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Gerrard & National Holdings PLC

Gerrard & National Limited   Gerrard & National Securities Limited

33 Lombard Street, London, EC3V 9BQ Tel: 071-623 9981 Tlx: 883589 Fax: 071-623 6173

GNI Limited
Colechurch House,
1 London Bridge Walk,
London, SE1 2SX
Tel: 071-378 7171
Tlx: 884962
Fax: 071-407 3848/9

Gerrard Vivian Gray Limited
Burne House,
88 High Holborn,
London, WC1V 6LS
Tel: 071-831 8883
Tlx: 887080
Fax: 071-831 9938

Lombard Street Research Ltd.
c/o Gerrard & National,
33 Lombard Street,
London, EC3V 9BQ
Tel: 071-623 9981
Tlx: 883589
Fax:071-623 6173

LM (Moneybrokers) Limited
80 Cannon Street,
London, EC4N 6HH
Tel: 071-929 3171
Tlx: 8811552
Fax: 071-621 1652

Commentary on the economic situation

When "economists" and "monetarists" debated the future of Europe

Supposed geo-political importance of Maastricht summit

Maastricht is supposedly a turning-point in European history. If there is an agreement, Europe will introduce a single currency before the end of the decade and become the foremost economic power of the early 21st century; if there is no agreement, the exchange rate mechanism may succumb to the considerable pressure now emerging for a "final" realignment. The world is waiting.

Some old squabbles between "economists" and "monetarists"

Or so we are told. Has no one noticed that the nations of Europe have been bickering about this subject for over 20 years? In the late 1960s the debate was not between Britain and the rest, but between the "economists" and the "monetarists". The economists (West Germany, the Netherlands) wanted exchange rates to remain fluctuating (if within ever narrowing bands) until the very end of the process of unification, when the European Economic Community would assume full responsibility for monetary and fiscal policy, and manage a single currency. On the other hand, the monetarists (France) favoured an early fixing of exchange rates, believing that fixed exchange rates would ensure substantial policy convergence while being compatible with a continuing national role in economic policy. Schiller, the German finance minister, set out the economists' position in a plan with four stages with no final deadline, while Barre, his French counterpart, gave the monetarists' view in a plan with three stages ending in 1976 or 1978. A compromise between the two, the Werner Plan, was published in October 1970. President Pompidou appeared on French television in 1972 to announce that Europe would have a single currency by 31st December 1980.

Huge issues still being ignored

Nothing is heard nowadays about the Werner Report. This is remarkable, since the current negotiations are very similar in character. Most obviously, the Delors Report again envisaged a stage-like process towards a single currency. The whole discussion now, as then, is bedevilled by a confusion between two distinct subjects - the "convergence" requirements for a fixed- exchange-rate system and the final institutional upheaval of converting separate currencies into a single currency. Both Werner and Delors said almost nothing about the final upheaval. One virtue of the proposed Dutch treaty is that, at long last, vital practical issues in any such upheaval (such as banks' reserve requirements and the capital structure of the European Central Bank) are mentioned. However, huge issues, like the size of the ECB's holdings of particular governments' debt, are still ignored. It is difficult to see how any European government can sign documents like these and seriously intend to honour them. The lesson of Werner is that European governments do indeed sign documents they do not seriously intend to honour, even if their contents have been debated at length by "economists", "monetarists" and others.

Professor Tim Congdon — 10th December, 1991

Summary of paper on

'The policy relevance of broad money - part 1'

Purpose of the paper With Treasury forecasts of a recovery in consumption looking increasingly implausible, the debate about macroeconomic policy has sharpened. One group of economists who believe that broad money is of considerable relevance to the economic outlook are ranged against another group which dismisses broad money, preferring that policy be based on the exchange rate and econometric forecasts (e.g., from the Treasury model). The purpose of this paper is to counter some familiar objections to broad money.

Main points

* **In the five years to mid-1986 the British economy enjoyed reasonably stable growth and declining inflation; the five years since have seen marked economic instability and a rise in inflation to over 10%. Something "went wrong". An obvious explanation for the change in macroeconomic fortunes is that broad money targets, which gave continuity to policy in the early 1980s, were abandoned in mid-1985.**

* **Three objections to broad money, and the replies to these objections, can be listed:**

  Objection 1. What happens in the banking system (and to its liabilities, i.e., broad money) is of no more importance to the macroeconomy than what happens in any other industry. **Answer:** *Banks, unlike non-banks, have special access to the central bank, which means that their deposits (unlike non-banks' trade credit) are virtually free from default risk and can be used to support cheque payments.*

  Objection 2. Transactions balances (i.e., narrow money) are used in expenditure on goods and services, but many broad money balances are not, so it is "transactions money" which really matters. **Answer:** *Economic agents have to keep their broad money holdings in line with a variety of economic variables, including the value of their wealth. Trends in broad money therefore impact on asset values, which in turn have crucial effects on expenditure on goods and services.*

  Objection 3. Broad money is determined by the economy, rather than the other way round. **Answer:** *On the contrary, broad money is determined (mostly) by bank credit. If the supply of broad money is out of balance with nominal GDP and the demand for broad money is stable, it is nominal GDP that has to adjust to broad money.*

This paper was written by Professor Tim Congdon. It is to be given to a one-day conference on 'The policy relevance of broad money', organized by the Money, Macro and Finance Research Group (i.e., the Money Study Group), on 12th December. A second paper, with the same title but discussing the transmission mechanism of monetary policy, is to follow in the next *Monthly Economic Review*.

The policy relevance of broad money - part 1

On some misconceptions about the role of broad money in the economy

Deterioration in economic policy in last five years

British economic policy has gone badly astray. In sharp contrast to the stable growth and gradual decline in inflation in the five years to mid-1986, the last five years have seen both an extreme boom from mid-1986 to mid-1988 and an intense recession since mid-1990, while inflation (as measured by the annual increase in retail prices) went above 10% in 1990. The dichotomy between the stable early 1980s and the unstable late 1980s is so marked that questions have to be asked about "what went wrong?".

Several answers have been given to this question. Mr. Nigel Lawson, Chancellor of the Exchequer for much of late 1980s, has claimed that financial liberalization was to blame. However, the key measures of financial liberalization had been completed by 1982, well before the deterioration in macroeconomic management began. These key measures were the scrapping of the "corset" restriction on bank balance sheets in 1980, the ending of the Bank of England's informal guideline against bank mortgage lending in 1981 and the abolition of hire purchase controls. Nothing comparable with these changes occurred in 1984 or 1985.

Abandonment of broad money targets in mid-1985 a turning point

An alternative view is that the main cause of the Lawson boom and the subsequent rise in inflation was the abandonment of targets for broad money in mid-1985, while the current recession has been aggravated by a sharp slowdown in broad money growth. Admittedly, that does not settle ultimate causation, since it does not explain how broad money is determined. With lending to the private sector the dominant asset counterpart to deposits (i.e., broad money) on the liabilities side of the banking system's balance sheet, credit expansion might also be regarded as causally relevant to fluctuations in economic activity and inflation. As credit growth may in turn be influenced by interest rates, this account establishes a link with interest rates as the Government's key policy instrument. One irony of recent debates is that analysts who focus on credit and broad money can readily justify the official emphasis on interest rates as the virtual *factotum* of macroeconomic policy in recent years.

The advantage of concentrating on interest rates, credit and broad money is that the chronology of developments in these variables fits in reasonably well with the chronology of the economy's own behaviour in the 1980s. Of course, allowance has to be made for the well-known lags (Friedman's "long and variable lags") in the transmission process, with changes in interest rates affecting credit and money growth first, and changes in money growth influencing output before the price level. But over the last few years commentators who monitor credit and broad money have been more successful in spotting future macroeconomic trends than, for example, mainstream economists at the Treasury, the National Institute and the London Business School. The case for analysing the linkages between credit and broad money on the one hand, and economic activity and inflation on the other, seems compelling.

But, before the details of the transmission mechanism from broad money to the macroeconomy are explored (in the next *Monthly Economic Review*), certain criticisms of the policy relevance of broad money need to be considered. Three such criticisms will be examined here. No doubt others could be made, but it is these three (or variants of them) which have been most prominent in the public debate. The discussion is inevitably technical and difficult in places, but that does not mean the arguments being presented are distant from the concerns of either policy-makers or market practitioners. On the contrary, it is these debates that have ultimately determined the practice of economic policy-making in recent years.

Criticism 1: Broad money is of no relevance to the behaviour of the macroeconomy

The first and most radical criticism stems from work by the American economist, Professor Eugene Fama. He argued in a celebrated 1980 paper, 'Banking in the theory of finance', that "a competitive banking sector is largely a passive participant in the determination of a general equilibrium, with no special control over prices or real activity". This view can be simplified, but not caricatured, as the claim that what happens in banks is of no more relevance to macroeconomic outcomes than what happens in other industries, including, say, the catering or hotel trades. So broad money should be of no more interest to economists than, for example, trade credit extended by food wholesalers to restaurants or by hoteliers to tour companies.

Fama's most important British disciple is Professor Patrick Minford of Liverpool University, who has asserted that, "credit and 'wide' money measures" are "of no significance for consumers' savings and firms' investment plans". According to Minford, private-sector agents can choose a wide variety of balance-sheet structures and "a reshuffling of balance sheets" does not "make people want to spend more or do anything differently". Specifically, an acceleration in the growth of bank credit carries no inflationary risk, because the extra assets on one side of the banks' balance sheet are matched by extra liabilities on the other and net private-sector wealth is unchanged. Minford judged in a 1988 paper that, "As for the credit explosion school of thought, it is clearly wide of the mark, using concepts appropriate to a financial environment that has now passed away into the history books."

The Fama/Minford criticism is fundamental. If it were correct, it would require the re-writing of virtually the whole of monetary economics as conventionally understood. Fortunately, it is quite wrong. The mistake is simple: it is to overlook that bank deposits, claims on banks, are assets altogether different in character from claims on non-banks. A little explanation may clarify the point.

The criticism depends on claims on banks (i.e., bank deposits) and non-banks (e.g., trade credit) being essentially the same

As is well-known, central banks are bankers to governments, issue legal-tender notes and cannot go bust. Central banks are clearly very privileged institutions. By extension, commercial entities that can conduct business with central banks are also privileged, because they have special access to the central bank's lender-of- last-resort facilities and so are less likely to go bust than other commercial entities. It is a vital objective of public policy that payments mechanisms (such as the clearing of cheques) be efficient and as free of default risk as possible. The privilege of special access to the central bank is therefore confined to specialists in money transmission. These specialists are known as "banks". In consequence, bank deposits (i.e., trade credit incurred by banks) differ from trade credit incurred by non-banks because

1. they are far less subject to default risk, and

But they are clearly different

2., largely because of their freedom from default risk, payments instructions made against them (i.e., cheques) are acceptable alternatives to legal-tender notes.

There are many complex and far-reaching implications, but some are easy to spell out. Consider an economic agent (say, a food wholesaler) which reduces the trade credit owed to it by restaurants (or any other non-banks) and increases its deposit in the bank by the same amount. According to Fama and Minford, this is merely "a reshuffling of balance sheets", with no consequences for behaviour. That is obviously incorrect in the real world. Money in the bank is much more worth having than a claim on another company, because bank deposits are more likely to keep their nominal value and can be used to make further payments. Take two companies with every item in their balance sheets identical, except that one has £ x m. in the bank and no trade debtors, while the other has nothing in the bank and £ x m. trade debtors. There is no doubt which company is more liquid and, hence, better-placed to invest and expand.

Simultaneous expansion of both sides of banks' balance sheets makes the economy more liquid

Fama and Minford may be puzzled how a whole economy can become more liquid in this sense. The answer is that there is a crucial asymmetry between bank loans and bank deposits. A borrower (company X) from a bank would view his debt obligations in the same way as if they had come from a non-bank, but had precisely the same interest rate, maturity and other conditions. The fact that the funds came from a bank does not alter the way he feels about his debt. But a depositor with the same bank that had lent to company X views his bank balance quite differently from the way he would regard a debenture issued by company X, even if the debenture has the same interest rate and same original term to maturity as the deposit. The fact that the asset is a deposit rather than a debenture alters the holder's liquidity and his attitude towards his balance sheet, perhaps radically. So the simultaneous expansion of both sides of the banking system's balance sheet, increasing the quantity of broad money, has the effect of making the entire economy "more liquid". Net wealth may be unaffected, but propensities to consume and invest can be changed.

Criticism 2: It is narrow money, used in transactions, which is "really important", not broad money

The second criticism of broad money is indirectly associated with the first. There is a widely-held belief that money is important because of its relationship with transactions in goods and services, because it is spending on goods and services which determines aggregate expenditure, output and employment. This belief sometimes promotes high esteem for monetary aggregates which approximate to so-called "transactions balances". Narrow-money aggregates fit the bill most clearly. Thus, the 1990/91 *Financial Statement and Budget Report* said that M0 (the very narrowest money supply measure) "is used pervasively for transactions and has demonstrated a close relationship with money GDP over a period of 40 years or more". These attributes were undoubtedly a large part of the official case for selecting M0 as the aggregate in which money supply targets are expressed.

Emphasis on transactions money found in both official and "monetarist" circles

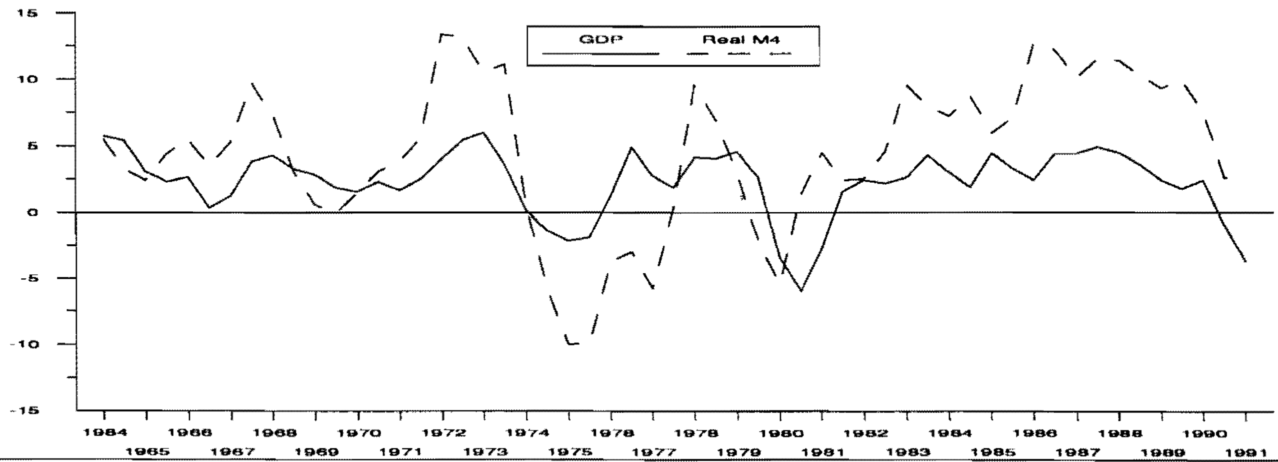
But it is not only the Government which is keen on transactions balances and narrow money. So-called "monetarist" economists also emphasize the transactions role as the most vital. According to Sir Alan Walters in his book *Britain's Economic Renaissance*, "Money is that limited class of credit instruments which are customarily and widely used in the buying and selling of goods and services" and "It is money in this transactions sense that plays the central role in the theoretical structure and the propositions of monetarism". Walters concludes that measures of narrow money, such as M0 and M1, should have primacy over broad money in monetary policy-making.

But challenges theoretical advances in which money seen as part of a portfolio of assets

The views expressed in the 1990/91 *FSBR* and by Walters in *Britain's Economic Renaissance* are rather surprising, since they challenge the most significant advances in monetary theory in the 20th century. One purpose of Keynes' *General Theory* was to explain why people should hold any of their assets in monetary form (where it yielded little or no interest) rather than in income-producing wealth. He was crucially concerned about decisions to

Real money and the economy

Chart shows six-monthly annualised growth of real M4 (i.e., M4 deflated by retail price index) and of GDP. Note that sharp fluctuations in both series have been associated in the last 25 years, with real M4 usually leading GDP.



switch between money and bonds. Strong "liquidity preference" (as he termed it) might depress bond prices, which would hit all asset prices and eventually curb investment. (If liquidity preference became absolute, injections of extra money into the economy would not reduce bond yields and so would not stimulate investment. The economy would be caught in a "liquidity trap".) When Friedman restated the quantity theory of money in a classic 1956 paper, his message was that the demand for money should be interpreted within a larger framework of the demand for wealth. Both Keynes and Friedman wanted to go beyond the small-minded and primitive focus of earlier theorists on money as a transactions instrument.

Rapid broad money growth in late 1980s a cause of rapid asset inflation

This comment may seem remote from the day-to-day practicalities of British monetary policy. But it is not. On the contrary, it is basic to understanding one of the most important mistakes made by the Treasury in the late 1980s and still being made today. In the late 1980s a favourite argument to denigrate broad money, and to deny that its rapid growth would cause inflation, was that the fastest-growing broad-money balances were held by financial institutions. Since these institutions "did not spend money in the High Street", the Treasury believed that their excess money balances could not cause inflation. This overlooked that financial institutions were certainly active in buying gilts, shares, property and other assets and that their purchases drove up asset prices. In the first instance rapid broad money growth affected asset prices, not the prices of "goods in the shops". But asset inflation was itself a major cause of a general economic boom, which did involve higher expenditure on goods and services, and so increased inflationary pressures.

Direct and indirect mechanisms at work

In other words, there are two kinds of mechanism linking money and inflation, the direct mechanism (excess money leads to higher expenditure on goods and services) and the indirect mechanism (excess money leads to more expenditure on assets, which raises asset prices and encourages higher expenditure on goods and services). In the direct mechanism it is transactions balances, largely held by persons, which do the work. In the indirect mechanism money balances held by companies and financial institutions may play a pivotal role, even though they are not ostensibly for transactions purposes. The money balances that figure in these big corporate decisions are invariably interest- bearing deposits with some period to maturity; they are often wholesale in nature and form part of broad money. Since the level of asset prices is crucial to many investment decisions, changes in broad money can have powerful effects on economic activity. Rapid broad money growth is usually associated with buoyant asset prices and good business conditions, and slow broad money growth with weak asset prices and poor business conditions.

The official scepticism about broad money was again evident in the 1991 Mansion House speech. According to Mr. Lamont, "I have to say that I very much doubt economic behaviour would change materially if financial institutions and overseas investors held more money balances and fewer gilts. At most, short term interest rates may rise relative to long rates". In his view, then, the state of economic activity and the price level are little affected by the asset allocation decisions of financial institutions and their liquidity holdings.

Broad money balances relevant to explanation of asset-price changes

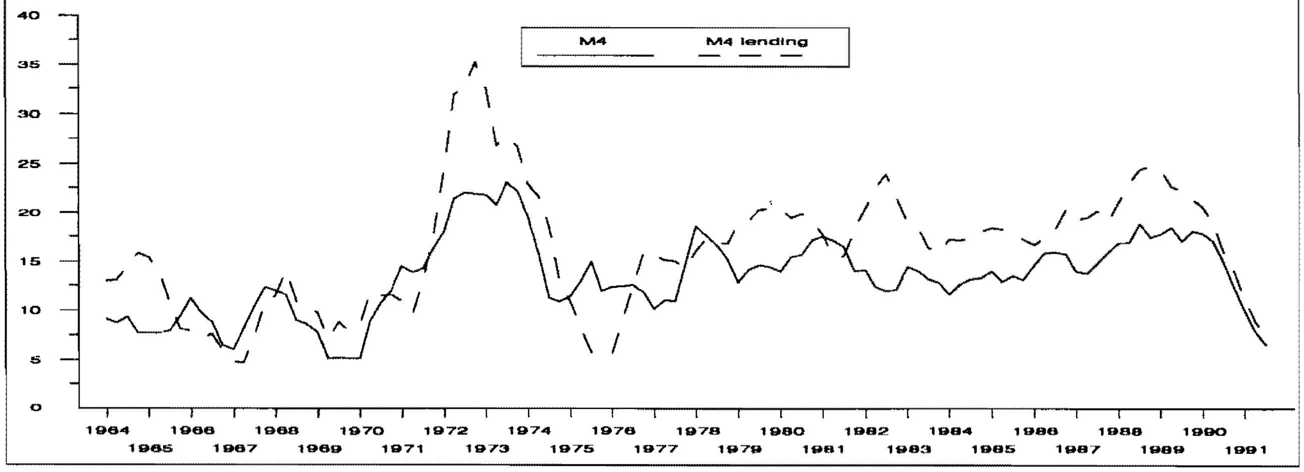
It has to be conceded to the Chancellor that the relationships between broad money and asset prices are far from mechanically precise. Regrettably, they are not much use as a short-term guide to share prices. But there is a salient contrast between the asset price inflation of 1986-89, when broad money growth was around 20% p.a., and the asset price weakness of 1990 and 1991, when broad money growth has tumbled to little more than 5% p.a. At present, because of the slow rate of money growth, companies are "strapped for cash". Many of them are having to sell off valued subsidiaries and properties to keep the banks at bay. The high asset prices of 1986-89 were a by-product of the Lawson credit and money explosion; the depressed asset prices, particularly of property and land, of 1991 are a by-product of the Major/Lamont monetary squeeze. Depressed asset prices are undoubtedly constraining corporate spending decisions, on investment and stocks, as companies struggle to keep their balance sheets sound.

Active funding policy is one means of stabilizing broad money growth and asset prices

One way of reducing fluctuations in broad money growth, and mitigating asset price volatility, is to vary official sales of government debt to the non-bank public. When broad money growth is excessive, heavy sales of gilts outside the banking system can mop up the excess balances, notably those in the hands of financial institutions. The effect is indeed to raise long-term interest rates and lower asset prices. On the other hand, when broad money growth is inadequate, the authorities can purchase gilts, lowering long-term rates and boosting asset prices. The Chancellor is quite wrong to "very much doubt that economic behaviour would change materially" if long-term rates were reduced. The

Credit and money growth

Chart shows twelve-month growth rates of broad money (M4) and credit (M4 lending to the private sector). The two series are clearly related, but with money growth usually lower than credit growth.



phrase "long-term rates" is virtually a synonym for "asset prices". The level of asset prices to basic to the viability and decision-making of tens of thousands of businesses up and down the land.

The conclusion is that the Government should over-fund in booms and under-fund in recessions. Mr. Lamont's assertion in the Mansion House speech that "both the authorities and the markets have benefited from adherence to the full fund rule" is, in view of the disasters of recent years, an astonishing impertinence. The Chancellor should allow himself an hour or two away from his crowded schedule of engagements to read Chapter 15 of Keynes' *General Theory* on 'The psychological and business incentives to liquidity', where he will read (on p. 206), "a complex offer by the central bank to buy and sell at stated prices gilt-edged bonds of all maturities, in place of the single bank rate for short-term bills, is the most important practical improvement which can be made in the technique of monetary management". He should ask himself why Keynes wrote this if funding policy were irrelevant to macroeconomic outcomes. He might ponder the possibility that Keynes knew a thing or two more about monetary theory than his current band of speech-writers.

Keynes and funding policy

Criticism 3: Broad money is determined by nominal GDP, not nominal GDP by broad money

The third criticism of broad money relates to the direction of causation between it and the economy. Its detractors claim that the level of broad money reflects a number of variables in the economy, such as incomes, interest rates and so on. Broad money is therefore determined by the past and present behaviour of the economy, and cannot have any independent role in determining the future path of output and prices. Many Treasury economists hold this view. For them the most sensible procedure is to forecast expenditure and output from a large-scale macroeconomic model. If they attach any importance to broad money (and most Treasury economists do not), they obtain their forecast of broad money as an output of the large-scale econometric model, almost indeed as an afterthought.

This third criticism clearly contained in many recent Treasury statements

This view on the direction of causation is contained in both the Mansion House speech and in the document on *Economic Prospects for 1992* which accompanied the Autumn Statement. Thus, the observation in the Mansion House speech that, "the low growth of broad money has largely been the result of the behaviour of the investing institutions, as they purchase more securities" sees monetary growth as the result of financial institutions' behaviour, rather than the financial institutions' behaviour as the result of monetary growth. *Economic Prospects for 1992* includes the remark, "Slower growth of broad money reflects both a reduction in money GDP growth and, recently, a slight rise in velocity". So the growth of broad money is said to reflect the path of money GDP and it is taken for granted that the path of money GDP does not reflect the growth of broad money. The document proceeds to argue that the slight rise in velocity lately recorded is "probably a response to reductions in wealth in recent years, which are likely to have reduced the demand for money just as they did in the mid-1970s, and some switching by institutions from deposits to purchases of shares". Again, the level of money balances is described as being "a response to reductions in wealth in recent years" rather than the reductions in wealth as a response to the level of money balances.

(*A digression*: The concluding sentence of the paragraph goes on to claim that, "Neither of these factors (i.e., 'reductions in wealth in recent years' and the institutional switch to shares), nor the shift by companies from bank to capital market finance in recent months, points to renewed weakness in the economy". So "reductions in wealth in recent years" do not point to "renewed weakness in the economy"! Tell that to the bankrupt, repossessed and pension-less of Britain in December 1991!)

Causation is not uni-directional

Clearly, in the real world there is an interplay between the quantity of broad money on the one hand and the behaviour of nominal GDP and other economic variables on the other. The direction of causation is not entirely from broad money to nominal GDP, just as it is not entirely from nominal GDP to broad money. But the Treasury and other mainstream macroeconomists might at least open their minds to the possibility that broad money plays a role in determining future spending decisions. Two lines on analysis might help this effort of mental expansion.

Analysis I. If the supply of broad money is fixed by credit, nominal GDP has to adjust to equilibrate demand for and supply of broad money balances (i.e. nominal GDP is determined by broad money)

First, suppose it is true that the supply of broad money is determined by variables other than nominal GDP. Suppose, in particular, that the supply of broad money is determined by the quantity of bank credit. This is not a wild hypothesis in modern conditions and was implicit in policy- makers' emphasis on the credit counterparts arithmetic in the late 1970s and early 1980s. Suppose also that at least some economic agents have a stable demand to hold money balances, which can be described in a standard functional relationship with the quantity of money demanded as the dependent variable and nominal GDP, wealth and other economic series as the independent variables. With the supply of broad money fixed by the amount of credit and the demand to hold broad money required to be in an equilibrium relationship with nominal GDP, it is nominal GDP that adjusts to broad money rather than the other way.

Indeed, we could invert the sentences in the key paragraph in *Economic Prospects* for 1992, giving money the role of determinant rather than determinand. This inversion could take place without any loss of syntactic coherence and perhaps a considerable gain in economic insight. Thus, "a reduction in money GDP growth and, recently, a slight rise in velocity reflect slower growth of broad money". Further, "reductions in wealth in recent years are a response to slower growth of broad money". The (fantastic) sentence about wealth and the economy could also be rejigged into something plausible, as follows "these reductions in wealth point to renewed weakness in the economy". The resulting story - in which high interest rates, sluggish credit and slow monetary growth undermine the value of wealth and the fall in wealth then damages economic activity - makes excellent sense, but the pattern of causation is the opposite of that understood by the Treasury.

Econometric demand for money testing encourages the belief that money GDP determines broad money

Paradoxically, economists who have been particularly keen to show that "money matters" (i.e., "monetarists") have often chosen a technique of empirical demonstration which is inconsistent with their own argument. When Friedman set out the evidence for the importance of money in the 1960s, he carried out statistical tests on the demand for money, in which the actual money supply was regressed against nominal GDP, interest rates and so on. The trouble was that the actual money supply in being was not necessarily the same as the demand for money. Strictly, the whole approach was valid only on the assumption that the supply of money and the demand for money were equal. Friedman had wanted to explain cyclical fluctuations in terms of monetary developments, with economic agents adjusting behaviour in response to monetary disequilibrium. But the assumed equivalence of money demanded and supplied in the econometric work could not be logically reconciled with the monetary disequilibrium (i.e., divergence between money supplied and demanded) implicit in his historical narrative.

Analysis II: Broad money does affect nominal GDP, narrow money does not

Our second line of analysis is to argue that, while broad money has an effect on economic activity and inflation, narrow money does not. With narrow money, the direction of causation runs from the economy to money, just as the sceptics about monetary policy have always claimed. These may seem strong statements, but the reasoning behind them is straightforward.

The quantity of narrow money can be changed by "money transfers",

Policy-makers' interest in monetary developments lies in their potential impact on expenditure decisions. There is no importance in transfers from one type of money balance to another (which we may call "money transfers"). Instead, the importance of money arises when money is used in transactions in goods, services and assets. Individual and aggregate holdings of narrow money can be changed by money transfers. Indeed, that is familiar from everyday conduct, with people moving from deposit accounts to current accounts, and from current accounts to cash (and back again), in response to their spending levels. The quantity of narrow money does reflect nominal GDP; it is a response to spending decisions which have been determined by influences other than the quantity of narrow money.

but the quantity of broad money cannot be changed by such transfers

By contrast, the quantity of an individual's broad money balances cannot be changed by money transfers. If he switches from current account to deposit account, or from cash to a bank deposit, or vice versa, he cannot change the sum of his broad money holdings. The only way that he can reduce (or increase) his broad money holdings is by purchasing (or selling) goods, services or assets. Moreover, although an individual can change his broad money holdings in this way, all the agents in the economy taken together cannot do so. If individual X reduces his broad money balances by buying from individual Y, the broad money balance of individual Y is increased by exactly the same amount. This property of broad money - that its aggregate nominal quantity cannot be changed by the interaction of countless individual decisions to try to change it - arises because the aggregate nominal quantity is fixed by other variables (i.e., bank credit, crucially). If economic agents' aggregate nominal money balances are out of balance with their wealth and spending (i.e., they are off their demand-for-money curves), the only way that equilibrium can be restored is by changes in wealth and spending. That is why broad money can affect macroeconomic outcomes.

The arguments in the last few paragraphs are crucial to the debate on the relative importance of narrow and broad money, and the policy relevance of broad money. Econometric tests have routinely found that the demand for narrow money is better- determined, more stable and has a closer relationship with money GDP than the demand for broad money. The authors of these tests have therefore concluded that narrow money is of greater significance for macroeconomic policy-making than broad money. The conclusion is understandable, but nevertheless very debatable. The high quality of the narrow-money equations (which is not in dispute) reflects the ease of adjusting narrow-money holdings to transactions and is the happy result of the excellent money- transmission services provided by the British banking system. But it is of little importance in understanding the macroeconomy. On the other hand, the low quality of broad-money equations may reflect the failure of economic agents to keep their actual broad money holdings in line with desired holdings. Their consequent efforts to bring money holdings into equilibrium are absolutely vital to the macroeconomic situation.

Conventional labels of "monetarist" and "Keynesian" of little value in guiding the debate on broad money

Further discussion of the transmission mechanism, by which excess (or deficient) broad money holdings are matched up with the desire to hold them, is postponed until the next issue of this *Review*. But it may be worth noting, in concluding this survey of objections to the policy relevance of broad money, that the conventional labels of "Keynesian" and "monetarist" have been of no help. Sceptics of the importance of broad money include such well-known "monetarists" as Professor Patrick Minford and Sir Alan Walters, as well as unrepentant so-called "Keynesians" in the Treasury and the National Institute. Indeed, an argument could be made that an emphasis on broad money as an influence on the macroeconomy recalls the central themes of Keynes' own economics (and of the long tradition of British monetary economics of which it was the climax) and has little connection with the style of analysis associated nowadays with universities in the American Mid-West.