Monthly Economic Review

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Do rises in energy prices constitute "inflation"?

Debating the right policy response to energy price rises

Rise to 2¾% in CPI inflation by September?

The 2.3% increase in the consumer price index in the year to July was higher than expected in both financial markets and the most recent *Inflation Report*, and significantly more than expected in the November *Inflation Report* (i.e., the last in 2004). In November last year the Bank of England's Monetary Policy Committee envisaged that the annual increase in the CPI in the third quarter of 2005 would be about 1¾%. In fact, more disappointment lies ahead in the next two months. The annual increase in the CPI in September may be nearer 2¾%. (The last few weeks have seen further rises in the oil price, which will affect "fuels and lubricants", with a weight of 2.7% in the CPI, and "passenger transport by road" and "air", with a combined weight of 2.2%. The adverse impact on the CPI via these items might be 0.2% - 0.3%. Electricity and gas prices - with a weight of 2.8% - are going up by 7% - 15% in August and September, adding another 0.3% or so. With the usual adjustment of seasonal food prices, the CPI might advance by 0.8% in August and September 2005 combined, compared with 0.4% in August and September 2004 combined. If these calculations are correct, the annual increase in the CPI in September would be 0.4% higher than in July, i.e., it would 2.7%.)

How should central banks react to big energy price increases?

Of course, this is not the end of the world. Energy prices may ease in the closing months of the year and the risk of above-target inflation would then evaporate, at any rate for the time being. (The Governor of the Bank has to write to the Chancellor if the annual rate of CPI increase exceeds 3%.) But recent developments highlight the difficult question for monetary policy-making of how best to react to large movements in energy prices. A common procedure is to define inflation ex energy prices as "core" inflation and to say that policy should be based on that. The justification is that oil prices are often affected by temporary "supply shocks", such as politically-motivated actions by oil producers. However, supply shocks are not the only reasons for sharp increases in energy prices. Because the installation of new supply capacity takes time in the energy sector, the oil and gas industries are characterised by short-run inelasticity of supply. When demand is buoyant in the world economy, this supply inelasticity leads to marked movements in relative prices in favour of the energy industries. The surges in oil prices in 1973/4, in 1990 and in 2000 all coincided with the peaks of global business cycles. In other words, high energy prices were a symptom of general inflationary pressure and policy-makers would have been foolish to ignore them.

Money growth remains too high

Ultimately, inflation is a monetary phenomenon. Recent energy price developments are a worry for the MPC, but much more fundamental is that since mid-2004 money supply growth has been running at about 10% a year and the trend appears to be well-established. An increase in interest rates will be needed to prevent above-target inflation in 2006 and 2007. (*Note*: This will be the last issue of the Lombard Street Research's *Monthly Economic Review* to which Tim Congdon will contribute the opening page of commentary. Mr. Congdon is leaving Lombard Street Research at the end of the month.)

Tim Congdon **18th August, 2005**

Summary of paper on

Purpose of the paper

The 1981 Budget - which raised taxes in a recession - is now almost 25 years in the past. This research paper discusses some of the wider issues in macroeconomic theory and policy-making raised by the Budget and the subsequent letter of protest by 364 economists in *The Times*.

Main points

- In two articles on 'Paying for the War' in *The Times* on 14th and 15th November 1939 Keynes used an income-expenditure model of the economy to argue for higher taxation and a programme of deferred savings. The income-expenditure model and the related idea of the circular flow of income were later expanded in the textbooks, and provided a justification for fiscal activism ("naive Keynesianism") in the post-war period. (See pp. 3 - 4.)

- To economists nurtured on these ideas the 1981 Budget - which raised taxes by 2% of GDP in a recession - was "shockingly inept". (See p. 4.) 364 British economists wrote a letter to *The Times* warning of a deepening of "the depression".

- The twin ideas of the circular flow of income and the income-expenditure model are over-simplified and unsatisfactory accounts of national income determination. They leave no room for the effects of money and assets; they fail to recognise that large changes in the quantity of money affect asset prices, and so disrupt the link between income and expenditure. (See p. 5 and pp. 8 - 9.)

- The letter from the 364 was almost immediately followed by the beginning of recovery. It was hopelessly mistimed. (See p. 11.)

- The effect of the apparent demand withdrawal of 2% of GDP in the 1981 Budget was smothered by the boost to asset prices and demand from the concurrent reduction in interest rates to 12%. (See p. 12.) Monetary policy dominated fiscal policy.

- A realistic theory of national income determination has to allow for asset price effects, while any theory of the demand for capital assets must incorporate a theory of the demand for (an all-inclusive or "broad" measure of) money. The increased interest in housing wealth at, for example, the Bank of England is a welcome sign of a shift of emphasis away from naive Keynesianism. (See pp. 13 - 16.)

This paper was written by Tim Congdon. A shorter version is to be submitted for publication to the Institute of Economic Affairs' journal, *Economic Affairs*.

Why the 1981 Budget still matters

The end of naïve Keynesianism

1981 Budget a turning point in debate about UK macroeconomic policy

The 1981 Budget was undoubtedly a turning-point in British macroeconomic policy-making. It stimulated a sharp controversy about the role of fiscal policy in economic management, with 364 economists writing a letter to *The Times* in protest against the raising of £4b. extra taxes (about two per cent of gross domestic product) in a recession. They warned that "present policies will deepen the depression", and "threaten... social and political stability". It is fair to say, first, that the overwhelming majority of British academic economists disapproved of the 1981 Budget and, secondly, that they were quite wrong in their prognoses of its consequences. This note discusses some of the issues in economic theory which it raised.

Keynes' critique of balanced budget doctrine implicit in November 1939 articles in *The Times* rather than explicit in *The General Theory*

Until the 1930s the dominant doctrine in British public finance was that the budget should be balanced. Keynes challenged this doctrine, with many authorities citing his classic work – *The General Theory of Employment, Interest and Money* – as the rationale for discretionary fiscal policy (i.e., the deliberate unbalancing of the budget, with deficits in recessions and surpluses in booms). In fact, the remarks on fiscal policy in *The General Theory* were perfunctory. The case for discretionary fiscal policy was made more explicitly in two articles on 'Paying for the War' in *The Times* on 14th and 15th November 1939. (1) These articles were a response to an unusual and very specific macroeconomic problem, the need to switch resources from peacetime uses to wartime production, but their influence was long-lasting. They assumed an approach to macroeconomic analysis, in which – given the present level of incomes – the sum of potential expenditures could be compared with the value of output at current prices. If potential expenditures exceeded the value of output, inflation was threatened. In the 1939 articles Keynes noted that equilibrium could be restored by "three genuine ways" and "two pseudo-remedies". After rejecting the pseudo-remedies (rationing and anti-profiteering), Keynes focussed on the three "genuine" answers – inflation, taxation and deferred savings. He opposed inflation, and recommended taxation and deferred savings to eliminate excess demand.

1939 articles stimulated idea of "circular flow of incomes and expenditure",

Keynes' thinking persuaded the Treasury. According to Dow, one of the UK's leading Keynesian economists in the second half of the 20th century writing in 1964, "Since 1941 almost all adjustments to the total level of taxation have been made with the object of reducing excess demand or of repairing a deficiency". (2) The remarks in the two articles in *The Times* were elaborated in a theory of national income determination which took hold in the textbooks of the 1950s and 1960s. Quoting from Dow again (this time from a book on *Major Recessions* published in 1998),

> Interpretation of events cannot depend on unstructured observation, but has to be based on assumptions...about the causal structure of the economy...Total demand is defined in terms of real final expenditure; its level (in the absence of shocks) is determined by previous income; its result is output, in the course of producing which income is generated; income in turn goes to determine demand in the subsequent period. (3)

with passive private sector agents

In short, income determines expenditures which determine income and output which determines expenditures which determine income and output so on, as if in a never-ending circle. The circular flow of incomes and expenditure is conceived here as being between passive private-sector agents with no way of adding to or subtracting from incomes from one period to the next, and without the inclination to vary the proportion of incomes that are spent. According to Dow's statement, the flow of private sector expenditures would proceed indefinitely at the same level, were it not for "shocks".

and an active role for the government to manage demand by fiscal policy

However, the textbooks did allow for additions to or subtractions from the circular flow by an active, well-intentioned and appropriately advised government. If the state itself spent above or beneath its tax revenue (i.e., it ran a budget deficit or surplus), it could add to or subtract from the circular flow. (4) The notion of a circular flow of income, and the related idea of the income-expenditure model of the economy (which was adopted in econometric forecasting in the late 1960s and 1970s), therefore made fiscal policy the favourite weapon in the macroeconomic armoury. If all went well, the fiscal additions to and subtractions from the circular flow could be designed to keep the economy at full employment with price stability (or, at any rate, acceptably low inflation). The official judgement on the size of these additions and subtractions, announced with accompanying political theatre every year in the Budget, was taken to be of great significance. For economists brought up to believe that income-expenditure model was an accurate description of "how the economy worked" (and that included probably over 90 per cent of the UK's university economists at the time), the 1981 Budget was shockingly inept. They saw it as withdrawing demand in any economy where expenditure was weak and unemployment rising, and so as being totally misguided.

Idea of circular flow is useful pedagogically, but it is far from "the truth"

The circular flow of income is a useful teaching aid and is understandably popular in university macroeconomics courses. However, it is a primitive and incomplete account of national income determination. If this is "Keynesianism", it is "naïve Keynesianism". Substantial amendments are needed to bring the story closer to the truth – and indeed to the authentic Keynes of the major works.

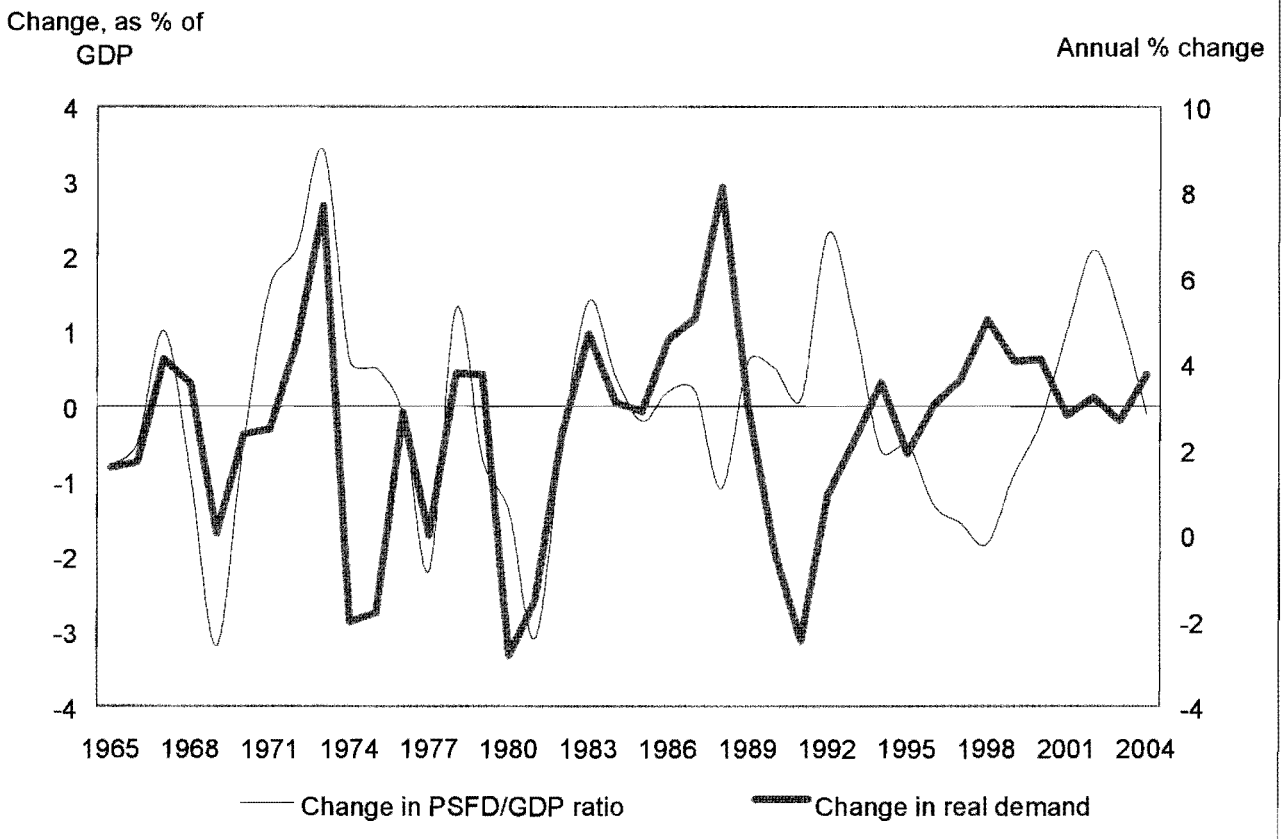
***At individual level*, changes in money holdings and assets allow expenditure and income to diverge**

At the level of the individual private sector agent, it is incorrect that income and expenditure are the same in every period for two reasons. The first is simple. As agents hold money balances, they can spend above income in any given period by running down these balances. (Of course, if they spend beneath income, they add to their money holdings.) The second is more troublesome. The motive of Keynesian analysis is to determine national expenditure and income, in order to fix the level of employment. So the relevant "expenditures" are those which lead to output *in the current period* and so necessitate employment. It is evident that expenditure on existing assets – such as houses that were built decades ago, ships after they have been launched, antiques inherited from previous generations and so on – does not

Was naïve Keynesianism ever valid?

The effect of fiscal actions on demand

Chart shows changes in cyclically-adjusted public sector financial deficit (as % of GDP) and real domestic demand, annual data. Deficit/GDP ratio is to be read against left-hand axis, demand against right-hand axis.



Sources: Office for National Statistics, John Maloney *Debt and Deficits* (Cheltenham:Edward Elgar 1998) and Lombard Street Research estimates

The appendix on p. 19 shows that - over the whole period from 1965 to 2004 - the relationship between changes in the cyclically-adjusted PSFD/GDP ratio and concurrent changes in domestic demand was poor, with the r-squared in the estimated equation of under 0.1. In other words, the naive Keynesians are wrong to believe that demand responds - neatly and powerfully - to changes in fiscal policy. However, as the chart above demonstrates, the period splits into two, with markedly different behaviour in the second sub-period than the first. Before the early 1980s the relationship between the two variables was not bad. In fact, between 1965 and 1980 the relationship had a r-squared of 0.35. On that basis the 364 signatories to the 1981 letter to *The Times* were not altogether foolish to believe that fiscal contraction would depress demand. But it is possible that fiscal policy had an impact on demand because changes in the budget deficit were correlated with changes in money growth (see the appendix), and that money was doing all the important work. Since 1981 changes in the cyclically-adjusted PSFD/GDP ratio have had no relationship at all with concurrent changes in domestic demand.

result in more employment. (They have been made *in past periods* and do not need to be made again.) But purchases and sales of assets, and of financial securities which establish claims to assets, are on an enormous scale. As with money, an individual agent can spend above income in any given period by selling an asset and spending the proceeds, or spend beneath income by purchasing an asset out of savings from current income. Goods can be bought with money arising from the sale of assets and assets can be bought with money arising from the sale of goods.

***At the aggregate level*, equivalence of income and expenditure can be broken by**
i. change in the quantity of money,
ii. change in the velocity of circulation of money,
and
iii. change in the relative importance of the circular flow and asset transactions

At the aggregate level, the situation becomes even more complicated. Suppose, to ease the exposition, that an economy has no assets. If the amount of money is given for the economy as a whole, decisions by individual agents to run down or build up their money balances cannot alter the aggregate amount of money. However, even in this asset-less economy the amount of spending can vary between periods if the velocity of circulation of money changes. Of course, if the amount of money increases or declines from one period to the next, that also allows the level of expenditures to change with the velocity of circulation constant. (5)

Now remove the assumption of an asset-less economy. Money is used in two types of transaction. The first type relates to current expenditure (i.e., "aggregate demand"), output and employment, and belongs to the circular flow; the second type relates to expenditure on existing assets. This second type leads to asset re-dispositions and, typically, to changes in asset ownership. Total transactions consist of both transactions in the circular flow *and transactions in assets*. It should be noted that this distinction is not new. In fact, it was made by Keynes in his *Treatise on Money*, which was published in 1930 before *The General Theory*. To adopt his terms, "deposits" (i.e., money) are used partly in "industry" and partly in "finance". The "industrial circulation" was concerned with "maintaining the normal process of current output, distribution and exchange, and paying the factors of production their incomes"; the "financial circulation", on the other hand, was involved with "holding and exchanging existing titles to wealth, including stock exchange and money market transactions" and even "speculation". (6)

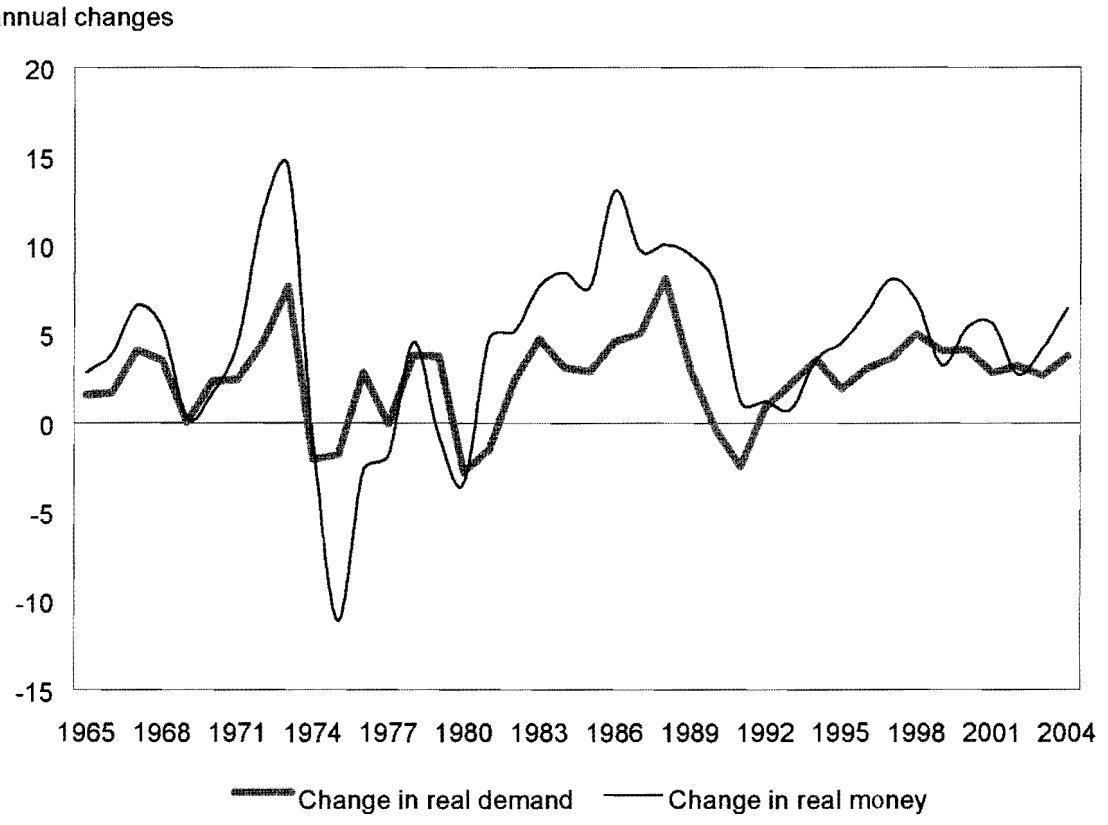
How are these ideas to be put to analytical use? It is immediately clear that, with the quantity of money given, the value of aggregate demand can change for two reasons. First, money's velocity of circulation in total transactions may alter, with the relative size of Keynes' industrial and financial circulations constant. Secondly, the velocity of circulation of money in total transactions may stay the same, but the relative size of the industrial and financial circulations changes. It should be unnecessary to add that, if the quantity of money increases or decreases between periods, that introduces yet another potential source of disturbance.

In short, once the economy is allowed to have money and assets, the idea of a

And what about naïve monetarism?

One interpretation of the "real balance effect"

Chart compares change in real M4 and real domestic demand (both adjusted from nominal terms by the deflator on GDP at market prices), annual data.



Sources: Office for National Statistics and Lombard Street Research estimates

The relationship between changes in real broad money and real domestic demand was satisfactory over the almost 40 years to 2004. The r-squared in the equation for the two variables in the chart (where changes in demand are regressed on changes in money) was 0.49, which is reasonable for a specification of this simplicity. However, as with fiscal policy, the relationship was better in the 1960s and 1970s than later. As discussed in other work from Lombard Street Research, competition between banks led to an increasing proportion of deposits paying interest and changes in the level of real interest rates altered the desired ratio of money balances to expenditure. In the 1981 - 2005 period - when fiscal policy had no statistically significant impact on demand (see appendix) - the r-squared in the monetary equation (i.e., where changes in demand are regressed on changes in money) was 0.28 and the t-statistic on the regression coefficient was fractionally under three. With a specification adjusted for the "own rate on money balances" (i.e., the return on money compared with the alternatives), a better relationship - of a significance similar to that between money and demand in the 1960s and 1970s - could almost certainly be identified.

simple period-after-period equivalence of income and expenditure becomes implausible. The circular flow of income and expenditure would remain a valid description of the economy if the following were constant,

1. The quantity of money,
2. The velocity of money in total transactions, and
3. The proportion of transactions in the circular flow to total transactions (or, in Keynes' terminology in *The Treatise on Money*, the ratio between the industrial circulation and the industrial and financial circulations combined).

In real world the quantity, the velocity and the uses of money are ever-changing

A brief glance at the real world shows that the quantity, the velocity and the uses of money are changing all the time. However, some economists brush these matters to one side and stick to a simple income-expenditure model when they interpret the real world. A common shortcut is to take expenditures as being determined in naïve Keynesian fashion and to claim that the quantity of money then adjusts to the level of expenditures. To quote from Dow again, "Change in nominal GDP [i.e., gross domestic product] determines change in broad money. Money is thus not the driving force in the economy, but rather the residuary determinant (*sic*)." (7)

Quantity of money can expand to finance purchases of existing assets

But Dow is simply wrong. Banks are forever expanding and contracting their balance sheets for reasons which have nothing whatever to do with the recent or current levels of nominal GDP. For example, when banks lend to customers to finance the purchase of old houses, land and long-established companies (i.e., to finance the purchase of existing assets), they add to the quantity of money, but their activities do not in the first instance impinge on the industrial circulation. They have no immediate and direct effect on national income or expenditure. Nevertheless, agents are likey to reshuffle their money holdings and portfolios – in second, third and subsequent rounds of transactions – so that the extra money is again in balance with their wealth and current expenditure. The vital principle becomes that national income *and the value of assets* are in equilibrium, and so incomes and expenditure are likely to remain the same period after period, only when the demand to hold money balances is equal to the supply of such balances (i.e., the quantity of money) at the end of each and every period, and when the quantity of money is constant. More briefly, national income is in equilibrium only when "monetary equilibrium" also prevails. After all, it was Keynes himself who said,

Concept of "monetary equilibrium" needs to be specified

> ...incomes and price necessarily change until the aggregate of the amounts of money which individuals choose to hold at the new level of incomes and prices...has come to equality with the amount of money created by the banking system. That... is the fundamental proposition of monetary theory. (8)

On this view changes in the quantity of money – particularly big changes in the quantity of money – shatter the cosy equivalence of income and expenditure which is the kernel of naïve Keynesianism. Indeed, a sudden sharp acceleration in the rate of money supply growth might create a severe "monetary dis-equilibrium", and

Large changes in quantity of money affect asset prices, and shatter the equivalence of income and expenditure

initiate adjustment processes in which first asset prices and later the prices of goods and services would have to change. (9) A 25 per cent jump in the quantity of money would – with some technical caveats – increase the equilibrium values of both national income *and national wealth* also by 25 per cent. One interesting possibility cannot be excluded. It might be that – in the period of transition from the old equilibrium to the new – some asset prices need to rise by more than 25 per cent, in order to stimulate excess demand in goods markets and motivate the required 25 per cent rise in national income At any rate, any comprehensive account of the determination of national income economists must be integrated with a theory of money-holding behaviour and this theory has to recognise that money is only one part of a larger portfolio of assets.

In 1981 value of all transactions was 1,000 times as large as the £4b. tax increase in the Budget

All this may seem a long way from the 1981 Budget. It is therefore now time to bring the discussion back to the contemporary context by discussing the values of income, money, assets and related variables in Britain at the time. The UK's money GDP in 1980 and 1981 were about £215b. and £233b. respectively. The gross wealth of the personal sector at the end of 1980 was estimated at £658b., split between £461b. of physical assets (mostly houses) and £283b. of financial assets, and offset by £86b. of debt to leave net wealth at £658b. Total national wealth – including public sector and corporate assets – was nearer £1,100b. At the end of 1980 the quantity of money, on the very broad M4 measure which included building society deposits, was worth slightly above £130b., while sterling M3 (the subject of the official money targets then in force) was £68 1/2b. The value of all transactions – including all cheque and other clearings between the banks – in 1980 was over £4,000b.

Transactions in asets larger than transactions in the circular flow of income and expenditure

A number of comments need to be made straightaway about these numbers. Two features are striking. First, the value of all transactions was a very high multiple of money GDP (or "national income"). Roughly speaking, total transactions were about 20 times as large as national income. Secondly, wealth was a high multiple of money GDP. To say that wealth was five times national income would be broadly correct, although the precise multiple depends on the valuation conventions adopted. Most wealth was owned by the personal sector, even though some of it was held indirectly via financial products of various kinds. Housing was the personal sector's principal asset.

It is obvious that the national income and expenditure, the central actors in the naïve Keynesians' circular flow, took bit parts in the wider drama of total transactions. To repeat, national income was somewhat more than £200b., while total transactions exceeded £4,000b. Plainly, the majority of the transactions were not in goods and services, but in assets. In terms of size, the financial circulation dominated the industrial circulation. The preponderance of asset transactions was partly due to the second salient feature, that the value of national wealth was five times that of

national income. The value of turnover on the London Stock Exchange in 1980 was £196.3b., not much less than GDP, while the value of turnover in gilt-edged securities was over £150b. In addition, there were transactions in foreign exchange, in unquoted companies and small businesses, in houses, commercial property and land, and in such items as antiques, second-hand cars and personal chattels.

Naïve Keynesians thought that - since £4b. was 2% of GDP - demand would be lowered by 2% of GDP plus "multiplier effects"

How does this bear on the debate about the 1981 Budget? The 1980 Budget had proposed a medium-term financial strategy for both the budget deficit (defined in terms of the public sector borrowing requirement or PSBR) as a percentage of GDP and money supply growth. Targets for both these variables had been set for the financial years to 1983/4. The target for 1981/2 in the 1980 Budget was three per cent of GDP. In practice the PSBR in the closing months of 1980 proved much higher than expected and the projections in early 1981 were that, on unchanged policies, the PSBR/GDP ratio in 1981/2 would be over five per cent. The government wanted to restore the credibility of the MTFS. It therefore announced in the 1981 Budget tax increases and other measures which would cut the PSBR/GDP ratio in 1981/2 by about two per cent of GDP (i.e., about £4b.) This tightening of fiscal policy at a time of recession was what provoked the letter to *The Times* from the 364. For economists who believed in naïve Keynesianism and the income-expenditure model, a demand withdrawal of two per cent of GDP implied that over the year or so from March 1981 national expenditure and income would be at least two per cent lower than would otherwise be the case. (Some of them might appeal to the multiplier concept, also developed in Keynesian textbooks, to say that the adverse impact on demand would be two per cent plus something extra because of supposed "multiplier effects".)

Value of the main items in the UK personal sector's wealth, 1979 - 82

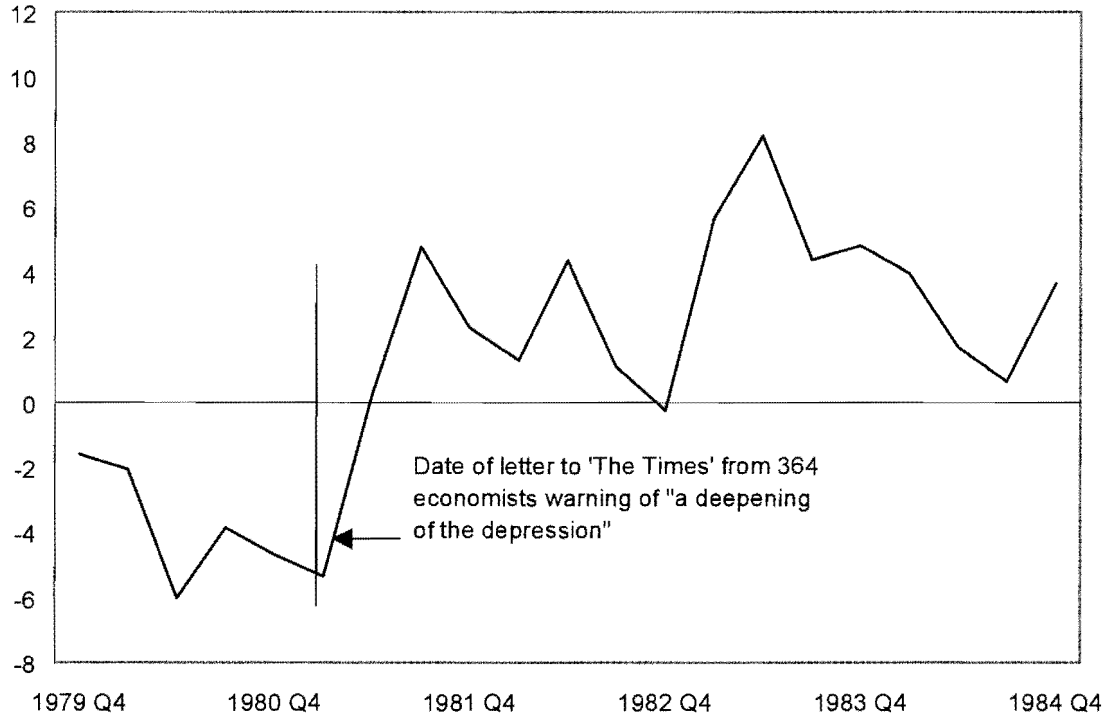
All values in £m.	**1979**	**1980**	**1981**	**1982**
Notes and coin	7,717	8,307	8,837	9,153
Bank deposits	36,210	43,188	47,662	51,685
Building society deposits	42,442	49,617	56,699	66,993
- *All monetary assets*	86,369	101,112	113,198	127,831
Dwellings	276,600	313,200	323,700	345,900
Equity in life assurance pension funds	37,000	49,000	57,000	75,000
UK ordinary shares	31,389	36,482	38,297	45,035
- *Three leading asset classes combined*	344,989	398,682	418,997	465,935
Net wealth	580,529	657,903	696,909	776,754

Source: February 1984 issue of *Financial Statistics* (London: Her Majesty's Stationery Office), Table S12, p. 140

But they had overlooked the effect of change in asset prices - which were rising in this period - on expenditure

But hold on. As the large few paragraphs have shown, the total annual value of transactions in Britain at the time of the 1981 Budget was over £4,000b. The £4b. tax increase might seem quite big relative to national income and expenditure, but it was a fleabite – a mere 0.1 per cent – of total transactions. Given that national wealth is about five times national income, the impact of changes in national wealth on expenditure has to be brought into the discussion. As it happened, the 1981 Budget was accompanied by a reduction in interest rates, with the Bank of England's Minimum Lending Rate falling from 14 to 12 per cent. This cut followed an earlier one, from 16 to 14 per cent, on 25th November 1980. The value of the UK housing stock and quoted equity market was rising throughout the period, partly because of rather high money growth and (from the autumn on 1980) the easing of monetary policy. Over the three years to end-1982 the value of the personal sector's money holdings advanced by over £40b. and the value of three largest other items in its wealth (dwellings, equity in life assurance and pension funds, and directly-owned "UK ordinary shares") increased by more than £120b. and of its net wealth by almost £200b. (See the accompanying table.) These numbers are an order of magnitude larger than the £4b. tax increase in the 1981 Budget. Should anyone be surprised that the Budget was not followed by a deepening of "the depression" or by en erosion of "the industrial base of our economy" which would "threaten its social and political stability"?

Chart shows % annualised growth in real domestic demand in last two quarters



Recovery in the economy began - with immaculate timing - almost as soon as the letter from the 364 warned of "deepening depression"!

With a delightful irony, the recovery in the economy began almost immediately after the letter from the 364 appeared in *The Times*. The chart above shows the annualised growth of domestic demand, in real terms, in two-quarter periods from the start of the Conservative government in mid-1979 to the end of 1984. In every two-quarter period from mid-1979 to the first quarter 1981 domestic demand fell in real terms; in every two-quarter period over the five years from Q1 1981 domestic demand rose in real terms (with one minor exception). From mid-1979 to Q1 1981 the compound annualised rate of fall in domestic demand was 3.8 per cent; in the five years from Q1 1981 the compound annual rate of increase in domestic demand was 3.3 per cent. The warnings of a deepening of the depression were not just wrong, but hopelessly so.

High interest rates - with base rates averaging over 16% in 1980 - main cause of recession in that year

Of course there is much more to be said about the behaviour of the economy in this period. A naïve Keynesian might ask why – if asset prices were gaining ground in 1980 and 1981 – a recession occurred at all. While the causes of the 1980 recession are complex, the dominant consideration was plainly the very high level of interest rates. Minimum Lending Rate (then the name for the interest rate on which the Bank of England operated) had been raised to 17 per cent on 30th November 1979 and the average level of clearing bank base rate in 1980 was over 16 per cent. This had discouraged demand by familiar Keynesian mechanisms (i.e., it had deterred some investment). But monetary forces had also been at work. Dear money had caused money supply growth to be lower than would otherwise have been the case, and encouraged people and companies to hold a higher ratio of interest-bearing money balances to their expenditure. Although money supply growth had been higher than targeted, real money balances had in fact been squeezed. The precise strength of these different "Keynesian" and "monetary" influences on demand is difficult to disentangle.

(An appendix derives estimates of the change in the cyclically-adjusted public sector financial deficit, as a percentage of GDP, and the change in real broad money on an annual basis from 1965 to 2004. The change in the PSFD/GDP ratio is usually regarded as a satisfactory summary measure of fiscal policy. The change in real domestic demand was then regressed on the two variables. The resulting equation for fiscal policy was of poor quality, with a r-squared of under 0.1 and a t-statistic on the regression coefficient of under two. The equation for real broad money was much better. It had a r-squared of almost 0.5 and a t-statistic on the regression coefficient of 6. While this statistical exercise is primitive, it suggests that the naïve Keynesian faith in fiscal policy was and remains seriously mistaken. By contrast, the role of the "real balance effect" – routinely dismissed by Keynesians as virtually irrelevant to the determination of demand – justifies much more investigation.)

Exchange in *The Times* in 1983

The author of this paper wrote an article in *The Times* on 14th July 1983, under the title 'How 364 economists can be wrong – with the figures to prove it'. It argued

between Mr. Congdon

that the thinking behind the MTFS was "that the economy had in-built mechanisms which would sooner or later lead to improved business conditions". It also pointed out that economies had grown, admittedly with cyclical fluctuations, for centuries before "the invention of fiscal fine-tuning, demand reflation and the rest of the Keynesian toolkit". One key sentence was that, "if we are to understand how the economy might recover without government stimulus today, we should look at wealth and credit". Particular attention was paid to the housing market and mortgage credit, since "borrowing for house purchase is the biggest financial transaction most people undertake". Data in an accompanying table showed that mortgage credit had more than doubled from £6,590m. in 1979 to £13,795m. in 1982.

and Professor Hahn

A reply appeared in the letters column of *The Times* on 29th July from Frank Hahn, one of the two economics professors at the University of Cambridge who had initiated the original letter criticising the 1981 Budget. Hahn deserves two cheers because he did at least try to defend the 1981 letter, whereas most of the 364 have clammed up. (The author knows a few of them – with later careers of great public prominence – who would prefer not to be reminded that they signed it.) Its opening paragraph was lively and polemical, and may be recalled over 20 years later,

> Suppose 364 doctors stated that there is 'no basis in medical theory or supporting evidence' that a man with an infection will be cured by the administration of toad's liver. Suppose, none the less, that the man is given toad's liver and shows signs of recovery. Mr. Congdon (July 14) wants us to conclude that the doctors were wrong. This is slightly unfair since Mr. Congdon provides a 'theory' of how toad's liver may do good to the patient.

It went on to claim that the recovery in the economy (which Hahn did not dispute) could be explained in "entirely Keynesian" terms, by the fall in interest rates and its impact on consumer spending. (10)

Puzzle of Hahn's position

1. Did he ignore or merely under-estimate the beneficial effect of the cut in interest rates?

The trouble here is twofold. First, if Hahn had always believed that a fall in interest rates could rescue the economy, why did he help in organizing the letter from the 364? It is uncontroversial both that a decline in interest rates ought to stimulate demand and that the 1981 Budget was intended to facilitate a reduction in interest rates. Presumably Hahn's concern was about relative magnitudes. He thought that the £4b. of supposed "demand withdrawal" announced in the Budget could not be offset by the positive effect on demand of the drop in interest rates and the rise in asset values. If so, he may have shared a characteristic of Cambridge macroeconomic thinking in the immediate post-war decades, that demand is interest-inelastic and that policy-makers should instead rely on fiscal measures. (11) One purpose of the author's article on 14th July 1983 was to show that the housing market was highly responsive to interest rates and that pessimism about the economy's in-built recovery mechanisms was misplaced. (12)

Secondly, and much more fundamentally, Hahn's polemics concealed the deeply

2. Or was he duped - like other British economists - by the simplistic income-expenditure model?

unsatisfactory state of Cambridge and indeed British macroeconomics. Part of Keynes' contribution to economic thinking had been to propose a new theory of national income determination. In that theory national income was equal to national expenditure and expenditure was a multiple of so-called "autonomous expenditure" (i.e., investment and government spending). Dow's recapitulation of the circular flow of incomes and expenditure in *Major Recessions* was of course very much in this tradition. But Keynes fully recognised that the new theory was a supplement to an existing theory, "the monetary theory". As already explained, when money and assets are introduced into the economy, the equilibrium relationship between them and expenditure has inevitably to be part of the story. Keynes did not intend that the new theory should replace the old theory.

The monetary element in the IS-LM model of national income determination was relevant in 1981, as it is today

In a celebrated paper written in 1937, as a review article on Keynes' *General Theory*, Hicks had tried to reconcile the two theories in a model (the so-called IS-LM model) where national income was a multiple of investment and investment was equal to savings (i.e., the IS curve was defined), and where national income and the interest rate were at levels which equilibrated the demand for money with the supply (i.e., the LM curve was also defined). Full equilibrium, with the determination of both interest rates and national income, was achieved by the intersection of the two curves. But in practice most British economists had found the monetary side of the story complicated and confusing, and sidestepped the difficulties by the sort of procedures adopted in Dow's *Major Recessions*. Like Dow, they fixed national income from their income-expenditure model and assumed that the quantity of money adjusted passively (or, in the jargon, "endogenously"). The quantity of money could then have no causal role in the economy. The LM part of the IS-LM model, and the possibility that asset prices and incomes might have to change to keep the demand to hold money (i.e., "liquidity preferences" or L) in line with "the amount of money created by the banking system" (i.e., M), was suppressed. What Keynes deemed in *The General Theory* "the fundamental proposition of monetary theory" had disappeared from view. (13)

But British economists wanted to suppress the monetary theory of national income determination

The message of the letter from the 364 was that British academic economists could not see national income determination in monetary terms. They were angry because the Thatcher government had adopted monetary targets to defeat inflation and subordinated fiscal policy to these targets, and because monetary targets made sense only if their pet theory were wrong and the monetary theory of national income determination were correct. In retrospect, it is clear that the 364 had a very poor understanding of the forces determining output, employment and the price level. The LM part of the story mattered then (as it matters now), but the 364 could not see the connections between money growth and macroeconomic outcomes. Although policy-making has improved dramatically since the 1970s and 1980s, a fair comment is that British economists are still uncomfortable with monetary analysis. No one knows whether that discomfort will lead through mistaken policy decisions

and the 1981 letter to *The Times* can be seen as one of the culprits for the next boom-bust cycle

to another boom-bust cycle. But it can be argued that the 1981 letter to *The Times* was part of a wider assault on money supply targeting which led to the abandonment of broad money targets in 1985 and 1986. The sequel was the disastrous Lawson boom and ERM bust of the 1985 – 92 period. That boom-bust cycle can therefore be blamed on British economists' poor knowledge of monetary economics; it reflected, "a great vacuum in intellectual understanding". (14) In that sense the last big boom-bust cycle was the revenge of the 364 on the Thatcher government.

Nevertheless, the rapid emergence of economic recovery after the 1981 Budget discredited naïve Keynesianism

At any rate, the 1981 Budget was the end of naïve Keynesianism. It is now over 25 years since British governments renounced the annual adjustment of fiscal policy to manage demand. In that period fiscal policy has been subordinate either to monetary policy or to rather vague requirements of "prudence". In decisions on the size of the budget deficit, governments have respected the aim of keeping public debt under control over a medium-term timeframe. The central theme of macroeconomic policy-making today has become the discretionary adjustment of the short-term interest rate by an independent Bank of England to keep demand growing in such a way that actual output is, as far as possible, equal to trend output (i.e., the output gap is zero). Professor Hahn – and as many of the 364 who are still alive and prepared to put their heads above the parapet – might regard the disappearance of fiscal fine-tuning and the apotheosis of interest-rate setting as a diet of "toad's liver". Someone should tell them that the patient has lapped it up. The British economy has been more stable over the last 12 years than in any previous period of comparable length. Policy-makers do not pay all that much attention to fiscal policy in their macroeconomic prognoses, although – depressingly – it is still possible to come across textbooks which proclaim the virtues of fiscal policy and its ability to manage demand. (15)

and "fiscal policy" is no longer prominent in policy making

Much greater interest nowadays in effect of asset prices - and especially house prices - on demand

As foreshadowed by the author's article in *The Times* in July 1983, the relationship between interest rates and the housing market has become a more central part of macroeconomic analysis than the supposed impact of changes in the budget deficit in adding to or subtracting from the circular flow of income and expenditure. Nowadays the Bank of England is particularly active in research on the housing market. (16) Much attention is paid to the rate of house price inflation (or deflation), because the change in the price of this asset is thought to have a major influence on consumer spending. But houses are only one asset class. In truth the level and rate of change of all asset prices matter. A key point has now to be reiterated: any plausible theory of money-holding behaviour has to recognise that money is only one part of a larger portfolio of assets. If a number of conditions are met (and over long runs they are met, more or less, in most economies), a one per cent change in the rate of money supply growth is associated with a one per cent increase in the equilibrium rate of change of both nominal national income *and the value of national wealth*. Moreover, national wealth is typically a high multiple of national

1% increase in money growth implies 1% increase in rate of rise of nominal GDP *and national wealth*

income. It follows that a sudden acceleration in the rate of money supply growth (of the kind seen in the early phases of the two great boom-bust cycles of the early 1970s and late 1980s) leads to outbreaks of asset price inflation. Big leaps in asset prices cause people and companies to sell assets, and to buy more goods and services, disrupting the smooth flows of incomes and expenditure hypothesized in the naïve Keynesian stories. Because the value of all assets combined is so much higher than the value of national income, the circular income-expenditure flow becomes a thoroughly misleading way of thinking about the determination of economic activity.

Macroeconomics must move beyond income-expenditure model, and incorporate monetary and portfolio equilibria in national income determination

The macroeconomic effects of the £4b. tax increase in the 1981 Budget were smothered by the much larger and more powerful macroeconomic effects of changes in monetary policy. No doubt the naïve Keynesian would complain that this is to compare apples and pears, as hypothetical changes in asset values and their impact on expenditure are a long way from the readily-quantified and easily-forecast impact of budgetary measures. But that would be to duck the main question. As the sequel to the 1981 Budget showed, the naïve Keynesians are kidding themselves if they think either that the economy is adequately described by the income-expenditure model or that the impact of budgetary measures on the economy is easy to forecast. (As the author argued in a series of articles in *The Times* in the mid-1970s on "crowding-out", the effect of such measures depends heavily on how they are financed and, specifically, on whether they lead to extra money creation.) (17) Macroeconomics must embrace monetary economics, and integrate the ideas of monetary and portfolio equilibria (and disequilibria) in the theory of national income determination if it is come closer to reality.

Naïve Keynesians ought to read more Keynes

It is ironic that the two instigators of the 1981 letter thought themselves to be protecting the "Keynesian" position in British policy-making and to be attacking "the monetarists". (18) As this paper has shown, Keynes' writings – or at any rate his book-length writings – are replete with references to banks, deposits, portfolios, bond prices and such like. No one can say whether he would have approved of the 1981 letter, but it is pretty definite that he would not have based a macroeconomic forecast purely on fiscal variables. The concepts of the industrial and financial circulations were proposed in the *Treatise* in 1930. They are building-blocks in a more complete and powerful theory of national income determination than the simplistic income-expenditure notions advanced in the 'Paying for the War' articles of November 1939. If the Keynesians had paid more attention to what Keynes had said in his great works rather than in his journalism, and if they had been rather more sophisticated in their comments on money and wealth, they might not have been so embarrassingly wrong about the 1981 Budget.

Notes

(1) The articles are reproduced on pp. 41 – 51 of Donald Moggridge (ed.) *The Collected Writings of John Maynard Keynes* vol. XXII *Activities 1939 – 45: Internal War Finance* (London and Basingstoke: Macmillan, for the Royal Economic Society, 1978).
(2) J. C. R. [Christopher] Dow *The Management of the British Economy 1945 – 60* (Cambridge: Cambridge University Press, 1964), p. 178. Dow has a high reputation in some circles. Peter Jay, the former economics editor of the BBC, has referred to "the learned Dow" and described his book on *Major Recessions* as "magisterial". (Jay *The Wealth of Man* [New York: Public Affairs, 2000], p. 238.)
(3) Christopher Dow *Major Recessions: Britain and the World 1920 – 95* (Oxford: Oxford University Press, 1998), p. 38.
(4) The other recognised source of demand injections and withdrawals was the rest of the world, via the balance of payments.
(5) As usual in discussions of these concepts, the question of the timing of the receipt of "income" and the disbursal of "expenditure" is left a little vague. The income-expenditure story is most plausible if people have nothing (i.e., neither money nor assets) at the end of a period, and receive their income at the beginning of a period and have spent it all by the same period's end. In other words, the story is easiest to tell about an economy without private property of any kind.
(6) Moggridge and Elizabeth Johnson (eds.) *Collected Writings of Keynes vol. V A Treatise on Money: 1. The Pure Theory of Money* (Macmillan, 1971, first edition 1930), p. 217.
(7) Dow *Major Recessions*, p. 39. Given the context, Dow must have meant "determinand", not "determinant".
(8) Moggridge and Johnson (eds.) *Collected Writings of Keynes* vol. VII *The General Theory*, pp. 84 – 5.
(9) These processes are discussed in more detail in the author's *Money and Asset Prices in Boom and Bust* (London: Institute of Economic Affairs, 2005). It seems that – after a big change in the amount of money – asset prices change with a shorter lag and by larger percentages than the prices of goods and services. The explanation for this undoubted pattern is important to the analysis of real-world business cycles.
(10) Hahn made an attempt at self-justification by claiming that "the monetarists" deny that an injection of newly-printed money can boost demand because inflation expectations would deteriorate and "nothing 'real' will be changed". But this is to equate "monetarism" with the New Classical Economics of Lucas, Barro, Sargent and others. It is now widely recognised that these are distinct schools of economics. (See, for example, K. D. Hoover 'Two types of monetarism', *Journal of Economic Literature*, 1984, vol. 22, pp. 58 – 76.) Hahn's letter ended with a sneer. "Mr. Congdon's understanding of either side of the argument [by which he presumably meant either the Keynesian or monetarist side] seems very insecure."
(11) "Elasticity pessimism", i.e., a belief that behaviour did not respond to price signals, was common among British economists in the first 20 or 30 years after the Second World War. Investment was thought to be unresponsive to interest rates, while exports and imports were held to be impervious to changes in the exchange rate. Leijonhufvud has outlined one "familiar type of argument" as the claim that, "The interest-elasticity of investment is for various reasons quite low. Hence, monetary policy is not a very useful stabilization instrument." Hahn and the 364 may have been thinking on these lines. Leijonhufvud says that "the dogma" of the interest-inelasticity of investment originated in Oxford, with surveys of businessmen carried out in 1938, not in Cambridge. (Axel Leijonhufvud *On Keynesian Economics and the Economics of Keynes* [New York: Oxford university Press, 1968], p. 405.) But it was still widely-held in Cambridge and other British universities in the 1970s and even in the 1980s.
(12) Before the July 1983 article in *The Times* the author had proposed the concept of "mortgage equity withdrawal" in a joint paper with Paul Turnbull. (See 'Introducing the concept of "equity withdrawal"', pp. 274 – 87, in Tim Congdon *Reflections on Monetarism* [Aldershot and Brookfield, Vermont: Edward Elgar, for the Institute of Economic Affairs], based on a paper of 4th June 1982 for the stockbroking firm of L. Messel & Co., 'The coming boom in housing credit'.) Dozens of articles have subsequently been written about "mortgage equity withdrawal" and its influence on personal expenditure, and the Bank of England regularly prepares estimates of its size. To economists spoon fed at university on the circular flow of income and the income-expenditure model (in which, as explained, assets do not affect expenditure), mortgage equity withdrawal was a striking idea. It showed how people whose only significant asset was a house

(which is of course rather illiquid) could tap into the equity (often boosted in the Britain of the early 1980s by house price inflation) by borrowing. (The joint paper with Turnbull showed that much of the withdrawal of equity in fact occurs when people die and the house is left to their children, who sell it to purchasers using borrowed funds. Plainly, the mortgage monies can finance consumption spending by the heirs. This point – in which a straightforward sequence of transactions enabled loans ostensibly "for house purchase" to be used for a multiplicity of other purposes – was a revelation to many people.) But mortgage equity withdrawal is only a special class of a much larger set of transactions, i.e., transactions in which goods are bought with the proceeds of asset sales. Sothebys advertises a banking facility, in which (usually) wealthy people can borrow against the equity in their antiques. The resulting set of transactions could be termed "antiques equity withdrawal". Indeed, loans could be granted against the collateral of a cellar of fine wine, leading to "wine equity withdrawal". The distinctive feature of the transactions with the "equity withdrawal" label is that – instead of selling the (often illiquid) asset outright and using the proceeds of the sale "to pay for X and Y" – the actual or prospective owner of the asset borrows against the collateral of the house, antiques collection, wine cellar or whatever "to pay for X and Y". But – whether the purchase of X and Y is financed by borrowed money or by an outright asset sale – in equilibrium wealth holders must be indifferent at the margin between their holdings of all assets (including their monetary assets, especially their bank deposits, and their negative assets, i.e., their debts). Further, *if there were no borrowing at all, money would be relevant to asset price determination, and asset values would be relevant to income and expenditure.*

(13) Note that monetary equilibrium could refer to

i. the equivalence of the demand for base money with the supply of base money, or
ii. the equivalence of the demand for narrow money with the supply of narrow money, or
iii. the equivalence of the demand for broad money with the supply of broad money, or
iv. the simultaneous equivalence of the demand for all money measures with the supply of all such measures.

Keynes concern in his "fundamental proposition of monetary theory" was with the equivalence of the demand for and supply of an all-inclusive (or "broad") money measure. But the issue is covered badly in the textbooks. Most economists regard "monetary equilibrium" as prevailing when the central bank sets interest rates in the short-term money market and the demand for base money equals the supply. The "which aggregate?" debate will not go away. The chaos in the subject helps to explain why so many economists have dropped money from their analytical purview.

(14) Congdon *Reflections*, p. 252.

(15) For example, the textbook *Principles of Macroeconomics* (New York: Irwin/McGraw-Hill, 2nd edition, 2003) by Ben Bernanke and Robert Frank contains an account of national income determination and the efficacy of fiscal action which could have been listed, in its entirety, from a similar textbook of the 1950s. Bernanke is professor of economics at Princeton University, a university which is widely regarded as in the vanguard of macroeconomic thought.

(16) In the 1970s the Bank of England's *Quarterly Bulletin* did not include a single article on the housing market. In the three years to the summer of 2005 the *Quarterly Bulletin* carried seven articles and two speeches by members of the Monetary Policy Committee specifically on the housing market.

(17) See, for example, Tim Congdon 'The futility of deficit financing as a cure for recession', *The Times*, 23rd October 1975.

(18) The two instigators were Professor Robert Neild and Professor Frank Hahn. Neild's subsequent interests were in peace studies and corruption in public life. (He has also written a history of the oyster in England and France.) As far as the author can determine, he dropped macroeconomics at some point in the 1980s. Hahn's position is more interesting and, in the author's opinion, much more puzzling. He has written numerous academic papers on money (and money-related issues) in general equilibrium theory, brought together in Frank Hahn *Equilibrium and Macroeconomics* (Oxford: Basil Blackwell, 1984). Most of the papers in the 1984 book were concerned with rarefied topics, such as the existence, stability and optimality of differently-specified general equilibria. However, four of the papers (numbered 12 to 15) were more or less directly polemical exercises whose target was "monetarism" or, at any rate, what Hahn took to be "monetarism". They cannot be summarised here for reasons of space, but a salient feature of all the papers was the lack of references to real-world institutions, behaviours and magnitudes. Following Keynes (among others), the author has argued – in the current paper and elsewhere – that a discussion of the determination of national income must be, to a large extent, a discussion of the role of money in portfolios. In a 1980 paper on 'Monetarism and economic theory' Hahn cited a

number of recondite papers before seeing in "recent macroliterature" two elements "that Keynesians have for long ignored". One was the portfolio consequences of budget deficits and the other "wealth effects". (*Equilibrium and Macroeconomics,* p. 299) Given that, might one ask – after all these years – why Hahn should have been so sarcastic about the author's 1983 article in *The Times*, and its concern with mortgage credit, houses and wealth? And might one also ask, again with the benefit of hindsight, whether he really believes (as apparently he did in 1980 and perhaps as he continued to do when he orchestrated the 1981 letter to *The Times*) that the government should make "the rate of change of the money stock proportional to the difference between actual unemployment and half a million unemployed" (*Equilibrium and Macroeconomics,* p. 305)? Is that the sort of policy which – on a considered analysis – would have led to the macroeconomic stability the UK has enjoyed since 1992?

Statistical appendix

Series were obtained for

1. the cyclically-adjusted ratio of the public sector financial deficit to GDP, and hence for the change in the ratio, for the period 1948 – 2004,
2. the change in real domestic demand, where the deflator for GDP at market prices was used to obtain the real-terms numbers, and
3. the change in real broad money, using the M4 measure of money adjusted by the increase in the deflator for GDP at market prices, for the period 1965 – 2004 (reflecting the start of modern monetary data in the early 1960s).

Further information on the methods for obtaining the series can be obtained from the author at tim.congdon@lombardstreetresearch.com or timcongdon@btinternet.com.

The equation where the change in real domestic demand was regressed on the change in the cyclically-adjusted PSFD/GDP ratio in the 1965 – 2004 period was,

Change in real domestic demand, % p.a. = 2.54 + 0.35 Change in PSFD/ratio, %

R squared 0.08
Standard error for intercept term 0.38
Standard error for regression coefficient 0.27
T statistic for intercept term 6.75
T statistic for regression coefficient 1.80

The equation where the change in real domestic demand was regressed on the change in real broad money in the same period was,

Change in real domestic demand, % p.a. = 0.96 + 0.35 Change in real broad money, % p.a.

R squared 0.49
Standard error for intercept term 0.39
Standard error for regression coefficient 0.06
T statistic for intercept term 2.49
T statistic for regression coefficient 5.99

The "real balance effect" equation is far from good, but it hints that significant underlying relationships might be found with a more judicious specification. By contrast, the equation for fiscal actions is simply poor. This begs the question, "did the 364 know about the inefficiency of fiscal action in early 1981?". As it happens, the relationship between the change in the PSFD/GDP ratio and the change in domestic demand was much better in the 1965 – 80 period than later, although it was still markedly inferior to the real balance effect (as that effect is presented here). In fact, the relationship between fiscal actions and demand after 1981 was atrocious. The equation for the change in real domestic demand on the change in the cyclically-adjusted PSFD/GDP ratio in the 1981 – 2004 period was,

Change in real domestic demand, % p.a. = 2.92 – 0.06 Change in PSFD/ratio, %

R squared 0.001
Standard error for intercept term 0.46
Standard error for regression coefficient 0.37
T statistic for intercept term 6.34
T statistic for regression coefficient - 0.16

What could explain the better performance of the fiscal equation in the 1965 – 1980 period? One possibility is that fiscal and monetary policies were generally acting in the same direction. As Kaldor noted at the time, the change in broad money was indeed correlated to some extent with the change in the budget deficit in the 1960s and 1970s. Given the subsequent hopeless performance of the fiscal variable in the determination of demand, this implies that the fiscal effect on the quantity of money *was* of some importance to the economy in the 1960s and 1970s, and in that sense fiscal policy mattered. But its effect was *not*, to any significant extent, independent of the monetary story.