

HAYEK'S THEORY OF MONEY AND CYCLES: RETROSPECTIVE AND REAPPRAISAL

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In adopting the view that “relatively few of our readers are interested in the history of economic thought anymore,”¹ the editors of one journal have allowed criticisms of the work of Friedrich Hayek to remain unanswered. That situation is now redressed, by courtesy of the editors of this journal. Three significant assertions were made; namely, that Hayek

(a) switched his focus from monetary policy to monetary regimes: “However doubtful its forecasts, *The Denationalisation of Money* had the virtue of boldly reconceiving the debate over monetary policy as a more fundamental debate over monetary regimes” (White 1999, p. 117);

(b) abandoned an earlier position: “In *Denationalisation*, however, Hayek (1978a, pp. 64–70) argued for the coordinating properties of price-level stability or zero inflation in *final output* prices. He abandoned his earlier position that preventing nominal output prices from falling would systematically create intertemporal misallocation” (White 1999, p. 117); and

(c) denied the practical relevance of his business-cycle theory: “At the end of his career, surprisingly switching from critic to advocate of consumer-price stabilization, Hayek was compelled to deny the practical relevance of his business-cycle theory” (White 1999, p. 118).

These assertions are now addressed in the course of a reexamination of Hayek's monetary theory of business cycles, which allows Hayek's own retrospective and reappraisal to be placed in their proper context. In particular, as Hayek gains political influence in later years, he more obviously tailors his

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¹Letter from the *Journal of Money Credit and Banking* editorial office (December 19, 2002).

message to his audience. For example, with his later examination of monetary distortions in the context of the labor market, trade unions, and unemployment, he is more careful to engage the attention of a readership who, by then, had become well-versed in monetarism and Phillips's curves.

It emerges that Hayek variously focuses upon aspects of the money economy, where diverse issues of current concern are addressed at different times; and that, although reservations are expressed in regard to an earlier position regarding the Great Depression and the likely impact of a policy of prices stabilization, these are misrepresented when they are taken to suggest that Hayek ever denies the relevance of his monetary theory of the business cycle.

EQUILIBRIUM IN THE MONEY ECONOMY

In a money economy (and unlike a barter economy) indirect exchange allows expenditures to be deferred. Imperfect foresight provides the rationale. In deferring expenditures, important extra knowledge may be gained. In a money economy, transactions take place sequentially and the date of each transaction has significance in terms of optimizing the amount of information that is available. Otherwise, all (spot and forward) transactions might be undertaken in the current period without loss. With perfect foresight, there would be no reason to hold money, so it might appear curious that Friedrich Hayek's earliest contribution to monetary theory—*Inter-temporal Price Equilibrium and Movements in the Value of Money*, (1928, reprinted in 1984)—is founded upon perfect foresight. Clearly, the *extent* of Hayek's assumption of perfect foresight needs to be clarified.

Hayek argues that economic science is predicated upon an empirical tendency for real forces to deliver a set of relative prices that allows markets to clear; upon a tendency for price adjustments to drive transactions towards a Walrasian equilibrium. The equilibrium concept is indispensable to theory, "since only with its assistance is it possible to give a summary depiction of the very great number of different tendencies of movement which are operative in every economic system at every point in time" (Hayek 1928, p. 75). It is only by the presumption that economic activity tends to move toward equilibrium "that economics ceases to be an exercise in pure logic and becomes an empirical science" (Hayek 1949, p. 44), but it is a presumption that "on empirical grounds we have reason to believe to exist" (Hayek 1949, p. 55). In order to *achieve* Walrasian equilibrium, it would be necessary for agents to anticipate changing circumstances accurately; they would need perfect foresight. Yet, in the presence of that characteristic, it would be possible to undertake all transactions in the current period without loss and money would have no relevance. Money would be "neutral": relative prices and transactions would be identical to those set under barter.

Where there is uncertainty, there is a rationale for using money to defer expenditures; then, money cannot be neutral. In allowing new information to bear upon expenditure decisions, money has the potential to change those

decisions. In attempting to show some of the mechanisms by which non-neutrality disrupts market transactions, Hayek bases his exposition upon the presumption that agents anticipate events accurately (perfect foresight) so long as money is neutral; but that, when money is non-neutral, “influences which are wholly unrelated to the basic impulses of the economy” (Hayek 1928, p. 83) are likely to disrupt price-adjustments, transactions, patterns of saving, investment, and production. In short, there is perfect foresight in regard to “the basic impulses of the economy”; and there is imperfect foresight in regard to the disruptive effects of non-neutral money.

MONETARY POLICY

Hayek criticizes the presumption that neutral money is approximated when price stability is the goal of monetary policy; and he exposes the widespread, erroneous and persistent belief (see, for example, Keynes 1936, p. 242) that prices would remain stable, if only the interest rate were held at its natural rate. This would happen only if saving were zero. With positive saving (and an accumulation of capital goods), output would rise and (with constant nominal spending: MV) prices would fall. Economic growth *per se* leads to falling money prices; and the suggestion that this might be countered neutrally (“without disturbing real variables”) has no theoretical support. So, in addressing the consequences of an increase in the money supply (that is, a devaluation), it is a fallacious argument that

[u]nder an “adjustable” gold standard . . . by altering the gold content of the dollar . . . [s]uch a devaluation would be like a mere switch in measurement from ounces to grams . . . [p]roportional change in every agent’s fiat money balances and all money prices (including debts) constitutes merely a neutral change in the economy’s nominal scalar. (White 1999, p. 112)

This conclusion rests upon the unlikely proposition that asset portfolios are uniformly structured, with the implication that a currency devaluation has no redistributive effects.

With economic growth, unit costs (and prices) would be expected to fall *pro rata* (as a first approximation) to each sector’s productivity gain. Of course, the exact outcome must depend upon the configuration of demand and supply for each commodity. Against that background, consider a regime whereby an expansionary monetary policy is directed toward stabilizing the general level of prices. Then, “all producers can reckon upon being able in the final analysis to sell their expanded output at the same unit prices”; but the inevitable result is “an expansion of output . . . which is excessive in comparison to the equilibrium level” (Hayek 1928, pp. 98–99). Active price-stabilisation is non-neutral because (1) whereas the impact of monetary expansion is general, “improvements in productive methods do not occur simultaneously everywhere” (Hayek 1928, p. 98); and because (2) “perfect” foresight is denied

sight of money-induced maladjustments to intertemporal profiles of production:

[i]f, during such a general expansion in 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, pp. 92-93; italics in original)²

There are two other considerations. Since every change in the velocity of circulation is equivalent to a change in the money supply, it “would be necessary . . . [for it] to be compensated by a reciprocal change in the amount of money in circulation if [the amount of] money is to remain neutral towards prices” (Hayek 1935, p. 124); and a further complication exists in a system of diverse credit, which Hayek likens to an inverted pyramid. From cash at its base, the pyramid widens to incorporate central bank credit, commercial bank credit, and trade credit. Whereas the impact of monetary policy is limited to the first two (or three) levels, the ratios between different credit forms can change so that, even with a constant base, the volume of exchange media remains subject to variation.

To achieve a constant circulation of all media of exchange requires the most intricate counteractions. In later commenting upon the monetarist precept for “the total quantity of money to be kept constant or to change at a constant rate,” Hayek reiterates that

[i]t demands something similar yet significantly different, namely that the quantity of money (or rather the aggregate of all the most liquid assets) be kept such that people will not reduce or increase their outlay for the purpose of adapting their balances to their altered liquidity preferences. (Hayek 1978a, p. 77)

The practical issues are daunting. Not only would it be necessary to tailor changes in the money supply precisely to changes in velocity, it would also be necessary to confine adjustments to areas where change is required; that is, to areas where the original changes to velocity occur. Clearly a high degree of omniscience is necessary to achieve neutral money; from which

the only practical maxim . . . is probably the negative one that the simple fact of an increase of production and trade forms no justification for an expansion of credit, and that—save in an acute crisis—bankers need not be afraid to harm production by overcaution. (Hayek 1935, p. 125)

²Although relating specifically to rising productivity, the impact is the same as the “interest rate effect,” as subsequently exposed in the development of Hayek’s business cycle theory (see Steele 1992).

It must be clear that diversity—of intertemporal productivity gains, of alternative credit provision, and of the timing and location of changes in the velocity of circulation—renders the practicalities of a neutral revaluation vastly more complex than “a mere switch from ounces to grams.” Moreover, as Hayek emphasizes, “it is not changes in the value of money which should be at issue, but disturbances of the intertemporal price system which are without any economic function” (Hayek 1928, p. 99). Given sectoral disparities in falling unit costs (supply) and in the responsiveness of demand to subsequent price adjustments, monetary expansion to stabilize the general level of prices has a potential to create such disturbances. (*Note bene*: this particular issue is the key element in Hayek’s reappraisal; see below.)

Hayek shows the further extent of non-neutrality: in lowering market rates, monetary expansion stimulates investment generally, but with the greatest impact upon long-term projects. From that basis, and in looking beneath the general price level, Hayek traces the microeconomic sequences by which monetary expansion sets the business cycle in motion (see Hayek 1933, 1935, 1939b, 1941). In giving emphasis to diverse capital investments, Hayek shows how an easing of bank credit causes a mismatch between consumers’ demands and investors’ plans. Once underway, inappropriate investment expenditures carry the seeds of their own demise by their support of investment structures that are unsustainable. Even before the boom peaks investment plans, that are insubstantially based upon bank credit rather than real saving, become compromised by resource constraints and over-stretched capacity.

THE GREAT DEPRESSION: FIRST APPRAISAL

The context in which Hayek first presents a nascent monetary theory of the business cycle cannot fail to impress: the citation—for the (joint) award of the 1974 Nobel Prize for Economics—states that “he was one of the few economists who warned about the possibility of the major crisis before the great crash came in the autumn of 1929” (Royal Swedish Academy of Sciences 1974). That warning is derived from a corollary to Hayek’s early monetary theory, *viz*: easing bank credit can deliver no remedial adjustments to inappropriately structured investments. Rather, it exacerbates the problem.

Hayek’s contemporaneous view is that, through to 1927, economic growth in the U.S. gave no reason to expect other than a mild recession to follow. That this did not happen, he attributes to the deliberate action of the authorities who

succeeded, by means of an easy-money policy, inaugurated as soon as the symptoms of an impending reaction were noticed, in prolonging the boom for two years beyond what would otherwise have been its natural end. And when the crisis finally occurred, for almost two more years, deliberate attempts were made to prevent, by all conceivable means, the normal process of liquidation. (Hayek 1935, p. 162)

In the two years to 1929, resources were deployed in patterns that could not be sustained. Subsequently, idle plant and machinery were the consequence of those “misdirections of capital.” Vast stocks of underused durable capital in the 1930s were symptomatic of the inadequacy of prior commitments to supporting complementary processes. Instead of constituting proof of “an excess of capital and that consumption is insufficient,” unused capacity indicates that demand for consumer goods has been “too urgent” (Hayek 1935, p. 96) to allow the completion of investment projects. In such circumstances, easing credit to stimulate consumption could only exacerbate structural misalignments and postpone necessary adjustments. Rather, the need is for “the most speedy and complete adaptation possible of the structure of production between the demand for consumers’ goods and the demand for producers’ goods” (Hayek 1935, p. 98). Insolvencies would be inevitable.

Astute bankers always give the closest consideration to potentially insolvent enterprises. Where a bank’s commitments are certain to be written-off by early foreclosure, an extension of credit (as “distress borrowing”) could prove a soundly-calculated risk. If, in their turn, commercial banks are able to obtain credit (or, rather, cheaper credit) from the central bank, this must enter their calculations (in raising the expected pay-off to facilitating “distress borrowing”). For commercial and central bankers alike, these are delicate acts of judgment that should not be confused with the pseudo-remedy of easing credit *to stimulate demand generally* whenever recession looms, for therein lies the affliction and not the cure. It requires no sophisticated theory to understand that cheap credit—that allows workers to be temporarily retained in sectors whose markets have permanently declined—provides no lasting solution. Commercial (rather than central) bankers are privy to the detailed, local *microeconomic* business plans that are relevant to such decisions. That is not to say that all bankers are so astute! Commercial banks may themselves be made insolvent by the insolvency of enterprises to which they have unwisely extended loans.

THE GREAT DEPRESSION: REAPPRAISAL

Whereas Hayek’s diagnosis and prognosis are sound in terms of stylized facts that are readily drawn from his theory, he retrospectively discounts their “practical significance” to the Great Depression, given that monetary policy prior to 1929 had sought merely “to secure a *stable* price level” (see below). Furthermore, where bank failures and the resulting monetary contraction are effects (not causes) of an economic downturn, these can trigger a “secondary depression” as goods are unsold, workers are dismissed and prices and wages tend to fall. So, there is a (practically difficult) distinction to be drawn between the structural unemployment that arises in sectors whose unwarranted expansion is the consequence of monetary profligacy, and the general unemployment that is caused by secondary deflation once the inevitable recession is set in train.

Factor reallocations and adjustments to prices and wages are essential to achieve recovery. In the 1930s, trades unions, price regulations, trade barriers, and tariff protection inhibited those necessary adjustments. Moreover, although the Federal Reserve operated an expansionary monetary policy (M) to offset the secondary deflation, this was more than compensated (in the face of disequilibrium prices and general uncertainties) by a fall in the velocity of circulation (V). The result was a collapse in total expenditure (MV).

With the price mechanism rendered ineffective in relocating workers to sectors with the potential to deliver products that were wanted, “the original unemployment . . . spread by means of the mechanism . . . [of] . . . ‘secondary contraction’” (Hayek 1975, p. 7); but, notwithstanding the retrospective acceptance of the significance of that secondary effect, there is no repudiation of the inappropriateness of monetary measures to redress “the maladjustments of industry left over from the boom” (Hayek 1933, p. 19). The use of monetary policy to lift an economy from depression is certain to exacerbate both its severity and duration. Easing credit not only affords temporary sustenance to unsustainable structures, it encourages further unwarranted developments. Rather, the need is to liquidate the malinvestments that delivered unwarranted business expansion.

So, while Hayek had believed that a short period of deflation in the early stages of the Great Depression might have broken the rigidity of wages, his retrospective view of the likely impact was different: the likelihood that such a measure would succeed probably

disappeared in 1931 when the British government abandoned its attempt to bring down wages by deflation, just when it seemed likely to succeed. . . . I still believe that we shall not get a functioning economy until wages again become flexible, but I think we shall have to find [a] different technique for that purpose. I would no longer maintain, as I did in the early '30s, that . . . a short period of deflation might be desirable. (Hayek 1975, p. 5)

Hayek's revised assessment is that wage flexibility remains essential; but that one measure to offset secondary depression would be to provide “employment through public works at relatively low wages so that workers will wish to move as soon as they can to other and better paid occupations” (Hayek 1978b, p. 212). More generally, intervention by the monetary authorities could bring advantages “in the later stages of a depression” when “deliberate attempts to maintain the money stream” would be justified to counter the “cumulative process of secondary deflation” (Hayek 1975, p. 5; see also Hayek 1978b, p. 210). Hayek adds further detail to his reappraisal:

[i]t is now generally recognised that even those additions to the quantity of money that in a growing economy are necessary to secure a *stable* price level may cause an excess of investment over saving. But though I was among those who early pointed out this difficulty, I am inclined to believe that it is a problem of minor practical significance. *If increases or*

decreases in the quantity of money never exceeded the amount necessary to keep average prices approximately constant, we would come as close to a condition in which investment approximately corresponded to saving as we are likely to do by any conceivable method. Compared, anyhow, with the divergences between investment and saving which necessarily accompany the major swings in the price level, those which would still occur under a stable price level would probably be of an order of magnitude about which we need not worry. (Hayek 1978a, p. 83; italics added)

These are highly significant observations that buttress the conclusion that Hayek discounts his contemporaneous “explanation for the onset of the Great Depression”; but the associated conclusion that Hayek “repudiated his earlier business cycle theory” is unwarranted, for which reason it is no surprise that Hayek should fail to “indicate what cycle theory should be put in its place” (White 1999, p. 118). Although Hayek’s later commentary tends to focus upon misallocations of labor and consequential unemployment, he alludes more generally to “factors of production”: “[t]hese discrepancies of demand and supply in different industries, discrepancies between the distribution of demand and the allocation of factors of production, are in the last analysis due to some distortion of the price system that has directed resources to false uses” (Hayek 1975, p. 7).

That Hayek concludes that price stabilization is “of minor practical significance” to the business cycle is one thing; that he also believes that, “by creating employment through inflation, we lay the foundations for a future period of worse unemployment” (Hayek 1975, p. 3) is quite another. The latter comment is consistent with the first and draws from Hayek’s monetary business cycle theory. As an endorsement, rather than as a repudiation of that theory, Hayek asserts “one of the chief benefits of a stable currency” to be that of substantially preventing “those misdirections of production which later inevitably lead to reversals of the process of growth, the loss of much investment, and periods of unemployment” (Hayek 1978a, pp. 69-70). The pernicious impact of even a “mild inflation” is in having “caused misdirection of production and drawn labor and other resources into activities which could be maintained only if additional investment financed by the increase in the quantity of money could be maintained” (Hayek 1978a, p. 93). Most emphatically, Hayek reaffirms his commitment to a “theory which asserts that unemployment is an effect of a deviation of the actual price structure from the equilibrium structure.” However, in consequence of “the modern fashion [that] demands that a theoretical assertion which cannot be statistically tested must not be taken seriously and has to be discarded,” Hayek is left to lament that, “a theory which, in my opinion is the true explanation has been discarded as not adequately confirmed, and a false theory has been generally accepted merely because it happens to be the only one for which statistical evidence, even though very inadequate evidence, is available” (Hayek 1975, p. 7).

Even so, Hayek points to a special difficulty in respect of the consequences of an over-expansion of credit in the 1970s as against the 1930s:

[i]n the misdirection of labor and the distortion of the structure during the past business cycles, it was fairly easy to point to the excessive expansion because it was, on the whole, confined to capital-goods industries. The whole thing was due to an over expansion of credit for investment purposes, so you could point to the industries producing capital equipment as those which had been over expanded.

In contrast, the present expansion of money . . . has gone into entirely different channels. The additional expenditure has been much more widely dispersed. (Hayek 1975, p. 20)

However, the theory is *not* repudiated—"I do not doubt that in a sense we have today the same kind of phenomenon"—but its practical relevance is more intricate for the reason that, whereas in earlier periods it was possible to identify "particular illustrations of overexpansion" (Hayek 1975, p. 20), in the 1970s, overexpansion was no longer primarily confined to capital-goods industries.

PRICE STABILIZATION AND BUSINESS CYCLES

Although Hayek had hankered for the monetary discipline of the international gold standard, he feared the consequences of an untimely restoration; that is, "before people had become willing to work it" (Hayek 1939a, p. xiii). In its absense, he saw potential harm in the monetary nationalism propagated by Keynes:

so long as an effective international monetary authority remains an utopian dream, any mechanical principle (such as the gold standard) which at least secures some conformity of monetary changes in the national area to what would happen under a truly international monetary system is far preferable to numerous independent and independently regulated national currencies. (Hayek 1939a, p. 93)

The practical problem of establishing a benign monetary authority is one to which Hayek returns repeatedly (Hayek 1960, 1976, 1978a, 1986), although without reference to earlier work. The likely explanation is that later expositions are aimed at a wider (even lay) readership; and the new context is Keynesian demand management and the direction of monetary policy toward macroeconomic goals. In that context it is understandable that Hayek should have shifted his focus from monetary policy to the kind of monetary regime that might preclude Keynesian excesses.

In rejecting both the concept of *the* money supply and the objective of zero inflation in final output prices, the ideal is for money to be neutral in the sense that hypothetical barter transactions are unaffected by the presence of

money. This would be achieved by the requirement “that the quantity of money (or rather the aggregate of all the most liquid assets) be kept such that people will not reduce or increase their outlay for the purpose of adapting their balances to their altered liquidity preferences” (Hayek 1978a, p. 77). This is a delicate balance that can be determined only by market forces, for “[n]o authority can beforehand ascertain, and only the market can discover, the optimal quantity of money” (Hayek 1978a, p. 77).

A new argument—for which Hayek concedes “intellectual priority” to others (Hayek 1978a, p. 23n; 1991, p. 221n1)—is for the abolition of the monopoly of the note issue. A state monopoly is unlikely to produce characteristics best suited to the users of money. When the state is constrained by gold convertibility and the requirement to bridge international net transfers with gold, an orderly money regime is likely; but the possibility of a return to the gold standard remains discounted, because its successful operation had rested upon “the general opinion that to be driven off the gold standard was a major calamity and a national disgrace” (Hayek 1960, p. 335). That had gone. In changed circumstances, national monetary authorities might be subjected to external discipline by introducing choice in the use of currency.

Given inherent political conservatism and a reluctance to relinquish monetary control, a feasible first step is for other national authorities to compete against the domestic provision of currency. Consumer sovereignty would determine the supplies of moneys in the same manner as it determines the quality and composition of other goods. To this end, Hayek proposes that nations “mutually bind themselves by formal treaty not to place any obstacles in the way of free dealing throughout their territories in one another’s currencies, . . . or of a similar free exercise of the banking business” (Hayek 1978a, p. 19). By that arrangement, it would be impossible for a national authority to issue money inferior to that of another nation. With any deviation from the path of providing “sound” money, the offending currency would be displaced from general use.

Hayek discusses the characteristics that would most likely emerge with competitive currencies. He points to the “chief disturbances” from monetary instability as operating “through the effects on contracts for deferred payments and the use of money as the basis for calculation and accounting”; but, in seeking the “benefits of a stable currency” (Hayek 1978a, p. 70), merit is found in raw material or wholesale price stabilization, rather than (as misrepresented) in “zero inflation in *final output* prices” (White 1999, p. 117). With greater regional variations in the prices of consumer goods—than in “widely traded products such as raw materials, agricultural foodstuffs and certain standardised semi-finished industrial products”—Hayek argues that it is “not likely that an extensive circulation could be built up for a currency so regulated” (Hayek 1978a, pp. 70–71).

In a further development, Hayek presents a case for private money. An enterprise—“Standard Accounts Limited” (SAL)—would accept deposits (in

currency notes of any type) in the manner of an ordinary commercial bank, but with the difference that deposits are valued in a Standard unit of account: competitors would have to agree "on a common composition of the standard index number" (Hayek 1991, p. 29). Deposits would be redeemable on demand (in currency notes of any type) to the value of the appropriate number of units of account. The crucial problem for SAL would be how best to invest multi-currency deposits, to ensure repayment in the appropriate index-linked volume, while retaining sufficient liquidity in terms of currency to meet the redemption of deposits. However, the expectation is that the stability of the real market economy would be enhanced by subjecting its monetary instruments to the market process itself.

CONCLUSION

That Hayek's work on money, investment, and business cycle theory should be misunderstood and misrepresented poses nothing new. Its contemporaneous failure to win approval might be attributed to Hayek having "purposely refrained from combining purely theoretical considerations with discussions of current events" (Hayek 1933, p. 18). Further explanation might lie in a methodology in which theory, founded upon introspection, takes precedence over empirical work. Indeed, the economic malaise of the 1930s generated an impatience with sophisticated theoretical analysis. Though inhospitable to Hayek, this impatience produced a fertile climate for the acceptance of Keynes's *General Theory*. However, as Keynesian full employment policies proved inherently inflationary, attention turned again to Hayek's criticisms of *The General Theory*, of Keynesian macroeconomics and of monetarism. According to Hayek, their common error is in purporting to analyze economic forces at an aggregative level that corresponds to no decision-making agency.

The interplay between heterogeneous investments and the incentives created by monetary disturbances gives the basis for Hayek's distinctive contribution to business cycle theory. That analysis provides an explanation of the *origin* of discrepancies between the supply and demand of different commodities that lead ultimately to "a general 'disproportionality' between supply and demand" (Hayek 1933, p. 43). The impact of monetary expansion, first upon the rate of interest and subsequently upon relative prices, is to trigger an investment boom that is followed inevitably by business recession.

Those who, for whatever reason, find little empathy with Hayek's monetary theory of the business cycle, can point to no logical inconsistency; nor (given the complex microeconomic structure of that theory) can they expect to find that its detailed propositions are either "adequately confirmed" or readily falsified. Moreover, when historical events are shown to support some rival theory, it is totally inadmissible for this to be couched as implicit evidence against Hayek. There is no suggestion from Hayek that monetary expansion is the *only* cause of business cycles. Certainly, Hayek admits: (1) to having overstated the relevance of monetary expansion to the Great

Depression; and (2) to recognizing that the impact of credit-expansion is “much more widely dispersed” in the modern economy. Yet, it is equally certain that Hayek remains constant in his view of the relevance of monetary expansion to particular malinvestments and to general economic malaise.

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