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.

"The General Theory of Employment, Interest & Money."
John Maynard Keynes (1936)

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*, 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) 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 those 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 passes 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 transactions 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.