Fabricating the Keynesian Revolution

Studies of the Inter-war Literature on Money, the Cycle, and Unemployment

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CHAPTER 2

The Austrian Theory of the Trade Cycle

Wicksellian Origins

Knut Wicksell’s work provided a crucial link between neo-classical monetary theory, built around the quantity theory of money, and the analysis of the interaction between saving and investment during the inter-war years, out of which so-called Keynesian economics was, in due course, to develop. But if Wicksell’s ideas had an influence on those whom we nowadays regard as Keynes’s predecessors, those ideas were just as seminal for their opponents. In particular, Wicksell provided the starting point for the Austrian trade-cycle theory which, before 1936, seemed at least as likely as any other body of analysis to be about to dominate the subdiscipline; and that doctrine offered an interpretation of macroeconomic behaviour, not to mention a set of policy recommendations, that no one could describe as proto-Keynesian. Indeed, the reader who looks in this chapter for points of contact between that theory and the IS-LM model will find virtually none.

Austrian cycle theory was largely the creation of Ludwig von Mises and Friedrich von Hayek, but it also had a number of non-Austrian adherents. Outstanding among the latter was Lionel Robbins, who was instrumental in bringing Hayek to a chair at the London School of Economics in 1931, thereby ensuring that over the next five years or so his work would have a major impact in Britain, and indeed in the English-speaking world more generally.

The Cumulative Process

The particular contribution of Wicksell upon which the Austrians built their cycle theory was his so-called cumulative process analysis. Wicksell treated the cycle as fundamentally a real phenomenon, reflecting waves of innovation.

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1 Wicksell’s influence on inter-war macroeconomics was pervasive, so much so that Leijonhufvud (1981) referred to one important theme that ran through it, namely, the role of inter-temporal allocative failures in generating cyclical fluctuations, as “The Wicksell Connection.” For a detailed and penetrating account of the relationship between Hayek’s cycle theory and Wicksell’s work, see Trautwein (1996)
and the fluctuations in investment that accompanied them, and he regarded monetary matters as, at best, of secondary importance in this context. He developed his cumulative process analysis not with a view to understanding the cycle, but mainly as an aid to understanding the problems raised by secular price-level movements, particularly as they occurred in a monetary system dominated by commercial banks but nevertheless anchored by adherence to the gold standard. His aim was thus to extend the quantity theory of money, as he had inherited it from classical theory, to deal with the old problem of such price-level movements in the context of a new and contemporarily relevant set of institutional arrangements.

At the heart of Wicksell’s analysis was the postulate that when the rate of interest at which commercial banks stood ready to lend, the market or money rate of interest, lay below the natural rate of interest, to be defined in a moment, entrepreneurs would be induced to increase their borrowing from the banks and bid up the prices of the factors of production; the increase in nominal factor incomes, thus induced, would in turn ensure that the money price of output would also increase. Given Wicksell’s usual assumption about price-level expectations, namely, that the current period’s prices were expected to prevail in the following period, these mechanisms would raise prices period after period, so long as the discrepancy between the two interest rates persisted. Wicksell, however, looked to the workings of the gold standard to remove the discrepancy in question and hence to restore price-level stability to his economy: rising prices would cause an increasing demand for gold currency on the part of the non-bank public; the banks would thus lose reserves and in response would raise the money rate of interest. The system would therefore, in due course, settle down at a new higher and, according to Wicksell, metastable equilibrium price level.

Though that analysis was conceived by Wicksell as extending rather than replacing the quantity theory of money, the quantity of money itself, which he usually thought of as consisting solely of what we now call currency, played a passive role in the process of price formation. Credit granted by the banking system was the active element there, driving up input prices when it was granted, and output prices when the goods whose production the

2 Patinkin (1965, note 8) provided the best single account of Wicksell’s monetary economics. See also Laidler (1991, ch. 5). Boivinovsky (1995) has explored the relationship between that monetary economics and Wicksell’s cycle theory.

3 Note that this analysis by Wicksell would, with a given stock of gold, have the banking system’s reserve ratio smaller in the new equilibrium than at its starting point. Other monetary economists, notably, for example, Hawtrey (e.g., 1913) and Fisher (1911), who also analysed cumulative processes similar to (though by no means identical with) that of Wicksell, were more concerned with banks having a desired reserve ratio. That is perhaps one reason why their analyses led to monetary models of cyclical fluctuations. On Hawtrey, see Chapter 5, and on Fisher, see Chapter 8, “The Quantity Theory and the Cycle.”

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credit had financed were sold. Moreover, because Wicksell thought of the proceeds of those sales as being used by entrepreneurs to pay off their bank loans at the end of each period, questions about whether or not the bank deposits created when loans were made might exert a subsequent influence on prices, over and above their first-round credit-market effects, did not arise. But it is only if such questions do arise that it becomes natural to extend the money concept relevant to the quantity theory to encompass bank deposits, and that Wicksell did not usually do. Thus, when in some of his expositions of the cumulative process he found it convenient to leave a gold-standard world altogether and analyse the operations of what he called a “pure credit economy” in which currency did not exist, his analysis seemed to supersede the quantity theory altogether, rather than supplement it.4

Monetary Equilibrium

In particular, Wicksell’s analysis attributed inflation not so much to an increasing quantity of money – not at all in the case of the pure credit economy – as to the existence of a discrepancy between the money interest rate and natural interest rate. The significance of that shift in emphasis becomes clear when we consider Wicksell’s conception of the natural rate of interest: he thought of it as being determined by real factors, that is, non-monetary factors, and in particular those having to do with saving and investment. Thus, for Wicksell, price-level movements, far from being purely nominal phenomena associated only with the monetary system, were, as Axel Leijonhufvud (1981) in particular has stressed, also associated with a failure of market mechanisms to co-ordinate choices about the inter-temporal allocation of real resources. Price stability, on the other hand, was symptomatic of monetary equilibrium, which Wicksell associated with successful inter-

4 Elsewhere I have discussed this point at greater length (Laidler 1991, pp. 127–135). As Tom Humphrey has pointed out to me, there is at least one passage (Wicksell 1898, pp. 109–110) in which Wicksell, or his translator, used the word “money” to characterize bank deposits. However, that passage is devoted to arguing that they play a passive role in the system, accommodating but not causing changes induced by the interest rate, and indeed in one place (p. 109) they are referred to not as “money” but as “money loans.” Humphrey (1997) has argued that because bank credit expansion is a necessary condition for a discrepancy between the money and natural rates of interest to persist in Wicksell’s pure credit economy, his analysis should be regarded as lying in the same quantity-theory tradition as Irving Fisher’s treatment (1911, ch. 4) of “transition periods.” I have no differences with Humphrey about what those two authors said, nor about the fact that their work had a common root in the classical quantity-theory tradition that originated with Thornton (1802). The fact that Fisher attributed a causative, rather than purely permissive, role to bank credit creation in his analysis of transition periods seems to me, however, to be an all-important difference between his work and that of Wicksell, particularly in light of the subsequent development of monetary economics. For discussion of Fisher’s work, see Chapter 8, “The Quantity Theory and the Cycle.”
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temporal co-ordination. Wicksell, however, was anything but systematically precise about the associations involved.

In some places he defined the natural rate of interest as that which would bring about equilibrium between saving and investment in a frictionless barter economy, and in one place in particular (Wicksell 1907a, p. 214) he defined it as the marginal product of capital; he also consistently argued that equality between market and natural rates of interest would lead to zero credit creation and price-level stability. But would saving and investment be equal to one another at a rate of interest equal to the marginal product of capital (we should add “per unit of capital” here) in a growing barter economy in which saving and investment were positive? Furthermore, in a growing economy, the price level could hardly remain stable if there was also zero credit creation: Which phenomenon would then characterize monetary equilibrium in this case? And in a world with heterogeneous output, precisely what sense does it make to try to reduce the marginal product of capital (per unit of capital) to a ratio determined purely in the production sector to which the market rate of interest may then be equated?

Wicksell probably was aware of each and every one of those problems. In Value, Capital and Rent (Wicksell 1893) he had shown himself aware of the interdependence of any scalar measure of the capital stock and the structure of relative prices in a multi-commodity world; so it is unlikely to have been an accident that in his most careful analysis of the cumulative process, in Chapter 9 of Interest and Prices (Wicksell 1898), he made just the right assumptions to ensure that problems associated with that interdependence would not be encountered.\(^5\) There, the economy’s stock of fixed capital was exogenously given and unchanging, while working capital and output consisted of the same wage goods, produced by a constant labour force (in cooperation with fixed capital) over a uniform period of production. In such a world, the following hold: the marginal product of working capital (per unit of capital) is indeed well defined as a pure rate of flow per unit of time; saving is zero and hence is equal to investment when the money rate of interest is equal to the natural rate of interest; and in the latter circumstances there is neither credit creation nor price-level movement. It takes very little in the way of changed assumptions to disturb all that theoretical coherence, and Wicksell’s other expositions of his analysis tended to be less precise the closer they came to being applications to reality.

Some intellectual muddles lead to dead-ends, and others prove seminal.

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That which Wicksell bequeathed to twentieth-century economists is firmly in the latter category. Indeed, it would be difficult to think of any puzzle in the history of economic thought which produced so wide-ranging and creatively constructive a set of responses as this one. We shall see in the next chapter what Wicksell’s younger compatriots, who came to be called the Stockholm School, made of it, and later we shall see that there was a far-from-trivial element of Wicksellian influence on English macroeconomics too. But here we shall deal with the Austrian response to these puzzles.

Austrian Economics

Ludwig von Mises and Friedrich von Hayek, the two originators of Austrian trade-cycle theory, were also the immediate intellectual ancestors of modern Austrian economics, some of whose exponents still subscribe to the cycle theory in question. It should be made clear, therefore, that Austrian economics, like economics of any other variety, has evolved over the years and that some of its more striking late-twentieth-century characteristics were either less important or completely absent from the work which concerns us here, particularly the work of Hayek. In the 1920s and early 1930s, for example, as judged by the standards of the time, Hayek showed no aversion to mathematics. More substantively important, he was an exponent of and contributor to Walrasian general-equilibrium analysis, which he referred to as “the modern theory of the general interdependence of all economic quantities, which has been most perfectly expressed by the Lausanne School of theoretical economics” (1929, tr. 1933, footnote on p. 42). The idea of competitive markets as being in a constant state of evolving disequilibrium as they process and disseminate information and incentives among agents, which we nowadays associate so strongly with Hayek, did not become central to his thought until after the appearance of his 1937 paper “Economics and Knowledge.”\(^6\)

Deductivist Methodology

Some characteristics of modern Austrian theory nevertheless marked the work to be described here. There was, for example, a strong individualist tone to the Austrian trade-cycle theory of the inter-war years, and, closely associated, it was underpinned by a deductivist methodology. The Austrians thought of economic theory as being mainly a matter of deriving results from premises

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\(^5\) For further discussion of the role played by a natural rate of interest determined purely by the conditions of production in Wicksell’s analysis, and the difficulties involved in such a concept in the context of a multi-product economy, see, e.g., Hansson (1990, pp. 263–268), Kompas (1989, ch. 4), and Rogers (1989, pp. 27–39).

\(^6\) That element in Austrian analysis developed not so much from its exponents’ work on the cycle as from their contributions to the “market socialism” debate of the 1920s, whose discussion would be beyond the scope of this book. For useful discussions of Austrian ideas about equilibrium and disequilibrium in market processes, see Boehm (1990) and Kirzner (1990).
that, being self-evidently true, could yield only true conclusions. Hayek, in 1929, say, was not dogmatic in his adherence to deductivism and individualism; but when it came to understanding the trade cycle, the relative weights which he was willing to accord empirical evidence and deductive theorizing were clear enough:

Even as a means of verification, the statistical examination of the cycles has only a very limited value for Trade Cycle theory. For the latter – as for any other economic theory – there are only two criteria of correctness. Firstly, it must be deduced with unexceptionable logic from the fundamental notions of the theoretical system; and secondly, it must explain by a purely deductive method those phenomena with all their peculiarities which we observe in the actual cycles. Such a theory could only be “false” either through an inadequacy in its logic or because the phenomena which it explains do not correspond with the observed facts. If, however, the theory is logically sound, and if it leads to an explanation of the given phenomena as a necessary consequence of these general conditions of economic activity, then the best that statistical investigation can do is to show that there still remains an unexplained residue of processes. It could never prove that the determining relationships are of a different character from those maintained by the theory. (1929, tr. 1933, pp. 32–33)

For Hayek, then, statistical investigation was helpful in describing the “given phenomena” in need of explanation, but only those explanations rigorously deduced from the “fundamental notions of the theoretical system” had scientific validity; further statistical investigation could not refute such explanations. Lionel Robbins was surely referring to Austrian cycle theory when he concluded his famous attack on “quantitative economics” with the following remark:

... a few isolated thinkers, using the despised apparatus of deductive theory, have brought our knowledge of the theory of fluctuations to a point from which the fateful events of the last few years can be explained in general terms, and a complete solution of the riddle of depressions within the next few years does not seem outside the bounds of probability. (1935, p. 115)

How restrictive such deductivism will be in practice will depend very much upon how widely spread are the boundaries that define which “fundamental notions” are admissible; and even in the 1920s and 1930s the Austrian economists were, following the founder of their school, Carl Menger, strongly committed to the idea that maximizing individuals responded to the information and incentives conveyed by relative prices. They were also strongly committed to the analysis of inter-temporal allocation, developed by Men-

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1 Robbins’s *Nature and Significance of Economic Science* (1933), from which the following quotation is taken, was and remains the classic statement of the case for deductivism as the appropriate methodological approach to economic analysis.

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Austrian cycle theorists’ commitment to Böhm-Bawerk’s capital theory is of particular importance in the current context. As the Swedish economist Gunnar Myrdal would put it,

it is not surprising that it was the Austrians who found the connexions with Wicksell: Wicksell himself was a pupil of Böhm-Bawerk and he put his thoughts into forms and constructions based directly on Austrian habits of thought. (Myrdal 1931, tr. 1939, p. 7)

The “Austrian habits of thought” which Wicksell had utilized characterized consumption goods as *goods of the first order* and pictured them as being produced with the aid of intermediate goods, known as *goods of higher orders*, by way of a roundabout process in which the passage of time was of the very essence. In the Austrian view, a decision on the part of consumers to save was simultaneously a decision to consume at some time in the future, while a decision to invest was a decision to devote currently available resources to the production of goods of higher orders. The latter would then be used to produce goods of the first order, consumption goods, which would become available only after some lapse of time.

Austrian capital theory claimed that the roundaboutness of production, even in a multi-product economy, could be characterized by an economy-wide average period of production, which purported to provide a scalar measure of the time that elapsed between the moment when the production of higher-order goods began and that at which the resulting first-order goods were consumed. It also postulated that more roundabout methods of production were more productive and that the marginal productivity of roundaboutness diminished as the period of production increased. To put matters in modern terms, the Austrians, and Böhm-Bawerk in particular, believed it possible to measure the economy’s capital stock by a scalar – the average period of production – and to embed that measure in an aggregate production function characterized by diminishing marginal productivity. As we have already seen, Wicksell knew that there were problems there, and skilfully avoided them, and as we shall see in the next chapter, his Swedish successors

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6 See Menger (1871) and Böhm-Bawerk (1884) for their most important contributions. Streissler (1990) has provided an excellent and succinct account of the evolution of the Austrian theory of capital.

7 See Rogers (1989, pp. 35–39) for a succinct discussion of the relationship between these Austrian ideas and the issues debated in the so-called Cambridge controversy of the 1960s.
took the exposition of those problems by Gustav Cassel (1903) and Irving Fisher (1907, 1930a) as the starting point for their own development of his ideas. The Austrians, that is, Mises, Hayek, and their followers, did not understand the significance of those problems, however, and, as I have already noted, adopted Böhm-Bawerk’s capital theory as one of the “fundamental notions” from which they deduced their theory of the cycle.10

It followed immediately that, for the Austrians, it was the interest rate’s role in the economy to maintain harmony between consumers' plans for the time path of consumption and the economy’s time structure of production. For example, a shift of preferences towards more saving would mean that consumers wished to defer more consumption into the future; the rate of interest would fall, and firms would be induced to undertake more roundabout production methods. When the latter came to fruition, the resulting output would satisfy the delayed demand for extra consumption goods which had been implicit in the initial act of saving. The value of the rate of interest which would thus equilibrate the inter-temporal allocation of resources was, of course, precisely Wickell’s natural rate, and he had explicitly grounded that concept in Böhm-Bawerk’s capital theory in Chapter 9 of *Interest and Prices*. Elsewhere, as I have noted, he had been more vague in his exposition.

Credit, Inter-temporal Allocation, and the Cycle

Wickell had argued that under a gold standard, those mechanisms, whereby drains of gold from (and into) the banks would influence their lending rate, would tend to keep the market rate of interest moving towards its natural value. He had, however, also analysed a pure credit economy, from which those mechanisms would be absent; but he had done so before World War I, in the heyday of the gold standard, when a pure credit economy had been more of an interesting theoretical abstraction than a practical possibility. The war changed all that, and monetary systems more closely approximating Wickell’s theoretical case became the norm in Europe, even if only, as it seemed at the time, temporarily. That lent real urgency to the problems raised for Austrian analysis of inter-temporal allocation in Wickell’s pure-credit-economy case, problems which Mises, who had broached those issues even before the war, albeit rather briefly (cf. Mises 1912), characterized in the following terms:

...it would be entirely within the power of banks to reduce the rate of interest... provided that in so doing they did not set other forces in motion.

10 It was not until 1941, in his *Pure Theory of Capital*, that Hayek systematically took up those problems. By that time, Austrian cycle theory, if not quite defunct, was already well out of the mainstream of macroeconomics, as Hicks (1967) has recounted. For a constructively critical assessment of Hayek’s *Pure Theory*, see Steedman (1994).

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which would automatically re-establish the rate of interest at the level determined by the circumstances of the capital market, i.e. the market in which present goods and future goods are exchanged for one another. The problem that is before us is usually referred to by the catch-phrase gratuitous nature of credit. (Mises 1924, tr. 1934, p. 352, italics in original)

In the absence of gold convertibility, following Wickell’s reasoning, “it is impossible to see why rising prices and an increasing demand for loans should induce [banks] to raise the rate of interest they charge for loans” (Mises 1924, tr. 1934, p. 356).

Mises’s Insights

Mises based his solution to that problem on a criticism which a number of other economists, such as David Davidson and Cassel (1923, p. 416), had levelled at Wickell, namely, that he had not paid sufficient attention to the possibility that a divergence of the market from the natural rate of interest might have consequences beyond changing the price level.11 Mises put the point as follows: ‘...if the rate of interest on loans is artificially reduced below the natural rate... then entrepreneurs are enabled and obliged to enter upon longer processes of production’ (Mises 1924, tr. 1934, pp. 360-361). But that lengthening of the period of production, that increase in investment, would not be taking place in response to an increase in saving on the part of consumers. Hence it would involve a dislocation of the inter-temporal allocative mechanism, with the result that “a time must necessarily come when the means of subsistence available for consumption are all used up although the capital goods employed in production have not yet been transformed into consumption goods” (1924, tr. 1934, p. 362). Such a dislocation could not persist, however. Inherent in it was an excess demand for current consumption goods which would raise their prices relative to those of intermediate goods and hence future consumption goods. “That is, the rate of interest on loans... again approaches the natural rate” (Mises 1924, tr. 1934, p. 363).

That view of the operation of banking, thought Mises, ‘leads ultimately to a theory of business cycles’ (1924, tr. 1934, p. 365). That theory would focus on banks engaging in credit creation and hence setting in motion a process of investment which in due course would be cut short before completion by a shortage of saving. Further injections of bank credit could prolong, and indeed accentuate, disequilibrium in the inter-temporal allocation of resources, but they could not, according to Mises, prevent its ending in a crisis

11 Davidson’s contributions to that debate remain untranslated from Swedish. See, however, Uhr (1987) for a readily accessible, albeit brief, account of his views. That the substance of those views was known to Hayek is apparent from *Monetary Theory* (Hayek 1929, tr. 1933, p. 115, fn.).
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whose salient characteristic would be a stock of partly completed investment projects. The longer the continuation of credit creation delayed that outcome, the more severe would these symptoms be when they finally did materialize.

As early as 1924, then, Mises had produced a clear and complete outline of Austrian trade-cycle theory, and that outline made an appearance in the writings of his younger colleague Hayek in the following year (cf. Hayek 1925, tr. 1984, ch. 1, fn. 4, pp. 27–28). The subsequent filling-in of that outline, to the point at which it arguably became, in the early 1930s, the most coherent short-run macroeconomic system available, was largely Hayek’s work. In the process, Hayek introduced a strong element of Walrasian general-equilibrium analysis into the system, with whose aid those theoretical ambiguities, noted earlier, in Wicksell’s concept of monetary neutrality were resolved.

The Walrasian Element in Hayek’s Analysis

Hayek’s article “Intertemporal Price Equilibrium and Movements in the Value of Money” (1928, tr. 1984) was at least as much Walrasian in its approach as Austrian (though Walras was not explicitly cited therein). That article developed the idea that physically similar goods, separated in time, were appropriately treated as distinct entities whose relative prices were determined within a general-equilibrium system which extended over time. For that insight alone it had an important place in the development of general-equilibrium theory. But it attempted to go further (not successfully, by modern standards, to be sure) by introducing both money and productivity growth into the system in order to propound the following message:

...given a general expansion of production, the maintenance of equilibrium requires a corresponding reduction in prices, and in this case any failure of prices to fall must give rise to temporary disruptions of the equality between supply and demand. (Hayek 1928, tr. 1984, p. 74)

An appropriately falling price level could, however, be achieved "only if the monetary system was one in which any change in the quantity of money was excluded" (Hayek 1928, tr. 1984, p. 97). In fact, however, "it is impractical to regulate the monetary system in this way" (Hayek 1928, tr. 1984, p. 97), so a monetary economy was very likely to suffer temporary disruptions. Here we have two essential, and closely related, conclusions of Austrian business-cycle theory. First, in order to maintain equilibrium in the

inter-temporal allocation of resources in a monetary economy when that economy was growing, a constant quantity of money, or, more generally, a constant rate of flow of money expenditure (and hence, by implication, a falling rather than a constant price level), was required; and second, malfunctions of the monetary system were the sine qua non of departures from equilibrium in the inter-temporal allocation of resources. But though those conclusions were stated in Hayek’s 1928 paper, their derivation was not fully developed. That derivation hinged on the outcome of a conceptual experiment in which the nominal prices of the factors of production were held constant while their productivity increased and while the future prices of output varied, depending upon the behaviour of the quantity of money. The prediction that any variation in the quantity of money would move relative prices away from their equilibrium values was, however, asserted rather than derived.

If, during such a general expansion of output, the expectation is held with certainty that the prices of products will not fall but will remain stable or even rise, hence that at the point more distant in time the same or even a higher price can be obtained for the product produced at lesser cost, the outcome must be that production for the later period, in which supply is already at a relatively adequate level, will be further expanded at the cost of that for the earlier period, in which supply is relatively less adequate. (Hayek 1928, tr. 1984, pp. 92–93, original in italics)

What was missing there was an explicit mechanism whereby money creation could distort relative prices, but it is clear enough that Hayek was well aware both that such a mechanism was required and what its general nature would be. His failure to deal with those issues reflected not ignorance of them, but simply the fact that his paper was not primarily meant to be a contribution to cycle theory: "It is not our task here to elaborate these reflections into a theory of economic crises, especially since our neglect of the phenomena of credit would mean that any such theory at which we arrived would be completely lacking in reality" (1928, tr. 1984, p. 102). The requisite elaboration would, in any event, soon follow, in Monetary Theory and the Trade Cycle (1929, tr. 1933) and particularly in Prices and Production (1931a).

Hayek on Forced Saving and the Crisis

Harald Hagemann (1994) has shown that among German-speaking economists in the 1920s, a common line of attack on general-equilibrium analysis of the type deployed by Hayek in 1928 involved drawing attention to its apparent inability to explain the facts of the trade cycle. Hayek’s development, after 1928, of Mises’ sketch of trade-cycle theory was, quite self-consciously, intended as an answer to such criticism. He conceded that “the
logic of equilibrium theory... properly followed through, can do no more than demonstrate that... disturbances of equilibrium can only come from outside... and that the economic system always reacts to such changes... by the formation of a new equilibrium” (Hayek 1929, tr. 1933, pp. 42-43) and that this property would render any explanation of the cycle that relied solely upon such theory inadequate. But, at the same time, he was unwilling to abandon it.

The obvious, and... the only possible way out of this dilemma, is to explain the difference between the course of events described by static theory (which only permits movements towards an equilibrium, and which is deduced by directly contrasting the supply of and the demand for goods) and the actual course of events, by the fact that, with the introduction of money (or strictly speaking with the introduction of indirect exchange), a new determining cause is introduced. (Hayek 1929, tr. 1933, p. 44)

The specific feature of a monetary economy which Hayek emphasized was the phenomenon known as **forced saving**, which had (as Hayek himself showed in 1932) intermittently attracted the attention of monetary economists since the beginning of the nineteenth century.13 The particular institutional arrangement which gave rise to that phenomenon was in fact already beginning to change, at least in the United States, even as Hayek was developing its implications, a point to which we shall return later. Suffice it for the moment, however, to note that Hayek took for granted a banking system whose monetary liabilities entered circulation by way of loans made to traders and manufacturers. He built his explanation of the cycle on the potential implicit in that institutional fact for the creation of money to affect not the general price level (a concept for which he had little use) but the inter-temporal relative price, the market rate of interest, which was crucial to the capital market’s co-ordination of saving and investment decisions.

In that view of things, banks would play a dual role in the monetary system, acting not only as creators of money but also as intermediaries between savers and investors, and any expansion of credit on their part would involve placing in the hands of investors newly created purchasing power which had no counterpart in an increase in voluntary saving. That purchasing power would be taken up by borrowers only at a rate of interest below that which would equate investment to voluntary saving; and it would be used by them to acquire resources for investment. In a fully employed economy, these would have to be bid away from consumers, thus creating an involuntary cut in real consumption – forced saving. For Hayek, it was that

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13 Hayek identified Jeremy Benthall and Henry Thornton as the originators of the analysis of forced saving, and the idea was also said to be found in the writings of Malthus, Mill, and Walras, among others. For references to this literature, see Hayek (1932b) and Björn Hansson (1987).

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first-round credit-market effect, as we would now term it, was critical in undermining the co-ordination of inter-temporal allocation, rather than any subsequent consequence of money creation for the level of money prices. That latter effect would be present in the system, to be sure, but it would be incidental to what he regarded as the main story, which would involve the influence of the banking system's behaviour on **relative prices**, not on some artificial statistical aggregate such as the **general price level**, which, Hayek believed, was of no significance for individual behaviour.14

Thus the introduction of forced saving into the picture established the conclusion that Hayek had asserted in 1928; namely, that with velocity assumed constant, monetary neutrality required zero credit creation and, in a growing economy, falling prices.15 Clearly, the assumption that the experiment began at full employment was crucial to Hayek’s conclusion that credit creation would divert resources from consumption to investment, but his deductivist methodological principles required him to start his conceptual experiments from just such a state of affairs:

... we can gain a theoretically unexceptionable explanation of complex phenomena only by first assuming the full activity of the elementary economic interconnections as shown by the equilibrium theory, and then introducing, consciously and successively, just those elements which are capable of relaxing these rigid inter-relationships. (1929, tr. 1933, pp. 95–96, original in italics)

If, like Hayek, we begin with an economy in full-employment equilibrium whose rate of interest is at its “natural level,” so that saving and investment are equal to one another, and then disturb that equilibrium with an injection of credit made possible by a fall in the rate of interest, and if we believe in the relevance of Böhm-Bawerk’s capital theory, we necessarily induce a move towards a longer average period of production. However, we induce no accompanying tendency for consumers voluntarily to defer their consumption

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14 Here Hayek followed the lead of Mises in arguing that the notion of a general price level on which the quantity theory of money concentrated inevitably obscured the relative price changes that were required to bring about the fluctuations in quantities of goods supplied and demanded which had to lie at the heart of cyclical fluctuations. See, e.g., Hayek (1929, tr. 1933, pp. 106ff.). It is interesting to note, in this regard, that an incomplete “Fisher effect” of inflation expectations upon the nominal interest rate does indeed change a crucial inter-temporal relative price. Hayek was aware of that concept and indeed used it to great effect in criticizing Keynes’s (1930a) discussion of the “Gibson paradox” (the tendency for high prices and a high nominal interest rate to coincide, and vice versa) in his review of the Treatise (Hayek 1931b). Nevertheless, in Prices and Production he explicitly denied its relevance to cycle theory. See Hayek (1931a, p. 14).

15 Unlike their English contemporaries Dennis Robertson (1926) and Arthur C. Pigou (1929), the Austrians did not carefully distinguish between economic growth that involved an expanding population, with **per capita** income held constant, and growing **per capita** income, usually taking it for granted that it was the latter case that was interesting. On Robertson and Pigou on this issue, see Chapter 4.
plans until new, more roundabout production methods bear fruit. In due course, therefore, consumption demand will materialize before the goods available to satisfy it are available, just as Mises had suggested in 1924 (cf. Mises 1924, tr. 1934, pp. 362–363).

At this point, unless there is a further injection of bank credit which creates another round of forced saving, the price of current relative to future consumption goods rises, which, in the context of Hayek’s model, is simply another way of saying that the market rate of interest rises. However, resources already committed to more roundabout production methods are now locked into partially completed projects and cannot be re-allocated to meet current consumption demand. According to Hayek, the resulting coexistence of an excess demand for consumption goods and an excess supply of non-consumable intermediate goods is the defining characteristic of the crisis phase, the upper turning-point, of the cycle. Such a crisis, moreover, is the inevitable consequence of any credit creation on the part of the banking system. Its occurrence can be delayed, at the price of increasing its severity, but it cannot be avoided.

**Some Weaknesses**

But why should such a disequilibrium resolve itself into a collapse of output and employment? Why could resources not be re-allocated to the production of consumption goods? Hayek’s efforts to deal with these questions in the London School of Economics lectures on *Prices and Production* (1931a), in which he introduced Austrian cycle theory into British discourse, were perfunctory. They rested on a particular postulate about the production function ruling in consumption-goods industries, namely, that the degree of substitutability between labour and other variable inputs, on the one hand, and capital equipment, on the other, was sufficiently small that a shortage of finished, and hence usable, capital equipment would make it impossible to employ existing supplies of variable inputs.

In the actual world, the single workman will not be able to produce enough for a living without the help of capital and he may, therefore, temporarily become unemployable. And the same will apply to all goods and services whose use requires the co-operation of other goods and services which, after a change in the structure of production of this kind, [i.e., a truncated move towards lengthening the period of production] may not be available in the necessary quantity. (Hayek 1931a, p. 84)

Hayek himself must have been dissatisfied with that explanation of why unemployment followed the crisis phase of the cycle, for the section of *Prices and Production* in which it appeared was considerably extended in its second edition (1935). There, for example, he faced the fact that depressed econo-

Significantly, too, in that later edition of *Prices and Production* there is a brief reference to the role of downward stickiness in money wages as a factor contributing to the onset of unemployment, a phenomenon conspicuous by virtue of being ignored in the first edition, and indeed in *Monetary Theory and the Trade Cycle* (1929) as well. That belated introduction of wage stickiness into his framework in 1935 presumably reflected the influence of British discussions on Hayek’s thinking, for wage stickiness had often been invoked there from the 1870s onwards and, as we shall see in due course, continued to be frequently invoked throughout the inter-war period. Though those additions still left Hayek’s 1935 explanation of unemployment severely deficient by modern standards, they did bring it closer to the standard prevailing in the contemporary literature than had those he had offered in 1931.

The foregoing criticism rests heavily on the wisdom of hindsight, but it is worth noting that Evan Durbin (1933), an Oxford economist, then recently appointed as Hayek’s junior colleague at the London School of Economics, who had great sympathy with his basic theoretical vision, nevertheless produced a powerful contemporary critique of Hayek’s proclivity to neglect the phenomenon of unemployment and to begin his theoretical experiments from a state of full-employment equilibrium. As Durbin pointed out, the “English view” (Durbin 1933, p. 134) of the relationship between consumption and investment over the course of the cycle was that they were complementary: The rate of investment expenditure would vary in the same direction as consumption expenditure for the simple reason that “the demand for capital is derived from the demand for consumption of goods and therefore increases with any increase in the profitableness of producing consumption goods” (Durbin 1933, p. 135). In Hayek’s analysis, in contrast, “the two groups of industries . . . are competing for the services of the ultimate factors of

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10 Robbias (1934) also invoked wage stickiness, but he was inclined to treat it as a new post-war phenomenon rather than as a chronic property of labour markets, which is how it appeared in Cambridge contributions to this discussion. Indeed, the idea of wage stickiness as lying at the root of cyclical unemployment was fully discussed by Marshall and Pigou (1913), among other pre-war sources. Among those writing in the Austrian tradition in Britain, it was probably Evan Durbin who paid most attention to the manner in which stickiness of nominal contracts, and wages in particular, could affect the course of the cycle. See, e.g., Durbin (1935, pp. 34ff., 139ff.).
production, and it is . . . silly to imagine that the real output of the two types of production can move upwards at the same time’’ (Durbin 1933, p. 137, italics in original). Which view was correct ‘‘depends on the assumptions that are made about the condition of total unemployment, or the distribution of unemployment’’ (Durbin 1933, p. 139).

In Durbin’s view, Hayek’s analysis was appropriate only if the assumption of full employment was maintained. But

given unemployment in the capital goods industries – the type of unemployment which clearly exists during any period of depression – it follows at once that the more normal view that profits in the production of consumption goods and the real output of capital move together can be justified by the most rigid logic. (Durbin 1933, p. 141)

Furthermore, those same considerations tended to undermine the quintessentially Austrian notion that an increase in voluntary saving would, by way of its effects on the rate of interest, induce an increase in investment. As Durbin noted, an increase in saving would, in the first instance, reduce the profitability of consumption-goods production and might ‘‘involve a short period contraction in the demand for new capital.’’ Thus, ‘‘an increase in saving may cause a general depression’’ (Durbin 1933, p. 92, italics in original), a result quite antithetical to Hayek’s views on the causation of the cycle.17

Rising Inflation and the Boom

We have already noted Mises’s belief that, at best, continued credit expansion on the part of the banking system could prolong the boom phase of the cycle, but could not prevent the ultimate crisis from materializing. Sustained credit expansion would, in his view, lead to ultimately unsustainable inflation, a reversal of policy, and collapse. In 1924, Mises was writing in the aftermath

17 Durbin nevertheless hesitated to offer fluctuations in the saving rate as an important causative factor in the cycle. Such an explanation seemed to be contradicted by the fact that variations in investment expenditure led those in consumption at cyclical turning points, a fact which, incidentally, John M. Clark (1917) had already shown to be quite compatible with such an explanation, once the accelerator mechanism was understood: it was the desired services of capital equipment, and hence the capital stock, not the rate of flow of investment, that should respond to the level of output, according to that analysis. Durbin thus remained sympathetic to the main thrust of Hayek’s analysis of the interaction of saving and investment in a long-run context and shared much of Hayek’s policy pessimism.

Durbin, along with his fellow Oxonian Hugh Gaitskell, who largely shared his Austrian sympathies, though admirers of Hayek, were nevertheless already in the early 1930s leading figures among the younger Labour Party intellectuals associated with the Fabian Society. Durbin became a junior minister in the post–World War II Attlee government, but died by accidental drowning in 1948 at the age of 42. Gaitskell served as chancellor of the Exchequer in 1950–51 and was later to be leader of the Labour Party. He, too, died relatively young, in 1963, without achieving the prime-ministership.

of the great central European hyperinflations, and as a description of what were then recent events, it is difficult to quarrel with his analysis.18 But the proposition that not just continuous inflation, but continuously increasing inflation, was the inevitable consequence of attempting to stave off crisis by monetary means became a central feature of Austrian cycle theory, allegedly logically implied by its basic postulates. When, in 1934, Lionel Robbins wrote the following passage, it was meant to characterize booms and crises in general, not merely one particular historical instance thereof:

Once costs have begun to rise it would require a continuous increase in the rate of increase of credit to prevent the thing coming to disaster. But that itself, as we have seen in the great post-war inflations, would eventually generate panic. Sooner or later the initial errors are discovered. And then starts a reverse rush for liquidity. The Stock Exchange collapses. There is a stoppage of new issues. Production in the industries producing capital-goods slows down. The boom is at an end. (Robbins 1934, pp. 41–42)

Hayek’s Accelerationism

Hayek’s treatment of that matter was more extensive than the brief arguments by assertion that we find in the writings of Mises and Robbins, but nevertheless his logic was not entirely convincing. In Monetary Theory and the Trade Cycle he reasoned as follows:

If the new processes of production are to be completed, and if those already in existence are to continue in employment, it is essential that additional credits should be continually injected at a rate which increases fast enough to keep ahead, by a constant proportion, of the expanding purchasing power of the consumer. (Hayek 1929, tr. 1933, p. 223)

The logic there was correct as far as it went; but it seemed to imply that a constant proportional rate of credit expansion would enable the new higher relative price of capital goods to be perpetuated. It did not imply that the proportional rate of credit expansion must rise, and the inflation rate increase, to stave off the crisis. And, indeed, in the particular passage from which we have quoted here, Hayek went on to argue that ‘‘a moment must inevitably arrive when the banks are unable any longer to keep up the rate of inflation [N.B.: not the rate of increase in the rate of inflation] required . . .’’ (Hayek 1929, tr. 1933, p. 223, italics added).

It is worth recalling at this point that Hayek’s own analysis of forced

18 Mises made important contributions to contemporary debates about the hyperinflations. Here he was an exponent of an explanation based on the quantity theory, supplemented by a subtle analysis of the effects of inflation expectations on price-setting behaviour and on the velocity of circulation. Some of that analysis found its way into the second (1924) edition of his Theory of Money and Credit. On this matter, see Laidler and Stadler (1998).
saving had led him to conclude that it would be a feature of any economy in which the rate of bank credit creation was positive. In a growing economy, he had argued, monetary neutrality therefore required not a stable price level, but a falling price level. That observation was not merely a theoretical curiosity: in the 1920s the United States experienced rapid real growth, rapid credit expansion, but essentially stable prices. Those facts had led Hayek and his colleagues, before the events of 1929–33, to warn of the likelihood of a severe crisis in that economy, a prediction to which both Gottfried von Haberler (1932) and Lionel Robbins (1931) would later draw attention when arguing in support of Austrian theory. But if the logic of Austrian theory implied that forced saving could be compatible with stable prices, or even prices that did not fall rapidly enough, it is difficult to see how it could also predict that such a state of affairs would inevitably degenerate into rising inflation if attempts were made to sustain the forced saving in question.19 Even so, despite these logical problems with his case, it would be a travesty to suggest that Hayek did not, after all, believe that once a process of forced saving got under way, an inevitable crisis could be delayed only at the price of rising inflation. He clearly did, and he paid considerable attention to the issue in the first edition of Prices and Production (1931a).20

Contemporary Doubts

The weakness of Hayek's logic on this point, however, did not go unnoticed among his contemporaries. For example, in his review of that first edition, Piero Sraffa suggested that just as capital accumulation induced by voluntary saving was sustainable indefinitely, "equally stable would be that position if brought about by inflation; and Dr. Hayek fails to prove the contrary" (Sraffa 1932, p. 47). He also noted that credit creation would not necessarily distort relative prices if the banks made loans to consumers in the same proportion that consumption would bear to output were there no credit creation. In their

19 This point was emphasized by Gottfried von Haberler in his discussion of Austrian theory in Prosperity and Depression (1937, pp. 51–53). Haberler had earlier been a rather uncritical exponent of Hayek's analysis (e.g., Haberler 1932).

20 For that reason, Hayek acquired a reputation in the 1970s as someone who had anticipated the accelerationist doctrines of Milton Friedman (1968). As should be apparent from the following discussion in the text, however, the connection between Hayek's analysis and that of Friedman is extremely tenuous, for the simple reason that Hayek made no reference to the influence of inflation expectations on the formation of money wages and prices, a matter which is quite central to Friedman's analysis. It is interesting to note that Erl Lindahl (1930) did introduce endogenous inflation expectations into an analysis of a very Hayekian process of forced saving and did conclude that continuously rising inflation was a possible outcome. See Chapter 3, "Substantive Analysis."
That argument is logically correct. If the period of production is to be progressively lengthened, then inflation must indeed increase, but the foregoing discussion also concedes, as had that in Monetary Theory and the Trade Cycle, that a constant proportional rate of credit expansion would suffice to sustain and render viable a once-and-for-all step change in the time structure of production. But that was, of course, precisely Hansen and Tont’s point, and Sraffa’s too. It is difficult to avoid the conclusion that when dealing with these matters, Hayek was not always clear about the distinctions, first, between a constant arithmetic rate of change of money and prices and a constant proportional rate of change, and second, between rates of change and rates of acceleration, both arithmetic and proportional, of the relevant variables. And it is equally difficult to avoid the suspicion that his confusion here led him to assert a result that the logic of his own model would not support.  

Policy Pessimism

That weakness in Austrian business-cycle theory was anything but a minor matter, for its exponents took a strong policy stance on the basis of what they believed to be their model’s logic, and in the early 1930s in particular, when the Great Depression had become a world-wide problem, that stance mattered.  

Austrian cycle theory was, of course, far from being the only approach to that topic in the German-language literature of the time which emphasized the scope for bank credit creation to influence the rate of capital accumulation. Thus Joseph Schumpeter (1912) and L. Albert Hahn (1924a) both propounded versions of a theory in which bank credit creation could support investment in fixed capital equipment which might embody new technology. Though both of them recognized that such a process could proceed at an unsustainable rapid pace, thus producing a cyclical downturn, they saw nothing inevitable about that, particularly Hahn, who in his earlier expositions of the matter had been extremely, perhaps even naively, optimistic about the capacity of the banking system to sustain expansion. See Ellis (1934, ch. 18) for an account of that approach, which bore a strong resemblance to that of Dennis Robertson (1926) described in Chapter 4. The point here is that it was precisely their predictions about the logical inevitability of either rising inflation or economic crisis that distinguished the Austrians’ analysis from that of their contemporaries, so the claims by such as Sraffa and Hansen and Tont that they had exposèd an analytic weakness in those predictions were extremely important.

In particular, Robbins’s adherence to Austrian theory made him an opponent of public-works expenditures, a position whose adoption he later characterized as “the greatest mistake of my professional career” (1971, p. 154). Howson and Winch (1977) have discussed, among other issues, Robbins’s policy disagreements with Keynes while he was a member of the committee of economists associated with the Economic Advisory Council set up by the British government in 1930. It should be noted that Robbins’s devotion to free trade, at a time when Keynes was advocating protectionist policies, was perhaps a greater source of friction between them than was Robbins’s opposition to expansionary domestic policies (Robbins 1971, pp. 151ff.).

The Austrian Theory of the Trade Cycle

The Dangers of Expansionary Policy

Specifically, the Austrians claimed that their model implied that any attempt to counter depression by way of expansionary monetary policy, far from ameliorating the situation, would make matters worse. As Hayek put it in his review of Keynes’s Treatise on Money (1930), in which Keynes had strongly advocated “cheap money” (i.e., a deliberate policy of driving down market rates of interest) as a cure for depression, “any attempt to combat the crisis by credit expansion will... not only be merely the treatment of symptoms as causes, but may also prolong the depression by delaying the inevitable real adjustments” (Hayek 1932a, p. 44).

And it was not only monetary policy which was bound to fail in Austrian eyes. If the key feature of economic crisis was an excess of capital and a dearth of consumer goods, then public-works policies would only make those symptoms worse, as indeed would any measures designed to stimulate consumer expenditure: “... the granting of credit to consumers, which has recently been so strongly advocated as a cure for depression, would in fact have quite the contrary effect” (Hayek, 1931a, pp. 85–86).

Once a depression had started, that is to say, Austrian analysis led to a degree of policy pessimism verging on nihilism. The only cure is the most speedy and complete adaptation possible of the structure of production to the proportion between the demand for consumers’ goods and the demand for producers’ goods as determined by voluntary saving and spending. The only way permanently to “mobilise” all available resources is, therefore, not to use artificial stimulants – whether during a crisis or thereafter – but to leave it to time to effect a permanent cure by the slow process of adapting the structure of production to the means available for capital purposes. (Hayek 1931a, pp. 86–87)

The Need for Neutral Money

Better by far, then, to prevent the crisis from arising in the first place, and Austrian theory was, as we have seen, clear about its fundamental cause. Only a discrepancy between the natural and market rates of interest, to use Wicksellian language, could lead to overinvestment; and though such a discrepancy could arise either from some technological or expectational shock hitting the natural rate or from a disturbance originating in the banking system, the appropriate preventive policy was the same in either case: maintain a state of neutral money by instituting a policy of zero money-income growth. In turn, but only if what we would now call the income velocity of circulation of money remained constant, that policy goal required constancy of the money supply. The Austrians knew full well that velocity did in fact
fluctuate, and hence they understood that maintenance of perpetual monetary neutrality was hardly practicable. Furthermore, it could be attempted only by a central monetary authority for the whole world: action on the part of a single country would be doomed to disaster. It is probably an illusion to suppose that we shall ever be able entirely to eliminate industrial fluctuations by means of monetary policy. The most we may hope for is that the growing information of the public may make it easier for central banks both to follow a cautious policy during the upward swing of the cycle, and so to mitigate the following depression, and to resist the well meaning but dangerous proposals to fight depression by “a little inflation.” (Hayek 1931a, pp. 108–109)

It has been noted earlier that, his dissent from certain aspects of Hayek’s cycle theory notwithstanding, Durbin (1933, 1935) shared Hayek’s policy pessimism. Though he understood that the existence of unemployed resources meant that “a little inflation” could hasten the recovery of an already depressed economy, he nevertheless believed that such a cure could only be temporary, and that another downturn was bound to occur in due course. Only a painful long-run readjustment of the capital intensity of production would produce a permanent cure: “We must choose between the relief of inflationary policies and temporary prosperity or settle down to a cure which is slow, which is devoid of spectacular success, and which in the first instance is as painful as the disease” (Durbin 1933, p. 177).

In the early 1930s, policy pessimism of that type was by no means confined to adherents of Austrian theory. Thus, in 1933, Sir Theodore Gregory, a colleague of Hayek and Robbins at the London School of Economics, argued that to deny “that the universal abandonment of the gold standard and the inauguration of a régime of competitive exchange reductions, accompanied by public works expenditure, are the best means of overcoming the difficu-

23 Hayek discussed the behaviour of velocity in terms of a very clumsy and mechanical analysis of the transactions process, worrying, for example, about the effects that vertical integration in an industry would have on that parameter. See, e.g., Hayek (1931a, 2nd ed. 1935, pp. 118ff.). It should be noted that the main purpose of Durbin’s The Problem of Credit Policy (1935) was to analyse the problems involved in stabilizing money income in the face of variable velocity, taking account of what later came to be called the liquidity-preference theory, as developed by Robertson (1926), Keynes (1930a), and Hicks (1935), among others. Hence Durbin’s treatment of those issues was a good deal more sophisticated than Hayek’s.

24 It is worth noting that the word “inflation” in this quotation probably should be read as referring to expansion of the money supply, or of the rate of flow of nominal expenditure, rather than to an increase in the price level. That is certainly how Hayek’s colleague Durbin used the word at that time: “By ‘inflation’ I shall mean… any increase in the quantity of effective money” (Durbin 1933, p. 73, fn. 1). The passage just quoted from Hayek thus refers to the dangers of attempting to mitigate unemployment by expansionary monetary policy, rather than directly to those involved in attempting to exploit an inflation–unemployment trade-off, and therefore is not quite as modern as it looks.

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ties of the moment” (Gregory 1933, p. xii) was not “tantamount to adhering to one type of monetary theory, viz. that propounded… by the Viennese School.” He noted his disagreement with some of their basic tenets, but nevertheless suggested that “they are right in thinking that in the course of the upward movement of the trade cycle profound modifications in the structure of production take place and that monetary policy or theory cannot be negligent of this aspect in putting forward remedial measures” (Gregory 1933, p. xiii). Furthermore, as we shall see in Chapter 9, such anti-activist views were quite widely held in the United States; and we shall see in Chapter 7 that some British economists of the period thought that the cause of unemployment lay in a chronic maladjustment of the real wage and that it was not susceptible to measures not directed at that variable.

Nevertheless, though there were many more policy pessimists than there were Austrian cycle theorists, the analysis of the latter was of particular importance in the early 1930s. It was that body of thought, above all, that seemed to provide a theoretical basis for the pessimism in question, and for a while that theoretical basis was the most coherent to be found in the academic literature. It was only with the arrival of the IS-LM model in 1936–37 that such ceased to be the case.

Austrian Analysis and IS-LM

A comparison of Austrian cycle theory with the IS-LM model which would in due course come to dominate macroeconomics yields a catalogue of opposites. Where the IS-LM model is static, the passage of time is a central feature of Austrian theory; where the IS-LM model focuses on an inadequate level of aggregate demand as the cause of depression, Austrian theory focuses on an inappropriate composition of the supply of output; where the IS-LM model suggests that both monetary policy, involving shifts of LM, and fiscal policy, involving shifts of IS, can be used to alleviate unemployment, Austrian theory suggests that the use of either will only make matters worse; and where IS-LM implies that with no policy changes the economy is likely to remain in depression, Austrian theory would have it that such inaction provides the best assurance of eventual recovery. It would be difficult, in the whole history of economic thought, to find coexisting two bodies of doctrine which so grossly contradict one another.

Though there was no overt debate immediately after 1936 between “Mr. Keynes and the Austrians,” in the sense of an explicit exchange on the relative merits of these two systems, there surely was a silent debate in the minds of many economists as they decided which body of doctrine to adopt. And here there is some anecdotal evidence that the policy pessimism that
flowed from the Austrian framework was one factor leading to its demise.\textsuperscript{25} It is nevertheless well known, and will be amply confirmed in the following chapters, that there was nothing new in the relatively optimistic policy prescriptions which were so easily expressed in IS-LM terms. Cheap money and/or plentiful money, not to mention public-works expenditures, had been widely advocated as cures for depression long before 1936.

The Austrian theory to which this chapter has been devoted was in fact a novel and potentially revolutionary doctrine whose policy implications challenged what had, by the 1920s, become conventional wisdom, but because that challenge was based on what seemed to be a coherent body of theory, it attracted much attention and not a little support, its policy implications notwithstanding. It was also the Austrians who helped bring the analysis of Wicksell to the attention of British readers, and in that respect their efforts should be seen as part of a broader process whereby continental European economic ideas, centering on general-equilibrium analysis, challenged the dominant Marshallian orthodoxy in British economics. Even so, the Austrian path was not the only one that followed on from Wicksell. In Chapter 3 it will be shown that the Stockholm School, as they came to be called, had set out from essentially the same theoretical starting point as had the Austrians, but they moved in a very different direction, producing analysis that emphasized the level of aggregate demand, rather than the structure of aggregate supply, as the crucial factor in economic fluctuations, and whose policy implications were much more optimistic into the bargain. In those respects, their work represented a variation on the Wicksellian theme which was much more in harmony with the mind-set out of which IS-LM was eventually to grow.

\textsuperscript{25} On this matter, see Friedman (1974, pp. 162–163), who suggested that his own relative imperviousness to Keynesian ideas, when compared with Abba Lerner's eager embrace of them, can perhaps be explained by the fact that the monetary economics to which he was exposed at the University of Chicago in the early 1930s was imbued with none of the policy pessimism which Lerner encountered at the Austrian-dominated London School of Economics. Friedman's characterization of Austrian analysis as a variant on the quantity theory of money in this context is, of course, inaccurate, but that does not affect the substance of his argument.