows:

> The position of the more perspicacious mercantilists was in this respect, as in many others, perfectly clear within certain limits. For them, money was—to use the terminology of to-day—a factor of production, on the same footing as land, sometimes regarded as 'artificial' wealth as distinct from the 'natural' wealth; interest on capital was the payment for the renting of money similar to rent for land. In so far as mercantilists sought to discover objective reasons for the height of the rate of interest—and they did so more and more during this period—they found such reasons in the total quantity of money. From the abundant material available, only the most typical examples will be selected, so as to demonstrate first and foremost how lasting this notion was, how deep-rooted and independent of practical considerations.
>
> Both of the protagonists in the struggle over monetary

[1] They are the more suitable for my purpose because Prof. Heckscher is himself an adherent, on the whole, of the classical theory and much less sympathetic to the mercantilist theories than I am. Thus there is no risk that his choice of quotations has been biassed in any way by a desire to illustrate their wisdom.

policy and the East India trade in the early 1620's in England were in entire agreement on this point. Gerard Malynes stated, giving detailed reason for his assertion, that 'Plenty of money decreaseth usury in price or rate' (*Lex Mercatoria and Maintenance of Free Trade*, 1622). His truculent and rather unscrupulous adversary, Edward Misselden, replied that 'The remedy for Usury may be plenty of money' (*Free Trade or the Meanes to make Trade Florish*, same year). Of the leading writers of half a century later, Child, the omnipotent leader of the East India Company and its most skilful advocate, discussed (1668) the question of how far the legal maximum rate of interest, which he emphatically demanded, would result in drawing 'the money' of the Dutch away from England. He found a remedy for this dreaded disadvantage in the easier transference of bills of debt, if these were used as currency, for this, he said, 'will certainly supply the defect of at least one-half of all the ready money we have in use in the nation'. Petty, the other writer, who was entirely unaffected by the clash of interests, was in agreement with the rest when he explained the 'natural' fall in the rate of interest from 10 per cent to 6 per cent by the increase in the amount of money (*Political Arithmetick*, 1676), and advised lending at interest as an appropriate remedy for a country with too much 'Coin' (*Quantulumcunque concerning Money*, 1682).

This reasoning, naturally enough, was by no means confined to England. Several years later (1701 and 1706), for example, French merchants and statesmen complained of the prevailing scarcity of coin (*disette des espèces*) as the cause of the high interest rates, and they were anxious to lower the rate of usury by increasing the circulation of money.[1]

The great Locke was, perhaps, the first to express in abstract terms the relationship between the rate of interest and the quantity of money in his controversy with Petty.[2] He was opposing Petty's proposal of a maximum rate of interest on the ground that it was as impracticable as to fix a maximum rent for land, since 'the natural Value of Money, as it is apt to yield such

[1] Heckscher, *Mercantilism*, vol. ii. pp. 200, 201, very slightly abridged.

[2] *Some Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money*, 1692, but written some years previously.

an yearly Income by Interest, depends on the whole quantity of the then passing Money of the Kingdom, in proportion to the whole Trade of the Kingdom (i.e. the general Vent of all the commodities)'.[1] Locke explains that money has two values: (1) its value in use which is given by the rate of interest 'and in this it has the Nature of Land, the Income of one being called Rent, of the other, Use[2]', and (2) its value in exchange 'and in this it has the Nature of a Commodity', its value in exchange 'depending only on the Plenty or Scarcity of Money in proportion to the Plenty or Scarcity of those things and not on what Interest shall be'. Thus Locke was the parent of twin quantity theories. In the first place he held that the rate of interest depended on the proportion of the quantity of money (allowing for the velocity of circulation) to the total value of trade. In the second place he held that the value of money in exchange depended on the proportion of the quantity of money to the total volume of goods in the market. But—standing with one foot in the mercantilist world and with one foot in the classical world[3]—he was confused concerning the relation between these two proportions, and he overlooked altogether the possibility of *fluctuations* in liquidity-preference. He was, however, eager to explain that a

[1] He adds: 'not barely on the quantity of money but the quickness of its circulation'.

[2] 'Use' being, of course, old-fashioned English for 'interest'.

[3] Hume a little later had a foot and a half in the classical world. For Hume began the practice amongst economists of stressing the importance of the equilibrium position as compared with the ever-shifting transition towards it, though he was still enough of a mercantilist not to overlook the fact that it is in the transition that we actually have our being: 'It is only in this interval or intermediate situation, between the acquisition of money and a rise of prices, that the increasing quantity of gold and silver is favourable to industry..It is of no manner of consequence, with regard to the domestic happiness of a state, whether money be in a greater or less quantity. The good policy of the magistrate consists only in keeping it, if possible, still increasing; because by that means he keeps alive a spirit of industry in the nation, and increases the state of labour in which consists all real power and riches. A nation, whose money decreases, is actually, at that time, weaker and more miserable than another nation, which possesses no more money but is on the increasing trend.' (Essay *On Money*, 1752.)

reduction in the rate of interest has no *direct* effect on the price-level and affects prices 'only as the Change of Interest in Trade conduces to the bringing in or carrying out Money or Commodity, and so in time varying their Proportion here in England from what it was before', i.e. if the reduction in the rate of interest leads to the export of cash or an increase in output. But he never, I think, proceeds to a genuine synthesis.[1]

How easily the mercantilist mind distinguished between the rate of interest and the marginal efficiency of capital is illustrated by a passage (printed in 1621) which Locke quotes from *A Letter to a Friend concerning Usury*: 'High Interest decays Trade. The advantage from Interest is greater than the Profit from Trade, which makes the rich Merchants give over, and put out their Stock to Interest, and the lesser Merchants Break.' Fortrey (*England's Interest and Improvement*, 1663) affords another example of the stress laid on a low rate of interest as a means of increasing wealth.

The mercantilists did not overlook the point that, if an excessive liquidity-preference were to withdraw the influx of precious metals into hoards, the advantage to the rate of interest would be lost. In some cases (e.g. Mun) the object of enhancing the power of the State led them, nevertheless, to advocate the accumulation of state treasure. But others frankly opposed this policy:

> Schrötter, for instance, employed the usual mercantilist arguments in drawing a lurid picture of how the circulation in the country would be robbed of all its money through a greatly increasing state treasury...he, too, drew a perfectly logical parallel between the accumulation of treasure by the

[1] It illustrates the completeness with which the mercantilist view, that interest *means* interest on money (the view which is, as it now seems to me, indubitably correct), has dropt out, that Prof. Heckscher, as a good classical economist, sums up his account of Locke's theory with the comment—'Locke's argument would be irrefutable...if interest really were synonymous with the price for the loan of money; as this is not so, it is entirely irrelevant' (*op. cit.* vol. ii. p. 204).

> monasteries and the export surplus of precious metals, which, to him, was indeed the worst possible thing which he could think of. Davenant explained the extreme poverty of many Eastern nations—who were believed to have more gold and silver than any other countries in the world—by the fact that treasure 'is suffered to stagnate in the Princes' Coffers'... If hoarding by the state was considered, at best, a doubtful boon, and often a great danger, it goes without saying that private hoarding was to be shunned like the pest. It was one of the tendencies against which innumerable mercantilist writers thundered, and I do not think it would be possible to find a single dissentient voice.[1]

(2) The mercantilists were aware of the fallacy of cheapness and the danger that excessive competition may turn the terms of trade against a country. Thus Malynes wrote in his *Lex Mercatoria* (1622): 'Strive not to undersell others to the hurt of the Commonwealth, under colour to increase trade: for trade doth not increase when commodities are good cheap, because the cheapness proceedeth of the small request and scarcity of money, which maketh things cheap: so that the contrary augmenteth trade when there is plenty of money, and commodities become dearer being in request'.[2] Professor Heckscher sums up as follows this strand in mercantilist thought:

> In the course of a century and a half this standpoint was formulated again and again in this way, that a country with relatively less money than other countries must 'sell cheap and buy dear'...
>
> Even in the original edition of the *Discourse of the Common Weal*, that is in the middle of the 16th century, this attitude was already manifested. Hales said, in fact, 'And yet if strangers should be content to take but our wares for theirs, what should let them to advance the price of other things (meaning: among others, such as we buy from them), though ours were good cheap unto them? And then shall we be still losers, and they at the winning hand with us, while they sell dear and yet buy ours good cheap, and consequently enrich

[1] Heckscher, *op. cit.* vol. ii. pp. 210, 211.
[2] Heckscher, *op. cit.* vol. ii. p. 228.

themselves and impoverish us. Yet had I rather advance our wares in price, as they advance theirs, as we now do; though some be losers thereby, and yet not so many as should be the other way.' On this point he had the unqualified approval of his editor several decades later (1581). In the 17th century, this attitude recurred again without any fundamental change in significance. Thus, Malynes believed this unfortunate position to be the result of what he dreaded above all things, *i.e.* a foreign under-valuation of the English exchange...The same conception then recurred continually. In his *Verbum Sapienti* (written 1665, published 1691), Petty believed that the violent efforts to increase the quantity of money could only cease 'when we have certainly more money than any of our Neighbour States (though never so little), both in Arithmetical and Geometrical proportion'. During the period between the writing and the publication of this work, Coke declared, 'If our Treasure were more than our Neighbouring Nations, I did not care whether we had one fifth part of the Treasure we now have' (1675).[1]

(3) The mercantilists were the originals of 'the fear of goods' and the scarcity of money as causes of unemployment which the classicals were to denounce two centuries later as an absurdity:

One of the earliest instances of the application of the unemployment argument as a reason for the prohibition of imports is to be found in Florence in the year 1426....The English legislation on the matter goes back to at least 1455.... An almost contemporary French decree of 1466, forming the basis of the silk industry of Lyons, later to become so famous, was less interesting in so far as it was not actually directed against foreign goods. But it, too, mentioned the possibility of giving work to tens of thousands of unemployed men and women. It is seen how very much this argument was in the air at the time...

The first great discussion of this matter, as of nearly all social and economic problems, occurred in England in the middle of the 16th century or rather earlier, during the reigns of Henry VIII and Edward VI. In this connection we cannot but mention a series of writings, written apparently at the latest in the 1530's, two of which at any rate are believed

[1] Heckscher, *op. cit.* vol. ii. p. 235.

to have been by Clement Armstrong...He formulates it, for example, in the following terms: 'By reason of great abundance of strange merchandises and wares brought yearly into England hath not only caused scarcity of money, but hath destroyed all handicrafts, whereby great number of common people should have works to get money to pay for their meat and drink, which of very necessity must live idly and beg and steal'.[1]

The best instance to my knowledge of a typically mercantilist discussion of a state of affairs of this kind is the debates in the English House of Commons concerning the scarcity of money, which occurred in 1621, when a serious depression had set in, particularly in the cloth export. The conditions were described very clearly by one of the most influential members of parliament, Sir Edwin Sandys. He stated that the farmer and the artificer had to suffer almost everywhere, that looms were standing idle for want of money in the country, and that peasants were forced to repudiate their contracts, 'not (thanks be to God) for want of fruits of the earth, but for want of money'. The situation led to detailed enquiries into where the money could have got to, the want of which was felt so bitterly. Numerous attacks were directed against all persons who were supposed to have contributed either to an export (export surplus) of precious metals, or to their disappearance on account of corresponding activities within the country.[2]

Mercantilists were conscious that their policy, as Professor Heckscher puts it, 'killed two birds with one stone'. 'On the one hand the country was rid of an unwelcome surplus of goods, which was believed to result in unemployment, while on the other the total stock of money in the country was increased',[3] with the resulting advantages of a fall in the rate of interest.

It is impossible to study the notions to which the mercantilists were led by their actual experiences, without perceiving that there has been a chronic tendency throughout human history for the propensity to save to be stronger than the inducement to invest. The

[1] Heckscher, *op. cit.* vol. ii. p. 122.
[2] Heckscher, *op. cit.* vol. ii. p. 223.
[3] Heckscher, *op. cit.* vol. ii. p. 178.

weakness of the inducement to invest has been at all times the key to the economic problem. To-day the explanation of the weakness of this inducement may chiefly lie in the extent of existing accumulations; whereas, formerly, risks and hazards of all kinds may have played a larger part. But the result is the same. The desire of the individual to augment his personal wealth by abstaining from consumption has usually been stronger than the inducement to the entrepreneur to augment the national wealth by employing labour on the construction of durable assets.

(4) The mercantilists were under no illusions as to the nationalistic character of their policies and their tendency to promote war. It was *national* advantage and *relative* strength at which they were admittedly aiming.[1]

We may criticise them for the apparent indifference with which they accepted this inevitable consequence of an international monetary system. But intellectually their realism is much preferable to the confused thinking of contemporary advocates of an international fixed gold standard and *laissez-faire* in international lending, who believe that it is precisely these policies which will best promote peace.

For in an economy subject to money contracts and customs more or less fixed over an appreciable period of time, where the quantity of the domestic circulation and the domestic rate of interest are primarily determined by the balance of payments, as they were in Great Britain before the war, there is no orthodox means open to the authorities for countering unemployment at home except by struggling for an export surplus and

[1] '*Within* the stage, mercantilism pursued thoroughgoing dynamic ends. But the important thing is that this was bound up with a static conception of the total economic resources in the world; for this it was that created that fundamental disharmony which sustained the endless commercial wars.... This was the tragedy of mercantilism. Both the Middle Ages with their universal static ideal and *laissez-faire* with its universal dynamic ideal avoided this consequence' (Heckscher, *op. cit.* vol. ii. pp. 25, 26).

an import of the monetary metal at the expense of their neighbours. Never in history was there a method devised of such efficacy for setting each country's advantage at variance with its neighbours' as the international gold (or, formerly, silver) standard. For it made domestic prosperity directly dependent on a competitive pursuit of markets and a competitive appetite for the precious metals. When by happy accident the new supplies of gold and silver were comparatively abundant, the struggle might be somewhat abated. But with the growth of wealth and the diminishing marginal propensity to consume, it has tended to become increasingly internecine. The part played by orthodox economists, whose common sense has been insufficient to check their faulty logic, has been disastrous to the latest act. For when in their blind struggle for an escape, some countries have thrown off the obligations which had previously rendered impossible an autonomous rate of interest, these economists have taught that a restoration of the former shackles is a necessary first step to a general recovery.

In truth the opposite holds good. It is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment which is twice blessed in the sense that it helps ourselves and our neighbours at the same time. And it is the simultaneous pursuit of these policies by all countries together which is capable of restoring economic health and strength internationally, whether we measure it by the level of domestic employment or by the volume of international trade.[1]

[1] The consistent appreciation of this truth by the International Labour Office, first under Albert Thomas and subsequently under Mr H. B. Butler, has stood out conspicuously amongst the pronouncements of the numerous post-war international bodies.

IV

The mercantilists perceived the existence of the problem without being able to push their analysis to the point of solving it. But the classical school ignored the problem, as a consequence of introducing into their premisses conditions which involved its non-existence; with the result of creating a cleavage between the conclusions of economic theory and those of common sense. The extraordinary achievement of the classical theory was to overcome the beliefs of the 'natural man' and, at the same time, to be wrong. As Professor Heckscher expresses it:

> If, then, the underlying attitude towards money and the material from which money was created did not alter in the period between the Crusades and the 18th century, it follows that we are dealing with deep-rooted notions. Perhaps the same notions have persisted even beyond the 500 years included in that period, even though not nearly to the same degree as the 'fear of goods'...With the exception of the period of *laissez-faire*, no age has been free from these ideas. It was only the unique intellectual tenacity of *laissez-faire* that for a time overcame the beliefs of the 'natural man' on this point.[1]
>
> It required the unqualified faith of doctrinaire *laissez-faire* to wipe out the 'fear of goods'...[which] is the most natural attitude of the 'natural man' in a money economy. Free Trade denied the existence of factors which appeared to be obvious, and was doomed to be discredited in the eyes of the man in the street as soon as *laissez-faire* could no longer hold the minds of men enchained in its ideology.[2]

I remember Bonar Law's mingled rage and perplexity in face of the economists, because they were denying what was obvious. He was deeply troubled for an explanation. One recurs to the analogy between

[1] Heckscher, *op. cit.* vol. ii. pp. 176–7.
[2] *Op. cit.* vol. ii. p. 335.

the sway of the classical school of economic theory and that of certain religions. For it is a far greater exercise of the potency of an idea to exorcise the obvious than to introduce into men's common notions the recondite and the remote.

V

There remains an allied, but distinct, matter where for centuries, indeed for several millenniums, enlightened opinion held for certain and obvious a doctrine which the classical school has repudiated as childish, but which deserves rehabilitation and honour. I mean the doctrine that the rate of interest is not self-adjusting at a level best suited to the social advantage but constantly tends to rise too high, so that a wise government is concerned to curb it by statute and custom and even by invoking the sanctions of the moral law.

Provisions against usury are amongst the most ancient economic practices of which we have record. The destruction of the inducement to invest by an excessive liquidity-preference was the outstanding evil, the prime impediment to the growth of wealth, in the ancient and medieval worlds. And naturally so, since certain of the risks and hazards of economic life diminish the marginal efficiency of capital whilst others serve to increase the preference for liquidity. In a world, therefore, which no one reckoned to be safe, it was almost inevitable that the rate of interest, unless it was curbed by every instrument at the disposal of society, would rise too high to permit of an adequate inducement to invest.

I was brought up to believe that the attitude of the Medieval Church to the rate of interest was inherently absurd, and that the subtle discussions aimed at distinguishing the return on money-loans from the return to active investment were merely jesuitical attempts to find a practical escape from a foolish theory. But I now read these discussions as an honest intellectual effort to keep separate what the classical theory has inextricably confused together, namely, the rate of interest and the marginal efficiency of capital. For it now seems clear that the disquisitions of the schoolmen were directed towards the elucidation of a formula which should allow the schedule of the marginal efficiency of capital to be high, whilst using rule and custom and the moral law to keep down the rate of interest.

Even Adam Smith was extremely moderate in his attitude to the usury laws. For he was well aware that individual savings may be absorbed either by investment or by debts, and that there is no security that they will find an outlet in the former. Furthermore, he favoured a low rate of interest as increasing the chance of savings finding their outlet in new investment rather than in debts; and for this reason, in a passage for which he was severely taken to task by Bentham,[1] he defended a moderate application of the usury laws.[2] Moreover, Bentham's criticisms were mainly on the ground that Adam Smith's Scotch caution was too severe on 'projectors' and that a maximum rate of interest would leave too little margin for the reward of legitimate and socially advisable risks. For Bentham understood by *projectors* 'all such persons, as, in the pursuit of wealth, or even of any other object, endeavour, by the assistance of wealth, to strike into any channel of invention...upon all such persons as, in the line of any of their pursuits, aim at anything that can be called *improvement*...It falls, in short, upon every application of the human powers, in which ingenuity stands in need of wealth for its assistance.' Of course Bentham is right in protesting against laws which stand in the way of taking legitimate risks. 'A prudent man', Bentham continues, 'will not, in these circumstances, pick out the good projects

[1] In his *Letter to Adam Smith* appended to his *Defence of Usury*.
[2] *Wealth of Nations*, Book II, chap. 4.

from the bad, for he will not meddle with projects at all.'[1]

It may be doubted, perhaps, whether the above is just what Adam Smith intended by his term. Or is it that we are hearing in Bentham (though writing in March 1787 from 'Crichoff in White Russia') the voice of nineteenth-century England speaking to the eighteenth? For nothing short of the exuberance of the greatest age of the inducement to investment could have made it possible to lose sight of the theoretical possibility of its insufficiency.

VI

It is convenient to mention at this point the strange, unduly neglected prophet Silvio Gesell (1862–1930), whose work contains flashes of deep insight and who only just failed to reach down to the essence of the matter. In the post-war years his devotees bombarded me with copies of his works; yet, owing to certain palpable defects in the argument, I entirely failed to discover their merit. As is often the case with imperfectly analysed intuitions, their significance only became apparent after I had reached my own conclusions in my own way. Meanwhile, like other academic economists, I treated his profoundly original strivings as being no better than those of a crank. Since few of the readers of this book are likely to be well acquainted with the significance of Gesell, I will give to him what would be otherwise a disproportionate space.

Gesell was a successful German[2] merchant in

[1] Having started to quote Bentham in this context, I must remind the reader of his finest passage: 'The career of art, the great road which receives the footsteps of projectors, may be considered as a vast, and perhaps unbounded, plain, bestrewed with gulphs, such as Curtius was swallowed up in. Each requires a human victim to fall into it ere it can close, but when it once closes, it closes to open no more, and so much of the path is safe to those who follow.'
[2] Born near the Luxembourg frontier of a German father and a French mother.