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**FINANCIAL  
ANALYSIS**

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for Private Circulation

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*Financial Analysis* has been prepared by Tim Congdon, Mick Suter and Robert Ballentine.

Whilst every effort is made to ensure accuracy, we do not guarantee the information contained herein.

## 1. INTRODUCTION: WHAT *FINANCIAL ANALYSIS* SETS OUT TO DO

Economic forecasts have traditionally been dominated by Keynesian concepts; they have been focused on flows of income and expenditure and paid little attention to the influence of money on economic activity. In recent years there has been a shift of emphasis, notably at the London Business School which has used an “international monetarist” approach to predict exchange rates. The Treasury has also introduced a monetary sector into its economic model.

The purpose of *Financial Analysis* is to build up a projection of economic trends over the next twelve to eighteen months which gravitates around prospective monetary developments. In its concentration on financial aspects of the economy it will differ from existing macro-economic forecasts. There seems little point in producing yet another stockbroker forecast of consumption, investment and so on. Nevertheless, the “model” on which *Financial Analysis* is based will throw light on likely changes in the main components of aggregate demand and identify reasons for questioning some of the numbers which emerge from conventional forecasts.

“Model” is perhaps a strong word to describe the techniques used. We do not have a well-defined set of equations spelling out econometric relationships between exogenous and endogenous variables. Instead, we have utilized a number of identities which must be satisfied, and created an internally consistent network of financial flows. When the resulting forecasts of financial variables look implausible relative to real variables, judgemental changes are made to either the financial or real variables. The procedure is somewhat *ad hoc*, but so is most economic forecasting; it does not differ much from adjusting “residuals” in a normal Keynesian forecasting exercise. The main identities used are as follows:

### 1. The monetary identity

Increase in sterling M3 = Public sector borrowing requirement — net acquisition of public sector debt by non-bank public + sterling lending to private sector and overseas — external and foreign currency finance — increase in banks’ non-deposit liabilities.

### 2. The flow of funds identity

Net acquisition of financial assets by public sector + NAFA by other (i.e., non-bank) financial institutions (OFI) + NAFA by industrial and commercial companies (ICCs) + NAFA by personal sector + NAFA by overseas sector + NAFA by banks + Residual error = Nil.

### 3. The savings identities

Savings by any sector = Capital expenditure + financial surplus + (net) capital transfers.

### 4. The banking system equations

Increase in bank deposits in £M3 = Increase in personal sector bank deposits + increase in ICC bank deposits + increase in OFI bank deposits.

Bank lending to private sector = Bank lending to persons + bank lending to OFIs + bank lending to ICCs.

Notice that the bank deposits relationship is an equation, not an identity; it relies on the behavioural assumption that the increase in public sector deposits is nil. This is valid because the Government can “print” money at will and therefore has no demand for money balances.

Ensuring that these relationships hold together is already quite complicated, but it is only the foundation of the analytical framework. The financial surplus and deficit of each sector has a number of constituents. For example, the personal sector’s financial surplus is the excess of the increase in its building society deposits, bank deposits, life assurance and pension fund contributions, and certain other assets over the liabilities it incurs through bank borrowing, taking out new mortgages on houses and so on. Each of these constituents needs to be isolated in order to understand fully the change in the personal sector’s financial position – and to predict its future behaviour.

It is a mistake to suppose that because a sector of the economy has a financial deficit, its position has deteriorated. This observation is particularly apposite for the corporate sector. Industrial and commercial companies, taken together, have had a financial deficit in every one of the last six years and the cumulative deficit over the whole period is about £12b. But companies' liquidity today is relatively strong. The reason is that many of the liabilities incurred in the last few years have been long-term in nature – such as new issues of equity capital – and this has enabled the ratio of liquid assets to short-term liabilities to improve. *Financial Analysis* will provide estimates of future changes in the liquidity positions of the personal and corporate sectors to complement the conventional forecasts of their overall financial surplus and deficits. Integral to the exercise are the monetary identity and the banking system equations because bank deposits are the largest and most liquid of the short-term assets held by each sector. In this sense *Financial Analysis* is an attempt to show how money supply changes influence economic activity and the price level.

The approach to economic forecasting presented here is not altogether novel. The Bank of England also carries out a consistency check between its real and monetary forecasts; its method was described in an article on “Financial forecasts in the United Kingdom” by M. E. Hewitt in the June 1977 *Bank of England Quarterly Bulletin*. But the Bank's work has not been made public, presumably because such items as forecasts of official gilt-edged sales required to achieve a monetary target are deemed market-sensitive. We think that *Financial Analysis* contains a more complete and consistent forecast of financial flows in Britain's economy than previously published.

Its greatest strength is in its analysis of how monetary policy impacts on the domestic economy. But it is weak on the external side as no comprehensive forecast is made of the balance of payments. Indeed, the balance of payments is best seen as one of the economy's escape-hatches where internal financial pressures find release. This contrasts with the emphasis at the London Business School's model in which comparative rates of money supply growth determine the exchange rate and inflation and, via certain linkages, affect aggregate demand.

To simplify exposition, we have used a central case as the basis for discussion in the following pages. It relies on certain assumptions about interest rates, the PSBR and inflation. These have been made explicit where necessary, but some have not been mentioned because they would clutter the text. The publication of *Financial Analysis* is designed as an aid to assessing the effects of the Budget on the economy and our central case assumes a PSBR of £9b. In a final chapter, on “Implications of Different PSBR Numbers”, we consider how a PSBR higher or lower than £9b would alter our conclusions.

## 2. THE FINANCIAL SITUATION IN 1979/80: AN OVERVIEW

The theme of the 1979/80 financial year will be conflict between monetary restraint on the one hand and persisting inflationary pressures on the other. The degree of monetary restraint could be impressive. Our central case posits a public sector borrowing requirement of £9.0b, but sterling M3 grows by only 7%. There has been much more speculation about the fiscal action Mr. Healey will take in the Budget than about the monetary targets to be announced. But our analysis suggests that a reduction in the target band from 8–12% in 1978/79 to 7–11% in 1979/80 would be feasible. It would also be logical given the Government's continued emphasis on reducing inflation, even if Mr. Callaghan's 5% goal within three years is too optimistic with present fiscal policies.

However, monetary restraint has its costs. They are felt most disagreeably in the corporate sector, as an indirect result of the personal sector's response to inflation. With price rises still around 10% and disposable income assumed to grow by over 12%, persons strive to keep their financial assets in line by saving more. Their financial surplus climbs from £11.1b in 1978/79 to £13.5b in 1979/80 – or from 9.6% of income to 10.4%. The counterpart is a rise in the corporate sector's financial deficit from £3.3b. to £4.3b.

There are resemblances here to 1974 when an abrupt slowdown in monetary growth (from 26% in 1973 to 10%) caught companies in a vicious pincer movement: they had to finance more expensive stocks by bank borrowing at high interest rates while their balance sheets were in an unsatisfactory condition. Indeed, the forecast financial deficit of industrial and commercial companies in 1979/80 is almost as high as in calendar 1974 when it was £4.5b.

By what precise mechanisms does the combination of inflation and monetary restraint hit the company sector? Three can be identified as particularly important.

First, the ratio of personal sector bank deposits to disposable income tends to be more stable than the ratio of company sector to its turnover. It follows that when overall monetary growth is lower than inflation, personal sector deposits growth absorbs most of the increase in total deposits. (Cf. L.D.D. Price "The demand for money in the U.K.: a further investigation", pp 43–45, March 1972 *Bank of England Quarterly Bulletin*, where it is suggested that, "the personal sector's holdings of money do not respond quickly to changes in interest rates. . . . The initial impact of any contraction or expansion of the money stock will fall on companies and financial institutions.")

While total sterling M3 grows by £3,600m. in 1979/80, the personal sector accounts for £3,250m. and companies, including other (non-bank) financial institutions, for only £350m. But, because of their financial deficit, companies are by far the biggest borrowers from the banks – taking up £3,150m. of the £4,500m. bank lending total. We have prepared estimates of industrial and commercial companies' liquidity ratio (the proportion of liquid assets to bank advances) which reflect these unfavourable developments. The ratio drops from 0.66 at the end of the first quarter 1979 to 0.60 at the end of the first quarter 1980: these figures compare with a peak of 0.79 at the end of 1971 and a low of 0.55 at the end of 1974. This is perhaps the most effective and reliable pointer to companies' financial situation. In 1978/79 we estimate ICCs had a financial deficit of £3.3b., but their liquidity ratio was virtually unchanged.

Secondly, contractual savings are substantially higher in 1979/80 than in 1978/79. The savings ratio rises and consumer spending has a year of much slower growth, which brings profit margins under pressure. Profitability is also constrained by a firm pound on the foreign exchanges, due to monetary restraint and the successful containment of domestic credit. Gross trading profits are forecast to rise from £16.0b. in 1978/79 to only £16.9b. in 1979/80, but the position is not as comfortable as this because stock appreciation amounts to £4.9b. compared to £3.0b.

Thirdly, although the personal sector's acquisition of financial assets is high in 1979/80, its investment in real assets is depressed. Such investment is dominated by housebuilding, which suffers from diminished inflows into the building societies. Companies affected by the level of housing market activity therefore have a worse year in 1979 than in 1978.

## OVERVIEW OF THE 1979/80 FINANCIAL YEAR

- 1. Sterling M3 grows by 7% in the central case with a £9.0b. PSBR, compared to a probable 9-10% in 1978/79 and over 15% in 1977/78. Mr. Healey would be justified in lowering the target range for money supply growth to 7-11% in the Budget.**
- 2. Interest rates should fall over the 1979/80 financial year. MLR should be in single figures by the first quarter of 1980.**
- 3. Companies' financial position deteriorates significantly compared to 1978/79. The financial deficit of industrial and commercial companies rises to £4.3b. Their liquidity ratio (see ch. 6 for more details) falls from 0.66 at the end of 1978/79 to 0.60 at the end of 1979/80.**
- 4. The personal sector has a record financial surplus of £13.5b. compared to £11.1b. in 1978/79. Two factors are responsible - high inflation which pushes up pension fund contributions and life assurance premium payments and high interest rates which deter borrowing from the banks and building societies.**
- 5. The pound remains firm on the foreign exchanges. On the basis of domestic money flows and assuming that monetary growth in the U.K. is 7% and in other countries over 10% (as recent experience would suggest is likely), the effective depreciation rate should be held at about its present level. Any devaluation should be modest - 1 to 3% at most.**

It could be argued logically that the corporate sector's disappointing financial condition is an unhelpful background for the equity market. However, another aspect of the financial network is relevant here – the size of institutional cash flow in relation to demands on that flow. The main message here is that 1979/80 could be a year of “too much money chasing too few assets”. Our estimate of money available for investment by insurance companies and pension funds is £9,750m. With firing power of this strength there should not be too much difficulty in funding the PSBR within the probable money supply growth target bands. The implication is that the institutions' investment in equities should exceed the personal sector's sales by a wide margin and there will be scope for companies to raise long-term finance from the Stock Exchange.

Our central estimate is that new issues will amount to about £1½b. in 1979/80, the highest total ever. This compares with a previous peak of £1,588m. in 1975 and £969m. in 1977 and £882m. in 1978. The influences on it are as follows:

	in £m.
Equity purchases by insurance cos. and pension funds	2,950
Equity purchases by overseas sector	150
Equity sales by personal sector (inc. unit trusts)	–2,050
Cash expenditure by companies on domestic acquisitions	800
	<hr/> 1,850

Industrial and commercial companies make new issues of £1,600m., non-bank financial institutions of £250m.

If the equity market remains firmly based, the gilt market should also do well. Our interest rate path has been assumed, but it is no less valuable because of that. If interest rates were higher, money supply growth would be lower and the economy more depressed than in our central case. But, even with Minimum Lending Rate declining to 9% by the first quarter of 1980, money supply growth is as low as 7%. If the authorities were less ambitious in maintaining monetary restraint, interest rates might go even lower. Clearly, this is good news for the gilt-edged market, but it seems to be partly discounted by the present pattern of gilt yields. If the differential between Treasury bill rate and the yield on a three-year gilt, and the slope of the yield curve, were to take their median 1974–1978 values, 9% MLR would imply 10½% yields on “long-shorts” and 12% on “longs”. These are somewhat beneath present levels, but moving downwards towards them over the next twelve months would be a rather muted bull market by recent standards. However, progress might be more substantial if market expectations were for further declines in short-term interest rates when MLR was 9%.

The broad picture of the 1979/80 financial year on the assumption of a £9.0b. PSBR and starting with present interest rate levels as a base may now be summarized in the box on p. 5.

Of course, much can happen between now and April 1980 which would require a revision of these forecasts and of our assessment. Political events, in particular, could disturb the calculations. For this reason, we intend to prepare another *Financial Analysis* in three month's time, examining new developments and how they have changed prospects for the twelve months to July 1980.

### 3. THE MONETARY ARITHMETIC

Following three years of moderate growth at under 10%, the money supply as measured by sterling M3, increased by over 15% in the 1977/78 financial year. There has been a marked improvement in 1978/79. In the nine months to mid-January sterling M3 (seasonally adjusted) rose by 7.7% – or at an annual rate of 10.4%. We have assumed that sterling M3 at mid-April 1979 will be £51.0b, implying growth over 1978/79 financial year of about 9%. This is towards the lower end of the official 8 to 12% target band and is realistic in view of recent large official gilt-edged sales. It is more likely to be an over-estimate of monetary growth in the last few months of 1978/79 than an under-estimate.

Can the return to a better trend be sustained in 1979/80? The answer, as regards our central case, is “yes”. Indeed, sterling M3 growth slows further to about 7%, the smallest rise since 1969/70. In absolute terms, it amounts to £3.6b. Its constituents, in accordance with the familiar money supply identity given in the “Introduction”, are as follows:

Contributors to monetary growth in 1979/80:

	in £b
Public sector borrowing requirement	+9.0
Bank lending to private sector and overseas	+4.5
External and foreign currency finance	nil
Public sector debt sales to non-bank public	–8.9
Increase in non-deposit liabilities	–1.0
	<hr/>
	+3.6

An increase of £3.6b on a base of £51.0b is just over 7%.

The following sections look at each item in the money supply in turn.

#### 1. The public sector borrowing requirement

The January 1979 Expenditure White Paper envisaged a PSBR of £7.2b (1977/78 prices) in 1979/80. This is understood to be equivalent to £8.5b in current price terms. Mr. Healey has subsequently pledged that the PSBR will not exceed this figure and that action will be taken, either through cutting expenditure or increasing taxes, to ensure that it is attained.

At this stage the PSBR outturn in 1979/80 is obviously uncertain. But the White Paper estimate was marred by its assumption that the relative price effect would be favourable to the tune of £0.4b in 1979/80 compared to £0.2b in 1978/79. In fact, public sector pay seems likely to rise faster than private in the current pay round – by perhaps 13 or 14% compared to 12%. Moreover, the expected weakening of economic activity later this year will reduce tax revenues, and increase unemployment and social security benefits. On unchanged policies, the PSBR would probably exceed £10b, rather than match the £8.5b figure implied in the White Paper.

Expenditure cuts and tax increases, over and above those required to counteract inflation, will be announced in the Budget, with a £1.5b cut in the Government's deficit being most widely touted as the likely total effect. Nevertheless, we have decided to use a £9.0b PSBR in our central case: this allows for some slippage from the official targets and cannot be criticized as too optimistic.

A Conservative government may, of course, be returned to power in the forthcoming general election. It might well introduce an economic package to reduce the PSBR fairly soon after it had taken over: an (unpopular?) increase in indirect taxes could then be blamed on the predecessor Labour government. However, this is a matter for political speculation.

## 2. Bank lending to the private sector and overseas

No reliable econometric relationships have been discovered between bank lending and other economic variables. In particular, statisticians have not been able to demonstrate that when interest rates rise loan demand weakens and 'vice versa'. This may be because an increase in interest rates has two effects – a charging effect (banks' interest charges are higher) which causes a *faster* rise in overdrafts; and a demand effect, that there is less borrowing when it is more expensive. (See L. Messel & Co. *Monthly Gilt Review*, 27th April 1978.) Nevertheless, a "guesstimate" has to be made.

Some insight into bank lending is given by the split between the personal and company sectors, and other financial institutions. In 1978 lending to the personal sector, which probably is interest rate-sensitive, rose much faster than other lending. In 1979 we expect the corporate sector to become more important, reflecting the effect of higher inflation on the money value of stocks and work-in-progress (which are typically financed by bank borrowing). Other financial institutions, whose liquidity is still substantial, are unlikely to be big borrowers in 1979.

The breakdown of bank lending to the private sector and overseas in 1979/80 is:

	in £m
To industrial and commercial cos.	3,150
To personal sector	800
To other financial institutions	250
To overseas	300
	<hr/> 4,500

The outstanding "lending to private sector" total from the banking sector was £35,223m at the end of the third quarter 1978. It may be about £38b by April 1979. The £4.5b increase implies a rise in nominal terms of about 12%, roughly in line with inflation.

On our assumptions about interest rates (see Appendix), interest charges are about £4,750m in 1979/80. There is virtually no underlying loan demand in 1979/80, therefore, which is plausible given high real interest rates and weak demand.

The above figures for the constituents of bank lending are used in sectoral analyses in subsequent chapters.

## 3. External and foreign currency finance

This figure has been assumed nil to reflect the assumption of a floating exchange rate and also because of the great uncertainty of capital flows.

Nevertheless, our flow-of-funds analysis (see ch. 4) points to a current account surplus on the balance of payments of £1.5b. The nil "external and foreign currency" figure consequently implies small capital outflows and that the authorities allow the exchange rate to rise if there are any signs of foreign money moving into London. This may be a brave assumption, but it is consistent with using the exchange rate to hold down inflation.

## 4. Sales of public sector debt to non-bank public

It might be thought that our favourable money supply conclusions reflect an unduly optimistic assessment of the prospects for public sector debt sales to the non-bank public. In fact, our problem in assembling the central case has been to keep public sector debt sales down, as, on past relationships, good arguments could be made for a higher total than we have derived. In 1976/77 net acquisition of public sector debt by the non-bank private sector was £7,273m and in 1977/78, it was £5,588m. In the nine banking months to mid-January 1979, the acquisition of *central Government* debt was £5,644m and, given recent gilt sales, 1978/79 as a whole should see a figure of about £8.5b. Our estimate of *public sector* debt sales for 1979/80 is £8.9b.

Gilt sales are the biggest component. The main purchasers are:

	in £m
Insurance companies – life funds	2,535
– general funds	536
Pensions funds	1,828
Building societies	625
Personal sector's direct purchases	1,000
Miscellaneous (companies, unit trusts, etc.)	100
	<hr/> 6,624

National Savings are the second largest category. It is well-known that the Government is trying to develop National Savings as a means of financing the Budget deficit, illustrated by the very attractive terms offered on the latest 18th Certificate. Our estimate is that in 1979/80 they will amount to £1,600m. This compares with £1,290m in the 1977 calendar year and £1,215m in the first three quarters of 1978. If anything, £1,600m may be too conservative.

The other important forms of central Government debt are certificates of tax deposits and Treasury bills, mostly purchased by companies. The build-up of CTD holdings so far in 1978/79 has been significant, being £465m in the nine months to mid-January, but it has been offset by a fall in non-bank Treasury bill holdings of £573m. So, even with a prospective corporate sector liquidity squeeze, there is scope for some debt sales here. Nevertheless, in the company sector analysis, we have used a figure of £100m for purchases of liquid assets and gilts. There may also be small personal sector purchases.

The balance of public sector debt sales is accounted for by local authority paper. The local authorities in 1978/79 have borrowed comparatively little, only £42m in the first three quarters. We assume in 1979/80 that the personal sector buys £250m of local authority debt, the building societies £230m and the life offices and pension funds none.

The breakdown of total public sector debt sales in 1979/80 emerges as:

	in £b
British Government securities	6.6
National Savings	1.6
Local authority debt	0.5
Certificates of tax deposit, Treasury Bills, etc.	0.2
	<hr/> 8.9

As these numbers indicate, our main problem has been keeping the total down. If sales of CTDs and Treasury bills were larger than envisaged (as seems quite possible), money supply growth would have to be reduced further.

There are one or two other influences – such as transactions in commercial bills by the Bank of England Issue Department and public corporations' trade credit. But they are small and unpredictable.

The numbers given here for personal sector and OFI purchases of public sector debt are consistent with sectoral analyses in later chapters.

5. Increase in banks' non-deposit liabilities

This item corresponds to banks' retained profits and new capital issues. It was £809m in 1976/77, £568m in 1977/78 and £607m in the nine months to mid-January 1979. We have assumed £1.0b in 1979/80, partly because high interest rates will help bank profits. This sum is deducted from the money supply as it reduces deposit liabilities.

## Sectoral breakdown of money supply growth

The other preliminary before presenting the sectoral analyses is to allocate the growth in the note issue and bank deposits between persons, companies and OFIs.

The critical analytical insight here is that company sector bank deposits are much more elastic than personal sector. When money supply growth decelerates, as we foresee in 1979/80, company sector bank deposit growth decelerates more than personal sector; and when it accelerates, the company sector accounts for a disproportionately large share of the increase. We present some evidence in the accompanying chart. Our approach has been to assume that personal sector bank deposits are a stable proportion of personal disposable income. (In the central case, the ratio of deposits to income, expressed in money terms at a quarterly rate, falls slightly from 0.83 at the end of the first quarter 1979 to 0.82 at the end of the first quarter 1980.) The company sector's deposits emerge as a residual. We regard this as a realistic interpretation of "how the world works".

Notes and coin are, of course, held almost entirely by the personal sector.

1. Breakdown of increase in notes and coin into sectors.

	in £m
Personal sector	650
Other financial institutions	20
Industrial and commercial cos.	30
	<hr/>
	700

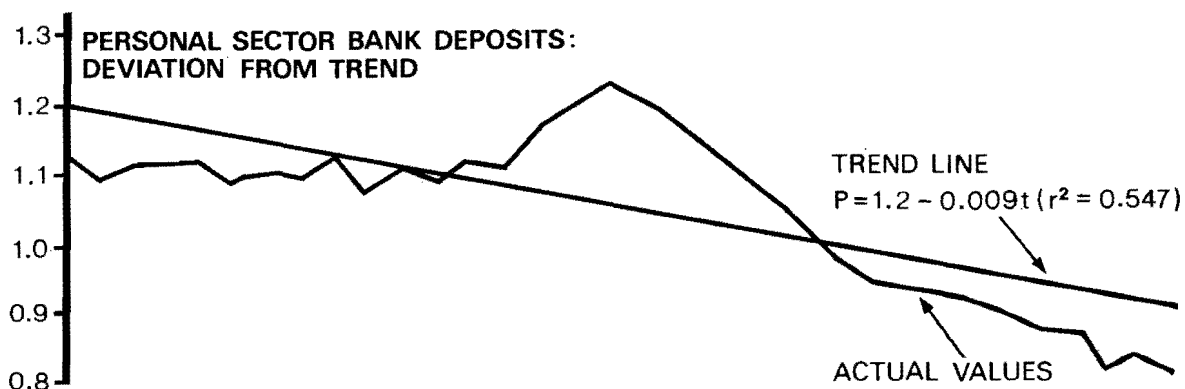
2. Breakdown of increase in bank deposits into sectors.

	in £b
Personal sector	2.6
OFIs	nil
ICCs	0.3
	<hr/>
	2.9

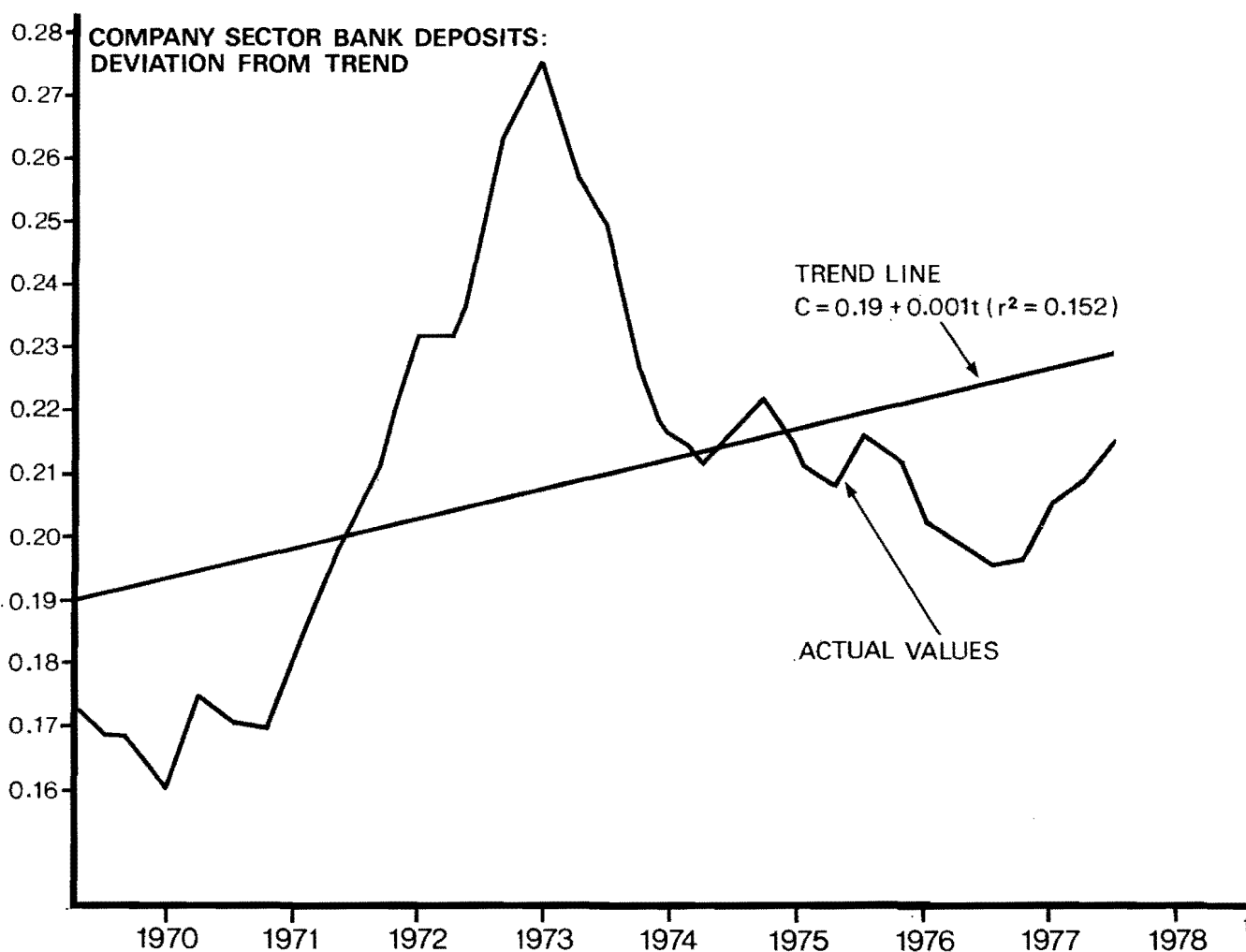
3. Breakdown of sterling M3 increase into sectors.

	in £m
Personal sector	3,250
OFIs	20
ICCs	330
	<hr/>
	3,600

Values of P



Values of C



P – Ratio of personal sector sterling bank deposits to personal disposable income.

C – Ratio of company sector sterling bank deposits to final expenditure on G.D.P.

All data seasonally adjusted.

Source: Financial Statistics

Equations calculated on quarterly data.

#### 4. THE FLOW OF FUNDS FRAMEWORK

The underlying conceptual basis of flow of funds analysis is straight-forward. A sector's financial position is determined by the sum of its money flows (credits and debits); and if any one sector is a net issuer of financial liabilities it must be matched by another sector which, on balance, acquires financial assets. It follows that the sum of the surplus and deficits of all sectors in an economy must be zero.

In an arithmetical sense, this is a truism. But it becomes interesting and useful if the financial position of one or two sectors can be determined from certain known past relationships; the surplus or deficit of other sectors must then emerge as a residual. Should the resulting numbers for the other sectors be implausible, adjustments have to be made throughout the analysis. By this means the flow of funds framework serves as a cross-check and forecasting aid.

In *Financial Analysis* the financial positions of the personal and corporate sectors have been derived by projections of their debits and credits; the public sector financial deficit is assumed from known policy intentions; and the banking sector's financial surplus is assumed in effect by extrapolation. The external sector's financial position then emerges by elimination, following the spirit of the remark in ch. 1 that "the balance of payments is best seen as one of the economy's escape-hatches". However, there has been a systematic tendency in recent years for a significant, positive residual to be left even when the surpluses and deficits of all sectors have been summed. Following the practice of other forecasters (e.g. the London Business School, which puts the 1979 residual error in the flow of funds at plus £2.0b), we have decided to assume another positive residual error in 1979/80. Our chosen number is £1.5b. This is makeshift, but a higher estimate would imply a larger overseas sector financial deficit.

An overseas sector financial deficit is equivalent to a current account surplus on the balance of payments. Perhaps the most important conclusion of this chapter is, therefore, that the pattern of domestic money flows in 1979/80 is pointing to a fairly healthy trade performance. In ch. 3 on "The Monetary Arithmetic" it was assumed that "external and foreign currency finance" would be nil – or that, broadly speaking, there would be little official intervention on the foreign exchanges to influence the pound's exchange rate. A corollary of the current account payments surplus is, therefore, that the pound should remain firm in relation to other currencies.

Table 4.1 gives our forecast of the flow of funds for 1979/80.

Table 4.1 Summary of flow of funds 1979/80

all figs. in £b	Financial surplus (+)/deficit (–)
Public sector	– 8.5
Personal sector	+ 13.5
Banking sector	+ 0.4
Other financial institutions	– 1.1
Industrial and commercial companies	– 4.3
Overseas sector	– 1.5
Residual	+ 1.5
	<hr/>
	0

all figures are in £m and rounded to nearest £0.1b

##### 1. The public sector

This includes the central Government, local authorities and public corporations. Each of these sub-sectors could be presented separately, but in practice the policies of central Government generally dominate the behaviour of the rest of the sector. The figure for the public sector's financial deficit in 1979/80 is based on the assumption that the public sector borrowing requirement will be £9.0b. The PSBR has exceeded the public sector's financial balance in all but one of the last fifteen years. The difference between them is the public sector's acquisition of financial assets, such as temporary working cash balances, purchases of company securities and trade credit extended by public corporations. These items broadly fall into the category of net lending

to the private sector and overseas. The April 1978 Budget forecast indicated that the PSBR was expected to be £779m higher than the financial deficit in the current financial year. For 1979/80, we assume the figure will be £500m reflecting reduced public sector purchases of company securities. The public sector financial deficit is therefore put at £8,500m. The forthcoming *Financial Statement and Budget Report* will include the official estimate for the next financial year.

## 2. The personal sector

Details of the financial transactions of the personal sector appear in ch. 5 of *Financial Analysis* and constituents of its flow of funds account are considered there. The present definition of the personal sector extends beyond individuals or households. The limitations of statistics make it necessary to include two other groups – unincorporated businesses and non-profit making bodies.

## 3. The banking sector

This sector comprises all banks observing the common  $12\frac{1}{2}\%$  reserve asset ratio – it therefore excludes the savings banks – together with the discount houses, the National Giro and the Banking Department of the Bank of England. Again, we have not produced a comprehensive flow of funds account, but the principal financial transactions of the banking sector appear in ch. 3, “The Monetary Arithmetic”.

National income statistics are available only for the banks and other financial institutions combined, except for annual estimates of the banking sector’s financial surplus/deficit. A forecast for 1979/80 nevertheless has to be made. The banking sector’s undistributed income (profits) normally exceeds its capital expenditure and therefore produces a financial surplus. We have used an estimate of £400m.

## 4. Other financial institutions

Perhaps the least homogeneous of all sectors, this includes insurance companies, pension funds, investment trust companies, unit trusts and property unit trusts, building societies, savings banks’ investment accounts and finance houses. Analysis of financial transactions appears in ch. 5, where the financial balance of other financial institutions is derived.

Any detailed analysis of the flow of funds for this sector requires looking at the main groups of institutions separately, but an important drawback concerns the availability of data. Figures for the sector’s financial surplus or deficit are not available quarterly, because the division between banking sector and other financial institutions has to be partly estimated. Another point is that institutional investment in property is not regarded as a transaction involving financial assets, but appears under gross fixed capital formation.

## 5. Industrial and commercial companies

Financial transactions by this sector are considered in ch. 6. In general, the term companies is taken to mean those organizations which have corporate status, private control and a policy of making profits. However, the industrial and commercial company sector includes some non-profit making bodies, such as trade associations, plus the co-operative societies and some small financial companies and institutions. Property companies are also included in the non-financial company sector.

A number of items in the industrial and commercial companies’ flow of funds account are estimated by indirect methods and although it is a necessity, this procedure seems partly to blame for the existence of relatively large unidentified financial flows for this sector. An apparent anomaly in the industrial and commercial companies’ flow of funds is that investment overseas is treated as a financial transaction.

## 6. The overseas sector

In the framework we have used, the financial position of the overseas sector is the residual item in the analysis, given the assumptions made about other sectors.

Returning to the theory behind the flow of funds account presented at the beginning of this chapter, it is clear that the financial position of the overseas sector is equal, but of opposite sign, to the balance of payments on current account, adjusted for capital transfers abroad.

## 7. The residual

The flow of funds framework would not be complete without some projection for this item. The residual has been negative in only seven of the thirty years for which figures are available. As mentioned earlier, it is conventionally allocated between the various sectors' financial accounts, implying, on balance, an under-recording of the acquisition of financial assets. However, the residual is the sum of errors and omissions in both the income and expenditure and the flow of funds accounts.

In 1976 the residual amounted to £1,312m and it came to £1,138m in 1977. Over the first three quarters of 1978 it totalled £1,651m, but this figure should be reduced when figures for the full year are available. For 1979/80 it is assumed to be £1,500m.

## 5. THE PERSONAL SECTOR AND NON-BANK FINANCIAL INSTITUTIONS

### Personal sector

In the final analysis, an economy exists solely for the benefit of individuals: the Government, the company sector and non-bank financial institutions are agents of the personal sector. The personal sector is continually building up financial claims on these sectors, as they acquire real assets and provide the goods and services it needs. However, the relationship between the personal sector and non-bank financial institutions is the closest, being almost symbiotic in character. In this chapter, they will be considered together. Nearly all the flows into non-bank financial institutions come from the personal sector.

Inflation has caused an upheaval in personal sector financial behaviour in recent years. Much econometric work agrees that inflation is responsible for the sharp rise in the savings ratio in the mid-1970s, but debate about the mechanisms at work continues. It has been argued, for example, that inflation erodes the real value of liquid financial asset holdings and that individuals save more in order to restore the original position. Indeed, there is a case for separating the increase in the nominal value of liquid asset holdings which compensates for inflation and the remaining, real increase. An exercise by the Bank of England showed that if capital losses due to inflation were stripped out of liquid assets the savings ratio did *not* rise in the mid-1970s. (*Bank of England Quarterly Bulletin*, March 1978 p. 7.)

The accompaniment of the high savings ratio in the 1970s has been a massive personal sector financial surplus. This rose, as a proportion of personal disposable income, from 2.1% in 1968 to 5.3% in 1973 and 10.0% in 1975. The critical question for the next few years, therefore is, "how will the lower rates of inflation in 1979 and the early 1980s compared to the 1970s affect the savings ratio and the personal sector financial surplus?" As far as the 1979/1980 financial year is concerned, our answer is that the savings ratio remains very high and the personal sector financial surplus is at record levels.

Valuable insights into personal sector financial behaviour are given by distinguishing between financial and real assets and between liquid and illiquid financial assets. Our basic approach has been to assume a particular rise in personal disposable income, that personal sector bank deposits increase roughly in line and that pension fund contributions and life offices' inflows are a stable proportion of income. Other elements in the personal sector's balance sheet have been determined either from our interest rate assumptions (specifically, building society deposits and bank lending) or judgementally (National Savings, gilt purchases, sales of company securities). The judgemental components are *not* "guesses": the National Savings figure, for example, must be consistent with our estimate of public sector debt sales in the monetary identity. The personal sector's investment in fixed assets and stocks is dominated by housing; its level in any year is closely related to total loans for house purchase from building societies, banks and insurance companies. In our model, the availability of loans for house purchase is determined, with the help of an equation, by interest rates.

Table 5.1 gives the constituents of the personal sector's financial surplus, with actual figures for the first three quarters of 1978, an estimate for the 1978/79 financial year and a forecast for 1979/80. Each constituent is then commented on briefly in notes at the end of the chapter.

The salient feature of Table 5.1 is that the personal sector's financial surplus shows a very large rise – from £11.1b in 1978/79 to £13.5b in 1979/80. The £2.4b leap has important effects on the rest of the economy and, in particular, it is the counterpart of the increase in the corporate sector's financial deficit. Why does it happen? And is it not something of an enigma, given economists' current theories about the savings ratio, that the surplus will be £13.5b in 1979/80, when inflation will be about 10%, compared to £7.9b in 1977/78, when it was nearly 17%?

Inspection of the table shows two main factors responsible for the higher surplus. First, life assurance and pension fund contributions rise from just over £8b to £10b. In part, this reflects a 12.5% assumed increase in personal disposable income; in part, a rise in the ratio of contributions to income from 7.0% to 7.7% because of recent pensions legislation and other institutional factors. We regard this part of the forecast as vulnerable: for example, higher share and gilt prices would enable pension funds to match liabilities without the deficiency payments of recent years.

**Table 5.1 The personal sector's financial surplus: its constituents**

all figs. in £m	(1) First 3 qtrs. of 1978 — actual	(2) 1978/79 — estimate	(3) 1979/80 — forecast
Credit items:			
Notes and coin	419	618	650
Gilts	462	986	1,000
National Savings	1,215	1,673	1,600
Tax instruments	17	45	50
Local authority debt	— 161	101	250
Bank deposits	2,509	3,129	2,600
Savings banks	480	483	300
Building society deposits	3,457	4,759	5,313
Life assurance and pension funds	5,629	8,063	10,000
Unit trust units	212	300	200
Debit items:			
Loans for house purchase			
— building societies	— 3,872	— 5,039	— 4,700
— insurance cos., etc.	79	0	— 300
Bank lending	— 1,163	— 1,710	— 800
Credit from retailers	— 38	— 146	— 150
Credit from public corps.	— 30	— 100	— 100
Other loans	— 117	— 159	— 200
Company and overseas securities	— 1,815	— 1,928	— 2,250
Financial surplus	7,283	11,075	13,463

Sources: *Financial Statistics* and L. Messel & Co. estimates

Secondly, and more interestingly, an excess of building society loans over deposits growth of £280m in 1978/79 gives way to a shortfall of £613m in 1979/80, while bank lending drops from £1,710m to £800m. *These changes reflect the assumption of a higher average level of interest rates in 1979 than in 1978.* The high interest rates reduce inflows into the building societies and force them to cut lending beneath deposits intake and rebuild liquidity ratios. The more subdued housing market also curtails the personal sector's demand for bank finance, much of which (e.g. "big ticket" consumer durables, carpets, furniture) is connected with the housing cycle. These effects taken together account for over £1.8b of the increase in the personal sector's financial surplus.

An implication of this analysis is that economists have under-estimated the role of interest rates in maintaining the high personal sector financial surpluses of recent years. It is our assumption that the average level of MLR 1979/80 will be  $10\frac{1}{2}\%$ , compared to  $7\%$  in 1977/78, which is largely responsible for the very high £13.5b forecast. Similar processes were at work in the 1973 to 1975 period, when, as in 1979, interest rates had risen steeply and monetary restraint was in conflict with wage push. Some relevant statistics are given in Table 5.2.

**Table 5.2** Interest rate sensitive items and the personal sector's financial surplus 1972-75

all figs. in £m	(1) Excess of building societies' deposits growth over lending	(2) Bank advances to personal sector	(3) Sum of changes in (1) and (2)	(4) Personal sector's financial surplus
1972	— 76	+ 1,963		1,210
1973	+ 189	+ 991	+ 1,237	2,009
1974	+ 479	+ 75	+ 1,206	5,283
1975	+ 1,393	+ 440	+ 549	7,219

Source: *Financial Statistics*

Over the three years to 1975, the personal sector's financial surplus rose by £6,009m, while the swing on the interest rate sensitive items was positive by £2,992m. In an arithmetical sense, therefore, this swing accounted for almost a half of the increase in the surplus.

However, the effect of interest rates on the personal sector's investment in real assets is very different from that on the acquisition of financial assets. The greater part of persons' real wealth is accounted for by the housing stock and so, once again, mortgage availability and the building cycle are critical. In Table 5.3, figures on personal sector investment and loans for house purchase are presented; the correlation is far from perfect, but there is a clear link between for example, the leap in housing loans from 1970 to 1972 and an accompanying change in investment in real assets and stocks.

**Table 5.3** Determinants of personal sector investment in real assets

	(1) Personal sector investment in fixed assets and stocks		(2) Loans for house purchase to personal sector	
	— in £m	— as % of p.d.i.*	— in £m	— as % of p.d.i.
1970	1,497	4.3	1,246	3.6
1971	2,172	5.6	1,822	4.7
1972	2,832	6.4	2,783	6.3
1973	2,953	5.8	2,831	5.5
1974	3,144	5.2	2,315	3.8
1975	3,646	4.9	3,563	4.8
1976	4,520	5.3	3,845	4.5
1977	5,164	5.3	4,246	4.4
1978	4,543	5.5	3,901	4.7

(first 3 qtrs.)

\*p.d.i. = personal disposable income

Sources: *Financial Statistics* and *Economic Trends*

Our figure of £5,000m loans for house purchase in 1979/80 is equivalent to 3.9% of personal disposable income, while the £5,039m estimate for 1977/78 is 4.4%. The forecast proportion of investment in fixed assets and stocks is lowered correspondingly from 5.5% to 5.0%. This calculation is the final touch to the personal savings forecast. It is summarized in Table 5.4 below.

With our savings forecast completed and our assumptions about personal disposable income, we can derive conclusions about consumption. It rises in money terms by 12.1% between 1978/79 and 1979/80; the rise in real terms will depend on the inflation rate. In the 30th November *Monthly Gilt Review* three alternative inflation cases were examined for the period of twelve months up to the third quarter of 1978, depending on whether earnings grew by 9%, 12% or 15%. Our analysis pointed towards the 9% case as most likely, because of monetary restraint and the firmness of the pound on the foreign exchanges. Events have in part confirmed the analysis, but it took no account of public sector militancy and the forecasts here have been based on an assumption nearer to the 12% case. On balance, prices are likely to be 9½ to 10% higher in 1979/80 than in 1978/79 – giving a growth in consumption of just over 2%. On a quarterly rather than annual basis, the forecast would be more despondent, showing little change between the last two quarters of 1978/79 and the last two quarters of 1979/80.

**Table 5.4** Personal sector savings 1978/79 and 1979/80 and the implications for consumption

all figs. in £m	(1) First 3 qtrs. of 1978 — actual (not seasonally adj.)	(2) 1978/79 — estimate	(3) 1979/80 — forecast
Financial surplus	8,538	11,075	13,463
Investment in fixed assets and stocks	4,453	6,346	6,473
Capital transfers*	— 190	— 100	— 100
Savings	12,891	17,321	19,836
Personal disposable income	82,350	115,095	129,467
Savings ratio	15.7%	15.0%	15.3%
Consumer spending	69,459	97,774	109,631
Increase in consumer spending in money terms between 1978/79 and 1979/80 is: 12.1%			

\*i.e., excess of taxes on capital over capital transfers

Sources: *Financial Statistics* and L. Messel & Co. estimates

## Non-bank financial institutions

Two types of non-bank financial institution are dominant – building societies; and life assurance companies and pension funds. Fortunately, the pattern of their financial receipts from the personal sector is stable, while the company sector places virtually no money with them. The task of predicting their sources and uses of funds is therefore quite straightforward: most of the numbers have already been derived from the personal sector analysis.

In Table 5.5, the determinants of non-bank financial institutions' financial deficit are presented. The deficit is forecast to be (more or less) unchanged between 1978/79 and 1979/80, although the flow of funds through the institutions increases by about 10%, roughly in line with inflation. Although the sector's flows as a whole match price increases, there is a disparity between the building societies, whose deposits growth is 12% up, and the life offices and pension funds, whose premiums and contributions are up by 24%.

The building societies' position is described separately in Table 5.6. Because interest rates are assumed to remain high for several months yet, their deposits continue to grow slowly until the second half of 1979/80. Their lending is curbed in response: in the middle of this year it will be lower than in 1978. By these means, the societies manage to keep their liquidity ratios close to 18% throughout the forecast period. A further analysis has been made of building societies' policy on cash and investment, with the main conclusions that their purchases of local authority debt amount to £230m. and of gilts to £625m. These figures are part of the "sales of public sector debt to non-bank public" item and are used in ch. 3.

Tables 5.7 and 5.8 refer to the insurance companies and pension funds. Table 5.7 describes their recent investment behaviour and Table 5.8 their expected behaviour in 1979/80. Our assumption is that the pattern of investment is roughly unchanged, but that the proportion of new money committed to public sector debt declines slightly. This approach is a simplification, but it is not obvious what alternatives could be chosen. It yields a figure of £4.9b. gilt purchases by the institutions, more than half the total non-bank acquisition of public sector debt.

One small point should be noted. The net inflow into the insurance companies and pension funds is estimated at £9,750m. in 1979/80, compared to a £10,000m. figure for personal sector life assurance and pension fund contributions. In most years there usually is a gap like this between the two numbers, presumably because of management expenses, accruals adjustments, etc. £9,750m. is the sum available for investment.

Table 5.5 Other financial institutions: sources and uses of funds

all figures in £m.	First 3 qtrs. of 1978 — actual	1978/79 — estimate	1979/80 — forecast
Debit items:			
Building society deposits	3,449	4,722	5,313
Other deposits	— 193	483	300
Unit trust units	270	300	200
Capital issues	20	40	250
Life assurance and pension funds	5,493	7,861	9,750
Other liabilities	133	250	100
Bank borrowing	1,066	1,000	—
	<hr/> 10,238	<hr/> 14,656	<hr/> 15,913
Credit items:			
Bank deposits	578	200	—
Other liquid assets	— 650	— 200	500
British government securities	3,530	5,500	5,574
Local authority debt (long-term)	— 132	— 150	—
Overseas government securities	113	100	50
Debentures	— 39	— 25	— 50
Preference shares	65	50	25
Ordinary shares	1,639	2,250	3,099
Loans for house purchase	3,908	5,039	5,000
Other loans	392	400	200
Other financial assets	294	300	400
	<hr/> 9,698	<hr/> 13,464	<hr/> 14,798
Accruals adjustment and residual	— 505	—	—
Financial deficit	1,045	1,192	1,115

Sources: *Financial Statistics* and L. Messel & Co. estimates

Table 5.6 Building societies: sources and uses of funds 1979/80

	Sources		(3) Total sources and uses	(4) Total assets and liabilities	(5) Mortgages	Uses			(8) Liquidity ratio
	(1) Shares and deposits	(2) Other liabilities				(6) Other assets	(7) Cash and investment Increase	Total	
1977	6,099	450	6,549	34,680	4,100	131	2,318	7,477	21.0
1978	4,847	186	5,033	39,713	5,096	119	—182	7,295	18.0
3rd qtr.	1,036	252	1,288	38,240	1,275	25	—12	7,079	17.8
4th qtr.	1,430	43	1,473	39,713	1,221	36	216	7,295	18.0
1979 1st qtr.	1,215	214	1,429	41,142	1,204	25	200	7,495	18.2
2nd qtr.	1,186	89	1,275	42,417	1,100	25	150	7,645	18.0
3rd qtr.	1,167	88	1,255	43,672	1,100	30	125	7,770	17.8
4th qtr.	1,375	104	1,479	45,151	1,200	30	249	8,019	17.7
1980 1st qtr.	1,585	119	1,704	46,855	1,300	30	374	8,393	17.9
1979/80	5,313	400	5,713	46,855	4,700	115	898	8,393	17.9

1978 3rd and 4th qtr. figures not seasonally adjusted: figures from 1979 1st qtr. forecast and seasonally adjusted.

Sources: *BSA Bulletin* and L. Messel & Co. estimates.

**Table 5.7 Breakdown of investments by insurance companies and pension funds in recent years**

1. Life offices and long-term insurance funds						
— in £m						
	Net inflow	Short-term assets	Public sector debt	Company securities	Property	Other
1976	2,101	— 4	1,551	200	347	7
1977	2,863	145	1,944	438	336	—
1978	2,819	29	1,909	503	388	—10
(first 3 qtrs.)						
— in %						
1976	100	— 0.2	73.8	9.5	16.6	0.3
1977	100	5.1	67.8	15.3	11.7	—
1978	100	1.0	67.7	17.8	13.8	—0.4
(first 3 qtrs.)						
2. General insurance funds						
— in £m						
	Excess of premiums over claims	Short-term assets	Public sector debt	Company securities	Property	
1976	927	399	314	116	63	
1977	664	—106	441	202	39	
1978	557	148	170	97	54	
(first 3 qtrs.)						
— in %						
1976	100	43.0	33.8	12.5	6.8	
1977	100	—15.9	66.4	30.5	6.0	
1978	100	26.6	30.5	17.4	9.7	
(first 3 qtrs.)						
3. Pension funds						
— in £m						
	Net inflows	Cash	Public sector debt	Company securities	Property	
1976	2,967	81	1,239	1,119	571	
1977	3,199	38	1,009	1,414	669	
1978	2,722	129	997	1,079	512	
(first 3 qtrs.)						
— in %						
1976	100	2.7	41.8	37.7	19.2	
1977	100	1.2	31.6	44.4	21.0	
1978	100	4.7	36.6	40.0	18.8	
(first 3 qtrs.)						

Source: *Financial Statistics*

Note: Breakdown of investments in sections 2 and 3 is not exhaustive

**Table 5.8 Forecast of insurance companies' and pension funds' investments in 1979/80**

**1. Life offices and long-term insurance funds**

	Net inflow	Public sector debt	Company securities	Property
— in £m	3,900	2,535	780	585
— in %	100.0	65.0	20.0	15.0

**2. General insurance funds\***

	Net inflow	Cash	Public sector debt	Company securities	Property
— in £m	975	97	536	219	123
— in %	100.0	10.0	55.0	22.5	8.0

\*excluding overseas funds

**3. Pension funds**

	Net inflow	Public sector debt	Company securities	Property
— in £m	4,875	1,828	1,950	1,097
— in %	100	37.5	40.0	22.5

**4. Total**

	Net inflow	Cash	Public sector debt	Company securities	Property
— in £m	9,750	97	4,899	2,949	1,805
— in %	100.0	1.0	50.2	30.2	18.5

## Notes to Table 5.1

### Credit items:

1. Notes and coin.

This figure is taken from ch. 3.

2. Gilt purchases by the personal sector.

The personal sector is an astute buyer of gilts, having been a heavy buyer in the final quarter of 1976 and a net seller in the final quarter of 1977 and the first quarter of 1978. Our assumption is that interest rates will be falling over the next twelve months and that individuals will exploit the opportunities for capital gains. In the 1976/77 financial year, persons bought £2,010m of Government securities.

3. National Savings.

This figure is taken from ch. 3. See the comments there.

4. Tax certificates.

A small positive number looks appropriate.

5. Local authority debt.

Persons took up £701m of local authority debt in 1976/77 and ran it down by £422m in 1977/78. It is assumed that the local authorities will again be significant borrowers in 1979/80. It might nevertheless be more plausible to make this figure nil and add £250m to gilt purchases. The monetary significance of this change would be minimal.

6. Bank deposits.

This important figure is taken from ch. 3. See the comments there.

7. Savings banks.

This category consists of the Trustee Savings Banks and the National Savings Bank investment accounts. These institutions received large inflows in early 1978 because they had not reduced their interest rates much in 1977 and were, for a time, very attractive. This is less true today and their inflow in 1979/80 should be lower than in 1978/79.

8. Building societies deposits.

The building societies are the biggest single financial intermediary for the personal sector and a forecast of their deposit inflows is critical for several other parts of our model. Fortunately, their behaviour is stable, with the link between inflows and the building society share rate-bank deposit rate differential being very reliable. We have used an equation to predict the inflows for each quarter:

$$I = 475 + 200 D$$

where I is deposits inflow.

D is differential between building society share rate, gross and banks' deposit rate.

The equation was obtained by estimating the best-fitting relationship between I and D for the 31 quarters from the beginning of 1970 to the third quarter of 1978 (figures for inflows being adjusted upwards to 1978 prices) and scaling the relationship up by  $12\frac{1}{2}\%$  for inflation. The differential was given by our interest rate assumptions, contained in the Appendix. The other determinant of building societies' deposits growth is interest crediting and this was derived by numerical calculation.

9. Life assurance and pension fund contributions.

A substantial 24.0% rise in this item is forecast between 1978/79 and 1979/80. The increase is double that in personal disposable income for two reasons. First, the sharp growth in real incomes in 1978 was accompanied by record sales of new life policies. New annual premiums paid for life assurance and annuities rose by 28% to £1,350m compared to £1,050m in 1977. (*The Financial Times*, 5th February 1979). Secondly, under the new pensions legislation which came into force in April 1978, more than half of the working population "contracted out" of the state scheme, which should lead to an exceptional rise in pension contributions.

Our assumption is that the ratio of life assurance and pension fund contributions to personal disposable income rises from 7.0% in 1978/79 to 7.7% in 1979/80. These figures compare with 6.5% in 1977/78.

One problem with this item is the treatment of insurance premiums collected for insurance companies' general funds. It is not clear from *Financial Statistics: Explanatory Handbook* where they are categorized. The assumption here is that they are included in "life assurance and pension fund contributions", although there is an argument that they are consumption items and, in any case, the amount remaining to insurance companies for investment will depend on claims experience.

#### 10. Unit trust units.

In the first three quarters of 1978, net cash inflow into unit trusts was £211.5m. Our figure of £200m for 1979/80 may be too low, but a higher number would push up the personal sector financial surplus and savings ratio even further.

#### Debit items:

##### 1. Loans for house purchase.

The availability of loans from building societies is constrained by their low deposit inflows in early 1979 because of high interest rates. The £4,700m total is derived from our forecasts of building societies' sources and uses of funds.

Lending by insurance companies and the public sector (principally local authorities) for house purchase has been dormant in recent years, but it was as high as £735m in 1975. Our figure of £300m may nevertheless be too high.

##### 2. Bank lending.

Bank lending to the personal sector is, like most parts of bank lending, extremely difficult to predict, but it is probably more sensitive to interest rates than corporate sector lending and it is known to be closely related to the housing cycle. Our forecast is that loans from house purchase will be down from £5,039m in 1978/79 to £5,000m in 1979/80, while house prices will be 25 to 30% higher. Hence our view that bank lending to persons will be halved. In 1974 and 1975 (following a sharp rise in interest rates and a collapse in house prices) bank lending to the personal sector was £75m and minus £440m respectively.

##### 3. Credit from retailers.

##### 4. Credit from public corporations.

##### 5. Other loans.

These are minor items which are assumed basically unchanged.

##### 6. Company and overseas securities.

Due to tax legislation which encourages investment via the institutions, the personal sector has been a heavy net seller of company and overseas securities for many years. The process seems to have accelerated in 1977 and 1978, partly perhaps because of the capital gains tax concessions in the April 1978 Budget. It is assumed that, on average, share prices will be significantly higher in 1979/80 than in 1978/79 and therefore that personal sector sales of securities will also be higher.

## 6. INDUSTRIAL AND COMMERCIAL COMPANIES

The company sector is more volatile in its financial behaviour than the personal sector. The fluctuations in its financial deficit and in its holdings of financial assets year by year are substantial and, therefore, of considerable importance for the economy. Unfortunately, theories of corporate sector behaviour are less well-developed than for the personal sector. In the following analysis, several *ad hoc* forecasting procedures have been adopted.

The two pivotal parts of our forecast are the appropriation account, from which the financial deficit is derived, and an analysis of sources and uses of funds. The sources and uses of funds analysis also gives a figure for the financial deficit and this must be consistent with that in the appropriation account. The appropriation account starts from an estimate of gross trading profits and yields the financial deficit after a number of deductions have been made.

In 1979 company profits will be squeezed between rising costs on the one hand and competitive pressures, partly attributable to a reasonably strong performance by the pound on the foreign exchanges, on the other. However, it is essential to distinguish between profits arising in the North Sea and other profits. Off-shore operations by oil companies account for two-thirds of the £2,650m. increase in gross trading profits between 1978/79 and 1979/80; if they are removed industrial and commercial companies profits are estimated at £16.0b. and £16.9b. respectively in the two years. Even this paints too rosy a picture as stock appreciation is estimated to rise from £3.0b. to £4.9b. Nevertheless, dividends are estimated to continue growing at rates similar to those recorded in the recent past.

The result is that investment in real assets exceeds undistributed income. Gross domestic fixed capital formation is expected to rise from £11.7b. in 1978/79 to £13.0b. in 1979/80. Most of this is, of course, a reflection of inflation, although the volume of investment is expected to show a tiny increase. The rise in the book value of industries' stocks, the other category of expenditure on real assets, is forecast to amount to £4.3b. in 1979/80. This is more than accounted for by price changes as stock levels are expected to fall slightly in volume terms. It is worth remembering that, with the current book value of stocks about £40b., companies' finances are highly dependent on assumptions about price movements of raw materials.

These developments, taken together, point to a financial deficit of £4.3b. in 1979/80, compared to an estimated £3.3b. in 1978/79 and an actual £2,532m. in 1977/78. Parallels have been drawn between 1979 and 1974 and, indeed, it is true that the deficit this year will be the highest for five years. However, far more important than the size of the deficit is its composition – and here we can see a quite definite deterioration. Figures for bank deposits and bank borrowing are taken from ch. 3, on “The Monetary Arithmetic”, and accommodated within our sources and uses of funds table. It is possible to derive a measurement of companies' liquidity, which we are defining as the ratio of liquid asset holdings to bank advances. Its pattern in recent years is described in Table 6.1. It captures the well-known turning points in the company sectors' financial position very successfully. Our estimate is that it falls from 0.66 at the end of the first quarter of 1979 to 0.60 at the end of the first quarter of 1980. This is significantly higher than at the end of 1974, the nadir of the “liquidity crisis”, but it is rather lower than the average of recent years.

Companies respond to this situation by making new issues of share capital. New issue activity may remain relatively subdued in the first half of 1979/80, but we would expect it to recover thereafter. Our central forecast is that new issues amount to £1.6b. in 1979/80 compared with £1.2b. in 1978/79. This depends on propitious market conditions, but our analysis of institutional cash flow in ch. 5 suggests that share prices should be maintained at or above present levels.

Table 6.1 Relationship between companies' liquid assets and bank advances

	(1) Sterling bank deposits	(2) Other bank deposits	(3) Other liquid assets	(4) Total liquid assets	(5) Bank advances	(6) Ratio of (4) to (5)
1970 4th qtr.	3,042		1,014	4,056	6,048	0.671
1971 4th	4,103		1,116	5,219	6,580	0.793
1972 4th	6,074		1,080	7,154	9,410	0.760
1973 4th	8,357		1,226	9,583	13,729	0.698
1974 4th	8,094		1,270	9,346	17,153	0.546
1975 4th	7,730	2,004	1,593	11,327	18,410	0.615
1976 1st	7,653	2,044	1,918	11,615	18,423	0.630
2nd	8,144	2,108	2,101	12,353	19,803	0.624
3rd	8,736	2,266	1,869	12,871	20,612	0.624
4th	8,862	2,306	1,960	13,128	21,707	0.606
1977 1st	8,580	2,639	1,976	13,195	22,012	0.599
2nd	8,595	2,857	2,088	13,540	22,672	0.597
3rd	9,218	2,709	2,394	14,321	22,954	0.624
4th	10,405	2,563	2,340	15,308	23,333	0.656
1978 1st	10,731	2,713	2,208	15,652	23,682	0.661
2nd	11,071	3,153	2,042	16,266	25,009	0.650
3rd	11,217	2,928	2,355	16,500	24,992	0.660
1979 1st*	12,131	2,928	2,432	17,491	26,682	0.656
1980 1st*	12,451	2,928	2,568	17,947	29,832	0.602

\*forecast

all figures are in £m. (except column (6)) and refer to amounts outstanding at end of period

Source: *Financial Statistics* and L. Messel & Co. estimates

Notes: (i) Column (4) = (1) + (2) + (3)

(ii) The figure for bank advances has been adjusted to take account of breaks in the series

(iii) It has been assumed that foreign currency bank deposits and advances are unchanged over the forecast period

Table 6.2 Industrial and commercial companies: appropriation account and derivation of financial deficit

all figs. in £m	(1) First 3 qtrs. 1978	(2) 1978/79 — forecast	(3) 1979/80 — forecast
Gross trading profits	13,546	18,544	21,194
(of which stock appreciation)	(2,249)	(3,044)	(4,901)
Rent and non-trading income	1,353	2,099	1,950
Income from abroad	1,919	2,660	2,880
Dividend payments on ordinary shares	— 1,928	— 2,671	— 2,964
Other interest and dividend payments	— 2,799	— 4,495	— 5,580
UK taxes on income	— 1,621	— 2,737	— 3,665
Profits due abroad	— 1,148	— 1,653	— 2,015
Balance: undistributed income	9,322	11,747	12,720
plus: capital transfers and taxes (net)	284	309	302
minus: gross domestic fixed capital formation	— 8,179	— 11,650	— 13,045
increase in book value of stocks	— 3,727	— 3,752	— 4,271
equals: financial surplus (+)/deficit (—)	— 2,300	— 3,346	— 4,294

Sources: *Financial Statistics* and L. Messel & Co. estimates

**Table 6.3 Industrial and commercial companies' financial deficit: its constituents**

all figs. in £m	(1) First 3 qtrs. 1978	(2) 1978/79 — forecast	(3) 1979/80 — forecast
<b>Credit items:</b>			
Bank deposits, notes and coin	1,663	1,500	370
Other liquid assets	142	224	136
British government securities	3		
Cash expenditure on subsidiaries and trade investments	981	1,000	1,200
Other domestic assets	— 24	300	300
Overseas: export credit, etc.	234	150	250
intra-company investment			
by UK companies	655	1,000	1,200
other identified assets	— 44	100	500
Residual: unidentified items	— 1,875	— 2,000	— 800
<b>Debit items:</b>			
Bank borrowing	— 1,769	— 3,000	— 3,150
Other loans and mortgages	133	400	— 250
Capital issues: ordinary shares	— 687	— 1,200	— 1,600
other	43		
Overseas: import credit, etc.	— 169	— 250	— 300
capital issues	— 41	— 50	—
direct investment in securities	— 68	— 120	— 150
intra-company investment			
by overseas companies	— 1,477	— 1,400	— 2,000
Balance: financial deficit (—)	— 2,300	— 3,346	— 4,294

Sources: *Financial Statistics* and L. Messel & Co. estimates

## Notes to Tables 6.2 and 6.3

One general point that needs be emphasized about the accounts for industrial and commercial companies is that they are probably the least reliable of all sectoral accounts. The published figures are subject to frequent and often large revisions, mainly due to the methods employed to collect data.

Table 6.2 Appropriation account and derivation of financial deficit

### 1. Gross trading profits

The usual procedures for forecasting corporate sector profits involve deriving the figure as a residual from national income forecasts or projecting a continuation of the share of profits in gross domestic product. *Financial Analysis* does not contain a g.d.p. forecast, but it does contain a figure for consumer's expenditure, derived from analysis of personal sector behaviour in ch. 5. Investigation of the relationship between gross trading profits and consumers' expenditure (adjusted to exclude expenditure on housing, fuel and light, categories largely representing payments to the public sector) showed a surprisingly stable ratio of profits to adjusted consumers' expenditure. Since 1960, this ratio has fluctuated between 22.6% in 1975 and 27.0% in 1960.

However, the picture is complicated by the increased level of North Sea oil production over the last few years. If profits arising in the off-shore sector are excluded, then the ratio of gross trading profits to adjusted consumers' expenditure has declined markedly during the latter half of the 1970s; over the first three quarters of 1978 it averaged 21%. The ratio is projected to fall further in 1979/80 to 19.5%. This assumption, together with the consumers' expenditure figure of £109,600m. (see ch. 5), adjusted to exclude housing, fuel and light (assumed to amount to 21% of total consumers' expenditure), gives gross trading profits of £16,884m. for the non-North Sea company sector. North Sea oil profits are assumed to entirely accrue to the private sector and are derived from an analysis of the Treasury's *Economic Progress Report*, October 1978. Estimates have been derived on a calendar year basis and converted to financial years by the imposition of a quarterly path. This procedure yields an estimate of £4,310m. for profits arising in the off-shore sector in 1979/80.

### 2. Stock appreciation

This figure is calculated by applying an assumed price deflator to the book value of industrial and commercial companies' stocks on a quarterly basis.

### 3. Rent and non-trading income

This category consists mainly of interest paid on liquid assets held by companies and rent received by property companies from letting land and buildings. Quarterly figures therefore generally reflect the prevailing level of interest rates. The decline in rent and non-trading income between 1978/79 and 1979/80 is a reflection of the assumption of a lower average level of interest rates and a reduction in the rate of growth of companies' liquid asset holdings.

### 4. Income from abroad

In recent years this item has been relatively stable; it averaged £634m. a quarter in 1976, £667m. in 1977 and £648m. over the first three-quarters of 1978. It is assumed to average £700m. a quarter in 1979/80.

### 5. Dividend payments on ordinary shares

Figures have been presented net of advance corporation tax since April 1973 and therefore represent actual payments made. In the first half of 1978 dividend payments were over 20% up on the same period of 1977, but over the three months to end-September they were only 11% higher than in the same quarter of the previous year. This rate of growth is assumed to continue throughout the forecast period.

## 6. Other interest and dividend payments

The largest item in this category consists of interest payments on bank advances, but the total also includes interest payments on debentures, dividends on preference shares, current transfers and co-operative society interest and dividends. Bank interest charge debiting can be calculated from the assumed path of interest rates and the level of outstanding advances to companies. A working assumption is that charges to companies are on average  $1\frac{1}{2}$  points above base rates. This procedure yields a figure of £3,180m. for interest payments to banks, and it is assumed that the difference between 'other interest and dividend payments' and the calculated figure for interest charge-debiting continues to run at £350m. a quarter during 1979/80.

## 7. U.K. taxes on income

An estimate of company tax payments is made in three separate categories. Payments of advance corporation tax are calculated on the basis of our forecast for dividend payments on ordinary shares, assuming that the rate of ACT is  $\frac{1}{2}$  of the dividends paid. This yields a figure of £1,482m. for 1979/80. Details of tax payments by companies operating in the North Sea are extremely uncertain, but we have used a figure of £1,000m. for the next financial year. A forecast of other tax payments by industrial and commercial companies is based on relating tax payments, net of ACT, over any four quarters to company profits, excluding the off-shore sector and stock appreciation, over the four quarter period eighteen months earlier. Thus tax payments in 1979/80 depend on profits in the year to 3rd quarter 1978. The ratio of tax payments to adjusted profits is not very stable, but it is projected to continue at its present level, 9.5%, for 1979/80, producing a figure of £1,183m. for mainstream tax payments by non-North Sea companies.

## 8. Profits due abroad

Figures are net of U.K. tax payments on income and depreciation. Our forecast for 1979/80 again provides a separate figure for activities of oil companies in the North Sea. This is based on the figures given in the *Economic Progress Report*, October 1978, with the assumption that tax payments are the same proportion of profits due abroad as total taxes are of total profits. A figure of £1,020m. is suggested for this category in 1979/80. Profits due abroad from the rest of the company sector are calculated from an assumption about the ratio of profits due abroad (net of tax) to total profits (net of tax). The North Sea sector is excluded from both series. This gives a figure of £995m. for 1979/80.

## 9. Capital transfer and taxes (net)

This relatively insignificant item is a projection of recent figures.

## 10. Gross domestic fixed capital formation.

The figure is based on the Department of Industry survey of investment intentions covering the manufacturing and distribution industries. A reasonable relationship between the investment figures for the company sector and manufacturing and distribution was obtained after several adjustments.

## 11. Increase in book value of stocks

The procedure for forecasting this category is similar to the method for estimating capital expenditure, except that no adjustments are made. The book value of industrial and commercial companies' stocks is calculated by assuming it is in fixed ratio (93.5%) to the book value of manufacturers' and distributors' stocks.

**Table 6.3 Constituents of financial deficit**

**Credit items:**

**1. Bank deposits, notes and coin**

This figure is taken from Ch. 3.

**2. Other liquid assets**

**3. British government securities**

These two categories are not separately distinguished in our forecast for 1979/80. The figure is derived as the balancing item in the company sector flow of funds, needed to complete the identity that the sum of credit and debit items equals the corporate sector's financial deficit.

**4. Cash expenditure on subsidiaries and trade investments**

This includes transactions in both domestic and overseas company securities. Transactions within the company sector are netted out and only cash payments appear in the figures. There has recently been a significant increase in the level of takeovers, and the figure of £1,200m. for 1979/80 seems, if anything, to be on the low side.

**5. Other domestic assets**

Something of a catch-all category, this includes company lending to the public and personal sectors, in the form of retail credit, changes in holdings of Northern Ireland government debt and local authorities long-term debt, together with an accruals adjustment and changes in other identified domestic assets. The series is somewhat erratic, but the figure of £300m. seems reasonable.

**6. Export credit, etc.**

Another erratic series, ranging from £617m. in 1976 to minus £48m. in 1977.

**7. Intra-company investment by U.K. companies overseas**

This excludes investment taking the form of acquisitions of overseas securities. The total has exceeded £1,300 in four of the last five years, but the outturn in the first three quarters of 1978 suggest a somewhat lower figure for last year. Our assumption is that there will be some increase in 1979/80.

**8. Other identified overseas assets**

This category covers other net commercial short-term assets from the balance of payments account and the timing and coverage adjustments between the overseas sector figures in the financial accounts and those in the balance of payments accounts. The figure of £500m. for 1979/80 is somewhat higher than the expected outturn for 1978/79, but similar to the totals recorded in the previous three years.

**9. Residual : unidentified items**

The residual item can be very large in relation to the corporate sectors' total sources (or uses) of funds; it amounted to plus 14.7% in 1969 and minus 11.2% in 1977. The residual was positive until 1974 and since then it has been negative. This is expected to continue in 1979/80 and the figure of minus £800m. is about 4% of total funds.

**Debt items:**

**1. Bank borrowing**

This figure is derived in ch. 3.

## 2. Other loans and mortgages

This includes hire purchase and other instalment credit received, loans from the public sector and other financial institutions, and cash expenditure by central government on company securities. Figures for recent years show a significant fluctuation, but much seems to depend on the level of public sector involvement. This is assumed to be negligible in 1979/80, hence the figure of £250m.

## 3. Capital issues : ordinary shares

## 4. Other capital issues

These figures are taken from ch. 2.

## 5. Import credit, etc.

Over recent years these figures have fluctuated about a downward trend. The forecast of £300m. is a projection of this trend.

## 6. Capital issues overseas

This item is of little significance as a source of industrial and commercial companies' funds and has exceeded £100m. only once in the last five years. It has been taken to be zero in 1979/80.

## 7. Overseas direct investment in securities

Another minor category, ranging from £226m. in 1974 to £85m. in 1975. The figure of £150m. for 1979/80 is a continuation of current trends.

## 8. Intra-company by overseas companies

This naturally excludes transactions in company securities. An important factor in recent years has been the re-investment of profits of foreign companies operating in the North Sea. There are signs that this may be declining and the total for 1979/80 is therefore lower than the highest figure so far recorded, £2,259m. in 1977.

## 7. IMPLICATIONS OF DIFFERENT PSBR NUMBERS

The purpose of *Financial Analysis* is to provide an analytical tool for assessing the Budget. Mr. Healey has repeatedly pledged that the PSBR in 1979/80 will not exceed £8.5b. compared to £8.0b. in 1978/79. Although our central case has used a £9.0b. PSBR number, we should be prepared for a different outturn. Not only is there the possibility of a Conservative Government committed to fiscal rectitude, but also a more buoyant or depressed economy than we have assumed would affect tax revenues and social security benefit payments. At present, as forecasts of economic activity are being revised downwards, the scales appear to be tipped in favour of a more pronounced recession. However, the Treasury's forecast for 1979, on which the official PSBR estimate relies, is more pessimistic about output and employment than most private sector forecasts. We may consider two cases – one with a PSBR of £7.5b. and another with a PSBR of £10.5b.

### 1. Lower PSBR case

As a matter of arithmetic, it must follow that a lower PSBR and, hence, public sector financial deficit reduces the combined surplus of other sectors, but the allocation of the effect between the personal and company sectors is highly uncertain. Much will depend on interest rates. If interest rates decline, the personal sector will have a smaller financial surplus because the housing market will be more active and bank borrowing will increase. Although the company sector financial deficit will be higher, it need not, therefore, increase by the full extent of the decline in the Budget deficit.

What are the implications for the money supply? At first sight, it might seem that money supply growth will be reduced by the same amount as the reduction in the PSBR. Thus, if the PSBR in 1979/80 was £7.5b. rather than £9b., money supply growth would be reduced to £2.1b. in absolute terms (compared to £3.6b. in the central case) – or just over 4%. But there are some offsetting influences. First, with lower interest rates, the net acquisition of public sector debt by the non-bank private sector will be lower, while personal sector bank borrowing will be stimulated. Secondly, the increased company sector financial deficit will increase the demand for external finance which will be met in part by the banks. Both effects would raise the money supply. Overall, therefore, the lower PSBR may enable money supply growth to be reduced, but not necessarily in a dramatic way. Of course, if interest rates were kept up the effect on the money supply would be more powerful, but, arguably, it would be felt with a lag. The reason is that the personal sector financial surplus would remain high, with the consequence that the company sector financial position would be markedly inferior compared to the £9.0b. PSBR case. This would generate a need for bank loans, which would have an expansionary effect on the money supply. Only as the recessionary effects of high interest rates took hold in 1980 and output growth declined would private sector demand fall off significantly. The full impact of the low PSBR and high interest rates on money supply growth would come though not in 1979/80, but in 1980/81.

These remarks are necessarily speculative, but they give some idea of the processes at work. There would also inevitably be repercussions on the external side. For example, it is quite possible that foreign investors, impressed by the achievement of fiscal and monetary restraint, would wish to invest more highly in sterling-denominated assets. The Bank of England would find it difficult to resist the inflows without letting the exchange rate rise and the “external and foreign currency finance” item might raise the money supply. The precise balance between the domestic and external determinants of monetary growth would depend on interest rate and exchange rate policy.

In Table 7.1 we summarise the essential features of the flow of funds if the PSBR was £7.5b. in 1979/80. The reader should be warned that the figures are illustrative and have not been cross-checked with the same degree of thoroughness applied in the central case.

**Table 7.1 The financial situation in 1979/80 with a £7.5b. PSBR and a small reduction in interest rates compared to our central case**

The monetary arithmetic		The flow of funds	
	in £b.		in £b. (surplus+/-deficit-)
PSBR	+ 7.5	Public sector	— 7.0
Bank lending	+ 5.0	Personal sector	+ 12.8
External finance	nil	Industrial & Commercial	
Public sector debt sales	— 8.5	cos.	— 5.1
Non-deposit liabilities	— 1.0	Non-bank financial	
	<hr/>	institutions	— 1.1
	3.0	Banks	+ 0.4
		Overseas sector	— 1.5
		Residual error	+ 1.5
			<hr/>
			0

£3.0b. growth on a sterling M3  
base of £51.0b. is equivalent  
to about 6%

## 2. Higher PSBR case

This case could be regarded as the exact opposite of the £7.5b. PSBR case and therefore of no special interest in itself. But it would acquire a distinctive character if interest rates were held steady rather than raised. The authorities might decide on this course of action on the grounds that money supply growth would still not be excessive. The personal sector's financial surplus might rise slightly, but probably not by very much, so that the company sector's financial deficit would decline markedly. Companies might, therefore, borrow less from the banks in 1979/80 than foreseen in the central case. But in 1980/81 the economy would remain relatively strong, buoyed up by money supply growth of over 10% in 1979/80 rather than the 7% in our central case. Loan demand, particularly from the personal sector, might be more vigorous. Ultimately, corrective action would probably involve a sharp rise in interest rates at some stage in 1980/81. In Table 7.2, a more detailed projection of the flow of funds is given for a £10.5b. PSBR in 1979/80 on the assumption that interest rates are no higher than in our central case.

**Table 7.2 The financial situation in 1979/80 with a £10.5b. PSBR and no increase in interest rates compared to our central case**

The money arithmetic		The flow of funds	
	in £b.		in £b. (surplus+/-deficit-)
PSBR	10.5	Public sector	— 10.0
Bank lending	4.2	Personal sector	+ 13.8
External finance	nil	Industrial & Commercial	
Public sector debt sales	— 8.9	cos.	— 2.8
Non-deposit liabilities	— 1.0	Non-bank financial	
	<hr/>	institutions	— 1.1
	4.8	Banks	+ 0.4
		Overseas sector	— 1.8
		Residual error	+ 1.5
			<hr/>
			0

£4.8b. growth on a sterling M3  
base of £51.0b. is equivalent  
to about 9½%.

## Comparisons with other forecasts

These remarks are somewhat impressionistic, but they do highlight the kind of influences that are relevant. Perhaps a more fundamental issue is whether there is a basic defect in our central case. Some valuable insights are given here by comparison with other economic forecasts, such as those from the National Institute of Economic and Social Research and the London Business School. Neither of these presents flow of funds forecasts with detail comparable to our own, but the overall framework is apparent from their published forecasts.

The National Institute may be considered first. In its February 1979 *Economic Review*, it expects the PSBR in 1979/80 to be £8.9b. on unchanged policies, which would presumably be lowered to nearer £7b. if Mr. Healey raises taxes and cuts expenditure in the Budget. The Institute deduces an absolute growth in sterling M3 from the £8.9b. PSBR figure of £5.6b. which, they say, is "adequate to keep the increase below the upper end of the assumed target range of 8–12%". This is still much above our central case of 7%. Why? The main reason is that the National Institute is forecasting sales of public sector debt to the non-bank private sector at only £6.4b. in 1979/80, compared to an estimated £6.8b. in 1978/79 and actual figures of £6,559m. in 1977/78 and £7,276m. in 1976/77. In other words, despite a 40% rise in personal disposable income and a massive increase in institutional inflows in the last three years, sales of public sector debt outside the banking system are estimated to be 15% lower in 1979/80 than in 1976/77. The reader must decide for himself whether this is credible, but our analysis of the personal sector's financial surplus and money flows suggests that it is not.

The London Business School, in its February 1979 *Economic Outlook*, also reaches a conclusion very different from ours. Their PSBR for the 1979 *calendar* year is £9.0b., which they believe will be accompanied by a £5.9b. increase in the money stock, equivalent to 11.6% growth. Their domestic credit expansion forecast is £7.8b., implying that public sector debt sales to the non-bank private sector exceed bank lending by £1.2b. No figure is given, however, for either debt sales or bank lending by themselves. Several combinations of possible numbers for these variables could be given to arrive at the £7.8b. DCE total. Thus, debt sales might be £7.5b. and bank lending £6.3b. This debt sales figure would be consistent with the School's forecast of the personal sector financial surplus which, at £12.4b., is £1.1b. beneath our own. Even so, it is difficult to understand why National Savings and gilt-edged securities cannot be sold in greater volume in 1979/80 than in 1976/77. Bank lending forecasts are notoriously unreliable, but we think there is an inconsistency in the School's calculations. Stockbuilding in 1979 is forecast to be £500m., much less than the £1,564m. recorded in 1978; it is generally thought that there is a link between stockbuilding and loan demand, even though it has not been easy to pin down. How then does the LBS arrive at such a high bank lending total?

The essential features of the National Institute's and London Business School's financial forecasts are presented in Table 7.3.

**Table 7.3 Financial forecasts from the National Institute and the London Business School**

National Institute:

	1977/78	1978/79	1979/80
PSBR	5,530	8,600	8,900
Sales of public sector debt to non-bank private sector	—6,559	—6,800	—6,400
Bank lending in sterling to private sector and overseas	+4,861	+5,100	+4,800
External and foreign currency finance	+2,943	— 900	— 900
Increase in non-deposit liabilities	— 568	—1,000	— 800
	<hr/> 6,207	<hr/> 5,000	<hr/> 5,600

all figures in £m.

Source: *National Institute Economic Review*, February 1979, Table 7 (p.34).

London Business School:

Sectoral flow of funds.

	1978	1979
Company sector	—5.2	—4.4
Personal sector	10.5	12.4
Public sector	—7.7	—8.5
Overseas sector	0.2	—0.5
Residual error	2.2	2.0

all figures in £b.

	1978	1979
Monetary arithmetic		
Borrowing requirements (£b.)	7.8	9.0
% of GDP (current prices)	5.5	5.7
Domestic credit expansion (£b.)	6.9	7.8
Change in money stock:		
end year on end year (£b.)	6.0	5.9
end year on end year (%)	13.4	11.6

Source: *Economic Outlook*, London Business School, February 1979, Table 9 (p.6), Table 10 (p.7).

## APPENDIX

The following assumptions are critical to *Financial Analysis* and are used throughout.

1. In March 1979 Minimum lending rate was 13 %  
 Assumed average level in 2nd quarter 1979 12 %  
 Assumed average level in 3rd quarter 1979 11 %  
 Assumed average level in 4th quarter 1979 10 %  
 Assumed average level in 1st quarter 1980 9 %  
 Base lending rate assumed equal to M.L.R.  
 Bank deposit rate assumed to remain  $2\frac{1}{2}$  % beneath base rate  
 Building society share rate assumed by conjecture about societies' response to differential.  
 By assuming that the basic rate of income tax is 33 % throughout 1979/80, the gross share rate is derived from the net rate.

	MLR and base rate	Bank deposit rate	Building society share rate (gross)	Building society share rate (net)
1st qtr. 1979	13	11	13	8.7
2nd qtr.	13	$9\frac{1}{2}$	$11\frac{1}{2}$	7.7
3rd qtr.	11	$8\frac{1}{2}$	$10\frac{1}{2}$	7.0
4th qtr.	10	$7\frac{1}{2}$	$10\frac{1}{2}$	7.0
1st qtr. 1980	9	$6\frac{1}{2}$	$10\frac{1}{2}$	7.0

2. Total personal disposable income in the forecast period is assumed to be 13 % higher than in the corresponding quarter of the previous year until the 4th quarter of 1979. This quarter and the 1st quarter of 1980 are assumed to be 12 % above the same quarters of the previous years. These assumptions give the following figures for personal disposable income up to the end of 1979/80.

1978 1st qtr.	26,066
2nd qtr.	27,729
3rd qtr.	28,557
4th qtr.	29,354*
1979 1st qtr.	29,454*
2nd qtr.	31,334*
3rd qtr.	32,269*
4th qtr.	32,876*
1980 1st qtr.	32,990*

\*forecast  
 all figures in £m