

## Inflation, Recession and the Burden of Private Debt<sup>1</sup>

In the course of 1974 the recession in economic activity took on world-wide proportions and threatened to be of unusual severity and duration. Up to a point, indeed, there was a certain inevitability about this, as most countries had taken the view that rampant inflation could only be gradually curbed by keeping real output below potential over an extended period. By the turn of the year, however, anxiety became widespread that the recession in demand and output was getting out of hand. In this context one frequently-cited concern was the way that the combination of inflation and recession — or “stagflation” — had intensified problems of company and household finance at a time when private debt stood at historically high levels.

Has the burden of private debt become so heavy that it might exacerbate a cumulative downward process and retard a subsequent recovery? This question is a hardy perennial, especially in the popular press. But, while in the post-war period the answer to it has repeatedly proved to be negative, it cannot be dismissed lightly in today's circumstances, especially in view of the many domestic and international uncertainties clouding the outlook for profits and investment.

This paper seeks to show that sectoral balance-sheet positions can develop along unstable lines as a result of both long-term and special short-term factors. The emergence of balance-sheet problems may therefore render an economy more vulnerable than usual to cyclical decline. This does not mean that a sharp recession may become unavoidable, but it does have important implications for the

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<sup>1</sup> The author is very grateful for generous help from Rainer Masera and Maury Harris as well as for comments by Helmut Mayer and James Dingle on an earlier draft.

mix and strength of macro-economic policy. The paper focuses attention mainly on debt relationships in the United States, but its conclusions are based partly on comparisons with debt behaviour in Germany, Italy and the United Kingdom.

In terms of monetary theory, the surfacing of balance-sheet problems on a major scale implies the possibility of a breakdown in the stability of the demand-for-money function observable under more normal conditions. Thus, a worsening of income or cash-flow expectations, coupled with unfavourable constellations of sectoral liquid assets and debts, may provoke destabilising monetary behaviour based essentially on precautionary, or "contingency", considerations.<sup>2</sup> These considerations may raise the implicit rate of return on money and simultaneously lower the expected returns on real investment and consumption goods, leading to portfolio shifts involving more money, fewer real assets, reduced income and a fall in the income velocity of money. Thus, when money is viewed as a hedge against fixed financial liabilities in a context of growing risk and uncertainty, the demand for money may become unstable relative to wealth or "permanent income".

### I. Debt, Income and the Demand for Money

How burdensome, in actual fact, are present levels of private indebtedness? With regard to the United States, for example, *Business Week* has stated that:

"The US economy stands atop a mountain of debt \$2.5 trillion high... It would be an awesome burden of debt even if the world's economic climate were perfect. It is an ominously heavy burden with the world as it is today — ravaged by inflation, threatened with economic depression, torn apart by the massive redistribution of wealth that has accompanied the soaring price of oil".<sup>3</sup>

<sup>2</sup> Essentially the same point was made recently in joint speeches by Sir JOHN HICKS and ALAN ROE at the Perugia Conference on "Econometric Models and their Use in Charting Monetary Policy", 21st-25th October 1974. Mr. Roe remarked that "... while economists have done quite well at incorporating Keynes' speculative motive into their analyses of portfolio decisions, they have not really succeeded very well in incorporating the precautionary motive. And clearly this omission, on the part of economists, at both the theoretical and empirical level, is a fairly serious one at a time like this, which for the British economy and a number of other economies is in some sense traumatic".

<sup>3</sup> *Business Week*, "The Debt Economy" (12th October 1974), p. 45.

Subsequently, putting the matter more cautiously, *The Morgan Guaranty Survey* discounted fears that the sheer size of total indebtedness was a danger, but it went on to stress that both corporations and consumers face the current recession with debt loads which are historically high in relation to earnings.<sup>4</sup> This alone, it concluded, was a compelling reason for countercyclical action aimed at limiting the severity of the recession.

Monetary analysis taking explicit account of sectoral cash-flow and liquid asset/debt relationships has considerable intuitive appeal. But when one turns for analytical support to modern monetary theory, whether of the Keynesian or Monetarist persuasion, one feels a certain sense of frustration. The basic reason for this, it would appear, is that changing attitudes towards debt involve largely the precautionary, or "contingency", demand for money (or liquid assets). But somehow, over the long post-Keynesian period of relative economic stability, questions of motivation based on precautionary considerations have fallen into doctrinal oblivion.

Keynes himself may have been partly responsible for this. He pointed out, quite correctly, that one of the precautionary motives for holding cash balances was "... to hold an asset of which the value is fixed in terms of money to meet a subsequent liability, fixed in terms of money...", but he did not pursue this line of thought.<sup>5</sup> Instead, he lumped together in his  $L_1$  function both the contingency and transactions motives for holding money and saw them as being positively related to income and largely independent of interest rates. For him, hoarding and dishoarding were primarily a matter of shifts along the  $L_2$  function, representing the interest-sensitive speculative demand for money, rather than of fluctuations in contingency demand prompted by changes in balance-sheet exposure in the light of income expectations.<sup>6</sup> Indeed, according to Don Patinkin, it was one of Keynes' main contributions that he caused attention to be shifted to the importance of changes in the interest rate in prompting portfolio

<sup>4</sup> *The Morgan Guaranty Survey*, "Debt — how Heavy a Burden?", November 1974, pp. 3-9.

<sup>5</sup> JOHN MAYNARD KEYNES, *The General Theory of Employment, Interest and Money* (Harcourt, Brace and Co., New York, 1935), p. 196.

<sup>6</sup> As HOWARD S. ELLIS once remarked, "The original connotation of hoards was undoubtedly money withdrawn from circulation, but some sort of false sophistication in monetary theory allowed this common-sense meaning to disappear". See "Some Fundamentals in the Theory of Velocity", *Quarterly Journal of Economics*, Vol. LII (1938), p. 460.

adjustments among all kinds of assets, real and financial, and hence in influencing velocity. Patinkin maintains that the older quantity theorists of the Cambridge school (for example, Pigou and Lavington) failed, in particular, to recognise that changes in the velocity of money could be related to changes in the rate of interest. Instead, he says:

"... changes in velocity are attributed solely to the anticipation of price changes — to changes in 'confidence'... The emphasis that both these writers [Pigou and Lavington] placed on 'confidence' makes it clear that — in contrast with the 'modern quantity theory' — they did not think of velocity — and hence of the demand for money — as a stable function of stipulated economic variables".<sup>7</sup>

Viewed in historical perspective, however, is it not possible that the stability of the US demand-for-money function since the Great Depression is a reflection, in Keynesian terms, of a fairly quiescent  $L_1$  function based on a "long wave" of sustained confidence? And might this not be ascribable, in its turn, not only to the advent of activist demand-management policies aiming at full employment but also to the uniquely strong liquid assets/debt position of the private sector after the war? The other side of the coin, as will be shown in the next two sections, is that US post-war growth has been associated with an unusually rapid expansion of private debt and the emergence of some sectoral cash-flow and liquidity problems. It would appear, in particular, that the US corporate sector may have been moving gradually nearer to a liquidity "crisis zone", with the result that the foundations underpinning the stable demand for money have become increasingly eroded.<sup>8</sup>

If, alternatively, we look for guidance in the Monetarist (or modern quantity theory) approach, we again find that the precautionary motive plays little part in the analysis. Studies by this school

<sup>7</sup> DON PATINKIN, "Keynesian Monetary Theory and the Cambridge School", *Issues in Monetary Economics*, edited by H. G. Johnson and A. R. Nobay (Oxford University Press, 1974), p. 19.

<sup>8</sup> The existence of such a zone was alluded to, but not specified, in the Council of Economic Advisers' *Economic Report to the President for 1971*. In a chapter entitled "Corporate Liquidity in 1969 and 1970" it is said with respect to those two years that "There was some decline in the aggregate liquidity ratios but not enough to approach the crisis zone" (page 178). However, basing its conclusions on several useful measures of liquidity and solvency, the study confirmed that corporate liquidity had shown a downward trend since 1949.

purport to show that the demand-for-money function in the United States has been stable over many decades, including periods of deep depression such as the 1930s. Milton Friedman, in particular, has postulated that the demand for money is a stable function of "permanent income", a wealth variant, and has found a close correlation between the real money stock, broadly defined, and an exponentially-weighted average of real past and current income. His conclusions in this respect lead him to attribute economic disturbances largely to the inappropriate policy responses of the monetary authorities in regulating the *supply* of money.<sup>9</sup>

In terms of portfolio behaviour, Friedman's approach confronts one with a sharp distinction between money in its relation to wealth, or permanent income, and money in relation to other balance-sheet variables. Thus,

"... the quantity of money demanded, like the quantity of consumption services in general, is adapted not to measured [actual] income but to permanent income..., which implies that the shock-absorber function is performed by other items in the balance sheet, such as the stock of durable goods, consumer credit outstanding, personal debt, and perhaps securities held".<sup>10</sup>

At the same time, he has also attached significance, though largely marginal, to the precautionary motive.

"Given that money is held as a temporary abode for generalised purchasing power, the amount people will desire to hold must surely depend on their expectations about future contingencies. If they anticipate a highly stable world, with minor fluctuations in income, employment, interest rates, and prices, they will feel much less of a need to retain relatively large amounts of their wealth in the form of money than if they anticipate considerable instability, involving wide fluctuations in income, employment, interest rates, and prices".<sup>11</sup>

In practice, acceptance of the permanent-income hypothesis leaves little room for the precautionary motive as an explanatory variable. However, the evidence of a close statistical correlation between money and permanent income is not, in itself, conclusive

<sup>9</sup> See e.g. MILTON FRIEDMAN and ANNA J. SCHWARTZ, *The Great Contraction* (Princeton University Press, Princeton, N.J., 1965).

<sup>10</sup> MILTON FRIEDMAN, "The Demand for Money: Some Theoretical and Empirical Results", *The Journal of Political Economy*, Vol. LXVII, No. 4, August 1959, p. 333.

<sup>11</sup> MILTON FRIEDMAN, *Dollars and Deficits* (Prentice-Hall, Inc., Englewood Cliffs, N.J., 1968), p. 204.

proof that the demand for money is largely independent of the "other items in the balance sheet". If, on the basis of new evidence, the precautionary motive were found to be a significant variable, the views of some of the older monetary theorists might be due for some rehabilitation. A remarkable early description of the contingency demand for money, and its variability, appeared in a work by Lavington in 1921. Compared with his current transactions needs, the size of that part of the money stock which a person

"... holds as a first line of defence against emergencies depends less directly upon the volume of his payments; it depends upon his *estimate* of contingent payments, and consequently varies with his state of mind, or, more concretely, with the business outlook... It seems reasonable, therefore, to regard this latter part of the aggregate money stock as a reserve whose size is regulated largely by the general level of confidence — a reservoir from which money flows into active circulation when times are good, and into which money flows from active circulation when times are bad... Accordingly it seems that theory is brought into closer relation with the facts when we recognise that part of the demand for money arises from the need to make provision against contingent payments, and that this part of the demand fluctuates in response to changes in the general condition of confidence in some measure independently of the volume of payments".<sup>12</sup>

It is noteworthy, moreover, that Irving Fisher, who is usually identified with a rather mechanical quantity theory of money, considered over-indebtedness to be the most important single cause of the Great Depression. Thus, the originator of the "real interest rate" appears to have attached great importance also to the concept of "real debt", and he expressly linked the public's efforts to reduce debt to their simultaneous, and self-defeating, decisions not to spend.

"When the whole community is in a state of over-indebtedness... the very act of liquidation may sometimes *enlarge the real debts instead of reducing them!*... [leading to] a vicious spiral *downward* — a tail spin — into the trough of depression".<sup>13</sup>

Among contemporary economists, one who in the pre-Keynesian tradition has attached considerable importance to the precautionary

<sup>12</sup> Cited in PATINKIN, *op. cit.*, p. 26, from LAVINGTON'S *The English Capital Market*.

<sup>13</sup> See his book, *Booms and Depressions* (G. Allen and Unwin, Ltd., London, 1933), especially p. 25. Italics in original.

motive is Sir John Hicks. In his early work, *Value and Capital*, the contingency demand for money was seen as being "very susceptible to changes in the risk factor...", and, "One sort of possible expenditure which is very important in this connection is that arising out of liabilities incurred in the past".<sup>14</sup> In recent years Hicks has stressed, more generally, the need to incorporate the precautionary motive into the theory of portfolio behaviour with a view to integrating the portfolio decision and the real investment decision into the same framework. In his approach tangible goods are seen to lie at the opposite end of the liquidity spectrum from money. Hence if growing uncertainty and risks stimulate a desire for increased liquidity, the portfolio decision, say, to increase money balances can at the same time be a decision to reduce outlays on real investment goods (or, for that matter, consumption goods). According to his colleague, Alan Roe, an integration of the financial and real sides of the economy along these lines "... would be a great improvement on what is commonly done when we separate these two things and link them only very tenuously, by way of some sort of interest rate mechanism".<sup>15</sup> More specifically,

"Increased uncertainty about realisation dates, or increased aversion to this uncertainty causes a movement along a spectrum of liquidity in the direction of assets having the lower transaction costs of realisation. The demand for liquidity in this sense can be conceived of as a Precautionary Demand. It is at this point that liquidity enters as a concept. It is at this point that portfolio analysis for the first time seems capable of reflecting a major distinguishing characteristic of tangible and financial assets, namely that the former have far higher costs of realisation than the latter".<sup>16</sup>

Thus, for example, a worsening of expectations about receipts relative to payments would prompt increases in liquidity, or reductions in

<sup>14</sup> J. R. HICKS, *Value and Capital*, Second Edition (Oxford Press, Clarendon, 1948), p. 241. It is clear from the context that the contingencies in question were both "unforeseen expenditure" and the balance of receipts and expenditures. "The costs of realising securities... would be considerable, so that the mere risk of having to do this would be sufficient to offset a moderate gain in interest". He added: "Every business has, at any moment, a certain amount of claims outstanding against it, which it may be called upon to meet at dates which cannot be quite certainly predicted. The clearest case of this is, of course, the case of the banks, which live by acquiring such liabilities, and therefore have an exceptional amount of them", pp. 240-41.

<sup>15</sup> See Perugia Conference speeches, *supra*, n. 2.

<sup>16</sup> ALAN ROE, "Portfolio Selection Theory — the Precautionary Motive and Realisation Dates", Working Paper No. 51, Warwick University, June 1974, p. 13.

debt, which would "... inevitably reduce discretionary cash payments, and, in particular, investment expenditures".<sup>17</sup>

The ways in which macro-economic models might be adapted to take better account of contingency behaviour remain to be seen. In the present paper no attempt is made along these lines. However, the relevance of the approach may be illustrated by a simple relationship which lends itself, in the case of the United States, to an explanation of the demand for money in terms of the precautionary motive. For this purpose we may concentrate attention on the narrowly-defined US money stock and consider the demand for real cash balances in the Cambridge  $k$  sense, i.e.  $M/Y$  (inversely the income velocity of money).

As the first variable we may take the ratio of private debt to total debt (PD/TD). Variations in the ratio indirectly provide a broad indicator of changes in private-sector portfolio positions in the liquidity sense. As such, the demand for real cash balances appears to be inversely related to changes in this ratio, and to be dependent on both the state of confidence and the pre-existing balance-sheet situation. Thus, a rise in the ratio reflects a willingness to lengthen portfolios by incurring additional debt while letting real balances decline, and vice versa.

In the United States a significant feature of the ratio PD/TD, as will be seen in Section II, is that it has been subject to wide swings extending over long periods of time. It rose over the 1920s, declined during the 1930s and the Second World War, and has risen more or less continuously since the end of the war. Except for the war period, when government deficit financing and constraints on private spending played a dominant rôle, these longer-term swings appear to reflect behavioural attitudes which influence the demand for money. The magnitude and duration of the swings suggest that they may be best interpreted in terms of disequilibrium analysis relating to the composition of sectoral portfolios.

As a second variable let us take the ratio of total debt to gross national product (TD/Y). Variations in this ratio are an indicator of balance-sheet developments in terms of cash-flows rather than liquidity, and as such they provide a measure of changes in the *real* burden of debt. In general, the higher the real debt burden, the greater will be the desire on contingency grounds to hold real cash

<sup>17</sup> *Loc. cit.*, p. 19.

balances. In an expansionary context this ratio may play a fairly neutral rôle, because increases in total debt in excess of the growth of real output will tend to be offset by rises in prices and nominal income. On the other hand, when nominal income grows more slowly or declines relative to total debt, the burden of debt, particularly in terms of fixed interest commitments, is perceived to be heavier and desired real money balances tend to rise. The increased demand for real balances induces a further fall in income and still higher burdens of real indebtedness. Hence, in the absence of policies to restore confidence, the decline may become self-reinforcing. As will be seen in Section II, a process of this kind appears to have characterised the Great Depression.

Changes in the demand for real cash balances may be influenced at some times primarily by changes in the ratio PD/TD and at other times mainly by changes in TD/Y. If, for example, PD/TD has gradually risen to such an extent that balance-sheet problems emerge, an increased desire for liquidity, accompanied by a reduced willingness to borrow and to spend or invest, will induce a slower growth or decline in income. At this point the ratio TD/Y may become the dominant variable, in that what began primarily as a liquidity problem may become increasingly a cash-flow problem.

Admittedly, these ratios are quite aggregative and imprecise, but they can help to illustrate the relevance of contingency considerations, particularly in the context of long-term trends and turning points. For those who may be interested, the following regression is reported here. The equation was estimated in first-difference form,<sup>18</sup> with the constant constrained to zero; a third variable, the yield on long-term government bonds ( $i_L$ ), has also been included, but the results indicate that it plays only a relatively minor rôle. As the relative importance of the ratios may change over time, the coefficients should be interpreted as reflecting average behaviour over the period in question.

$$\Delta \frac{M}{Y} = -0.340 \Delta \frac{PD}{TD} + 0.09 \Delta \frac{TD}{Y} - 0.004 \Delta i_L$$

(-5.701) (8.17) (0.745)

where  $R^2 = 0.692$ ,  $DW = 1.41$

<sup>18</sup> The regression covers the years 1920-74; end-of-year data are used for the money stock ( $M_t$ ) and the debt variables and are related to GNP ( $=Y$ ) data for the following year, thus implying a constant lag of six months.

It would thus appear that the demand for real cash balances is significantly associated with debt positions as they find expression in the composition of balance sheets and in real debt burdens. Furthermore, the residual demand for real balances may also be largely a matter of precautionary behaviour. Debt commitments are not the only contingency against which higher balances may need to be held. Thus, increased uncertainties with respect to future income, costs or employment may raise the implicit rate of return on money relative to expenditure quite independently of debt considerations.

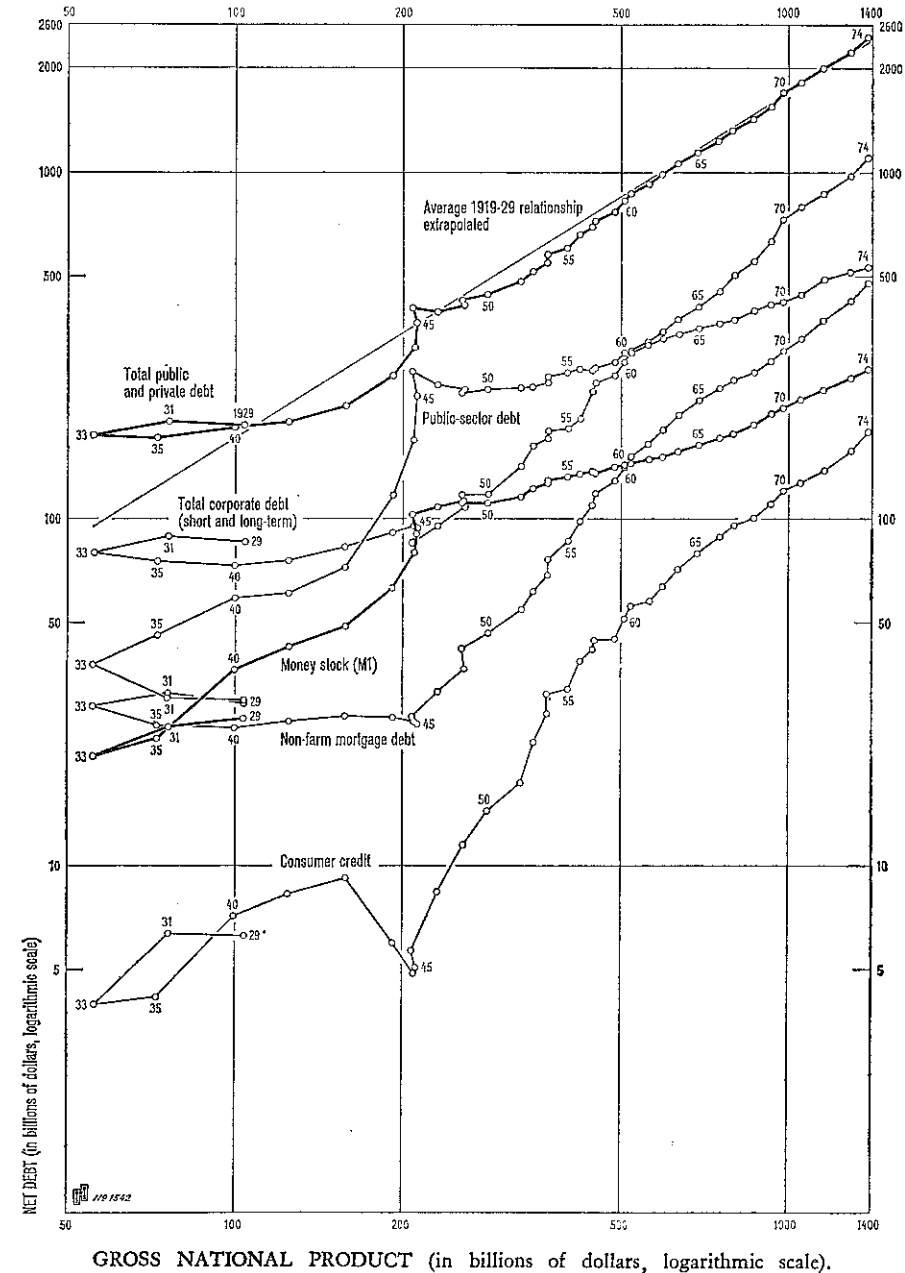
## II. Contrasts in Debt Behaviour: Three Countries

To put these propositions in broader perspective, we may now turn to some comparisons of long-term trends in indebtedness in the United States, Germany and Italy — countries for which “stock” data on financial assets and liabilities are available. In Section III, which includes comparisons with the United Kingdom as well, we shall go on to examine balance-sheet trends in the corporate sector and to consider their implications under present conditions of stagflation.

A. *United States.* The growth of total net debt, both public and private, has since 1960 (after a period of post-war adjustment) followed virtually the same path in relation to the gross national product as that existing on average in the years 1920-29 (see graph). More specifically, in 1920-29 the ratio of total net debt to the gross national product averaged about 1.7 and in 1973 it was precisely the same figure. Thus, the fact that total net debt in absolute terms reached a figure of approximately \$2.5 trillion in 1973 is not in itself disquieting.

1. *The Great Depression, 1929-33.* In the years 1929-33, as well as during the subsequent slow recovery up to 1940, the relationship between total debt and gross national product was profoundly different from what it was in previous and later years. Earlier, from 1920 to 1929, the total debt/GNP ratio had risen sharply from 1.44 to 1.78, with the private debt/GNP ratio going up from 1.15 to 1.61. More particularly, as pointed out by Irving Fisher, corporations had been able over these years to raise a huge volume of new capital through equity issues, thus effectively shifting the burden of

UNITED STATES: MONEY, DEBT AND GROSS NATIONAL PRODUCT, 1929-74



SOURCE: US Department of Commerce: Net public and private debt outstanding is a comprehensive aggregate of the indebtedness of borrowers after elimination of certain types of duplicating governmental and corporate debt. Public-sector debt includes both Federal Government and State and local government debt, but Federal Agency issues are excluded. Farm debt and commercial and financial debt are included in the overall total but are not shown in the graph as separate series.

new indebtedness to the purchasers of equities, who financed them mainly by security credits and call loans.<sup>19</sup> It is thus likely that the stock-market crash in October 1929 sparked off a strong increase in the contingency demand for funds in order to meet debt commitments.

From the outset the gross national product fell faster than total indebtedness, and the real burden of debt (TD/Y) became increasingly heavy. Individuals and companies sought relief by curbing consumption and investment, simultaneously repaying debt and safeguarding liquid assets, only to find that their financial situation progressively worsened.<sup>20</sup> The graph suggests that the deflationary spiral was already intense by 1931 and followed much the same path right down to 1933. Relative to gross national product, the burden of debt in 1931 was already 40 per cent heavier than in 1929 and by 1933 it was greater by 75 per cent.

In the light of these circumstances, one might wish to question the Monetarist view which attributes the Great Depression to the failure of the Federal Reserve System to ensure an adequate and timely expansion of the money supply. On this point it is appropriate to quote Milton Friedman at some length:

"... From 1929 to 1931, the Reserve system was largely passive. It allowed the stock of money to decline by about 10 per cent and banks to fail in a steady if not spectacular stream. Yet by spring 1931, there were signs of revival... Had the decline come to an end in 1931, it would have entered in statistical annals as a severe recession but certainly not a major depression... But the decline did not come to an end. In the autumn of 1931, England went off the gold standard. The Reserve authorities became frightened that there would be a drain of gold from the United States... they succumbed to something approaching panic and proceeded to take strong deflationary measures, putting up the bank rate more sharply and

<sup>19</sup> IRVING FISHER, *op. cit.*, p. 72.

<sup>20</sup> According to flow-of-funds estimates by Peter Temin, equity issues accounted for well over three-fifths of the funds raised by non-financial corporations in 1929. In 1930 and 1931, despite a marked falling-off in personal income, the household sector's financial surplus (excess of saving over investment) remained approximately at the 1929 level (nearly \$8 billion), with a decline in cash balances being accompanied by a repayment of security loans. From 1930 onwards non-financial corporations reduced their financial deficit, while at the same time cutting back their holdings of cash balances and repaying debt (mainly commercial loans). See PETER TEMIN, "Did Monetary Forces Cause the Depression?", Working Paper No. 107, Department of Economics, Massachusetts Institute of Technology, April 1973.

suddenly than at any previous time in their history... Up to this point, deposits in commercial banks had fallen by about 10 per cent. In the next year and a half they fell by over a third... True, the Reserve system reversed its policy in early 1932 and undertook moderately expansionary measures; but by then it was too late. *Measures of this magnitude might easily have saved the day in 1931; by 1932 they were utterly inadequate to stem the raging flood of deflation that the Reserve system had unleashed*".<sup>21</sup>

But is it reasonable to suppose that easier Federal Reserve policies could have turned the economy round in 1931? The decline in the money stock was directly bound up with the process of debt liquidation, with deflation already feeding strongly on itself, and the Federal Reserve System on its own may well have been powerless to stem it. Why should private borrowers have been willing to borrow still more at a time when their real debt burdens and fixed-interest charges were already felt to be substantially heavier than in 1929? Another sign of precautionary behaviour was a pronounced increase in the ratio of cash to deposits, implying a lower money stock for a monetary base of given size. Moreover, in view of the deterioration in the size and quality of their balance sheets, the banks themselves appear to have been motivated by precautionary considerations, as evidenced by the extent to which excess free reserves were built up.

In the circumstances, it seems much more likely that sustained recovery could have been initiated only by public-sector deficit spending. As a by-product, this would have helped gradually to replenish the private sector's liquidity, reduce the real burden of its debts and thereby bring about a return of confidence. As far as monetary policy is concerned, therefore, the conventional wisdom of the pre-Friedman era — "You cannot push on a string" — may at times be valid. If the aim is a reflationary increase in the money supply, fiscal policy may be the only effective way to achieve it.

2. *The recovery years, 1934-40.* The behaviour of public and private debt during the recovery years tends to support the preceding analysis. As the graph suggests, the upswing was largely ascribable to an increase in the public sector's deficit spending. Federal Government debt grew fairly rapidly from 1933 to 1935 and continued to

<sup>21</sup> MILTON FRIEDMAN, *Dollars and Deficits*, *op. cit.*, p. 81. (Italics added.)

expand in the latter half of the decade. The only other type of debt which increased from 1933 to 1940 was consumer credit, which again rose fairly steadily as personal incomes recovered. Even as late as 1940, by which time the gross national product was nearly back to its 1929 level, corporate, mortgage and State and local-authority debt showed no significant tendency to rise in absolute terms. Thus, despite an 80 per cent increase in output and income, these sectors still showed reluctance to borrow. Effectively they were still seeking to reduce their debt burdens — though finally with success!

3. *The war years, 1940-45.* The Second World War brought a new phase in the history of debt creation. Against the background of wage and price controls, the Federal Government's sharply-increased deficit financing provided the private sector with a surfeit of liquidity and reduced its need to borrow. The ratio of private debt relative to gross national product continued to fall, as it had been doing since 1933, leaving the private sector (plus the State and local authorities) immediately after the war with a debt ratio of only 0.7, against one of 1.2 just after World War I. The decline in the total net debt/GNP ratio from 1940 to 1944 reflects an increase in private-sector self-financing, restricted spending opportunities and the effects of price inflation.

4. *Three decades, 1945-74.* For thirty years now borrowing by the private sector, together with that of the State and local authorities, has been by far the most dynamic element in debt creation.<sup>22</sup> Federal Government debt, quite stable in absolute terms in the years 1945-60 but on a moderate uptrend since then, has declined relative to the gross national product over the whole of the post-war period.

Corporate-sector debt has increased rapidly and fairly steadily, rising as a ratio to gross national product from 0.46 in 1945 to 0.76 in 1973. This is about the same ratio as in 1929, when the corporate sector was a more important part of the economic whole.

In the personal sector, consumer debt in 1973 stood at a ratio of 0.12 to gross national product and one of 0.17 to disposable personal income — representing in both cases a burden about twice as heavy

<sup>22</sup> The decline in the real burden of debt (TD/Y) as a consequence of the Korean war inflation may have contributed to the strong investment boom during the 1950s.

as in 1929. Although the burden of consumer debt has grown only moderately over recent years, a falling-off in consumer confidence could lead to a marked decline in new borrowing relative to repayments of old debt. Recent surveys of consumer intentions have reported confidence to be at a historically low ebb. As far as housing finance is concerned, the burden of mortgage indebtedness reached its highest post-war level — one substantially above that of 1929 — at about the time that the present recession in house-building got under way.

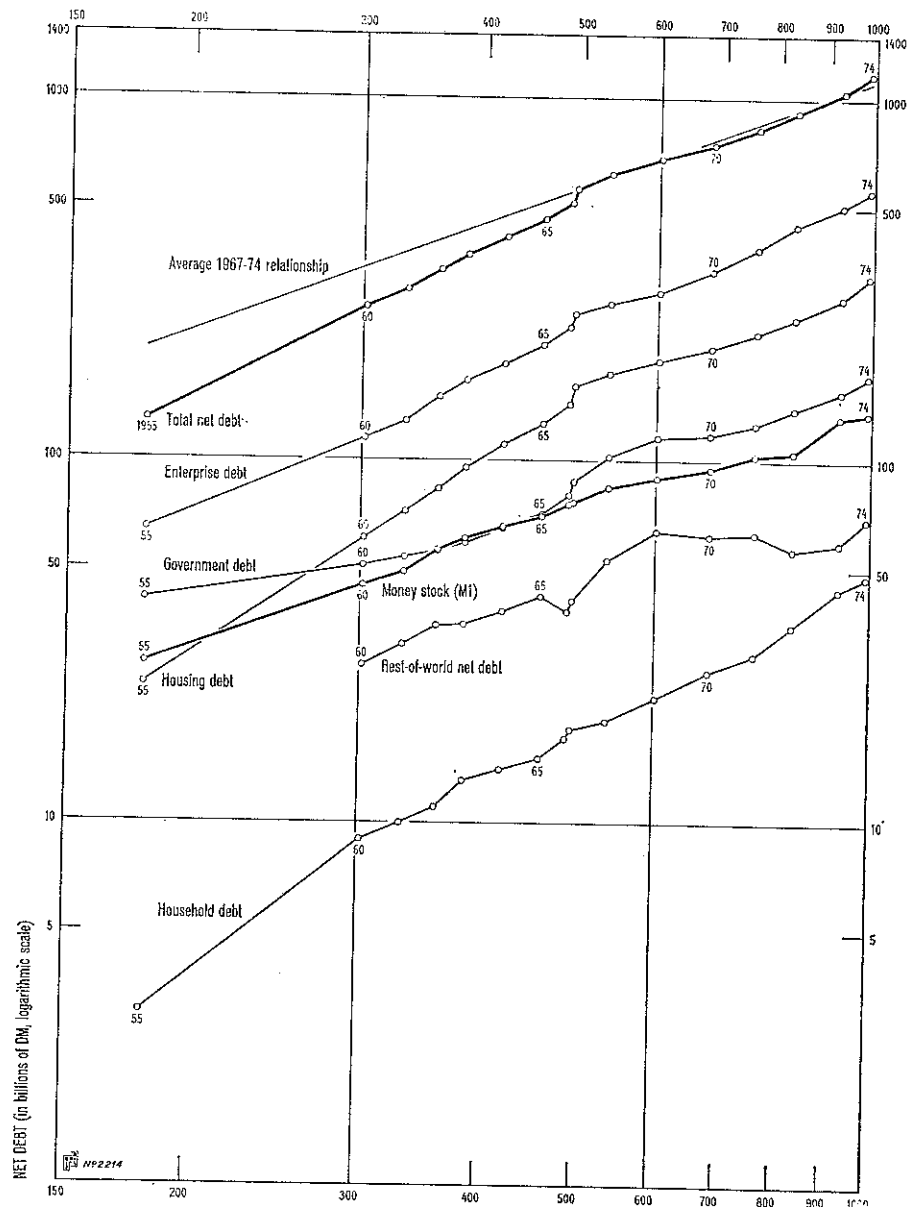
B. *Germany, 1949-74.* In contrast to the United States, Germany entered the 1950s with an extremely low level of public and private debt. As an outcome of the Second World War and the post-war monetary reform, the ratio of total net debt to gross national product was in 1949 less than 0.5, or about one-third of that in the United States. By 1954 this ratio had moved up to 1.0 and, as the graph shows, the normalisation process continued until a ratio of about 1.4 was reached in 1967, the year of Germany's first post-war recession. From 1967 onwards the overall ratio remained very stable — a fact which facilitates comparison of private-debt trends, within the total, with those in the United States.

In 1967 German enterprise debt as a ratio to gross national product stood at 0.54, or not far below the comparable ratio of 0.64 for the US corporate sector. But by 1973 the ratio in Germany had risen only to 0.60, or by about 11 per cent, while that in the United States had increased to 0.76, or by 19 per cent. This difference is partly a reflection of Germany's persisting balance-of-payments strength and has been associated with an appreciable growth in Germany's net claims against the rest of the world. But it also indirectly reflects the fact that public debt has been growing fairly steadily over many years. In 1973 the ratio of public-sector debt to gross national product was approximately the same as it was in 1960.

Germany's debt/GNP trend ratio is much lower than that in the United States, but its rate of gross national saving is considerably higher. Saving results are better in every sector — public, enterprises and households — and can be ascribed partly to the low initial level of wealth after the war, but partly also to budget policy and a flexible use of fiscal incentives. In the household sector, housing and insurance savings enjoy special tax privileges, and thrift is also encouraged



## GERMANY: MONEY, DEBT AND GROSS NATIONAL PRODUCT, 1955-74



GROSS NATIONAL PRODUCT (in billions of DM, logarithmic scale).

SOURCE: Deutsche Bundesbank, *Monthly Report*, various issues.

by an employee/employer savings scheme enjoying fiscal advantages. In the enterprise sector, taxation arrangements appear to allow fully for replacement-cost accounting, and depreciation allowances, together with special investment taxes or premia, have frequently been adjusted so as to influence saving/investment relationships. The sector also includes a number of State entities which receive large capital transfers financed partly or wholly by public-sector tax revenues. Moreover, the public sector has financed most of its own investment through budget appropriations.

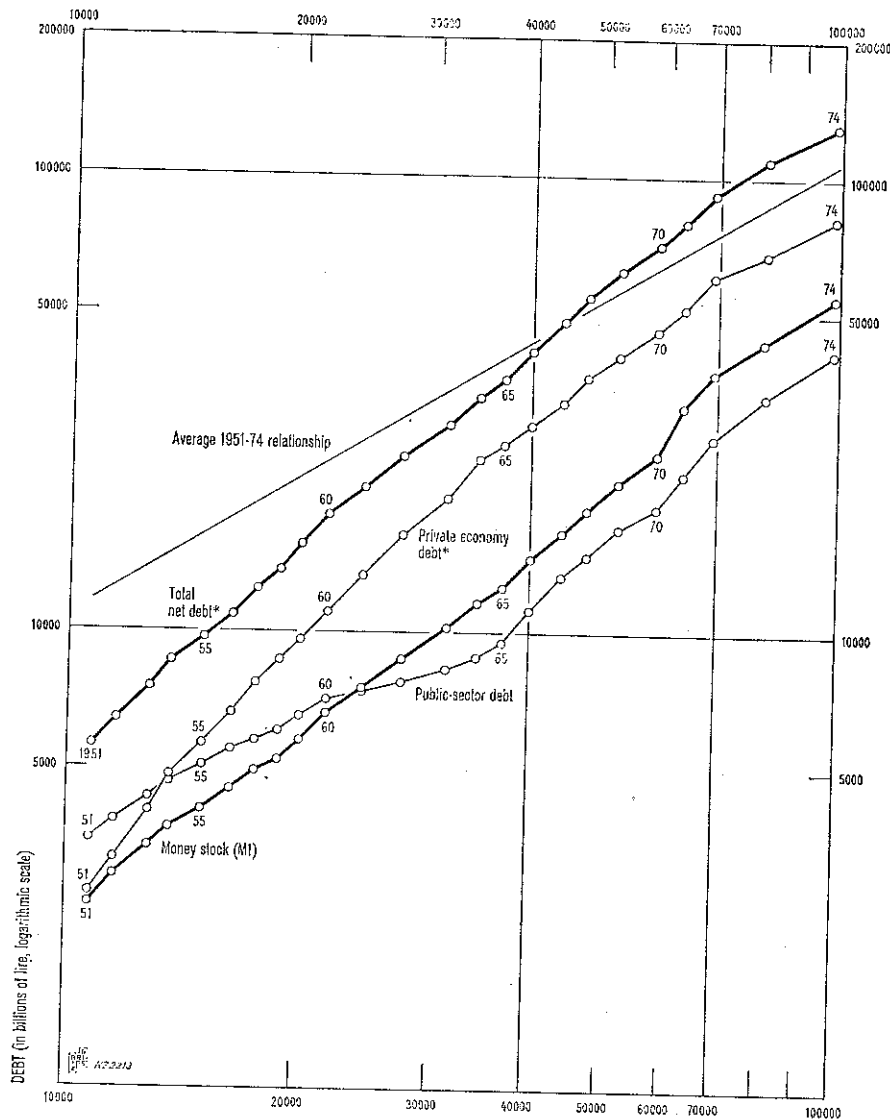
In both structural and cyclical terms, therefore, it would appear that budget and fiscal policies in Germany have helped to keep private-sector finances from becoming unduly dependent, relative to output and income, on external borrowing and debt accumulation.

C. *Italy*. In contrast to the United States and Germany, the total debt/GNP ratio in Italy has been rising fairly steadily, in a log-linear relationship, over most of the post-war period. Of course, the explanation for this in the earlier years may not be the same as in the later ones. As in Germany, liquidity and debt were at quite low levels at the beginning of the 1950s, and hence there was scope for liquidity to be gradually built up in conjunction with rapid credit expansion. In the years up to 1965, as the graph shows, total private-sector debt rose substantially faster than that of the public sector.

In the mid-1960s, however, the Italian economy began to lose its earlier momentum. Wages rose quite rapidly from about 1962 onwards, profits came under a squeeze and the rate of gross national saving fell off. Mainly to help sustain growth, public-sector deficit financing increased sharply from 1965 onwards, most of the counterpart being a rise in the financial surplus of the household sector. In some measure, therefore, the continued growth of the total debt/GNP ratio reflected a redistribution of saving and an increase in financial intermediation.

On the other hand, the fact that Italy suffered heavy, sustained capital outflows over much of the same period suggests that total domestic credit expansion may have been carried to excess. The sheer size of the mounting public-sector deficit may have been a principal factor. The public-sector debt/GNP ratio rose very sharply from 0.26 in 1965 to 0.41 in 1973, whereas in Germany the two comparable figures were stable at 0.17 and 0.18 respectively and in the United States they showed a decline from 0.52 to 0.40.

## ITALY: MONEY, DEBT AND GROSS NATIONAL PRODUCT, 1951-74



GROSS NATIONAL PRODUCT (in billions of lire, logarithmic scale).

\* Includes rest-of-world net debt. Excludes shares and participations.

SOURCE: Banca d'Italia, "I conti finanziari dell'Italia", *Bollettino*, various issues.

Viewed in private balance-sheet terms, one implication of public-sector liquidity creation on such a scale may be that, by tending *ceteris paribus* to sustain or increase the household sector's financial surplus and to reduce the enterprise sector's financial deficit, the precautionary motive for holding cash balances and limiting debt commitments can over time be significantly weakened. Thus business firms, besides being more willing to invest, may tend more readily to accede to rises in wage and other costs, while households may show less restraint in spending. In Italy evidence of this would not necessarily be reflected in a slower growth of  $M_1/$ GNP, since demand deposits bear interest rates highly competitive with other financial instruments. But it may be seen in the graph that after 1972, total financial assets, as the counterpart of total net debt, began to grow more slowly relative to gross national product, coincident with an acceleration of inflation. Thus a persisting large public-sector deficit runs the risk of becoming the basis for a potent combination of inflationary forces. This may help to explain the need for the fairly severe measures of credit restraint introduced in the course of 1974.

### III. Stagflation and Business-Sector Financing

In most countries the problem of stagflation began to emerge already in the summer of 1973, well before the onset of the oil crisis in the autumn. Earlier, in December 1971, the Smithsonian realignment of exchange rates had set the stage for a generalised reflation of demand.<sup>23</sup> By early 1973, roughly coincident with the second devaluation of the US dollar and the widespread moves to floating exchange rates, real growth rates in the major industrial countries were well over half as much again as their long-run averages. By the summer, however, output began to slow down, in some cases rather suddenly, under the influence of capacity and resource limitations and increasingly also of demand restraint policies. Concurrently, inflation gained momentum, particularly in the international commodity markets, and rising costs loomed as a major problem. The cross-currents of inflation and deflation were then seriously intensified

<sup>23</sup> Of course, the Smithsonian agreement itself was not responsible for this outcome. The realignment might have had a better chance of success had it been backed up in 1972 by appropriately differentiated policy mixes among the countries concerned. Instead, it was taken by weaker-currency countries to imply a temporary escape from balance-of-payments constraints.

by the oil crisis in the autumn and the subsequent sharp rise in oil prices at the beginning of 1974.

By early 1974 the inflationary outlook had become alarming. Despite the recessionary forces at work, most countries took the view that inflation posed much the greater risks. Hence it was widely held that general measures to reflate, as distinct from selective assistance to weak sectors, should be postponed until inflation could be brought down to more acceptable rates. This policy attitude implied, of course, acceptance of a prolonged adjustment involving slow growth or stagnation and a gradual decline in the rate of inflation. Moreover, it was based on the view that any deepening of recession could be successfully counteracted by timely adaptations of policy.

However, by the turn of 1974-75 some countries, particularly those in a strong external position, were generally more willing to undertake reflationary action. Industrial output was already well below potential, housing construction was in a severe slump almost everywhere, unemployment was moving up to unusually high levels and precautionary saving was on the rise. In these circumstances, business firms were finding it difficult to adjust their inventories to more desirable levels, and industrial investment, particularly in the United States, the United Kingdom and Germany, had begun to fall off in real terms. Another ominous sign was that world trade was expected to show little or no real growth over the coming year. None the less, with cost/price mechanisms having become highly sensitive to inflation, national authorities remained cautious in their efforts to stimulate demand.

Much of the brunt of stagflation has been borne by the business sector, with its impact being felt in a combination of ways that has differed from country to country.<sup>24</sup> Pre-tax profits have been hit partly by the stagnation of demand and output and partly by rises in the costs of labour, raw materials, foodstuffs and oil. In some countries price controls, as well as demand weakness, have to some extent prevented companies from recouping rising costs by means of higher prices. Accounting practices have been another source of difficulty. In some countries the taxation of inventory profits swollen by inflationary price increases has eroded the ability of firms to finance

<sup>24</sup> A fuller analysis would have to take much greater account of household-sector behaviour than has been possible in this paper.

replacement stocks. Moreover, depreciation allowances for tax purposes have often been based too much on historical rather than replacement costs. Another burden, though it has recently eased, has been high interest rates and weak equity markets, which have impelled firms to rely heavily on short-term sources of credit.

On the basis of flow-of-funds data, the accompanying table provides a set of roughly comparable company-sector financial ratios for four countries, going back where possible to the 1950s. As here used, the term "cash flow" includes only gross internal saving flows (plus capital transfers), adjusted for stock appreciation. Since for the United Kingdom no data for assets and liabilities are available, a rough estimate for 1960 provides the starting point for a series based on cumulative flow data. Hence for that country the trends in the ratios are more accurate than their absolute size. The comparisons are based on an arbitrary selection of years and may not represent peak and trough years.

Looking first at trends in self-financing, corporate cash flow in the United States reached a peak in 1966, when it was equivalent to 8.2 per cent of gross national product and covered 80 per cent of a relatively high rate of gross capital formation. By 1974 it had fallen by over one-quarter to 6.1 per cent of gross national product and met only 66 per cent of a smaller rate of investment. James Tobin, noting estimates by William Nordhaus that the after-tax rate of return on replacement cost had fallen from 10 per cent in 1965 and 1966 to 5.4 per cent in 1973,<sup>25</sup> commented more generally:

"Since 1966 aggregate market valuations of corporate securities (bonds and stocks) have not kept up with the replacement cost of corporate inventories and fixed capital... A low value [for this ratio] means that the market is pessimistic about future profits and/or discounts them heavily... [and] indicates a worsening of the financial climate for business capital investment. In 1974, obviously, equity financing has become a laughable idea, internal funds are scarce, and companies are risking their shareholders' future by undertaking huge fixed-interest commitments".

<sup>25</sup> An analogous comparison shows that the domestic profits of non-financial corporations, allowing for replacement-cost depreciation and inventory valuation adjustments, were 10.4 per cent of gross national product in 1950, 9.6 per cent in 1965 and only 5.9 per cent in 1973. See "Profitability and Investment", *The Morgan Guaranty Survey*, September 1974, pp. 6-7.

## SELECTED COUNTRIES: COMPANY-SECTOR INVESTMENT, CASH-FLOW AND LIQUIDITY RATIOS

Company sector	1950	1955	1960	1963	1966	1969	1972	1973	1974 <sup>1</sup>
	Percentages								
Gross investment 2	15.4	17.1	17.8	15.7	15.5	16.9	15.8	15.3	12.5
GNP	—	—	—	6.6	7.1	10.0	10.5	13.0	—
United Kingdom	8.4	7.9	7.7	7.7	10.2	7.3	5.8	7.4	8.3
United States	—	—	—	—	—	9.0	8.9	9.4	9.2
Ratios									
Self-financing ratio 3	0.82	0.75	0.75	0.76	0.78	0.72	0.75	0.77	0.83
Germany	—	—	—	—	—	1.09	0.77	0.73	—
Italy	—	—	1.10	1.21	0.96	0.96	0.77	0.73	—
United Kingdom	—	—	0.88	0.96	0.80	0.72	1.05	0.84	0.35
United States	0.75	0.92	—	—	—	0.76	0.76	0.69	0.66
Cash flow	—	0.62	0.93	0.82	0.79	0.76	0.71	0.74	0.62
Short-term debt	—	—	—	—	—	0.31	0.21	0.25	—
Germany	—	—	—	—	—	0.31	0.21	0.25	—
Italy	—	—	1.21	0.81	0.59	0.58	0.37	0.29	0.09
United Kingdom 4	0.91	1.02	0.78	0.83	0.78	0.51	0.54	0.47	0.35
United States	—	—	—	—	—	—	—	—	—
Cash flow	—	0.27	0.32	0.25	0.24	0.22	0.20	0.20	0.18
Total debt 5	—	—	—	—	—	0.15	0.10	0.11	—
Germany	—	—	—	—	—	0.17	0.14	0.14	0.04
Italy	—	—	0.31	0.22	0.18	0.17	0.14	0.14	0.04
United Kingdom 4	0.25	0.28	0.23	0.23	0.25	0.18	0.17	0.13	0.13
United States	—	—	—	—	—	—	—	—	—
Liquid assets	—	0.68	0.89	0.89	0.80	0.85	0.92	0.97	0.87
Short-term debt	—	—	—	—	—	—	—	—	—
Germany	—	—	—	—	—	—	—	—	—
Italy	—	—	—	0.85	1.01	0.96	1.07	1.04	—
United Kingdom 4	—	—	1.44	1.08	0.72	0.64	0.65	0.61	0.51
United States	2.22	1.90	1.20	1.22	0.82	0.67	0.63	0.56	0.53
Liquid assets	—	0.30	0.31	0.27	0.24	0.25	0.26	0.26	0.24
Total debt 5	—	—	—	0.47	0.50	0.47	0.50	0.48	—
Germany	—	—	—	0.30	0.22	0.19	0.24	0.26	0.23
Italy	—	—	—	—	—	—	—	—	—
United Kingdom 4	—	—	—	0.34	0.26	0.23	0.21	0.20	—
United States	0.62	0.53	0.35	—	—	—	—	—	0.20

1 First nine months, seasonally adjusted; for Germany, first six months only (adjustment estimated). 2 Company-sector (excluding housing) fixed capital and inventory investment, adjusted for stock appreciation. 3 Ratio of cash flow (i.e. capital consumption allowances, net saving and capital transfers, adjusted for stock appreciation) to gross investment. 4 For liquid assets and debt, calculated on the basis of flow data linked to a stock estimate for the base year. 5 Excludes equities. For United States, "credit-market" debt only.

Sources: Individual country flow-of-funds data.

However, he went on to say:

"To have maintained the same climate for investment and growth, it would have been necessary for real after-tax financial interest rates — that is, market rates corrected for inflationary expectations — to have declined correspondingly. That has not happened".<sup>26</sup>

Although, as Tobin indicated, policy-induced high interest rates have done much to aggravate problems of company finance, lower rates alone cannot be expected to solve them. To some extent, it is true, lower interest rates can be counted on to facilitate equity financing and the funding of short-term debt.<sup>27</sup> On the other hand, in view of the deterioration in corporate cash flows since 1965, together with the adverse long-term trend in liquid assets relative to debt, further heavy reliance on credit expansion, even assuming a willingness to borrow, might only postpone some of the basic problems and make them ultimately worse. By 1974 corporate cash flow relative to short-term debt was only one-third as large as in 1955, while on the same basis of comparison liquid assets were little more than one-quarter their previous volume.<sup>28</sup>

In Italy the enterprise sector's cash flow in proportion to gross national product dropped off only from 10.9 per cent in 1969 to 9.5 per cent in 1973. Moreover, financial asset and liability data for a longer period show that from 1963 to 1973 liquid assets were maintained in relation to total debt and even increased as a ratio to short-term debt. The equity market was an important source of funds in the late 1950s and early 1960s but thereafter remained depressed up to 1973. The fact that the cash-flow/debt ratios in Italy have been comparatively low, while the liquid-asset/debt ratios have been high, suggests that companies tend as a matter of practice to borrow fairly heavily in order to maintain a comfortable liquidity cushion. In recent years, the motivation may have stemmed partly from contingency considerations in respect of cost behaviour, given that the frequent adjustment of wages to cost-of-living changes,

<sup>26</sup> JAMES TOBIN, "Inflation, interest rates and stock values", *The Morgan Guaranty Survey*, July 1974, p. 4.

<sup>27</sup> In the second half of 1974, with interest rates having reached a peak in August, corporate bond issues accounted for 33 per cent of total credit-market borrowing, against 22 per cent in the first half; however, a severely-depressed stock market kept equity issues to negligible proportions.

<sup>28</sup> To some extent these declines may reflect changing standards of balance-sheet prudence and greater reliance on lines of credit.

intermittent work stoppages and a floating exchange rate have entailed greater cost uncertainties.

These uncertainties on the cost side appear also to have played a rôle in the United Kingdom. Moreover, much as in the United States, company cash flow has been on a declining trend for a number of years. In this context, the real rate of return on capital employed by industrial and commercial companies (at current replacement costs and after providing for stock appreciation) is estimated to have fallen from 13.4 per cent in 1960 to 6.5 per cent in 1973.<sup>29</sup> In proportion to gross national product, company cash flow dropped from 9.6 per cent in 1960 to 6.2 per cent in 1973 and plummeted to 2.9 per cent in the first three quarters of 1974.<sup>30</sup> It was hit with particular severity over the past two years, partly because up to mid-1974 price controls permitted only one-half of rising wage costs to be passed on in higher prices and partly because of the heavy incidence of taxation on profits based on historical cost calculations during a period of sharply rising prices for materials. At the same time, under the influence of monetary restraint and high interest rates, the capital market virtually dried up, and companies turned largely to banks and overseas sources for funds. In November 1974 the government took cognisance of the problem by relaxing price controls and providing for some tax relief on inventory profits during the current fiscal year.

Germany stands in sharp contrast to the other three countries. Enterprise cash flow fell off only slightly from 12.6 per cent of gross national product in 1950 to 11.8 per cent in 1973 but then dropped to 10.4 per cent in 1974. The self-financing ratio has remained very stable, suggesting that German firms prefer to cut back investment, as they did in 1974, than to see this ratio decline. Since 1960 indebtedness has grown faster than cash flow, but this credit has been mainly at medium and long term (or from abroad), with the counterpart showing up in liquid assets, which have remained fairly constant in relation to short-term debt. Over the past year or so, the German authorities have pursued a cautious demand-management policy aimed at countering inflation, but emphasis has again been put on fiscal policy to underpin output and employment. In the

<sup>29</sup> See J. L. WALKER, "Estimating Companies' Rate of Return on Capital Employed" *Economic Trends*, No. 253, HMSO, November 1974.

<sup>30</sup> Moreover, from 1960 to 1973 the ratios of company liquid assets to short-term and total debt declined roughly in line with those in the United States (see table).

context of a new tax reform programme, the cash deficit of the public sector as a whole is expected to rise from about DM 25 billion in 1974 to over DM 50 billion in 1975. To encourage industrial capital formation the government introduced an investment premium of 7½ per cent on all orders for capital goods placed before mid-1975.

In all four countries, but particularly in Italy and the United Kingdom, higher oil prices have accentuated the problem of private-sector indebtedness. Moreover, except in the United States, wages have risen sufficiently in relation to prices to shift the oil burden largely to the company sector. In view of the recession, and in so far as countries wish to accept an oil deficit on current account, there may be justification for permitting much or all of the burden to fall on the public-sector finances.

Other dimensions of corporate finance might usefully be compared, but the data are less generally available. With regard to fixed-interest commitments, for example, payments of interest by US corporations in proportion to their adjusted pre-tax earnings on capital employed rose from 3 per cent in 1950 to over 21 per cent in 1973. In the United Kingdom, too, interest charges have since 1967 been rising much more quickly than gross trading profits (excluding stock appreciation), so that companies' interest-cover ratio has fallen from just under 5.5 to around 2.0. Again, the equity/debt ratio of US manufacturing corporations dropped from about 4.0 in 1964 to about 2.2 in 1974, while for a large sample of UK manufacturing and distribution companies the ratio in 1973 appears to be nearer to 1.0.

It would be useful to extend the analysis not only to the household sector, as noted earlier, but also to the commercial banks as suppliers of funds. As pointed out by Henry Kaufman, US commercial-bank liabilities have risen much faster than the banks' own funds; they have relied heavily on interest-sensitive liabilities as a major source of funds and their assets have probably deteriorated in terms of quality and maturity distribution.<sup>31</sup> The Federal Reserve System has shown concern, in particular, about the banks' practice of making extensive loan commitments and also about the adequacy of their bank capital.<sup>32</sup> In any event the banks themselves appear to have become more cautious and this may damp down their willingness to lend under conditions of renewed credit ease.

<sup>31</sup> HENRY KAUFMAN, "The Severity of Illiquidity", *Euromoney*, January 1975, p. 33.  
<sup>32</sup> ARTHUR F. BURNS, "Maintaining the Soundness of our Banking System", address

#### IV. Concluding Comments

At the outset of world recession national authorities among the OECD countries continued to give first priority to combating inflation, acting in the belief that the "down-side" risks were not great and that restraint policies could be quickly reversed as the need became evident.

The analysis in this paper, although focusing largely on the company sector and on a limited number of countries, suggests that the risks of a cumulative major decline were greater than realised and that the recovery of output and employment may be protracted. In some countries, in particular the United States and the United Kingdom, adverse medium and long-term trends in cash-flow and liquid assets relative to indebtedness made portfolio decisions regarding spending and investment more sensitive than usual to changes in risk and uncertainty. At the same time, the advent of world-wide stagflation, intensified by sharply higher fuel prices, caused risks and uncertainties to multiply in terms of both income and cost expectations. Moreover, as authorities must cope with many structural problems while continuing to resist inflation, reflationary policies are generally expected to remain cautious. Against this background, the private sector has striven to build up liquid assets and curtail new debt commitments and at the same time to hold back on expenditure and investment.

In the United States it would appear that monetary growth under present conditions could best be assured by policies which would not rely unduly on the private sector's willingness to borrow. Hence the authorities should place more emphasis on direct fiscal action to raise the disposable income of individuals and companies, while perhaps also seeking to link the tax programme with informal understandings concerning greater wage/price restraint. In addition, fiscal relief could be an important step helping to reverse the erosion of corporate balance-sheet positions, although any substantial improve-

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at the 1974 American Bankers' Association Convention, 21st October 1974. "At the end of 1960, equity capital plus loan loss and valuation reserves amounted to almost 9 per cent of total bank assets. By the end of 1973, this equity capital ratio had fallen to above 6½ per cent. Furthermore, the equity capital of banks has been leveraged in some cases at the holding company level, as parent holding companies have increased their equity investments in subsidiary banks by using funds raised in the debt markets".

ment along these lines will take time. The government's present acceptance of a recessionary budget deficit, together with its efforts to formulate a tax-reduction programme, is clearly a move in the right direction. On the other hand, in countries where wage/price inflation has taken on a certain virulence, such as the United Kingdom and Italy, budgetary relief in respect of company balance-sheet problems may provide little more than a temporary solution.

Another implication of this paper is that national authorities, in order to safeguard and strengthen the investment base of their economies, will need in future to give increasing attention to the question of how to preserve a satisfactory real rate of return on capital. In this context the management of money should be viewed as a function of the overall policy mix and not merely of central-bank policy as such. Thus, monetary equilibrium<sup>33</sup> might be more sustainable over the long run if attention were concentrated not simply on the so-called monetary aggregates but also on the sources of credit creation and their implications for the trend behaviour of sectoral cash flows and liquidity/debt relationships.

On a different plane, the paper suggests that a stable demand-for-money function in terms of wealth, or "permanent income", cannot always be taken for granted as a basis for policy formation. In particular, it supports the view that the contingency motive for holding real cash balances may play a more important rôle in portfolio decisions than is recognised by modern monetary theory. In so far as precautionary behaviour proves at times to be seriously destabilising in terms of output and employment, it is appropriate for the monetary authorities to make larger-than-usual adjustments in the stock of money and to consider whether these might not be brought about more effectively as a by-product of fiscal policy rather than of monetary policy in the narrow sense.

*Basle*

WARREN D. McCLAM

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<sup>33</sup> In the sense used by GUNNAR MYRDAL, an early advocate of the policy mix, in his book *Monetary Equilibrium* (William Hodge & Co., Ltd., London, 1939). According to Myrdal, "Maintaining a monetary equilibrium becomes a question not only of monetary policy but of economic policy as a whole, social policy and the institutions which rule the labour market, cartel legislation and all related factors. Various combinations of these heterogeneous things, more or less under political control, together with appropriate values of the standard combination of credit conditions, produce stable monetary equilibrium relations" (p. 184).