Inflation, Recession and Stagflation

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INFLATION, RECESSION AND STAGFLATION

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<u>Part A</u>

I. INTRODUCTION

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We begin by referring to what is possible <u>the</u> major macroeconomic problem - both for analysis and for policy - facing the Western economics today; namely, the reasons why the supposedly mild inflations of the two decades following the Second World War, have now turned into the far more intractable "stagflation" besetting theorist and policy-maker alike.

We then consider three possible "diagnoses" or major analytical standpoints offered: the Keynesian; the monetarist (as represented chiefly in Professor Friedman's writings); and (very briefly) the "psychological" (which is represented on both sides of the Atlantic, one anotable representative being Professor Lord Robbins).

We hope to show that all three have one serious common failing: they all ignore the real side of the economy and hence the <u>real</u> maladjustments introduced by a monetary policy that interferes with economic coordination. All three views implicitly assume, on the other hand, that the real side of the economy is always in long-term equilibrium; they see money as influencing <u>only</u> the price-"level". We further hope to show that such views belong essentially to the anive early stage of economic though, when the <u>structure</u> of output and the influence of prices on production had not been fully worked out, and attention was

*The authors are, respectively, Assistant Professor of Economics, Iowa State University (USA) and Lecturer in Economics, University of Newcastle, New South Wales (Australia). directed towards the problems raised by varying money streams inpinging on a rigid price and output structure.

We then proceed to an extensive exposition of a major alternative analysis - that derived from the "Austrian" school of economic thought, and more especially from the writings of Professor Hayek. Here we hope to indicate how a Hayekian analysis of the effects of monetary changes on the structure of prices and outputs enables us to delve beneath the monetary surface to the underlying real phenomena, bringing out the <u>real</u> misallocations resulting from a discoordinating monetary system.

Before we begin we feel we ought to say that although we consider here only these three alternative, non-Austrian views outlined, this does not mean, of course, that we feel that all possible alternatives to the Austrian standpoint have been covered. For instance, we do not go into the extensive neo-Ricardian critiques of the current orthodoxy advanced by Professors Joan Robinson and Nicholas Kaldor and Mr. Piero Sraffa, since we see these criticisms rather as part of a more general attack on subjectivist-marginalist economics. Nor do we consider in detail the recent work done by Professors Clower and Leijonhufvud, partly because we feel a certain sympathy for their views, and indeed consider our work to be complementary in some degree. We would argue, however, that Professor Hayek's theory focused on certain important features of cyclical disturbances that have been ignored by virtually all writers. in the area.

II. From Inflation to Stagflation

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The 1939-45 war marked a great watershed in the appearances of the problems faced by macroeconomic policy in the developed countries. In the inter-war years, policy had had to cope with, initially, a "typical"

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cycle (which was followed by what was taken to be a stable expansion in the 1920's), and then by a depression of unprecedented intensity and length. But it seemed that after 1945, the problem was exactly the opposite: that of gently (and later, ore rapidly) rising prices. In eleven major developed countries,¹ prices declined - if they did at all - in only one or two years in the early 1950's, and these declines were negligible. Price indices remained stable for some years in many of these countries. But such periods of relative stability were outnumbered by years of rising prices, so that in effect, prices have been rising more or less steadily ever since the end of the Second World War.

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Until recently, output generally rose <u>pari passu</u> with prices. Indeed, the EEC countries, together with the outstanding examples of Israel and Japan, were generally extolled for their economic growth record (in relation to such "slow growers" as the UK).²

However, of late two ominous sysmptoms have manifested themselves: firstly, rates of price increase have themselves increased, so that most developed countries now find it common for price level increases to run well into double figures, and rates of increase in output have begun to slacken. Unemployment percentages, at historic lows ever since the late 1940's, have begun creeping upward again: and every attempt to reduce the rate of price increase brings fresh upward jumps in unemployment and in excess capacity in industry. Most OECD countries now find unemployment lurks much closer to the inflationary surface. OECD forecasts describe the price situation as "worrying" and report that although price inflation continues at historically high rates (in excess of 12 per cent per annum in early 1974), growth continues to decelerate (i.e. aggregate demand has dropped substantially in relation to supply). "Over the last few years

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unemployment seems to have rise in relation to demand pressures" and the "unemployment rate at the peak of the boom is higher than at earlier peaks ..."³

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The UK is perhaps a prime example of this "staglfationist" dilemma, which in many respects is far sharper there than elsewhere. UK retail prices have risen in every year since 1945, with no exception - unlike other countries, the UK never experienced any year in which the retail price index fell or even remained steady. Growth rates remained low in relation to growth rates achieved in the EEC. Attempts to raise the growth rate regularly ran into payments problems - the well-known "stop-go" cycle. Here too, the interval between "go" and "stop" (or vice versa) has shortened - most recently (as of this writing) the Chancellor of the Exchequer felt obliged to introduce "reflationary" measures hardly two months after a "deflationary" Budget. This happened because in the UK more than in any other developed country, increases in the rate of price increase are now combined not merely with a low rate of growth in output but with a zero or even a negative growth rate. The retail price index broke into double figures well before any other developed country; and even before this happened, the retail price index began climbing well ahead of output. And now (late 1974) the price increase shows every sign of continuing into the 20 per cent range, while output continues to slacken. An inflationary depression in the 1980's is a not unimaginable prospect for the UK.4

What went wrong? Why has the gently rising price level of the 1950's and the 1960's now given way to double figure increases - which scarcely anyone expected to happen? Why does unemployment rear its head with every slackening of the rate of price increase?

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III. The Keynesian Diagnosis

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Many Keynesians view the post-1945 situation as one of "cost inflation", i.e. of rising cost levels pushing up the price level, with a passive monetary system furnishing the necessary finance.⁵ Costs determine prices, the "active" variable, the money supply adapts "passively".6 Attempts to control the supply of money, rather than controlling costs directly, must create unemployment without reducing prices, since costs continue to rise. However, if costs can be controlled directly, e.g. by incomes policies or some variant thereof, it would be possible to combine both full employment and a stable price level.⁷ And the 1930's are seen almost universally, not, of course, by the Keynesians alone, as an awful example of the results of <u>not</u> expanding money income and expenditure sufficiently to restore full employment.⁸

The Keynesian view is thus essentially the epitome of the macroapproach. The Keynesian treatment of interest rates is one instance of the implied neglect of the microstructure of relative prices and outputs which actually obtains in reality. The interest rate - or market spectrum of interest rates - is the closest approach in macroeconomics to anything like a price. Of course, in the one-or-two-commodity world usually treated in macro models, changes in interest rates have - <u>ex hypothesi</u> no micro implications.⁹ But the Keynesian approach offers us no theory of interest rates whatsoever. What we have instead is an analysis of changes in the rate at which the money stream enters the money market which may give us an hypothesis for short-run changes in market interest rates, but gives us no theory of interest. As Professor D. H. Robertson puts it, in his classic characterisation of Keynes' liquidity preference theory:

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Thus the rate of interest is what it is because it is expected to become other than it is; if it is not expected to become other than it is, there is nothing left to tell us why it is what it is. The organ which secretes it has been amputated. And yet it somehow still exists - a grin without a cat.¹⁰

In the Keynesian macro approach, then, prices remain completely rigid, in both absolute and relative terms, throughout the analysis. Changes in the structure of relative prices are ignored - indeed, the analysis often explicitly assumes that prices remain always "at their historic levels".¹¹ So too the structure of output is considered to be irrelevant; indeed, the Keynesian concept may be said to be that of full <u>un</u>employment - i.e. the implicit assumption that all goods and services are available in abundance, so that output and employment can be increased in all firms simultaneously. Or to put this point slightly differently, the "level" of unemployment and excess capacity at the bottom of the cycle, is assumed to be uniform throughout the economy. The substantial variations, in both unemployment and excess capacity, as among different firms, "industries" and regions, are either not seen within the Keynesian framework or disregarded, as of no analytical significance.

In such a scheme, then, the "level" of output and employment are dependent solely on the level of monetary expenditure. The supply side is left out of the picture altogether; and, as just mentioned, the concentration on levels of utilization (of labour and other factors) implies that on the real side there is a constant equilibrium, in the <u>structure</u> of output.

IV. The Monetarist Position

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At the other extreme - seemingly - we have Professor Friedman and the monetarists. Yet Professor Firedman, too, interprets the historical experience of the 1920's and 1930's (in the U.S.) in purely monetary

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terms. For him too, as we shall see, the "supply" side of the economy is always in long-run equilibrium; there is no real discoordination.¹²

In considering value, we were only concerned with causes which acted upon particular commodities apart from the rest. Causes which affect all commodities alike do not act upon values. But in considering the relation between goods and money, it is with the causes that operate upon all goods whatever that we are especially concerned. We are comparing goods of all sorts on one side, with money on the other side, as things to be exchanged against each other.¹³

This quotation from J. S. Mill represents essentially the monetarist approach. For Mill, as for most of the classical economists, money affects only spending in general. Pricing - the determination of "value" is not affected by a monetary disturbance. Mill analyzed changes in the quantity of money only in terms of the resulting discrepancy between actual and desired cash balances (not in these terms, of course). The real side is untouched.¹⁴

Our picture of classical nineteenth century economic thought tends to be dominated, naturally enough, by Mill and Ricardo. But neither was particularly distinguished as a monetary theorist. Their dominance has, however, overshadowed other important English monetary contributions of the time (e.g. that of Henry Thornton).¹⁵

Monetarism has hardly advanced beyond the classical position (and so, not surprisingly, the classicals <u>can</u> sound quite "modern"). In his analysis of some specific problems in microeconomics, Professor Friedman does adopt what is basically the outlook of methodological individualism. But in his monetary thoery (and in that of others of the same school) we find, quite inconsistently, an aggregative analysis, utilizing holistic macro constructs that are treated as if they interact <u>directly</u> (whereas of course in fact they do not). This procedure ignores entirely the microeconomic pricing process which actually determines the real structure

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of prices and output. Monetarism then, does not differ in its fundamental approach from other brances of orthodox economics. A market economist is distinguished by his adherence to the principles of methodological individualism; he analyzes economic problems in terms of the effects of a given change on the expected costs and benefits facing transactors. A market economist is thus led to analyze (among other things) the market process and price <u>interrelationships</u>. Whatever position Professor Friedman may have adopted on other and non-monetary issues, in this respect at least, he is <u>not</u> a market economist.¹⁶

Professor Friedman argues that real prices determine real magnitudes i.e. the economic system is always in long-run real equilibrium, as described in the Walrasian system of equations. Real forces thus determine real income, while monetary forces determine nominal income, with the price-level as the joint outcome of the two. (Such an approach differs but little from the older views of Professor Irving Fisher; it must therefore be open to all the criticisms directed against these earlier views. However, to continue:) To the foregoing, Professor Friedman appends a short run adjustment process

"... in which the rate of adjustment in a variable is a function of the discrepancy between the measured and the anticipated value of the variable or its rate of change, as well, perhaps of other variables or their rates of change."17

Professor Friedman hypothecates such an adjustment process because for him the key question of monetary theory is the reaction to a discrepancy between the nominal quantity of money supplied and the nominal quantity demanded. Monetary expansion, then, affects only the pricelevel - there are no <u>real</u> maladjustments; while depressions are (very largely, if not solely) the outcome of a decline in the stock of money. True, in the transition from a rising to a stable price level, there may

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well be, almost unavoidably, some transitional decline in output and employment, as money prices adjust themselves to the reduced rate of increase in the stock of money. But provided this reduction is gradual and not abrupt, there need be no very great rise in unemployment, or fall in output. A monetary expansion, on the other hand, simply reverses this process: initially, as the money supply expands and prices rise, wages (and other costs) fail to rise (because the information has not yet spread throughout the economy) and profits increase. Hence output and employment expand - temporarily. Once (nominal) wages and other costs are bid up in line with the new price level, profits shrink back to their "normal" level, and unemployment also rises to its "normal" level, as determined by the real elements in the situation. There is no real misallocation anywhere. The pattern of output is untouched. If we wish to push unemployment below its "natural" level, and expand the money supply to this end, larger and larger increases will become necessary, as the system adjusts to the rises in money prices. But a serious recession of depression need not result, since monetary expansion creates no real distortions, and the banking system is now geared to prevent any serious deflations in the stock of money.¹⁸ Consistently with these views, Professor Friedman sees no real consequences to the monetary expansion of the 1920's, as the price-level remained stable, while in the early 1930's the substantial decline in output and employment in the US may be debited directly to the substantial contraction in the stock of money in the years 1929-32.

In other words, the monetarist position may be restated as follows: in real terms, prices are always at their long-term equilibrium level; monetary changes affect only their nominal height; money has no real

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effects. Given that Professor Friedman sees the underlying reality as being described by the long-run Walrasian equations, such a view is only reasonable - since long-run equilibrium <u>by definition</u> excludes any real <u>dis</u>equilibrium! Nor can Professor Friedman consistently superimpose imperfect anticipations onto a system in which all expectations are consistent and met, and expect to obtain a very conherent results. Equally, in the <u>ad hoc</u> "adjustment process" which Professor Friedman postulates, he fails quite to distinguish between price changes that coordinate production and those that do the opposite! In any case, general equilibrium equations, being solely definitional, leave the whole market process entirely out of consideration - indeed, such equations <u>can</u> tell us precisely nothing about such an intertemporal process.¹⁹ But it is such interrelated price changes that actually guide production over time.

The aggregative "macro" <u>constructs</u> on which Professor Friedman and the monetarists rely in their analysis, are common to other orthodox economists (including and more especially the Keynesians - a point which Professor Friedman now acknowledges). In relying on these constructs the monetarists appear to be unaware of the <u>real</u> effects of money on the economic system - its effects on individual prices and price interrlationships, and hence on the structure of outputs (and of employments). In thus ignoring the structure of production, and the influences of prices on production, the monetarists share a crucial deficiency, common not only to the Keynesians, but indeed to the reference framework of the current orthodoxy. The monetarists no less than the Keynesians thus lay themselves open to the criticism that such thinking takes "us back to the pre-scientific stage of economics, when the whole working of the price mechanism was not yet understood, and only the problems of the impact of

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a varying money stream on a supply of goods and services with given prices aroused interest." 20

V. The Psychological View

Finally, a brief mention must be made of a third viewpoint which stresses the role of inflationary <u>expectations</u> in creating the stagflationist dilemma. This view is very widespread - e.g. both Lord Robbins²¹ and the <u>Wall Street Journal</u>²² may be found subscribing to it. In this view, as particular rates or price increase come to be expected, people anticipate these increases by incorporating them into the prices they demand for the goods and services they produce. The problem then is to frustrate these inflationary expectations, and reduce the anticipations of price increases to "reasonable" levels.

Here, too, the implicit assumption is that there is no <u>real dis</u>coordination anywhere on the real side of the economy. Money has no effect on the structure of outputs or indeed on relative prices, and price relationships. The psychological view by itself lacks any theoretical under pinnings. It can be - and is - appended to other theories (e.g., as by Professor Friedman). One must then examine these other theories, as we have done. Part B

As we have seen, the common deficiency in the Keynesian and Monetarist approaches is their neglect of the microeconomics of business cycles. And as others have noted, it is doubtful whether the existence of money can be accounted for in a Walrasian framework. In any case, both Keynesians and monetarists alike fail to find any place for money in the pricing process: money is given no role in determining money prices.

The specifically Austrian contribution to monetary theory was twofold: firstly, it emphasized the role of money in the pricing process, and incorporated money - or, more precisely, changes in the stream of money payments - into the determination of relative prices. Secondly, it analyzed the effects of such money-induced relative price changes on the time-structure of production - i.e., the capital structure.

Menger provided the theoretical framework for explaining why a medium of exchange was used.²³ Wicksell drew attention to the failure of the classical quantity theory to explain how changes in the money supply affected prices.²⁴ Von Mises, building on Menger and Wicksell, showed more completely how money could be integrated into general economic theory. He went on to outline a theory of cyclical fluctuations in which monetary disturbances led to real misallocations.²⁵ Professor Hayek built on the theories of Menger, Bohm-Bawerk, Wicksell and von Mises to amplify and expand the "Austrian" monetary tradition, especially in capital and business cycle theory.²⁶ We examine that tradition in what follows.

Monetary Expansion, Pricing, and Resource Allocation

Monetary changes are <u>not</u> neutral - they do not affect all prices uniformly, changing merely their nominal height but leaving price

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relationships unaltered. In reality money does not enter the economy via a helicopter or via a simple uniform change in all money balances the sort of <u>simpliste</u> example so dear to so many textbook writers. Rather, newly-created money always enters the economy at a specific point, and is spent first on certain specific goods, before gradually working through the system. Thus some prices and expenditures are altered first, and other prices and expenditures, later. So long as the original monetary change is maintained, so long will this monetary "pull" on price interrelationships persist.

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Professor Hayek has linkened the effects of money on pricing to the process of pouring a viscous liquid (honey in his example) into a vessel:

There will, of course, be a tendency for it to spread to an even surface. But if the stream [of honey] hits the surface at one point, a little mound will form there from which the additional matter will slowly spread outward. Even after we have stopped pouring in more, it will take some time until the even surface will be fully restored. It will, of course, not reach the height which the top of the mound had reached when the inflow had stopped. But as long as we pour at a constant rate, the mound will preserve its height relative to the surrounding pool.²⁷

Resource allocation cannot be left unchanged as a result of these relative price changes. At the point at which the new money enters the economy, prices will rise relative to prices elsewhere. The pattern of outputs will be altered correspondingly. Monetary expansion also prevents some prices from falling, that might otherwise have fallen. Thus some businesses make "profits" that would have made losses, and workers are employed in jobs they would have left for others. Another result of the monetary expansion is that more new businesses, and different kinds of businesses than otherwise are started. Firms are also led to embark on new and/or different lines of production. In short, the pattern of expenditures, of resource allocations, and, above all, of relative prices, are all changed by monetary expansion. Initially such expansion generally takes the form of an increase in bank credit. (Governments could simply print extra currency, but they usually prefer less obvious methods of reaching this objective and thus bridging the chronic gap between fiscal incomes and expenditures). Increased bank credit reduces interest rates below the level they would otherwise have reached. The overall pattern of expenditures is thereby altered: investment expenditures rise relative to consumption expenditures and to savings, the increase being measured approximately by the increase in the money supply.

Monetary expansion thus leads to a discoordination between saving and investment plans. The Keynesian and the monetarist would find little to quarrel with in the analysis at this point: the former would agree that if planned investment exceeded planned savings, incomes and output, and possibly prices, would rise; the latter would say that an increase in the stock of money would raise incomes and prices, and perhaps output. The "Austrian" analysis however goes further - to detail the changes in the pattern of expenditures and hence in the pattern of outputs, resulting from the consequent changes in relative prices.

Monetary Expansion and the Production Structure

As we have just seen, in crudely aggregative terms, monetary expansion leads to a drop in interest rates and a rise in investment expenditures relative to consumption expenditures. I.e., a decline in the uniform rate of discount will raise the demand-price schedule for durable capital goods - more so, for the more durable goods - in relation to the demandprice schedule for current consumption services. But this is only the very beginning of the story; the effect on capital durability is a partial effect.

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There has been no change in the "<u>supply</u>" of capital goods (and we shall see the implications of this in the course of the discussion). Capital is not a homogenous stock, but an interconnected structure of interrelated capital goods. By disarranging price signals, the effect of monetary expansion is to throw this structure out of co-ordination.

In the Hayekian view, production is seen as a series of "stages",²⁸ beginning with final consumption, and extending through to stages systematically and successively further removed from this final stage. Factor services are applied to the unfinished products moving through these stages. In other words, production consists of a series of interrelated processes in which heterogenous capital goods are grouped in specific combinations, together with land and labour services.

Capital goods usually, and land and labour to some extent, are specific to particular stages of production. Capital goods are thus not in general homogenous and substitutable; they are heterogenous and complementary, and usable only in specific combinations: e.g., a machine from a shoe factory cannot be combined at random with a machine from an automobile plant to produce some third product.²⁹ More generally, if capital investments (such as shoe factories or authomobile plants) are to add more to final output than any other capital combination, they must fit into an integrated production structure completed to the final consumption stage - i.e., they must fit into an interlinked series of complementary investments.³⁰

The increased bank credit flowing into the system at depressed interest rates alters the relative profitability of capital invested in different stages; the streams of quasi-rents accruing to the various capital goods are changed; and these goods are rearranged into different capital combinations.

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At the lower interest rates, certain formerly unprofitable investments become profitable. Additional bank credit does not produce additional labour and land services; hence the new investments must necessarily use relatively less labour. Because there is more money available and interest rates are lower, factor rental prices are bid up relative to product prices - i.e., real factor costs increase.³¹ Hence entrepreneurs try to adopt less labour intensive (i.e., more "capitalistic") production methods. Demand for raw materials also increases.

Conversely, certain formerly profitable investments now become unprofitable: returns decline on capital goods that are usable only in relatively more labour-intenseive methods, and that cannot readily be adapted to the use of less labour. Demand for the different sorts of capital goods depends on relative factor costs and on the expected returns from using the machines to produce other products. Firms producing capital goods geared to unprofitable capital combinations find on the one hand that they face increased factor costs, while demand for their machines is falling off. Hence these firms (or lines of production) contract, while other firms producing goods adapted to the newer, more profitable capital combinations find demand rising and increase their output.

Changing price signals reduce profits on production for current consumption while raising profits on production for future consumption, thus altering profits on the different capital combinations involved.³² Returns decline in production stages nearer consumption, while returns increase in stages furthest from final consumption. Nonspecific resources are thus shifted from the former to the latter: output of consumer goods declines, while the pattern of production of capital goods is so altered as to now produce goods that fit into a production structure extending through more stages than previously.

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In order that these investments may all be completed down to the final consumption stage, it is necessary that the requisite resources continue to be released from consumption - i.e., that a decline in consumption output be maintained until the new production structure is completed. It must be remembered that because of intertemporal complementarity, a machine whose usefulness depends on the construction of additional capital goods will be economically useless if the requisite resources are diverted elsewhere (i.e., to the production of consumption output in this case). In order to complete all the capital combinations appropriate to an extended production structute, capital goods are now required which, given the intensity of consumption demand, are not available.

The Self-Reversability of Monetary Changes

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But as a result of the monetary expansion, factor-owners have been receiving increased money incomes. And there has been no change in the rate of saving out of income. As these incomes are spent, the increased consumption expenditure meets an attenuated supply of consumer goods. Prices of consumer goods now begin rising, relative to the prices of unfinished products, especially those furthest away from the final consumption stage. The above process is now <u>reversed</u>: returns rise in stages <u>nearer</u> consumption, while returns decline concomitantly in stages furthest from consumption. Non specific resources are once more drawn back into the production of consumer goods. All those capital goods intended for a different production structure have now to be readapted, to fit <u>another</u>, "shorter" structure, with concomitant losses and unemployment. These losses are particularly heavy on those capital goods most suited only to a "longer" structure. In summary, the attempted extension of the production structure cannot be completed, for lack of resources.

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Monetary expansion began by lowering interest rates. Entrepreneurs, misled by the uncoordinated price signals, <u>attempted</u> to reduce all marginal rates of return to the same level. But in attempting to do so, they actually drove <u>up ex post</u> returns on some goods, to levels higher than these interest rates. Monetary expansion thus induces disproportionalities in the production of capital goods, that are revealed in the "depression": there is overproduction in some lines, underproduction in others.

Capital goods that are profitable to produce only at the lower rates of interest have been overproduced. They have been overproduced because inappropriate combinations of capital goods have been selected as the result of the price signals generated by the hypothesized monetary policy. Capital goods appropriate to the real factors (including transactors' time preferences or propensity to consume out of income) have been underproduced.

From the above analysis, it is clear that aggregation of <u>individual</u> investment-demand curves into one aggregate-investment curve, has no pricetheoretic foundation. Demand for any capital good depends on its position in the production structure and the profitability of integrating it into different and varying capital combinations. Equally, changes in interest rates affect prices and supplies, not merely of produced goods used in further production, but also of land and labour services. In short, monetary expansion affects not merely "the" interest rate - it alters an enormous complex of price-cost margins and resource allocations; "'the' interest rate" is merely an extremely clumsy and misleading shorthand phrase covering this vast intricate web of interrelationships.

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Monetary expansion thus sets in train an unsustainable change in the

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pattern of production, a change which must eventually be modified and reversed. Initially, the effects of the expansion may appear to be beneficent, as money incomes rise. But is is <u>now</u> that the unsustainable misallocations are being made: as prices of unfinished products rise, relative to consumer goods prices. As the money permeates through thesystem, this relative price change is <u>reversed</u>, and consumer goods prices rise. The cluster of misallocations now stands revealed, in the form of losses and unemployment, <u>additional</u> to those necessary for the continuous adaptation of production to changing circumstances. More specifically, resources become unemployed in stages furthest from consumption. This unemployment is reduced as consumer goods production picks up. Continuous monetary expansion can only <u>perpetuate</u> this cyclical dis-coordination in the capital structure, and thus raise losses and unemployment above the level they would otherwise have reached.

Such expansion cannot prevent real scarcities from manifesting themselves. Prices may be initially and temporarily influenced in a direction opposite to that of the underlying real factors. But it is <u>not</u> as if there exist an infinite array of prices consistent with the real factors. Prices reflect not only monetary disturbances but also real influences--tastes, technology, and above all, real <u>scarcities</u>.

And so, although monetary expansion has very real <u>misallocating</u> effects, these "purely" monetary changes are <u>self-reversing</u>.³³ Most contemporary economists would be chary of accepting this proposition. This reluctance stems, we feel, from the current approach which assumes that output always has its equilibrium composition, and which treats money as determining only the nominal heights of prices that are always at their real equilibrium levels. If money has no real affects whatsoever, then

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there are none to reverse. And there are no misallocations to correct.

A monetary disturbance thus differs substantially from, e.g., a tax-and-subsidy scheme. Taxes and subsidies do ideed reduce outputs of the taxed commodities, while stimulating production of the subsidized ones. But there is no purely economic reason why taxes and subsidies, once imposed, need ever be removed. These disturbances merely lead to a new and stable allocation of resources, which persists so long as the taxes and subsidies continue. Economic behavior is coordinated in the tax cum subsidy case. There is no self-reversal.

Price Expectations and Resource Allocation

We have seen that monetary expansion systematically transmits misinformation through the economic system, by moving prices in a direction opposite to that of the real factors. However, as expansion continues, price increases come to be expected³⁴. Real scarcities and changed price expectations together serve to reduce somewhat those profit margins widened by purely monetary factors. If entrepreneurs find that ex post rates of return on certain goods (i.e, consumer goods in general) are persistently higher than were expected originally, then they will come to anticipate this. Entrepreneurs will be willing to pay more to hire factors to produce those goods whose profit margins have proved to be greatest. Factor costs thus increase for the producers of the capital goods appropriate to the lower rate of interest. Likewise, as entrepreneurs switch production methods, the demand for those very capital goods will decline. Hence even with a continuous expansion, we have the onset of the recessionary symptoms of a corrective reallocation. In these circumstances, if policy-makers wish to raise apparent profit margins (of the expanded capital goods-producing firms) to their previously inflated level, they

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must <u>accelerate</u> the monetary expansion. The ultimate limit to such a monetary policy is the abandonment of that currency as a medium of exchange.

But even if monetary expansion proceeds at a constant rate, price expectations and real scarcities by no means obviate all the dis-coordinating effects of such a continuous disturbance. This is because its impact on <u>individual</u> prices is unpredictable, and hence profit margins on particular capital goods will continue to be higher (or lower) than expected, because of purely monetary influences; <u>some</u> capital dislocation will thus continue.³⁵

The Inadequacies of a Purely Monetary Approach

We may now see the inadequacies of the Keynesian approach which argues that when there is excess capacity and unemployed labour in both capital and consumption goods industries, credit expansion permits higher employment and output. If the excess capacity is idle because it has been <u>mal</u>invested and hence cannot be fitted into the capital structure, the increased credit can only <u>add</u> to these misallocations and thus create today <u>further</u> potential future idleness for both capital and labour resources. As Professor Hayek has incisively noted:

"... it has of course never been denied that employment can be rapidly increased, and a position of 'full employment' achieved in the shortest possible time by means of monetary expansion least of all by those economists whose outlook has been influenced by the experience of a major inflation. All that has been contended is that the kind of full employment which can be created in this way is inherently unstable, and that to create employment by these means is to perpetuate fluctuations. There may be desperate situations in which it may indeed be necessary to increase employment at all costs, even if it be only for a short period... But the economist should not conceal the fact that to aim at the maximum of employment which can be achieved in the short run by means of monetary policy is essentailly the policy of the desperado who has nothing to lose and everything to gain from a short breathing space."³⁰

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If many contemporary economists refer to recessions or depressions today, it is to concentrate on the purely monetary aspects. Thus Professor Friedman argues that "the American economy is depression-proof": a drastic monetary decline, on the lines of 1930-33, is now impossible because of deposit insurance, and banking and fiscal changes. 37 Professor Paul McCracken concurs that economic management "can probably avert a major and a generalized depression" - financial collapses on the 1930's scale have been so rare that it would be premature to anticipate something similar. (However, he sternly warns companies and financial institutions against the risks of unwise financing policies).³⁸ Professor Harry Johnson states that it is a "virtual certainty that nations will never again allow a massive world recession to develop" since "their economists would know better than to accept disaster as inevitable or inexplicable." ³⁹ Professor Haberler entitles the foreword to the 1964 edition of his Prosperity and Depression, "Why Depressions are Extinct". He cites the strength of the U.S. financial structure; deposit insurance; refusal to tolerate a wholesale deflation; and the powerful built-in stabilizer of the government budget. By preventing a decline in expenditure, this "has proved to be a very powerful brake on deflationary spirals and has been a major factor in keeping depressions mild". Outlining the main features of business cycles, he says, "A very significant fact is that the wholesale price level almost always rises during the upswing and falls during the downswing, and the money values - payrolls, aggregate profits etc. - always go with the cycle. This proves that changes in effective demand, rather than changes in supply, are the proximate cause of the cyclical movement in real output and employment." 40

None of these statements deal with the real misallocations resulting from monetary expansion, or with the counteracting forces then set in

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motion. As we have seen above, such counteracting forces - i.e., recessionary symptoms - may appear to be (temporarily) fended off only if monetary expansion proceeds at an <u>accelerating</u> rate. If an expansion proceeds at a steady rate, recessionary symptoms appear nonetheless; and their onset is the more rapid if the expansion decelerates.

Stagflation, and Monetary Acceleration

In either case, it is the investment goods industries furthest from consumption that feel the pinch. If the monetary expansion continues steadily, then, with the relative increase in consumer goods prices, firms nearer consumption bid away nonspecific resources from these industries, which now find that their costs rise faster than their selling prices. If the expansion slows down, then there is an unambiguous decline in monetary demand for the investment projects begun at the lower interest rates. But even while unemployment and malinvested "excess capacity" appear in stages furthest from consumption, the incomes generated in the expansion are still working through the system. Consumer goods industries will maintain and even increase their demand for factor services: whereas at the beginning of the expansion these industries were outbid for factor services, they now face both an increase in demand and an increasing supply of nonspecific factors, as these are released by firms further from consumption. Consumer prices may well continue to rise; but much depends on how rapidly output can be increased in these industries, and nonspecific resources shifted back into consumer goods production. Mitigation of the level of unemployment also depends on both these elements.

From this analysis it is clear that attempts to maintain inflated capital values and incomes in the capital goods industries most affected would perpetuate the misallocation. Undoubtedly, there will be political

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pressure to do this: ⁴¹ the incomes of specific factors are most strongly affected by changes in demand for their services. But reflation - accelerated expansion - will lead to further maladjustments. Moreover, given the continuous steep rise in consumer prices, there will also undoubtedly be an opposing pressure from groups whose incomes lag behind. This pressure will often take the form of controls on prices (particularly those of consumer goods). Consumer price controls can only exacerbate the situation. By reducing returns in the consumer goods industries they intensify the shortage of consumption goods.

As we have seen, it is the rise in consumption expenditures which precipitates the market pressures for resource reallocation. Attempts to stimulate consumption would intensify these reallocative pressures. A rise in voluntary saving, on the other hand, would help to salvage some of the malinvestments. But these misallocations were created by the monetary expansion; so long as expansion continues, so long will the capital structure be dislocated, and malinvestments arise, only some of which are salvageable.

To summarize: Under the impact of a monetary disturbance, prices will transmit misinformation. The revelation of this misinformation and its correction constitute a recession. The "abnormal" rise in losses and unemployment is the counterpart to the misallocations created by the misinformation. In short, monetary expansion and recession are inseperable.

If the expansion is halted, the recession is precipitated rapidly. It is extensive and deep. But once the readjustment is completed, and a sustainable pattern of output and employment established, there need be no further allocative difficulties and certainly no currency depreciation.

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If monetary expansion continutes, recessionary symptoms of greater and greater intensity begin appearing. But the readjustment will not be wholly completed. The pattern of output and employment is continuously dislocated. Eventually, losses and unemployment persist in rising, and continue at every higher levels, despite the continuing expansion.⁴²

If the expansion is repeatedly accelerated to overcome the recession... the monetary outcome is obvious. Such a situation may well eventuate unintentionally, as the cumulative outcome of separate successive decisions to expand the money supply in the face of recession. The economists quoted above assure us that our financial system will never permit another Great Depression. Can they also assure us that it will never permit the opposite?

Professor P. A. Samuelson seems to think not. 43 He points out that monetary expansion occurs in response to "populist" pressures to "avoid policies that would worsen shortun unemployment and stagnation problems". He therefore sees the outlook as one of "... creeping or trotting inflation. The problem is how to keep the creep or trot from accelerating. This includes the challenge of finding new macroeconomic policies beyond conventional fiscal and monetary policies that will enable a happier compromise between the evils of unemployment and of price inflation." But he stresses that "a Draconian policy of insisting upon stable prices at whatever cost to current unemployment and shortrun growth" would be a "costly investment in fighting inflation", since he sees no guarantee "that even in the longest run the benefits to be derived from militant anti-inflationary policies don't carry excessive costs as far as average levels of unemployment and growth are concerned". He goes on to warn, "... mankind at this stage of the game can ill afford to make irreversible

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academic experiments whose outcomes are necessarily doubtful" and whose implementation would exacerbate political tensions. He is confident such an anti-inflation policy "will assuredly never be followed".

Truly inflation leaves us holding a "tiger by the tail":

"Now we have an inflation borne properity which depends for its continuation on continued inflation. If prices rise less than expected, then a depressing effect is exerted on the economy ... to slow down inflation produces a recession. We now have a tiger by the tail: how long can this inflation continue? If the tigher (of inflation) is freed, he will eat us up; yet if he runs faster and faster while we desperately hold on, we are <u>still</u> finished! I'm glad I won't be here to see the final outcome ..."

APPENDIX*

5

Available price and output figures for the U.K. reveal an interesting Hayekian configuration.

(all.items) Prices Retail 17.9 (3.6) 28.3 (7.1) 12.3 16.5 Industrial Production 13.1 (2.6) 20.1 (4.0) 6.9 (1.7) 16.9 (3.4) 33.4 (6.7) 110.2 (2.0) 18.3 (4.6) 12.5 Fuel 22.5 (4.5) 13.2 (2.6) 28.7 (7.2) Inputs Mech. 6.6 (1.3) into Eng. Producers' goods 16.1 (3.4) 4.4 (0.9) 15.6 (3.1) 25**.**0 (6**.**2) Inputs Mach. into Elec. 27.0 (5.4) 6.4 (1.3) 6.5 (1:3) 34.7 (8.7) Iron Steel and B: Chemicals Products Allied 8.5 (1.7) -1.9 (-0.4) 18.8 (4.7) 5.6 (1.1) and Furn. 0.5 8.2 (1.6) 9.2 (1.8) 27**.**1 (6.8) Dom. Appliances -1.7 (-0.3) -2.0 (-0.4) 18.3 (4.6) (0.4) Dom. Elec. 1.9 Consumers' goods Food Manuf. 13.2 (2.7) 7.3 (1.5) 12.4 (2.5) 24.8 (6.2) A: Clothing Footwear 3.2 (0.6) 5.7 (1.1) and 8.8 (1.8) 19.6 (4.9) Av. ann. rate Av. ann. rate Av. ann. rate 1953-57 (tot) Av. ann. rate 1958-62 (tot) 1963-67 (tot) 1969-72 (tot)

Percentage Changes in U.K. Wholesale Price Indices, 1953-72.

*We are indebted to Miss Kathryn Lamb (Research Assistant, Department of Economics, University of Newcastle, N.S.W.) for research and computational assistance.

Sources: U.K. Annual Abstract of Statistics, pasim.

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Range of Av. ann. rates of change (percent)

(a)	1953-57 _.	consumers'	goods:	-0.3	to	2.7	(inc. prod. 4.0)
		producers'	goods:	1./	to	6./	(retail prices 3.6)
(Ъ)	1958-62	consumers'	goods:	-0.4	to	1.6	(ind. prod. 2.6)
		producers'	goods:	-0.4	to	2.0	(retail prices 2.5)
(c)	1963-67	consumers'	goods:	0.4	to	2.5	(ind. prod. 3.4)
		producers'	goods:	1.1	to	3.1	(retail prices 3.3)
(d)	1969-72	consumers'	goods;	4.6	to	6.8	(ind. prod. 1.7)
		producers'	goods:	4.6	to	8.7	(retail prices 7.1).

- (1) Initially, (1953-57) producers' goods prices rose very much more rapidly than consumer's goods prices. Then, in <u>1958-62</u>, consumers' goods prices began catching up; and the rate of increase in industrial production declined.
- (2) In <u>1963-67</u>, the price gap between consumers' and producers' goods widened slightly: the rate of increase in industrial output rose somewhat (but <u>not</u> to the 1953-57 level). But by 1969-72, consumers' goods prices had once more acught up with producers' goods prices; and the annual rate of increase in industrial production had fallen to one-half the 1963-67 level.
- (3) The rate of increase in retail prices has been increasing since 1958; in 1969-72, the annual average rate was 2.84 times that of 1958-62.

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Percentage changes in U.K. wholesale price indices

B: Producers' goods

A: Consumers' goods

1		- 29 -
Retail Prices	14.2 (4.5)	28.3 (7.1)
Industrial Production	18.1 (3.5)	6.9 (1.7)
Fuell	27.8 (6.9)	18.3 (4.6)
Inputs into Mech. Eng.	17.9 (4.5)	28.7 (7.2)
Inputs into Elec. Mach.	15.6 (3.9)	25.0 (6.2)
Iron and Steel	16.0 (4.0)	34.7 (8.7)
Chemicals and Allied Products	5.2 (1.3)	18.8 (4.7)
Dom. Furn.	-1.6 (-0.4)	27.1 (6.8)
Dom. Elec. Appliances	-2.7 (-0.7)	18.3 (4.6)
Food Manuf.	12.1 (3.0)	24.8 (6.2)
Clothing and Footwear	0.5 (0.1)	19.6 (4.9)
:	1953-56 (tot) Av. ann. rate	1969-72 (tot) Av. ann. rate

Sources: U.K. Annual Abstract of Statistics, passim.

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Range of Av. ann. rates of change (percent)

(a)	<u> 1953-56</u>	consumers' producers'	goods: goods:	-0.7 1.3	to to	3.0 6.9	(ind. prod. 4.5) (retail prices 3.5)
(b)	<u> 1969-72</u>	consumers' producers'	goods: goods:	4.6 4.6	to to	6.8 8.7	(ind. prod. 1.7) (retail prices 7.1)

Between 1953-56 and 1969-72, the price gap between consumers' goods and producers' goods narrowed drastically, the rate of increase in retail prices virtually doubled, while the rate of increase in industrial production fell by over 60 per cent (to 37.7% of its 1953-56 level).

FOOTNOTES

- Belgium, Canada, France, Israel, Japan, the Netherlands, Sweden, Switzerland, U.K., U.S.A., and West Germany. See Appendix to A. Seldon, ed., <u>Inflation and Society</u> (London: Institute of Economic Affaris 1972).
- 2. See, for example, the annual <u>United Nations Economic Survey of</u> <u>Europe</u>; Council on Prices, Productivity and Incomes, <u>Fourth Report</u> (HMSO 1961); National Economic Development Council, <u>Conditions</u> <u>Favourable to Faster Growth</u> (HMSO 1963); Political and Economic Planning, <u>Growth in the U.K. Economy to 1966</u> (HMSO 1963); Political and Economic Planning, <u>Growth in the British Economy</u> (PEP 1960); Angus Maddison, <u>Economic Growth in the West</u> (London: Allen and Unwin, 1964).
- OECD <u>Economic Outlook</u>, December 1973 (esp. p. 32), July 1974 (esp. p. 18).
- 4. See the tables cited in footnote 1; OECD <u>Economic Outlook</u>, July 1974; and almost any issue of <u>The Economist</u>: e.g., 23 March 1974, 20 July 1974. See also the report in <u>The Times</u> (London) 3 October 1974, of an OECD estimate, and the <u>National Institute Economic Review</u>, August 1974.
- E.g. J.C.R. Dow, <u>The Management of the British Economy</u> 1945-60 (Cambridge: Cambridge University Press, 1964). Chap. XIII; L.A. Dicks-Mireaux, <u>Cost or Demand Inflation</u>? (Woolwich Economic Papers No. 6, 1965).
 - 6. Nicholas Kaldor, "The New Monetarist", Lloyd's Bank Review, July 1970.

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- Dow, <u>op. cit.</u>, Kaldor, <u>op. cit.</u>, Joan Mitchell, "Why We Need an Incomes Policy", Lloyd's Bank Review, 1966.
- This view is shared by (e.g.) even Professor L.M. Lachmann. See his <u>Macroeconomics and the Market Economy</u> (London: Institute of Economic Affairs, 1973) p. 50.
- 9. We have little to add here to the criticisms that have been made of the introduction of money into a one- or two-commodity world. We can only agree that the essential properties of a medium of exchange would scarcely be revealed within such a model. For an indirect demonstration of the point that the existence of money makes sense only in a multi-commodity world and that a multi-commodity world is inconceivable in the absence of a medium of exchange, cf. Carl Menger, <u>Principles of Economics</u> (Glencoe, Ill.: The Free Press 1950), pp. 236-85, and "On the Origin of Money", <u>Economic Journal</u>, II (1892), pp. 239-55.
- D. H. Robertson, "Mr. Keynes and the Rate of Interest" in <u>Essays in</u> <u>Monetary Theory</u> (London: P.S. King and Son Ltd., 1940) p. 25.
 We are indebted to Professor L.M. Lachmann for this reference.
- 11. Recent attempts to introduce price-level flexibility and to adopt a micro approach in macro analysis, though laudable, have been less than successful, Micro analysis deals with pricing and resource allocation and hence with the time-structure of output and prices. (Microeconomics in this view is far more than the analysis of a single price in isolation from all other prices). Manipulation of price-levels would seem to have little to do with micro analysis, and the treatment of interest rates continues to be unsatisfactory. A recent textbook adopting this "new" approach is Charles W. Baird, <u>Macroeconomics</u>, (Chicago Science Research Associates, Inc. 1973).

- 12. The following analysis and interpretation rely on Milton Friedman, "A Theoretical Framework for Monetary Analysis", <u>Journal of Political</u> <u>Economy</u>, March/April 1970; <u>idem</u>, "A Monetary Theory of Nominal Income", <u>J.P.E.</u>, March/April 1971; and in other essays in his <u>The Optimum</u> <u>Quantity of Money</u> (Chicago: Aldine, 1969) and <u>Dollars and Deficits</u> (Englewood, Cliffs, N.J.; Prentice Hall, 1968).
- John Stuart Mill, <u>Principles of Political Economy</u>, ed., Sir William Ashley (Clifton, N.J.: Augustus M. Kelley, 1973), p. 491.
- 14. The role of money in classical analysis was muted partly in response to mercantilist fallacies. Cf. Thomas Sowell, <u>Classical Economics</u> <u>Reconsidered</u> (Princeton: Princeton University Press, 1974) pp. 52-66 (all references are to the page proofs).
- 15. Mill quotes Henry Thornton in his <u>Principles</u>, on the "real bills" doctrine. But Mill fails to take up Thornton's exceptional analysis of the important relationship between the rate of "profit" and the rate of interest. Cf. J.S. Mill, <u>Principles</u> ..., pp. 515-19. For the position of Ricardo and Thornton in the history of monetary analysis, cf. Joseph A. Schumpeter, <u>History of Economic Analysis</u> (New York: Oxford University Press, 1954) p. 704n.
- 16. If the opposite appears to be the case, then this is due to the particular political positions (in the broadest sense of the term) that Professor Friedman and many other American monetarists appear to find most congenial. Some distinguished younger English monetarists may be found in the opposite camp, politically speaking.
- 17. Friedman in J.P.E., March/April 1970, p. 223.
- "Why the American Economy is Depression-Proof", in <u>Dollars and</u> <u>Deficits</u>.

- 19. After writing the above we came across an excellent article which shares our scepticism of this use of general equilibrium constructions. Cf. Trygve Haavelmo, "What Can Static Equilibrium Models Tell Us?" (trans. Axel Leijonhufvud), <u>Economic Inquiry</u> [formerly, <u>Western Economics Journal</u>] XII, March 1974, pp. 27-34.
- 20. F.A. Hayek, <u>The Pure Theory of Capital</u> (London: Routledge and Kegan Paul, 1941) pp. 409-410.

Professor Kaldor (11. B.R. 1970) actually brings Professor Friedman and Hayek together in the same theoretical camp. Analytically speaking, the case is the opposite!

- 21. Financial Times (London) 23 June 1971.
- 22. Cf. its leader in the issue for the 22nd July 1974.
- 23. Cf. the works of Carl Menger cited in fn. 8, Part A.
- 24. Cf. Knut Wicksell, <u>Lectures on Political Economy</u>, ed. Lionel Robbins (New York: Macmillan 1935), II, pp. 141-90.
- 25. Cf. Ludwig von Mises, The Theory of Money and Credit, trans. H. E. Batson (new ed. Irvington-on-Hudson, N.Y.: Foundation for Economics Education, 1971).
- 26. Professor Hayek first presented his monetary analysis of the business cycle to the English-speaking world, in his four lectures at London University in 1931, published as his <u>Prices and Production</u> (London: Routledge and Kegan Paul, 2nd ed. 1935). His earlier German work on monetary theory was translated (by N. Kaldor and H. N. Croome) as <u>Monetary Theory and the Trade Cycle</u> (New York: Augustus M. Kelley, 1966 a reprint of the 1933 edition). In 1939, Professor Hayek wrote a new essay on "Profits, Interest and Investment"; together with several older essays, this was published as his <u>Profits, Interest and Investment</u>

(New York: A. M. Kelley 1970 - a reissue of the 1939 edition). Important articles are reprinted in his <u>Individualism and Economic Order</u> (Chicago: University of Chicago Press 1948). Many other articles, notably his trenchant critique of Keynes' <u>Treatise on Money</u>, are, alas, as yet un-reprinted.

- F. A. Hayek, "Three Elucidations of the Ricardo Effect", <u>Journal of Poli-</u> <u>tical Economy</u>, 77 (March/April, 1969), 281.
- 28. Cf. F. A. Hayek, Prices and Production, passim.
- 29. Cf. L. M. Lachmann, <u>Capital and Its Structure</u> (London: G. Bell for the London School of Economics, 1956), passim.
- 30. Two types of complementarity exist: horizontal and vertical. Capital goods in any one stage must be integrated (horizontal complementarity). And capital goods in different stages must be integrated (vertical complementarity).
- 31. Readers will recognize here the operation of the Ricardo Effect. Cf. F. A. Hayek, "Profits, Interest and Investment", pp. 8-18 and passim; Hayek, "The Ricardo Effect", in <u>Individualism and Economic Order</u>, pp. 220-54; and Hayek, "Three Elucidations of the Ricardo Effect", <u>Journal of Political Economy</u>, (March-April 1969), pp. 274-85. Professor Hayek has noted that an infinite supply of credit is treated as though it provided an infinite supply of factor services. Cf. "The Ricardo Effect", pp 244-49.
- 32. Note that the <u>physical</u> durability of a capital good is unimportant; it is its position in the overall capital structure which determines its demand price. F. A. Hayek, <u>The Pure Theory of Capital</u> (London: Routledge and Kegan Paul, 1941) pp. 46-49, esp. propositions 4A and 4B.

33. Cf. Hayek, The Pure Theory of Capital, pp. 33-34.

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34. It is worth recalling Professor Hayek's <u>reductio ad absurdam</u> of the contention that entrepreneurs do not learn of rising prices:

"It should be obvious from a rather elementary consideration, that there must exist some mechanism, through which sooner or later, an increase in the demand for consumer goods leads not to an increase but to a decrease in the demand for investment goods. If it were true that an increase in the demand for consumer goods <u>always</u> leads to an increase in investment, even in a state of full employment, the consequences would be that the more urgently consumer goods are demanded, the more their supply would fall off. More and more factors would be shifted to producing investment goods until, in the end, because the demand for consumer goods would have become so very urgent, no consumer goods at all would be produced. This clearly points to an absurdity in the reasoning which leads to such a conclusion."

"Three Elucidations of the Ricardo Effect", J.P.E., 1969, pp. 284-285.

35. "Indexation", however widespread, could not alter the fact that new money entered the economy at a specific point, and altered some relative prices and outputs there, before altering other prices and outputs, as it worked through the economy. These real misallocations - and subsequent corrections - would thus continue so long as the increase in the money supply persisted. Indexation of money payments would merely add yet another unpredictable relative change in costs (and hence price margins), to changes already set in motion by the monetary disturbance: since all prices are not affected uniformly. In particular some incomes would continue to rise ahead of the consumer prices, while others rose after: indexation could only allow for <u>past</u> changes in the consumer price index resulting from those increases in the money supply that had already worked through the economy. It could do nothing ex ante about present increases in the money supply, still working through the economy, that would be <u>currently</u> altering prices - including consumer prices. For a strong argument in support of indexation, see Milton Friedman, Monetary Correction (London: Institute of Economic Affairs, 1974).

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- 36. Hayek, "Profits, Interest and Investment", pp. 63n-64n.
- 37. M. Friedman, "Why the American Economy is Depression Proof", in <u>Dollars</u> and Deficits.
- Paul W. McCracken, "Are the Latter Days Upon Us?", <u>Wall Street Journal</u>,
 July 1974.
- 39. H. G. Johnson, "Mercantilism, Past, Present and Future", <u>Manchester</u> <u>School</u>, March 1974, p. 15.
- 40. Gottfried Haberler, <u>Prosperity and Depression</u> (5th ed., London: Allen and Unwin 1964), pp. viii, xi.
- 41. The general council of the U.K. Trades Union Cogress recently demanded government subsidies for all firms threatened with losses and hence laying off workers. It also demanded government control of redundancies. <u>Financial Times</u> (London), 24 October 1974.
- 42. Thus aggregate money expenditure rose by 248 per cent in the U.K. between 1949 and 1969, but output rose only 69 percent. Similar money increases may be adduced for other developed countries. Nevertheless, Mr. Denis Healey (U.K. Chancellor of the Exchequer) found it necessary to issue a warning, in the strongest possible terms, at the 1974 IMF Conference against a possible repeat of "the tragedy of the 1930's": it made "no sense" he said, "to attempt to deal with inflation by measures likely to produce mass unemployment." As reported in <u>The Times</u> (London), 2nd October 1974. (U.K. income and output figures from London and Cambridge Economic Service, <u>The British Economy: Key Statistics</u>, 1900-1970, Tables A and B).
- 43. P. A. Samuelson, "Worldwide Stagflation", <u>The Morgan Guaranty Survey</u>, June 1974, pp. 3-9, esp. pp. 4, 9.
- 44. Hayek, in Sudha Shenoy, ed., <u>A Tiger by the Tail</u> (London: Institute of Economic Affairs, 1972), p. 112.