PART III

ECONOMIC THEORIES

VII

EXPLANATIONS OF THE GREAT DEPRESSION

As a result of developments in economic theory during the 1930s no sharp distinction now exists between the theory of money and the theory of value and production. This article proposes to trace the destruction of a discrete monetary theory by examining the explanations that have been offered for the secular fall in the British price level from 1873 to 1896. It is an appropriate case because it attracted substantial interest and analysis, both contemporaneously and in retrospect. Many of the great figures in the history of doctrine, from Marshall on, have spoken their piece about it. An examination of the application of their theories to a single body of data is calculated to reflect the paths by which monetary analysis has come to its present position.

I

The types of theory illustrated will be divided into the following categories:

1. Those which argued directly from gold to the price level.
2. Those which took into account changes in $M'V'$, dealing explicitly with the monetary and banking system.
3. Those which looked explicitly to the interest rate as the lever by which price movements were achieved.
4. Those which explained movements in the general price level in terms of a supply-demand analysis of individual prices.
5. Finally, three cases will be examined in which attempts have been made to combine the various strands into a consistent general explanation: those of Marshall, Wicksell, and Keynes in the *Treatise*.

It is obvious that no reputable theorist has been content to interpret price movements simply in terms of gold production, or even of the amount of gold held by the banking system. All were led, to a greater or lesser degree, to examine the mechanism by which gold affected individual price movements. Most writers might be placed in several of the categories. But the confusions, the sort of data selected as relevant or left unused, the movements in variables assumed implicitly to have taken place, all point the consequences of the lack of co-ordination between monetary theory and value theory.

1. Fisher writes:[1]

> Between 1873 and 1896 prices fell. This fall was presumably due to the slackening in the production of gold; to the adoption of the gold standard by nations previously on a silver basis, and the consequent withdrawal of gold by these new users from the old, to the arrest of the expansion of silver money consequent on the closure of the mints to silver; to the slackening in the growth of banking; and to the ever-present growth of trade. . . . It is not that the left-hand side of the equation did not increase, but that it did not increase so fast as trade. . . . It will be seen that the history of prices has in substance been the history of a race between the increase in the media of exchange (M and M') and the increase in trade (T), while (we assume) the velocities of circulation were changing in a much less degree.

In both the *Purchasing Power of Money* and the *Theory of Interest* Fisher explored the relation between the interest rate and price movements; yet, in a so-called 'statistical verification', he finds a correlation between gold stocks and price-level movements a sufficient test.[2] There is no investigation of capital market conditions calculated to reveal whether, in fact, the money rate was lagging behind the 'real' rate of interest.

[1] *The Purchasing Power of Money*, pp. 243 and 246–7. See also Mr. R. G. Hawtrey, *The Art of Central Banking*, pp. 199–200. After a statement of the gold situation, implying the usual consequences on prices, he shifts to a discussion of central bank policy and its ramifications—presumably the active agent in the price decline, pp. 200–7. More recently (*A Century of the Bank Rate*) Hawtrey has attempted to show that monetary crises, caused by gold shortages, and consequent unemployment, were required in this period to keep Britain in international exchange equilibrium (see especially pp. 100–2).

[2] Ibid., pp. 242–5.

Cassel's explanation follows precisely the same pattern. He finds a nice correlation between gold stocks and the price level, discovers the mystic 3 per cent. rate of gold production which, in conjunction with a 'normally' increasing T, will keep prices steady, and rests his case.[1] He immediately refers to the manner in which the automatic manipulation of the bank rate on gold-reserve criteria brings about the necessary price changes; but that proposition is not tested historically.[2]

2. Cassel makes an attempt to bring M' into the explanation, by assuming explicitly that the volume of bank money varied with the stock of gold in reserve.[3] But it is a half-hearted effort; and it has been painstakingly demolished by J. T. Phinney, who says:[4]

> The conclusion of this analysis of bank statistics is that such data as are available show that little or no correlation existed between the rate of growth of the gold supply and the rate of growth of either bank reserves or bank notes and deposits. Between variations in gold production and variations in the rate of growth of the most important part of the circulating medium there seems to have been almost no correlation that is assumed by all studies of the problem of price trend that deal in terms of gold and price alone. This absence of correlation is especially striking in the period from about 1875 to 1913, when so many of the statistics examined show a relatively constant rate of growth of bank reserves and bank currency, quite unaffected by variations in gold production or by trends in prices.

Layton and Crowther, using the same sort of theoretical framework, were aware that banking statistics did not reveal the expected stagnant (and thus deflationary) tendency. They trace briefly the development of banking institutions and practices to find that in a considerable measure 'Great Britain had substituted credit instruments for gold'.[5] Banking developments were working in the opposite direction to the alleged gold shortage. With the type of analysis they employ, however, the fact that the price level did fall forces them, by

[1] *The Theory of Social Economy*, pp. 467–94.
[2] Ibid., pp. 494–502.
[3] Ibid., pp. 481–9.
[4] 'Gold Production and the Price Level: the Cassel Three Per cent. Estimate', *Quarterly Journal of Economics*, 1933, p. 677.
[5] *An Introduction to the Study of Prices*, pp. 85–6.

definition, to conclude that the expansion in banking was 'quite overshadowed by the absorption of gold'.[1]

3. The explanations of Fisher and Cassel appeared in general theoretical texts. The author could select without a historian's full responsibility such data as he chose, to illustrate elegantly a long-run generalization. Readers and reviewers, too, were not essentially critical of the historical implications of the illustrations. But this secular fall in prices was, in its day, a burning short-run issue, with political implications. Economists who put forward their views in the Press or before the royal commissions found themselves in heated debate, and sharply questioned. In the course of the controversy over the causal process by which prices were lowered, short- and long-run monetary analyses were brought closer together than they were again to be for many years.

One of the best of these controversies involved Sir Robert Giffen, Marshall, and the *Economist*. Giffen had maintained that the fall in prices was due to a stationary amount of money, at a time when the amount of commodities coming on to the market was steadily increasing.[2] This relationship was illustrated by a diagram showing money (1873–96) as a horizontal line, commodities sloping steadily upward, prices downward.[3] In subsequent debate it was argued that if a gold shortage was being felt it would have operated through the money market; but long- and short-term capital rates were, on the average, patently lower than they had been in the decades before 1873. Giffen realized, too, that the long-run consequences which he ascribed to a gold shortage must be the cumulative result of a series of short-period deflations induced from the centre of the banking system:[4]

> The way scarcity or abundance of gold would tell upon the money market would be by producing monetary stringencies and

[1] *An Introduction to the Study of Prices*, p. 86.

[2] 'Recent Changes in Prices and Incomes Compared', *Essays in Finance*, vol. i. A. Sauerbeck, before the Royal Commission on Precious Metals, argued on precisely the same lines: '1067. You said, I think, that the increase of the supply of gold has not been as great as the increase in the supply of commodities, and therefore prices have fallen?' 'Just so.'

[3] Ibid., p. 214.

[4] 'Trade Depression and Low Prices', *Contemporary Review*, 1885.

periods of temporary difficulty and discredit, by which, perhaps, the tendency to depression would be aggravated. The average rates over the whole period, when these stringencies were occurring, might be lower than at times when they were fewer, but the mere fact of successive stringencies would help to produce the effect described on prices.[1] Now the course of the money market since 1871 has been full of such stringencies.

The final sentence, backed by a few vague references, constituted Giffen's only proof. And the *Economist*, with a barrage of carefully prepared statistics (comparing 1860–71 and 1872–83), showed not only that money rates on the average had been easier,[2] but that the number of rate changes and the average range of rates was about the same in both periods, despite the fact that 1872 and 1873, years of rising prices and high and frequently changing Bank rates, were included in the latter decade. These statistics, in addition to a re-examination of its own weekly money market reports, led the *Economist* to conclude:[3]

> The whole of the evidence, therefore, adduced in support of the theory that we have been suffering from a great gold scarcity, which has exercised a severely depressing influence upon prices, seems to us to break down upon examination.

Giffen began by contemplating an increase in commodities set against a stagnant amount of money. So long as he was able to remain on the level of quantity theory terminology there were no problems of detailed explanation: gold production had tapered off, there had been an increased demand for gold, as the gold standard was widely adopted, prices had fallen. What more could one ask? But the dissatisfaction of opponents who had their eyes fastened on individual prices —the dissatisfaction Cantillon felt with Locke, Tooke with Ricardo—forced him into short run. Simplicity and sureness were gone. The case fell to the ground.

[1] See also G. D. H. Cole, *British Trade and Industry*, pp. 91 and 96–7, for a similar explanation of the role of gold, and monetary influences.

[2] *Economist*, 1885, pp. 687–8.

	Average Bank Rate.
1860–71	4·12%
1872–83	3·46%

[3] Ibid., p. 688.

Marshall, commenting on the *Economist*'s article in reply to Giffen, emphasized that a low rate of interest was not in itself sufficient evidence against the existence of a gold shortage. He believed that the interest rate had not fallen so far as it might have—that a 'gold shortage was felt a little in the Bank parlour'.[1] But neither his analysis nor his conclusions differed in any important respect from those of the *Economist*, which held that gold, from 1873 to 1885, was 'an influence of a very minor kind' on prices.[2]

Like Giffen, Layton and Crowther, after reciting the usual monetary statistics, felt called upon to deal somehow with the problem of the interest rate:[3]

> It has frequently been argued that the low rate of interest which prevailed, together with the fact that the combined bullion reserves of the leading countries of the world increased during these years, are signs that there was no lack of gold. Falling prices are, indeed, commonly associated with a low rate of interest, which is not necessarily incompatible with a relative shortage of the precious metal. The test of sufficiency or otherwise of the gold supply is the relative levels of the bank rate of discount and the general rate of capital (as indicated by the yield on an approved security) over long periods. Both may be low, but if the former is consistently above the latter, it indicates a shortage of gold.

A comparison of the Bank and Consol rates reveals the 'former above the latter' except at occasional cyclical periods of easy money. The years after 1896, when the gold shortage was presumably no longer operative, show, if anything, a greater gap between market and Consol rates than those before. But it is not the inadequacy of the verification that is to be noted here, so much as the authors' faith in the sufficiency of the quantity theory framework. Pages are devoted to the gold question, a perfunctory paragraph to the interest rate.

4. Although, in quantity theory terms, it was admitted by most writers that T was the 'dynamic' force in the price decline—that the volume of trade was increasing against a stagnant amount of effective money—discussion centred on the left-hand side of the quantity equation. The *Economist*

[1] *Official Papers*, p. 128.
[2] 1885, p. 688.
[3] Op. cit., pp. 86–7.

noted that Giffen only 'tersely summarized' what he himself had believed the active agent in the price fall:[1] 'a great multiplication of commodities and diminution of the cost of production due to the progress of invention, improved facilities of communication, lower freights, international telegraphy, and the like circumstances'.

Giffen in this list not only mentions the increase in T, but he includes, as well, forces which tended to lower costs. Here is a kind of double counting which lies at the heart of the duality. In the theory of production, falling costs shift supply curves down and to the right. If the demand curves facing individual firms remain unchanged, increased output and lower prices result simultaneously from the change in cost conditions. Marshall had pointed out this redundancy. In a written reply to preliminary questions submitted by the Royal Commission on the Depression of Trade and Industry (1886) he wrote (after quoting Tooke on the fall in prices from 1814 to 1837):[2]

> I think that there is an objection to Tooke's mode of wording which applies also to many recent writings on the subject. He has not made it clear that the diminution of the cost of production of commodities must not be counted as an additional cause of the fall in prices, when its effects in increasing the supply of commodities relatively to gold has already been allowed for separately. This is a point of some difficulty, and its interest is theoretical rather than practical.

This theoretical confusion in reverse appears in the method by N. G. Pierson in examining the same problem.[3] He separates influences from the side of 'commodities' from those of 'money'. Taking the price of silver as an example, he finds no residual fall in its price to be explained after supply and demand conditions have been investigated, concluding that there was, therefore, so far as silver was concerned, no bullion shortage operative. David Wells battled the bi-metallists

[1] *Economist*, 1885, p. 688. More than anything else it was the inability to deal analytically with T in quantity theory terms which led to a concentration on the factors of the 'left-hand side', an identification of the quantity theory with a causal explanation almost completely in terms of money.

[2] *Official Papers*, p. 5.

[3] *Principles of Economics*, vol. i, pp. 384–99.

in the same way.[1] Neither realized that what the quantity theorists were saying was that the price fall was caused by a chronic deflation—a shifting down of individual demand curves—which was a result, in turn, of an artificially high interest rate. It is no wonder that the Royal Commission on the Depression, confused by the monetary theorists, took refuge in *ad hoc* explanations of individual price movements, turning the whole question of the precious metals over to another commission.[2]

II

The theory of general equilibrium towards which these writers were moving was obviously in an embryonic stage in Marshall's time. And it was to remain so until much later. Keynes has remarked that, 'It was an odd state of affairs that one of the most fundamental parts of the Monetary Theory should, for about a quarter of a century, have been available to students nowhere except embedded in the form of question-and-answer before a Government Commission interested in a transitory practical problem.'[3]

Marshall himself, confronted by a Commission dissatisfied with the long-run vocabulary of the quantity theory, anxious to suggest short-run remedies for the fall in prices, was facing some issues in monetary theory almost for the first time. He was asked:[4] 'We are supposing that there is a scarcity of gold and prices have fallen by reason of scarcity of gold?' to which he replied, 'I want to try and trace that if I can and see how it comes to affect prices, which puzzles me down to this moment'. His analysis contains most of the elements that have found their way into current general theory, but it is an uncoordinated and scattered statement at best. These were, for Marshall and his contemporaries, new issues; and the classical framework of theory was slow to adjust itself.

Marshall began bravely: 'I look with some scepticism on any attempt to divide the recent fall of prices into that part which is due to changes in the supply of commodities and that which is due to the available gold supply.'[5] He insisted that

[1] *Recent Economic Changes*, New York, 1890.
[2] Third Report, pp. 3–5.
[3] *Memorials of Alfred Marshall*, p. 30.
[4] *Official Papers*, p. 126.
[5] Ibid., p. 5.

he would use the term appreciation of gold to mean simply a fall in general prices. He desired to imply no causal monetary effect, he was eager to avoid the duality of which he was sharply conscious.

But the term 'general prices' proved quite as difficult to manage as 'appreciation of gold'. He came at one point close to the kind of causal statement he deplored, with the dangerously popular dictum:[1] 'The gold prices of all commodities fall together in consequence of the scarcity of gold.' He was asked: 'How many commodity prices must fall before there is an appreciation of gold?' 'That is what I wanted to guard myself about in my first answers. I quite admit that it would be possible for there to be a general fall of prices without anything that you could call a rise in the real value of gold. But on further consideration I see I need not pursue the point further. I can alter my wording so as to avoid the necessity for recalling the distinction I then made between the different uses of the term "appreciation of gold" and say there is a fall in gold prices. That is all I want. I do not want the scarcity of gold.'

From this point Marshall was pushed by the Commissioners (concerned with possible bi-metallist legislation) into the question which most interested them: In what way and to what extent did bullion influences operate to affect prices? As noted above, Marshall felt that to some extent the Bank rate had been kept artificially high, and that this had depressed the demand for goods through its effects on the willingness of merchants to hold stocks of goods. Several other types of influence on general activity stemming from the Bank rate were hinted, but the theory of its operation was left inconclusive.

Marshall evaluated the gold shortage as a minor influence on prices; yet he was incapable of discussing in other than the terms of partial equilibrium what he regarded as the major force, the reduction in the real costs of production. He refers

[1] Ibid., p. 79. Further evidence that Marshall did not free himself from the duality of approach is the following: '9978. So that in the long run, although trade influences appear to affect prices, really the reduced or increased supply of gold tends to bring about a lower or higher average level of prices?—Yes.'

to 'an improvement in the methods of production of many commodities, leading to a fall in their real cost', admits it as a 'true cause', but concludes that 'when we regard the average level of prices as dependent, other things being equal, upon the ratio of the volume of the standard metals to that of commodities, we count in the action of this cause through its influence in increasing the amount of commodities. There is some danger that its direct influence in reducing cost may be counted in as an additional cause of low prices; and this would, I submit, be to count the same thing twice.'[1] No more was heard from Marshall about the reduction of costs.

At the same time, in his discussion of the movement of the long-term interest rate, Marshall showed that he had grasped the essential character of the depression:[2] 'A depression of prices, a depression of interest, and a depression of profits. I cannot see any reason for believing that there is any considerable depression in any other respect.' Now the interest rate and profits were clearly linked in theory by Marshall:[3]

> My position is that the mean rate of discount is governed by the mean rate of interest for long loans, that again is determined by the extent and the richness of the field for investment of capital on the one hand, and on the other by the amount of capital seeking investment.

Marshall attributed the falling real rate of interest to 'a difficulty of finding good openings for speculative investment', to an increase in the amount of savings available for investment, and, partially, to the fact that the price level was falling, and the expectation of further fall injured the confidence of investors. But the strands were never pulled together. A causal line in this dynamic process was never clearly traced by him, the elements remained unweighted, discrete.

Wicksell's is a less elaborate but more consistent explanation:[4]

> Since 1871 . . . railway building, though it was continued on an enormous scale, took place mainly in countries outside Europe,

[1] *Official Papers*, p. 23.
[2] Ibid., p. 99.
[3] Ibid., p. 81.
[4] *Interest and Prices*, pp. 174–7.

or in more remote regions. In short, there was a considerable lack of really profitable opening for the additional capital which arose out of the savings of almost all classes of the community. The increase in real capital served rather to raise real wages. . . . The natural rate of interest consequently fell, but whether it fell to a *corresponding degree* must be regarded as doubtful.

This statement does centre attention on the changed direction of investment. It is developed, moreover, in a set of unified terms. It fails, however, to indicate that the type of investment 'increasing real capital, serving to raise real wages', would, in itself, lower prices whether a lag in the money rate of interest caused a chronic deflation of demand or not. Unless Wicksell contemplated two separate pressures downward on prices—one from the side of supply ('increasing real capital, lowering costs and prices, raising real wages'), the other from the side of demand ('a lagging money rate of interest')—there is a real conflict here.

In terms of theory Wicksell's view differs essentially from current analyses in its assumption of an equilibrium position where an appropriate rate of interest, by definition, achieves a steady price level and full employment. Aside from the assumptions this proposition makes about the demand for loanable funds, it holds only for the short period. The neutral rate of interest is that which would maintain constant *per capita* income. In the long run that rate is expected to fall, and prices with it. Assuming for the moment that the demand for capital was such as to produce full employment at some rate of interest, then only chronic unemployment, not merely a falling price level, would be evidence of the lag Wicksell assumes. Under short-period assumptions, of course, a falling price level might be sufficient evidence. The grip that the short-period analysis has held on theorists is indicated by the fact that none conscientiously investigated such employment statistics as were available; all ignored the royal commissioners' conclusions, and Marshall's, on the point.

Wrestling still with these issues, Keynes, in the *Treatise*, remained attached to several conceptions which defeated his attempt to make monetary and value theory homogeneous:

a concern with the general price level; a belief that general dis-equilibrium could be defined usefully (i.e. causally) in terms of an inappropriate interest rate. In addition, unlike Wicksell, he was hampered still by a residue of old-fashioned quantity theory, unco-ordinated with the body of his theoretical structure.

His judgement on the Great Depression was that 'a failure of the market rate of interest to fall as fast as the natural rate, has been more important than a shortage of gold supplies'.[1] He does not indicate that if a gold shortage was operative, it would have been effective through an artificially high market rate. Now, it is possible to distinguish two types of lag: that induced by a gold shortage, and consequent chronic pressure on the central bank's reserves; that due to institutional 'stickiness', symmetrical with the conventional lag assumed to exist between money and real wage rates. Without other evidence one might assume that Keynes was merely isolating out the two kinds of lag.

But earlier in the *Treatise* he dealt with the same period. He stated that the decline of prices from 1873 to 1886 was due to a failure of new mining to keep up with the demand arising from the adoption of the gold standard by a number of countries.[2] No justification, historical or theoretical, is given for the acceptance of 'the story on which we were brought up'.[3] He proceeds at that point, however, to discuss the depression of 1890-6 as a case of commodity deflation proceeding under a regime of easy money and abundant gold. The third of the Great Depression slumps is distinguished from the earlier ones presumably because the influx of new gold had already begun, making nonsense of any explanation simply in terms of the precious metals. The other cyclical depressions within the period, however, might have been equally well interpreted in the vocabulary of the *Treatise*. In them one can also trace clearly 'the effects of a prolonged withdrawal of entrepreneurs from undertaking the production of new fixed capital on a scale commensurate with current savings'.[4] The data offer no justification for such arbitrary division of cause.

[1] Vol. ii, p. 206. [2] Ibid., p. 164. [3] Idem. [4] Ibid., p. 206.

The duality appears even more sharply in Keynes's discussion of the Gibson paradox. He attributes the correlation of interest rates and general prices to a market rate of interest lagging frictionally behind the natural rate. But an allowance is made in prices for 'monetary influences as distinct from the influences of Profit Inflations and Deflations'.[1] The price index is corrected 10 per cent. from 1875 to 1884 for the downward pressure exerted presumably by monetary influences, i.e. a bullion shortage.[2] Even Giffen had admitted that the bullion shortage, if it operated at all, operated through something very close to a profit deflation. On this point, one can see clearly why Keynes described the composition of the *General Theory* as 'a struggle of escape from habitual modes of thought and expression . . . which ramify, for those brought up as most of us have been, into every corner of our minds'.[3]

III

Keynes of the *Treatise* emerged, then, like most monetary theorists before him, with an explanation of the price fall in terms of an inadequate demand for commodities, caused by a lagging money rate of interest. Many commentators on the period, however, were impressed from the beginning by the profound changes in cost and supply conditions. They knew that individual prices had fallen simply because freight rates were lower, new sources of supply had been opened, new machinery was in use. This sort of change, in a sense, defined the Great Depression to common-sense observers. They were baffled and angered by monetary theorists who, at best, could talk only in terms of a lagging interest rate, implying a chronic deflation of demand.[4]

The monetary theorists were severely hampered in their efforts to persuade. They were obsessed with the criterion of a constant price level, a monetary and interest rate policy

[1] Vol. ii, p. 206.

[2] Ibid., p. 199.

[3] *General Theory*, p. viii; and, also, pp. 292–4.

[4] See, for example, the testimony before the Commission on the Precious Metals, of N. L. Raphael, bullion broker. Questions 6908–7061. He could see no justification for all the talk about gold and monetary influences when costs had obviously fallen, new supplies were coming on the market, and cheap money lay idle in London.

'neutral' in its effect on prices. Any fall in prices automatically was 'caused' by an interest rate 'not low enough' or a failure of the effective amount of money to 'increase fast enough'. This was due to the fact that they were employing a short-run and essentially static analysis. In the analytic short run the quantity of fixed equipment does not change. Fluctuations in income, employment, and prices can be virtually identified. It was the application of a theoretical framework, developed under short-period assumptions, to deal with an abstracted 'trade cycle', that led them astray when it was applied to a period when long-period forces were at work. They could not indicate that the acts of investment in Period I, which caused a shifting up of demand curves and rising prices, in Period II would be shifting down cost curves, causing falling prices. In the secular analysis of the gold-prices theorists, changes in T could be used to deal with increased productivity, lower costs. The short-period analysis left such factors untreated. Wicksell's long-period analysis, as applied to the Great Depression, alone seemed to offer the economist a way of getting at changes in cost conditions without forsaking a monetary vocabulary.

When the *Treatise* was written Keynes was much concerned with Britain's inability to achieve full employment after the return to the gold standard in 1925. His comments on Bank of England policy in that period make it clear that he saw in the Great Depression an analogy to chronic post-war unemployment as he then interpreted it.[1] That analogy was justified in that complaints of excess capacity, a searching for new markets, characterized both periods; abnormal unemployment, however, was not present during the Great Depression. In both cases Keynes concluded that the interest rate was 'too high'. A disillusion with the efficacy of interest-rate manipulation and an analysis which relieves causal emphasis from it came together.[2] It would be interesting to know whether Keynes of the *General Theory* would have placed greater emphasis on the demand for capital in the post-

[1] *Treatise*, vol. ii, pp. 207–8.

[2] For the central causal importance of the interest rate in the *Treatise* formulation, see vol. i, pp. 156–9: 'The Causal Direction of Change'.

war years—a low and inelastic expected marginal efficiency —than he did at the time.

It is obvious that this analysis has implied a 'correct' approach to the treatment of price movements as well as historical judgement about 'the real causes' of the price decline from 1873 to 1896.[1] To set forth the theoretical approach fully lies outside the scope of this chapter. Certain of its tenets, however, may be stated:

1. No distinction in vocabulary is made between the analysis of the long and short run. A long-run movement in prices, in time, is regarded as an accumulation of short-run movements; analytically, 'long-period' factors are introduced into the analysis of price movements over short periods of time.
2. No distinction is made between the treatment of individual prices and the price level. Index numbers of prices are regarded as a summary of individual prices, not as 'the value of money'.
3. The analysis attempts to be dynamic in the sense that the movements of the chief variables are traced through periods of time and causal forces are evaluated in that movement. An important example of this is the tracing of the long-run consequences (i.e. consequences for cost and supply curves) of investment, which, in the short run, affect demand curves.
4. A maximum amount of the analysis, formulated in terms of income flows, is brought to bear on the factors affecting the position of the individual firm.

Perhaps the most useful lesson in this rehearsal of explanations is not for economists, but for historians. Men observing honestly the same set of data emerged with quite different explanations. Each explanation depended directly on theoretical presuppositions. But more than that, the data selected as relevant depended on those presuppositions. The royal commission reports contain pages of statistics on price movements, practically no statistics of investment. Fisher and Cassel were content with prices and gold stocks. Keynes of the *Treatise* was content with prices and interest rates. None

[1] See Chapters III and IV, above.

of the theorists (with the possible exception of Wicksell in his reference to rising real wages) could talk about interest rates and costs at the same time, or, at least, not in the same chapter.

In many historical terrains convention has marked out useful frameworks of organization, containing implicit assumptions of relevance and cause, which leave the writer free to exercise his talents for the collection of fact. The economic historian, if he is to go beyond the great institutional studies of the line which runs from Thorold Rogers to Clapham, must concern himself consciously with the problem of adapting such a framework from the corpus of current economic theory.