A MARKET THEORY OF MONEY

JOHN HICKS

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1 Supply and Demand?

The theories about price-formation in competitive markets, that were available to economists at the time when Keynes was writing, had been the work of the so-called 'neo-classics' between 1870 and 1900. There were several of these and they did not fit together very well. All however accepted the distinction that had come down from Adam Smith, between market value and 'natural' or normal value, natural value depending on cost of production, market value on supply and demand. Market value would 'tend' towards natural value by adjustment of supply. It was accordingly held, for nearly a century after Smith, that natural values were the only values that required attention. The whole of Ricardo's system, to take the most important example, runs in terms of natural values. The chief thing which happened at the 'marginal revolution' of Jevons and his contemporaries was a shift of attention to market values. They were determined, it was accepted, by supply and demand; but how? Just how did the market work?

Though Jevons (1871) saw the problem, he failed to solve it. He gave nothing better than a rather simple-minded mathematician's answer: that if the article being sold was of uniform quality, there could not be more than one price in the market, so the price must be that at which the last (or marginal) unit would sell (his 'law of indifference'). As is obvious to the modern student, this implied that the market was always in equilibrium. But how did it get into such an equilibrium? Jevons gave no help.

Walras (1874), writing without knowledge of Jevons, met the same problem; he also gave a mathematician's answer, but his was more subtle. The price must be established at the level where curves showing demand and supply, as functions of price, intersect. But

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1 It may be objected that in his rent theory, Ricardo had the price of 'corn' determined at the margin, and so was dependent on demand. Nevertheless it is a normal price which is taken to be so determined: otherwise how did he fail to mention the weather? Ricardo is showing that in the case of an agricultural product, not market value only but also normal value is dependent on demand. The most Ricardian among modern economists was his editor, Piero Sraffa. It is significant that Sraffa's own theory (Production of Commodities by means of Commodities 1960) runs entirely in terms of normal values.
how are these curves to be found before there is any trading? If the equilibrium has not been found before there is any trading, much or most of the trading must have been conducted at non-equilibrium prices, so the average price over the day may be far from the equilibrium price; even the final price, at the end of the day, may be out of equilibrium. Walras’s answer to the puzzle was to suppose all parties trading to disclose their propensities before trading started. The ‘market organizer’ (as I prefer to call him, for a reason which I give below\(^2\)), when he had this information reported to him, could calculate the equilibrium price, and at that price actual trading could proceed.

Though it must be accepted that it is possible for a market to be organized in this manner (by some preliminary agreement between the parties trading) this particular form of organization is not one which at all commonly occurs. Neither Edgeworth (1882) nor Marshall (1890) were satisfied with Walras’s answer, of which they were aware. Each of them supposed that information was collected in the course of trading.

What takes the place of Walras’s organizer, in the market as analysed by Edgeworth, is ability to recontract. All contracts for sale are provisional. That is enough (when there is no monopoly on either side of the market) to show that a uniform price must be established; for if there were no such uniformity, a buyer who had bought at a high price could repudiate his contract, finding a seller who had sold at a lower price, to whom he could offer more favourable terms. Further, if at the uniform price thus established there were buyers who had not exhausted their demands at that price, or at any price in its neighbourhood, they could find sellers who had sold at the established price but who could be tempted away by an offer a bit better. Thus the market would come to an equilibrium with demand and supply, at the end, equated.

This solution of Edgeworth’s was a great step forward; but it was unfortunate that the illustration he gave, with which to explain it, was not well chosen. This ran in terms of a labour market; it must be

\(^2\) It should be noticed that the Walras market is not an auction market, with which it has often been confounded. Most auction markets are for second-hand commodities, such as pieces of old furniture or houses, of which each unit is to some extent unique, so that Jevons’s law of indifference does not apply. The auctions which are nearest to the Walras model are those sometimes used for new issues on the stock exchange. But even in this case the auctioneer is an agent for the seller; he is not the independent organizer postulated by Walras.
granted that in that application it does not make much sense. (I shall be coming to the labour market later.) There are other markets, which do exist, where it works much better. All that is needed to make it realistic is to introduce intermediary traders, neither final buyers nor sellers, who on occasion may either buy or sell. So they are readily able to reverse their contracts. Arbitrage, which is precisely the kind of transaction on which Edgeworth relies to establish his uniformity, is common enough in practice for a name to have been given to it.

Edgeworth knew very well that the ‘equilibrium’ which is established in his way at the ‘end’ of the market need not be the same as that which would have been established in Walras’s manner. For willingness to trade at the ‘end’ could well be affected by gains and losses due to non-equilibrium trading on the way. This is the point that was taken up by Marshall. In substance he accepted Edgeworth’s analysis; there was just one point, to which he seems to have attached considerable importance, which he added to it. If it could be shown that the gains and losses which will have attended non-equilibrium trading ‘on the way’ are unlikely to have much effect on the willingness of buyers to purchase an additional unit, will not the market finish up at an equilibrium price in the sense of Walras, after all? If these gains and losses amount to no more than a small part of the buyers’ total expenditure, the ‘income effect’ (as we should now say) of allowing for them should not be considerable. So the market should finish up at something quite near to a Walras equilibrium.

Marshall was very attached to this proposition of his; but it is not as helpful as he supposed. When he tries to write it out in a realistic manner, as was his custom, this shows up. He interprets it as the behaviour of a ‘corn market in a country town’. Various realistic characteristics of such a market are allowed to slip in; most do not matter, but there is one that is of fundamental importance. He had admitted among the characters of his story the farmers who bring the corn to market and the consumers (or millers?) who take it off, also merchants who act as intermediaries; all that, as we have seen, is as it should be. But it also allows his merchants to carry over surplus

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3 Principles, mathematical appendix, note XII.
4 In Marshall’s terminology, the ‘marginal utility of money’ would be substantially unaffected.
5 Part V, Chapter 2.
stocks at the end of the day; and if at the end, why not at the beginning? What then is the significance of the ‘end of the day’? A market in which carry-over is permitted is a continuing market; it does not ‘finish up’.

When in the 1920s at Cambridge a new generation of teachers were set to lecture on Marshall, putting into their own words what he had said, this was one of the things that troubled them. If Marshall’s proposition was to be used in the way he had used it, there could be no carry-over; so it would be safer to make the article traded perishable—‘fish’ not ‘corn’.6 That is formally correct, but it greatly reduces the scope of the theory. The Marshall market becomes a very special type of market, a little better but not much better than the artificial market of Walras.

What was then to be done? The right thing, surely, would have been to go on to construct a formal theory of the market for a non-perishable product; that indeed would have turned a corner. One could still have followed Marshall and admitted intermediary traders; and also have followed him in supposing that these were the people who held the stocks. Since they would have been willing to come in either as buyers or as sellers, there would be an ‘inside’ market which would develop between them. It would be on this inside market that a market price, variable not just from day to day but from moment to moment, could make its appearance. It was surely the theory of such a market which was the next thing which should have been formally set out.

It did not happen, just like that, for two reasons, one general, one more special. I take the special reason first.

It was bound to be noticed, as soon as the first step was taken along the road to such a theory, that the market in question would be a speculative market; and speculative markets, highly organized speculative markets, for some particular commodities, did unquestionably exist. But they also seemed to be a very special kind of market. Should they not also be regarded, like the ‘fish’ market, as a peculiar case? That was indeed the way in which they came to be regarded by Keynes himself. He had himself done some thinking about the workings of such markets, and in his Treatise on Money (1930) he gives a good though incomplete account of them;7 but

6 I am sure it was Dennis Robertson who told me about the ‘fish market’, I think he must have invented it himself.

7 Treatise. Chapter 29 (in Volume 2).
the thrust of his chapter is to explain why such markets are not important—because it is only in exceptional cases that costs of stockholding are low enough for large stocks, of a particular commodity, to be carried. So, in his *General Theory* (1936) he leaves them out. A gap was thus left, between the 'fish' markets, where carrying costs were prohibitive, and the regular speculative markets, where they were so very reasonable; into that gap a great number of actual markets must fall. And Keynes, in neither of his books, gave much help in dealing with them.

Then there was also the more general obstacle. The theory that was needed could not be developed without a considerable change in point of view. The traditional view that market price is, at least in some way, determined by an equation of demand and supply had now to be given up. If demand and supply are interpreted, as had formerly seemed to be sufficient, as flow demands and supplies coming from outsiders, it is no longer true that there is any tendency, over any particular period, for them to be equalized; a difference between them, if it were not too large, could be matched by a change in stocks. It is of course true that if no distinction is made between demand from stockholders and demand from outside the market, demand and supply in that inclusive sense must always be equal. But that equation is vacuous. It cannot be used to determine price, in Walras's or Marshall's manner. For what matters to the stockholder is the stock that he is holding; the increment in that stock, during a period, is the difference between what is held at the end and what was held at the beginning, and the beginning stock is carried over from the past. So the demand–supply equation can only be used in a recursive manner, to determine a sequence; it cannot be used directly to determine price, as Walras and Marshall had used it.

* It is a difference, or differential, equation.
2 The Function of Speculation

An outline of the theory, which in the light of these considerations should have been felt to be required, may be introduced by going back to the corn market of Marshall. This is a closed system, so far as the corn is concerned; there is no trade with other such markets; all transactions are between the parties listed, producers, consumers, and dealers. But then, as Marshall in his pursuit of realism should surely have noticed, ought we not to think of new supplies coming on to the market at harvest-time, while demand is relatively steady over the year? Someone then must be holding stocks, high just after harvest, gradually falling to a low point just before the next. It is reasonable to suppose that they will be held by the dealers.¹

We shall further find it convenient, for no deeper reason than convenience of statement, to suppose that the market is only open for one 'day' in each 'week'. Our market is accordingly endowed with two significant periods, the week which elapses between successive market-days, and the year which elapses between two successive harvests. These are different, not just in duration, but also in their relation to the working of the model.²

Any dealer, on any market-day between the harvests, has a choice between selling (to consumers or to another dealer) and holding on. If he is to do a bit of both, as some dealers must be doing if the market is to continue, the advantage he expects (or plans) to get at the margin from the two courses must be the same. Granted that there are some extra costs involved from holding longer,³ it can only be profitable to continue holding a part of the stock in his possession, if the price he expects to get from selling later is higher than that which rules at the moment. If this expectation is realized, and goes on being realized, the market price must go on rising during the year—from a low point just after the harvest to a high in the following summer, after which it falls, as a result of the following harvest.

¹ For that is the arrangement which (usually) will minimize transport costs.
² They have very little to do with the 'short' and 'long' periods of Marshall, which he introduced at a later point in his analysis to that we are here considering.
³ Cost of sale to consumers may (realistically) be reckoned to be borne by the consumers.
It is already apparent, from consideration of what happens in this very simple example, that there are two quite different senses of the term 'equilibrium' which are coming up. One relates to the week, the other to the year. It is perfectly proper to say that the market is in equilibrium during a particular week if the price established at the end of the week (at the next market-day) is the same as what was expected for it at the week's beginning. (This is the *ex-ante/ex-post* equilibrium of the Swedish economists contemporary with Keynes.) It is quite different from the flow equilibrium of Marshall and his predecessors, which in our case can only refer to the year. As we shall see, there is room for both.

For the market to be in 'Swedish' equilibrium during a particular week, when that is taken by itself, is not a very stringent condition. The foresight which is required is not considerable. It should further be noticed that it need not be stated in so 'subjective' a manner. For it only requires that the actions taken at the beginning of the week (holding stock or disposing of it) should be such as would have been taken if the end-price had been correctly foreseen. That is a matter which in principle can be tested. It is true that to suppose it to hold for all weeks within the year is a more serious matter. It does however lead to testable results. In our case it leads to the course of prices that was described—low just after the harvest, rising to a high point just before the beginning of the next.

If flow equilibrium is interpreted, after the manner of Marshall and his contemporaries, to mean a condition in which price remains unchanged because flow demand and supply are in balance, it is impossible in our model for the market to be in equilibrium _within_ the year. It could however be in a flow equilibrium from one year to the next, to mean that there was an annual cycle which repeated. The conditions for this to happen are obviously very stringent. The stock must be the same just before the first harvest and just before the second; and also the same just after the first harvest and just after the second; both of these conditions cannot be satisfied unless the two harvests are equal. And also what is taken off by consumers in the two years must be the same. If the flow demands of consumers have _any_ elasticity (their demands for corn are not absolutely inelastic) the price over the year, its general level over the year, must be such as to keep demand and supply in balance, over the year as a whole. But it is only because of the (seasonal) fall in price when the new harvest comes in that there will, in this equilibrium state of our model, be no
carry-over from year to year. Only so can we be satisfied with what is shown in the conventional supply-demand curve diagram. In all other cases there is more to be considered.

Before we can properly trace the course of the price from one year to another, there is a little more to be said about the movement within the year. If 'Swedish' equilibrium is maintained within the year, the price must be rising just fast enough to cover the marginal cost of holding stocks. This is in principle composed of two elements, one physical, the other financial. The physical cost is the cost of storage, the financial is the interest that is given up on the funds locked up in the holding of the stock. Now it may well be maintained that in the full equilibrium state of our model, marginal cost of storage should be very low, for it is confined to the cost of measures that are needed to prevent some physical deterioration. Storehouses indeed will have to be provided, and they will have what may here be regarded as a rental cost; but this will be nearly the same whether the storehouses are full or nearly empty. So it may be that the main cost of storage, during the week, is interest cost—interest which could be earned, during the week, on the funds that are locked up in the holding of the stock. If the rate of interest is low, this need not be considerable; so the annual price-cycle should be nearly flattened out. (This means, incidentally, that the fall in price, at the time of the harvest—during the period of the harvest—need not be great.)

But now suppose that our model, having been for some time in this 'annual' equilibrium, is confronted, in some particular year, with a harvest which is not so obligingly 'normal'. The cases of an exceptionally large and of an exceptionally small harvest are substantially different, for though supplies can be carried forward in time, they cannot be carried back.

Take first the case of a deficient harvest. If there had been no news of the deficient harvest before the end of the annual cycle of the previous year, the difference which would be made by experience of the new harvest being deficient would simply mean that the level of price, over the annual cycle of the post-harvest year, would have to be higher. There would be no more to be said than that. If however the news came in earlier, before stocks left over from the previous harvest had been exhausted, there would be an incentive to hold them back from the market; so the price would rise earlier than it would otherwise have done. One can see that rise being blamed on 'specula-
tion. It would however do no more than smooth out a rise which would have inevitably occurred.\footnote{Historical cases of this phenomenon, complicated and of course alleviated by some possibility of drawing supplies from outside sources, have been studied by A.K. Sen in his Poverty and Famines (1981).}

In the opposite case of a more than normal harvest, anticipation of its appearance could not make much difference. For even if a normal harvest had been expected, a fall in the market price at the time when that harvest came in would have been expected, so the stocks which were held near the end of the harvest year would have been small; there would not be much that could be released in anticipation of a further fall in price. The major difference from the equilibrium sequence would come after the harvest. The problem with which stockholders would then be confronted would be a matter of the future disposal of their (now) exceptional stocks. How much should be disposed of within the coming year? How much should be carried over to a further future? That would have to be decided, directly or indirectly, in the light of the way in which the appearance of the big harvest was interpreted.

If the big harvest was taken to be exceptional, giving no indication that future harvests would be anything but normal, it would be profitable to carry over some part of the supply to future years. But if it were read as meaning that future harvests also would be expanded to the new level, or thereabouts, there would be nothing to be gained from carry-over, so the price would have to fall sufficiently to engender a flow demand equal to the increased supply—just as in the textbook version of the story where no attention is paid to holding of stocks. (There would still be an annual cycle about this new level of prices.) If some dealers read the situation one way and some another, there would still be some carry-over to the further future; that would moderate the fall in the level of price in the year after the big harvest came in. The possibility of holding stocks over the future would be acting as a buffer.

But then, as soon as we admit such differences of opinion, other possibilities open. The optimists, as we may call them, who take the low price to be temporary, will be more willing to hold stocks than the pessimists, who take it to be permanent or more permanent. So why should there not develop an ‘inside’ market between the two classes, pessimists selling to optimists, in which (by arbitrage) a regu-
lar market is established? That is indeed what happens on the specu-

lative markets, which (as we saw) Keynes put aside as a special case.

The reason why it is special is mainly because of a further complica-
tion. The optimist buyer may not have the facility to take physical
charge of what he (temporarily) acquires; he may have no store-
house at his disposal. What he requires is to have proprietorship in the
article traded, so that he can sell it when he chooses to do so; he does
not desire to have the custody. But how is proprietorship to be trans-
ferred without change of custody? Only, as commercial men have
long discovered, by expressing the proprietorship in a document,
which confers a right.

What is required here is that the right should be easily transfer-
able; so its terms must be precise. A right to take possession of a par-
ticular stock, the physical condition of which will have to be
ascertained at the time when the right is exercised, is not precise
enough. Nor is it enough to leave any obscurity about the date at
which the right is to be exercised. The practical solution is for the
right to be expressed in a 'futures' contract, which takes the form of a
promise to deliver, at a specified date, a specified quantity of a stand-
ard grade of the article traded. Such a promise is admirably suited for
trading between dealers; anyone who acquires it can readily pass it
on, at any time before its expiry, at a market price. The holder of a
physical holding can then 'hedge' his position by issuing (or selling)
a corresponding 'future' at a current market price; he is then in a
similar position to that he would have been in if he had sold his
actual stock forward to the date of expiry of the 'future', with the
only uncertainty left consisting in the difference between what his
actual stock is worth at that date, and the value at that date of a
stock of standard quality. It is easy to see that he will usually be able
to protect himself if the 'futures' method is adopted more cheaply
than if he had proceeded by a simple forward sale, just because the
'future' is easily transferable. But for such re-arrangement to be prac-
ticable, there must be agreement among traders on the definitions of
standard qualities; so the futures market must be an organized
market, in quite a different sense from the organized market of
Walras.

No more need be said in this place on the working of futures
markets. For futures are not themselves commodities; they are prom-
ises to deliver a certain quantity of a commodity (or rather the
current money value of that quantity, as it will be at the specified
date). They are the same kind of thing as an indexed bond. It is in that connection, when I come to financial markets, that I shall have a little more to say about them (see Chapter 10). They come in here simply as one device by which holding of stocks may be made easier, so that the smoothing of price-movements which has been shown to follow from carry-over is facilitated. It is however the physical carry-over which does the smoothing; that can occur, to a significant extent, even in the absence of futures markets.  

For this reason it must be insisted that whatever is the practical importance of organized commodity markets, at one time (or place) or another, they need to occupy a central place in a general theory of markets, because they are the most sensitive markets we know. They are the practical counterpart to the 'perfect competition' models of the textbooks; but they do more for the economist than those models can do, because they bring out so forcefully that most prices are determined, not by mechanical matching of flow propensities, but by the way they are interpreted, thus by the state of mind of those who trade. There is not, at least there need not be, anything 'irrational' about this. It is just that knowledge of what may happen in the future can never be complete. In my 'harvest' model I have simplified this ignorance, since the date at which relevant information would come in (the date of the next harvest) was supposed to be known. In a more general case that also (or what corresponds to it) would be uncertain. This makes the stabilization more difficult but does not I think affect the principle.

The chief things which our model has shown, in spite of this simplification, are (1) that the stabilizing effect of stockholding is better for dealing with unexpected surpluses than with unexpected shortages, and (2) that it is better for dealing with moderate surpluses than with those that are large. For while the marginal costs of carry-

5 This is surely a point at which I should make an acknowledgement to Kaldor, whose truly classic paper 'Speculation and income stability' (R. Econ. Studies October 1939, reprinted and revised in the second volume of his Essays 1980) has been of the greatest help to me in this chapter. I look upon it as the culmination of the work that was done in this field, not only by Keynes but also by Hawtrey, in the twenties and thirties. It has not received the attention it deserves, largely I think, because he plunged his readers, without much preparation, into the complexities of futures markets, which taken like that are ferocious. I am trying here to be more gentle. I should like to report that in the last letter I had from Kaldor, only a few weeks before he died, he told me that he knew that Keynes did read that 'stabilization' paper of his and planned to give it serious attention. But we know that from 1939 to his death in 1946 Keynes had other things to occupy his mind.
ing normal surpluses, such as those of our seasonal cycle, may not be very considerable, for dealing with an exceptional surplus new facilities, such as storehouses, are likely to be necessary so that marginal costs will mount up. It is this last which has led, in our day, to the vogue of ‘stabilization schemes’ in which the cost of holding a buffer stock is met in some way out of public funds. The price is then set by what amounts to a producers’ co-operative. Since it is operated in the interests of producers, there is always a temptation to set it too high, so that stocks go on increasing and their costs mounting up. There is then no way in which normal production can be resumed unless the surplus is destroyed, or removed in some way or other.
3 The Pricing of Manufactures

Three reasons why speculative markets in commodities are a special kind of market have emerged from our discussion. They require, if they are to flourish, (1) that the article traded should be fairly standardizable, so that supply from one ‘outside’ supplier should be a good substitute for that from at least some others; (2) that dealings should be on a sufficient scale for the costs of some organization to be easily covered; and (3) that arbitrage should be possible, so that most of the participants must be merchants who may either buy or sell. It is easy to see that these conditions are most likely to be satisfied in the case of raw materials; even the ‘corn’ of Marshall’s market would be a raw material for millers. Thus the market, so far considered, can be no more than one link in a chain of transactions, extending from primary producer (farmer or miner) to ultimate consumer. At each link of the chain there is work for intermediaries. We may begin by thinking of them as acting independently, though we shall find that it is of the greatest importance that by ‘vertical integration’ they may be brought together. It is accordingly suggested that in the simplest model of a production system we should make places for two sorts of intermediaries—one between primary producers and manufacturers (this being the stage to which our previous discussion should now be taken to refer), the other between manufacturers and consumers, what are commonly called the distributive trades. Since it is the resemblances and differences between these two sorts of intermediaries to which I now desire to direct attention, I shall venture to call these distributive trades secondary merchants, contrasting them with the primary merchants, who deal in primary products.

Even among the secondaries there may well be disintegration, wholesalers and retailers at least being distinguished. Wholesalers sell to retailers and buy from manufacturers; retailers buy from wholesalers and sell to consumers; that is the normal course of their trade. Retailers rarely buy from other retailers; wholesalers however may buy from other wholesalers, just like the merchants on a primary market. Each of them, unless he is dealing in a perishable good, will need to hold stocks. A retailer who allowed his shop to be emptied would soon be out of business.
For the purpose of the retailer in holding a stock is different from that which operated on the primary market. It has nothing to do with speculation, with carrying forward, in the hope that at a later date the price will be higher. It has nothing to do with movement of prices. It would still exist in a world where prices never changed. By setting up his shop, the retailer has given notice that he is ready to be a seller of a particular class of goods. The penalty for being 'sold out' is not mainly the loss of profit on the goods that might have been sold; it is mainly a loss of reputation, or goodwill.

It is not only at the stage of retailing that this reputation motive may make its appearance. In the primary commodity market it is probably at its minimum; for the dealer on such a market need not run out of stock, since at a price he can always replace. It is by making losses on unprofitable transactions that he may come to grief. The same could be true of the secondary wholesaler stage, to which I shall be returning shortly.

But what of the manufacturer himself? There are two kinds of marketable stock that he may be holding. (Half-finished goods, goods in process, will usually not be marketable.) These are stocks of materials and stocks of finished products.

If he has easy access to a primary market on which the goods he uses as materials are traded, he will not need to hold much in the way of stocks of materials. (The chief reason for holding them will be to avoid the extra cost of frequent deliveries.) For what he buys from the market he will pay the market price. The price that is formed, in the manner we have examined, on that competitive market will be just transmitted to him.

On the holding of stocks at the stage of finished product there is more to be said. We can indeed conceive of an economy in which the same would be true in the case of finished product as in the case of materials. The product, as soon as it was completed, would be sold to secondary merchants (wholesalers) at a price which was mainly determined by trading among the wholesalers themselves. The manufacturer would have little means of exercising a direct influence upon it. This would be the practically realizable counterpart to the 'perfect competition' model of the textbooks.¹ It is however not

¹ At least in the sense that the manufacturers would be 'price-takers', not making prices by their own decisions. The textbook 'perfect competition' model is of course a static or 'equilibrium' model; it is not concerned with adjustment to a changing environment, the problem with which we are here concerned.
surprising, especially when it is spelt out in this manner, that it should appear to the modern student to be very strange.

I do not believe that it need always have appeared so strange, (That is why it was able to get into the textbooks!) There was a time, perhaps including a great part of the nineteenth century, when the principal end-products of manufacturing industry were rather simple: cotton and woollen textiles, sold by the yard, tools (knives and forks and hammers), even some sorts of basic foodstuffs (flour and sugar). It is true that these could be regarded, in a way that was going to be important, as half-finished goods, left to be used or made up in the home. As long as these were the chief sorts of goods in question, it would be quite appropriate and convenient for stocks of them to be held by the wholesalers.

I have elsewhere suggested that this was the system which may well have been in Marshall’s mind when he came to his short-period theory of the ‘industry’, a part of his work which had particular influence on Keynes. The short period, it may be remembered, is defined as that which elapses before the fixed equipment of the manufacturer has had time to adjust. ‘The producers have to adjust their supply to the demand as best they can with the appliances already at their disposal.’ Such adjustments as can be made under this restriction are taken to be rather rapid. Some time must nevertheless elapse between the date when a decision to change the rate of output is taken and that when the actual change results. But it does not greatly matter how the decision comes about. It could be that the decision is made by the manufacturer directly on his own initiative, reacting to a change in price on the wholesale market (and having to take the risk that when the output comes to be ready the price on the wholesale market may have changed); or it may be the wholesaler who gives the order, at the price which is currently ruling on the wholesale market, himself having to take the risk that by the time the goods are ready the price may be changed. Not much foresight is

2 An octogenarian, like the present writer, can remember those days. I think of going with my mother to do her shopping (about 1910). There were none of the packaged goods which are the principal contents of the modern shop. There were bins and jars from which the goods were taken out in ladies. Then they were weighed out, and the quantity purchased was wrapped up in thick blue paper. I would like my reader to imagine that: it is a condition which can exist, for it has existed.

3 Capital and Growth, p. 53.

required to adjust to this trouble so long as the time taken by production is short.

If conditions such as these are granted, there is nothing in Marshall's *short-period* theory which seems to be open to serious criticism. It needs not raise any puzzles about 'laws of returns'. There is no need to assume that there is a single optimum output for which the plant is designed; it is better, being more realistic, to think of it as having a *regular* range of outputs (from \( x_0 \) to \( x_1 \)) which it is reasonably well fitted to produce. It would then be a reasonable simplification to suppose that over that range marginal cost is simply running cost per unit of output, not including any contribution towards covering the overhead cost of the plant itself, and this could be taken as constant so long as the prices of primary factors are given. Call this running cost \( c_o \); if the price that was offered for the product was less than \( c_o \), to operate the plant at any intensity would be unprofitable. (That is not to say that the plant must be idle; if the low price is expected to be no more than temporary, there may be a gain in some sort of reputation or other to offset the loss.) If the price that is offered is greater than \( c_o \), it will always pay to go to the top of the regular range (to \( x_1 \)), for that is where profit is maximized, or loss (after allowing for overhead) is minimized.\(^5\) The overhead does not have to be considered when the question is just one of the scale of production from a given plant.

If the price that is offered is well above \( c_o \), it may pay to expand output above \( x_1 \), for \( x_1 \) may be well below capacity output (\( x_2 \)). From \( x_1 \) to \( x_2 \), marginal cost is likely to be rising, so there should be a rising supply curve of output from the individual plant.\(^6\) But Marshall does not need this refinement to get a rising supply curve for his 'industry'. It would be enough that there should be different plants with different levels of basic running costs \( (c_o) \), more of them coming into

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\(^5\) The borderline case when price = \( c_o \) does not need attention.

\(^6\) There are several reasons for this, which should be distinguished. In the first place, it is useful to have some spare capacity in case of accidents (this is analogous to the need for reserves, on which much will be said when we come to the financial sector). Secondly, even if no question of replacement of plant is at issue, it will require maintenance to keep it in order. The cost of that maintenance could be reckoned into running cost; it is easy to admit that this would quite generally rise when maximum regular output was exceeded. (A distinction between maintenance expenditure saved by temporary closure and by permanent would have to be noticed.) Thirdly (the most difficult, in practice as well as theory), there is the effect of over-usage, in excess of 'regular' output, on expected life of equipment, the 'user cost' of Keynes. For the value to be set upon this depends on expectations, of a future that may be far away.
production when the price that is offered rises. (Just as happens in Ricardo's model of agricultural production, which Marshall is imitating.)

I have thought it right to give this amount of attention to the short-period theory of Marshall, not just out of respect to it as a historical monument, but because of the considerable impact that it had had on later work, not least on a puzzling chapter of the General Theory itself.7 Surely however by the time of Keynes the structure of production and marketing which it had assumed had become quite out of date. The typical end-products of manufacturing industry no longer consisted of objectively standardizable goods, which could be traded on competitive wholesaler markets; they had become much more various, new products and new varieties being continually devised.

There were indeed a number of economists who were attempting to construct theories to deal with this diversity; some of them were working in Cambridge, close to Keynes himself. Joan Robinson, in particular, was a leading member of Keynes's own circle. Keynes however made no use of her Economics of Imperfect Competition (1933). I believe that for his own work he was quite right to pass it by. For her theory, like most of the others than becoming available, was a static theory. It was confined to a comparison of states, in each of which there was a diversification already established. It did not show how an imperfectly competitive system would work; but that was what Keynes required.

There was indeed one economist who had attached himself to this group, who had seen the problem and made an attempt to face it. This was Roy Harrod. In his article 'Doctrines of imperfect competition' (Quarterly Journal of Economics, 1934) he tried to deal with it on Marshallian lines, distinguishing positions of short-period and of long-period equilibrium; no doubt it appeared too late for Keynes to be able to take advantage of it. Harrod himself was later to become dissatisfied with it; it was nevertheless the best thing in the field which was available to those who took part in early discussions of the General Theory. But the direction in which it led did not prove in the end to be fruitful.

One can indeed now see that the stumbling block in the Harrod theory was already present in the Marshall theory on which it was

7 Chapter 21.
based. How did Marshall himself suppose that his industry was to get into his long-period equilibrium? It would have to be supposed that his firms, or those controlling them, were endowed with remarkable foresight. They would have to see the equilibrium coming, and adjust to it in advance. For if they got it wrong, they would have the wrong equipment and would have to start all over again. That is one reason why the long-period equilibrium of an industry is a less useful concept than many neo-classics (and Harrod) imagined. It is better to go back to the start and enquire how it could have been that the diversification came about.

There must have been a sequence of occasions on which decisions to introduce new products had been made. The maker of such a decision would have been an entrepreneur or innovator, a character who has not yet appeared in our story. For the manufacturer who simply responds to a signal given to him by the market, doing so almost automatically, is not called on to innovate. Our entrepreneur has to devise a new product, make arrangements for manufacturing it, and also make arrangements to get it sold.

For since the product is specialized, no other manufacturer producing anything exactly like it, any merchant to whom he sells it directly must be dependent on him for supply. The merchant must thus be acting, in this part of his business, as the manufacturer’s agent. So we have here an important example of the vertical integration previously noticed; manufacturing and selling come in substance under the same control.

There were two functions which we were attributing to our secondary merchants and their market: stockholding and price-formation. As we saw, they are nearly allied; so it is here. The selling department is able to set a selling price and make it effective by holding stocks. That is to say, it can do its own buffering; and can do it relatively easily, since producing and stockholding have been brought so close together. So the price that is set can be chosen, as a matter of policy.

It is of the greatest importance that while the Marshallian manufacturer was selling in the first place to professionals, who would be able to assess just what it was they were buying, it is now the pro-

* It should perhaps be underlined that this is not only a problem of manufacturing industry. It is a problem of any form of production which uses fixed capital on a considerable scale.
ducer himself who has to take responsibility for the quality, and usefulness, of what he is selling; for he is selling, at least at the end of the chain, to a consumer who is not an expert. That is why at this point there is a function for advertisement, which is basically a promise about the character of the thing being sold. It is a promise like that which is given by the retailer, when he opens his shop. In each case it is given by a professional to a non-expert, so it quite ordinarily needs to do more than just give information. The attention of the customer has to be attracted, by a smart shop-front in the one case, by pretty pictures and suchlike in the other. But he has then to be persuaded to buy on the strength of the information given to him, including a promise, explicit or implicit, that the information is correct.

The price is one aspect of the offer that is made; there are some characteristics of other aspects which are shared by it. The chief is that it must not be changed arbitrarily, at a moment’s notice. Arbitrary changes ‘unsettle’ the consumer. He may be taking time to decide to buy; so if, when he finally decides, he finds the price has risen against him, his confidence is lost, and the seller’s reputation is damaged. And it can happen that there is a similar obstacle to price-reductions; they cast suspicion on the quality of the product, they suggest that something is wrong. Thus the diversified market had a tendency to be what I have called a fixprice market, meaning not that prices do not change, but that there is a force which makes for stabilization, operated not by independent speculators, but by the producer himself.

It is important (as Okun has emphasized) that the stabilizing is more effective against price-reductions than against rises; the latter can be put through without loss of reputation, if an objective reason can be given for them. The most obvious is a rise in costs, which has affected not only this particular producer, but his (imperfect) competitors also. What he must not do (as he so often seems to do in the textbooks) is to admit that he is putting up his price because demand has increased: ‘I am charging you more, because I can get more out of you.’ The other side to this is the lack of necessary response to a fall in costs. It is tempting, then, to take a monopoly profit just by taking no action. The only safeguard against that which is offered by a diversified market is the appearance of new varieties which, if costs

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in general have fallen, can be offered at an appealing price. I suspect that this is the main way in which (in normal conditions\textsuperscript{11}) prices can come down in such a market.\textsuperscript{12}

\textsuperscript{11} Exceptions are (1) when there has just been a very sharp rise in prices, which has not had time to get established, and (2) when there has been a great fall in the prices of raw materials, on 'flexprice' markets. In the slump of 1921 both of these conditions were present, in that of 1930 only the second, and the fall in consumer good prices was much less.

\textsuperscript{12} This should be reckoned by the economist as a fall in prices; but his statistician partner, who makes his price-index numbers on the basis of a physically unchanged bundle of commodities, makes it hard for him to do so. There can be little doubt that real incomes, over the present century, have almost everywhere risen much more than appears from the statistics.
4 The Labour Market

There remains one extremely important non-financial market which has so far escaped our attention—the market for labour itself. How does that fit in? How does, or rather how can, a labour market work?

It might have been expected that the author of the General Theory of Employment would have given some help towards an answer, but he gives us very little. Nearly all he says is negative, just that on the labour market there is no equilibrium of demand and supply. But demands and supplies of labour are flows, work to be done over a period, and we have been seeing that there is no inevitability, in other markets, that flow demands and supplies should always be in balance. A difference could be made up by variation of stocks. Labour however is not a stock that can be carried forward. As a Victorian economist once said,\(^1\) it is 'more perishable than cut flowers', more perishable, we might say, than 'fish'. So if there is to be an equilibrium, a continuing equilibrium, with unemployment, something must be implied on what is happening to the unemployed labour.

At the time when Keynes was writing, provision for 'unemployment benefit' was being extended in many countries; so it was natural for his early readers, and many later readers also, to take it for granted that the unemployed were being supported by some kind of public assistance. So long as that continues, the unemployed would not need to find a way of supporting themselves, so they need not compete with the labour which remained employed. In the model, accordingly, the level of wages could be taken arbitrarily, as Keynesians often appear to take it. This would correspond, in practice, to the wage being fixed by the power and policy of trade unions.

On a wider historical, or geographical, perspective that was surely a special case. Joan Robinson, a leading Keynesian, found that it was when she started to think about India. Her 'disguised unemployment' was a fitting of Indian experience into a conventional Keynesian mould.

I have found it more instructive to begin the other way round.\(^2\) For

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\(^1\) W. T. Thornton, On Labour (1868).

\(^2\) At greatest length in my Theory of Economic History, pp. 134–40.
surely there were wages before there were trade unions. Consider for instance the labour market in Britain in the days of Adam Smith. Even then wages were beginning to coagulate into some sort of a pattern. We shall understand the wage-system better if we begin by considering how it could have started in those days, and then go on to see how, in what circumstances, and to what extent a trade union system could have grown out of it. (That is similar to the procedure we found it useful to adopt in the case of the market for consumer goods; I shall follow that procedure here.)

A standard model of this early stage of development would show no more than a part of the whole labour force, or potential labour force, being paid wages; the rest would have been supported otherwise. They could be regarded in Marx's manner as a 'reserve army', but they need not be idle. They might be working on family farms (which could have been paying rent to a landlord, but would not be paid wages by the landlord) or they might be doing domestic work in a family home. In either case it is by family connections that they are being supported.

One can see that a considerable movement, from family work to wage-labour, would frequently be matched by a movement from country to town. It is in that context that I find it convenient to begin to consider it.

It is a matter of major importance that there are two ways in which the movement could occur—according as the initiative is taken by a potential employer, or by the immigrant himself. These are fairly distinguishable in practice, since if the initiative is taken by the immigrant, he must himself bear the costs of movement, so he must almost inevitably come from fairly near at hand; while if the initiative is taken by the employer, labour can be brought from afar. (There are exceptions to this rule when the movement is subsidized.) It will however not pay for an employer to bring labour from a distance, or expensively, unless it is expected that the new arrivals will go on working, for the employer who has paid for bringing them, for some considerable time. So their employment must be, at least to some extent, lasting or (as I shall call it\(^1\)) established employment.

As for the people who bring themselves, they will have no such assurance. Some of them, perhaps most of them, will just make a precarious living by picking up odd jobs. Though they are paid for doing

\(^1\) All possible alternatives have associations which I do not, for the present, require.
those jobs, there is no market on which a regular rate of pay can be formed. For there are no intermediaries who can 'make' a market; neither 'buyer' nor 'seller' is professional. If we stretch the term 'market' to include it, this is the most disorganized market that can be conceived.

Nevertheless, even after beginning like this, our immigrant can sometimes make progress. If he has brought with him some particular skill, or can persuade people that he has some particular skill, he can let it be known that he claims to be competent to do that sort of work. He can then open what amounts to being a shop for his services, and much of what I have been saying about retail trade will apply. The quality (or standard) of the service provided cannot easily be stipulated, so it becomes a matter of importance to the seller of such services to establish his reputation; the price-policy which he adopts is in part a means to that end. To quote a low price is a means of entering the market, but it is the 'low' end of the market which is most easily reached in that way. To work 'up' the market is a matter of gaining reputation.

Accordingly even here there is a wide range of possible outcomes, between failure and success. Those who fail are on the edge of starvation; those who succeed may make fortunes. It is indeed from those who succeed that the entrepreneurs, who become the employers of established labour, may well be recruited.

So let us look again at the established sector, where there is a relation between employer and employed which promises some continuity. The employer expects the employee to stay with him, at least long enough to make a wage-bargain on that assumption, and the employee the same. It is here that there can most obviously be a market on which a wage is competitively determined.

If the market is to be a competitive market, each must be free to change his partner. The employee must be able to go away if he can find what he thinks to be a better offer, and the employer to dismiss him if he desires to do so. But by making their contract, the two have agreed to work together; if it is denounced by either party, each has suffered a defeat. The loss of the worker who is obliged to look for

* The shops of merchants and the workshops of artisans may be found side by side, as I have seen them myself, in Isfahan, in the days of the Shah.

* I think of the London poor of the nineteenth century, such as figure in the novels of Dickens. Why were things so different, for most of that time, in the United States? I shall come to that question later (p. 34).
another job is no doubt much more severe than the loss to the employer, if the latter is only obliged to seek for a replacement; but when the dismissal is incidental to a decision by the employer to reduce the scale of his operations, that is bad for him too. Thus in all cases of premature ending there is at least some loss for each, a loss which is better avoided. So it pays to take some trouble, and even to incur some expense, in order to avoid it. There is not much that the employee can do by himself to protect himself except to ‘give of his best’, and that can be no more than a partial protection. The employer, on the other hand, can see that he pays a wage which is at least as good as what is being paid by his competitors, so that an employee who has become established is unlikely to be tempted away. This is surely the principal way in which competition works, in the established sector—not by actual change of partners, but by potential change.

I think one can show that this is a matter of major importance, that it is indeed the essential way in which the labour market, when it is an established labour market, differs from the markets in goods, which we have been considering hitherto. Competition on markets for goods works for the most part, as we have seen, in terms of actual transactions; this is particularly so when there are intermediaries, whose actual dealings ‘make’ the market. So much is sold, and such a price is given for it. But potential competition does not work through actual transactions; it works through the influence of ideas about transactions which might be made, but are not. On these various parties may have different ideas. It is here, I believe, that the single employer, confronted by an unorganized labour force, has his chief ‘bargaining advantage’. It is simply that he can afford to be better informed, better informed about the alternatives which for this sort of labour are open. He is, in terms of our previous discussion, more of a professional than his employee. But his bargaining advantage is diminished if the employee also can find means of getting professional advice.

So this is the first way the trade union comes in. At this stage the function of the trade union official (and, still more obviously, of the shop steward) is similar to that which used to be attributed to the broker on the London Stock Exchange. There is little place for jobbers on a labour market, any more than on a fish market; but the brokering function, the provision of professional advice to the non-professional party, is needed to make the competitive market work.
But a manual worker, by himself, can rarely afford to pay for professional services; thus the obvious solution, in the market for established labour, is for a number of workers to get together, jointly employing an agent—collective bargaining. It could be that this just made the competitive market work more smoothly.

But like other economic activities this function is subject, up to a point, to scale economies, so the trade union is made more effective by increasing its membership; that leads on to a second stage. For here as elsewhere increase in size affords opportunities for monopolistic behaviour; by using the strike weapon, or threatening to use it, a union may be able to extract gains from employers and through them from their customers. But to analyse their actions in these terms, though it is tempting for an economist to do so, since he has his monopoly theory at his disposal (an essentially static theory, it should be noticed) does not bring out aspects of the problem which experience has shown to be of importance. Trade union members cannot easily be mobilized to take action, which is costly to themselves when they are on strike, just to get a relatively small gain in the ensuing period. So they are characteristically better at defence than at attack. This has consequences that can be traced.

First, it is easy to resist a formal reduction in (money) wages; that is the most obvious. So it is that in a well-unionized market, a straightforward reduction in wage-rates hardly ever occurs, except on a few extreme occasions, mostly when the reduction is understood to be temporary, and employment could hardly continue at all without it. Other methods of reducing labour costs will normally be preferred.

Secondly, there are what are nowadays called relativities. It could be that in a perfectly working competitive labour market, when the wage of one sort of labour rose, the wages of similar sorts would be drawn up with it. But that implies that there is a fairly easy move-

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6 This was not enough allowed for, though it got some attention, in the thumbnail sketch of trade union history in Britain, up to the date of writing, which I gave in Chapter VIII of my Theory of Wages (1932). That is not bad as far as it goes, for it is based on empirical work I had been doing in the years preceding (since 1925). But the accounts I have given in later work, such as ‘Wages and inflation’ (1955, reprinted in the second volume of my Collected Essays), are more mature.

7 The classical example of this, with an arrangement of this sort being formalized, is the selling-price sliding scales which were used for the regulation of wages in British coal-mining between 1870 and 1900. This was a very fluctuating industry with labour costs peculiarly heavy; it was for a while accepted that labour must take its share in adjusting to the fluctuations.
ment, or transformation, of the one kind of employment into the other. If the movement is difficult, it will not happen without union pressure. But it is understandable that people should think it ought to happen; if it does not, that is 'unfair'. This gets extended to cases when movement, within the period for which the wages are to run, is quite impossible; so it turns into a pressure for many wages to rise when some wages are rising.

These two taken together could be sufficient to account for the wage-inflation, or threatened wage-inflation, which has been with us, in so many countries, since 1945. Even if it is not resisted, it need not (so we are told) lead to price-inflation, if there is a sufficient rise in productivity. But it is quite independent of whether or not there is a rise in productivity, so it would not be surprising to find that it generally soaked through to price-inflation. But for that there has in fact been another source, the desire to defend not just a money wage, but a real wage, the money wage deflated by a price-index.

It is often said by economists that it is real wages in which trade unions should be interested, not money wages. But the fact is that until the beginning of the present century, there were no consumer price-index numbers, so there could be no question of an appeal to them; but quite strong trade unions go further back. All that could then be noticed by trade union members and their representatives were sometimes rises in particular prices, due to recognizable causes. It was not easy to base upon these claims for rises in wages in quite different industries.

The beginning of a change was in World War I. The general rise in prices, due in the first place to war-time shortages, was reflected in the (still very primitive) index numbers that were beginning to be available; it was clearly an element that had to have attention in wage-bargaining, sometimes going so far as to attach the money wage to a cost-of-living index. But that was taken at first to be just a matter of war-time disturbance. It must nevertheless have facilitated the great fall in money wages which occurred in Britain in 1921–2, when the wage-index (with 1914 as 100) fell from 280 in 1920 to 194 in 1923. Though that was matched with a corresponding fall in consumer prices, it was surely enough to disgust the trade unions with 'cost of living'. Little was heard of that in the later twenties and the thirties, when the price-index was steady or falling. So it was that when Keynes was writing, it was the maintenance of money wages for which unions were pressing, since that suited them better. It
turned out to be most unfortunate that Keynes and his followers should have allowed this transitory state of affairs to be embedded so deeply into the structure of his theory.

During the Second World War, the experience of the First was repeated, but the sequel did not repeat, since (no doubt because of better management) there was no post-war slump. So there was no disenchantment with 'cost of living'. War changed to peace much more gradually, so war-time habits of thought did not so sharply disappear. It is conceivable that they could slowly have disappeared, so that the wage-system, like other parts of the economic system, could have been slowly steered into something more stable. In the British case, to which I cannot help referring (since it is that with which I am most familiar) it nearly was done. When I wrote about the matter in 1955, a good moment to be writing about it, I allowed myself to hope that this was going to happen, and for the fifteen years that followed it largely did. I quote what I said on that occasion:

The continual rise in money wages since 1945 ... is sufficiently explicable in terms of factors that are peculiar to the time through which we have been passing. Especially during the last four years, the main factors pushing up wages have been (1) the dismantling of the controls, with its somewhat 'phoney' effect on the cost of living, and (2) the difficulty which has been experienced in the establishment of a new system of relative rates after the war-time disturbance. But these are difficulties which, in the absence of external shocks, we can expect to overcome ... But it can hardly be doubted that any serious disturbance of our rate of progress would itself push the level of money wages in an upward direction.\(^8\)

This is surely what actually happened in the British case. The 'good' years of the late fifties and the sixties were brought to an end by an external shock—a rise in the prices of several important imports, relatively to those of exports—which implied a reduction in the real wage that British labour was able to earn.\(^9\) It was this which set off the following troubles. How much can be done in such an emergency, by monetary or semi-monetary measures, will be examined in later chapters.

But before concluding this, a little more should be said about the distinction, fundamental to my argument, between established and

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\(^9\) It is very striking that in those good years the British terms of trade were nearly constant, while from 1970 to 1973 there was an adverse swing of about 20 per cent.
non-established, or less established, labour. I have tried to explain why trade unionism, and the 'social' influences on wages that go with it (for employers as well as employees are affected), are naturally characteristics of an established sector. The proportion of the labour force that is established can vary, from one time to another, and from one country to another. This is not just a matter of the degree of industrialization. It is by no means necessary that the whole of an industrialized labour force should be thoroughly established. It is possible to organize industry with no more than a nucleus of established labour, the rest of those who are employed in production being more loosely attached. Semi-skilled labour, which can be quickly trained to do its work, need not be tightly attached. Modern technology may well tend to make relatively increasing use of less attached labour. But I do not have the information to make more than a guess at that.

It is however worth noticing that if Britain (and possibly other European countries also) can be reckoned to have a long tradition of established labour, while in the United States the tradition goes the other way, much would fit into place. One can see, first of all, how it could have been that such a difference arose. In Europe, in the formative period, labour was being drawn out of agriculture into industry; and when people had moved, they could not easily go back. They had made a gain by moving, but a gain which they soon felt that they needed to defend. In the United States, on the other hand, the 'frontier' as it was called long remained open; there were also expanding opportunities in farming and in occupations ancillary to farming, so there was a two-way movement between the sectors. So the industrial worker had less need to defend his position; for if he were not paid what he thought to be a competitive wage, he would just go away. 'Exit'! Of course there were and are trade unions in America; but they have never sought to play such a part in the American economy as British unions have for so long in the British. That has repercussions which go very deep.\(^\text{10}\)

\(^\text{10}\) There are examples from other countries which seem to support this thesis, apparent exceptions which prove the rule. I think of Australia and Argentina, 'new' countries with very strong trade unions. Each has had a large, and for a while a growing, agricultural sector, but in each case the farming was highly capital intensive, which gave little opportunity for 'exit' from industry. The Australians have sought a release from their predicament by high protection; the Argentinians have failed to find even that. But I only mention these examples to show that they are not inconsistent with the general line of what I am saying.
It has for instance had its echo in the world of economists, making it hard for American economists and British (for example) to understand one another, not only on the particular matter of labour relations but more widely also. 'Search' theories of employment, which have had quite a success in America, do not in other countries have much appeal. 'Full employment', that sheet-anchor of the Keynesian system, looks quite a bit different according as one is thinking of the one sort of labour market or the other.

Keynes himself was surely thinking of employed labour as established labour: his unemployed were people who expected to be established but for the present were not. If their unemployment is only temporary, they will still have an eye on their established places; an increase in effective demand should bring them back, where they were. They would not have lost the capacity to fit into those places; they would have not just the skill, but also the use of the experience they had possessed. So if the Keynesian prescription was just directed towards helping a recovery from Depression (which is how many of its first readers including myself were inclined to take it) it is beyond question correct. But it went on to claim that the same would hold if the Depression were long lasting; that, in the light of later experience, is less convincing. Perhaps it is more convincing in the case of the American-style economy, where most of those who are employed are less established: they will then have lost less in employability by being unemployed; if they are 'out', it is not hard for them to get 'in' again. The same may not be true of an economy with a large, very fully established sector, the sort of economy which we thought that Keynes had in mind.

I am getting short of words with which to explain myself, so had better have resort to adjectives which go better into symbols. Let us give the established employment the name solid employment or S-employment, and the labour which expects to get S-employment the name S-labour. Similarly, for the less established employment let us use the term fluid employment or F-employment, and for the labour which expects to get F-employment the term F-labour. In our initial state of Depression, there is S-unemployment and F-unemployment. When effective demand is increased, according to Keynes, both S-unemployment and F-unemployment should be

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11 The only problem is financial—how to finance the expansion.
12 We shall find it useful to use 'solid' and 'fluid' in ways that correspond, when we come to the financial sector.
absorbed. But suppose that for some reason (just a particular kind of technical change, or it may be that because of labour troubles employers would like to get out of employing S-labour) it is F-labour that is more readily adsorbed. 'Keynesian full employment' is then more quickly reached in the F-sector than in the other. Wages, as Keynes would expect, then start rising in the F-sector; and the rise carries over to the S-sector, on trade union principles, in spite of the unemployment which there persists. Further, since labour for F-employment does not need much training, it is drawn in from what was formerly outside the labour force (female labour and immigrant labour are obvious examples). So the labour force, as statisticians measure it, goes on expanding, and unemployment, as statisticians measure it, S-labour going on being substituted by F-labour, gets worse. The obstacle, it will be noted, is the blockage in movement of labour from S to F.\textsuperscript{13}

Whether this is what has been happening, in Britain and perhaps in some other European countries, during the last ten years or so, is not a matter on which it is appropriate for me to pronounce. The business of theorizing, such as I am engaged in in the present work, is to ask questions and to formulate questions, not to answer them; still less to make recommendations on what should be done to meet the challenges which appear to have been raised.\textsuperscript{14}

\textsuperscript{13} A similar problem may indeed arise when there is increased demand for S-labour, but the demand is for S-labour to work in a different part of the country from that where S-labour is unemployed. Transfer of labour then implies transfer of residence, always expensive to the worker—made more expensive in current British conditions, by the subsidized or rent-restricted housing which is a hang-over from the welfare state of the years before 1980. A subsidy on stagnation!

\textsuperscript{14} The Keynes theory on wages and employment, on which in parts of this chapter I have been commenting, has been taken in a form which is not exactly that in which it appears in his famous book. There he makes concessions to critics which, as subsequently appeared, he need not have made. This is most evident in his curious Chapter II, now known to have been written after the rest, in reply to criticisms which had been made on the other chapters by his Cambridge colleague Pigou. Pigou was arguing from a fully Marshallian position, on the formation of prices of manufactures, that in the 'short period' an increase in demand must raise their prices. So if money wages are given, an increase in 'effective demand' must lower real wages. Pigou maintained that it was this reduction in real wages which raised employment. Keynes, accepting that this would happen, claimed that Pigou had got the chain of cause and effect the wrong way round. All this would have been quite unnecessary if it had been accepted that (as I have tried to show in the preceding chapter) there is likely to be an important phase in recovery from depression, when firms who have been holding their selling prices to what they think to be a normal level, have no incentive to raise them when demand returns to normal. Over a range, that is, they will operate in a 'fixprice'
manner. This was brought home to economists, soon after the GT was published, by the work of J. T. Dunlop ("The movement of real and money wage rates", *Economic Journal*, 1938) and M. Kalecki (*Essays in the Theory of Economic Fluctuations*, 1939). I do not claim that when I published my version of Keynes in 1937 (what has since become known as the ISLM diagram) I had myself got clear on the matter. It was just that I saw that the best way of simplifying Keynes was to take money wages (provisionally) to be constant. I am grateful for the help I have had from Professor Tom Wilson on this matter.