

Economic Briefing

Prime Minister

An interesting piece which, although possibly overstated, demonstrates the difficulties of assessing where we are now, let alone where we're going.

REC 8/3

Saving slump — Shome mishtake shurely?

■ According to official statistics, personal saving slumped to a 30-year low at 5% of disposable income in the third quarter of last year. After deducting the cash flow of pension funds, the figure implied negative saving, 3½% of income.

■ But the official statistics are of doubtful quality. Thanks to a huge blackhole in personal sector figures, the saving ratio might have been 10 percentage points higher: 15% rather than 5%.

■ In 1987 as a whole, the official saving ratio could have been biased down by ½-1% on account of under-recorded interest and dividend receipts from overseas investments and by 2-2½% because of concealed incomes in the black economy. Mismeasurement of taxed income might have pushed the official saving ratio down by up to 1%.

■ Saving trends are better measured by an average of the official measure and an alternative based on identified financial investments and borrowing. Although trending down, the average measure does not register the alarming drop in saving shown by the official measure after 1984.

Saving ratios compared

	1979	1980	1981	1982	1983	1984	1985	1986	1987*
Official	13	14½	13	12	10½	10½	9	7½	6½
Average	14½	15½	14	12½	12	11½	11	10	10

* First three-quarters only. Figures rounded to nearest ½%.

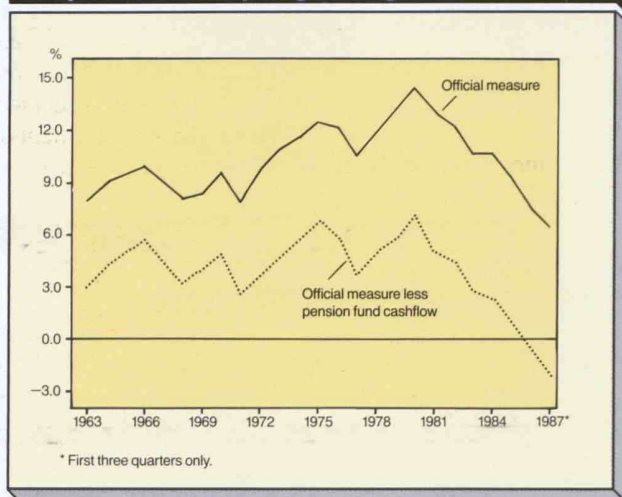
■ It is quite possible that the consumer boom of 1987 was due to buoyant incomes growing 1% faster than officially measured. But without a firm set of historical statistics, forecasters attempts to project consumers' spending can be little more than stabs in the dark.

■ Consequently, Mr Lawson cannot confidently assume that the British consumer will exercise the restraint necessary if the economy is to slow down gracefully this year. His policies should reflect this deep uncertainty and put safety first. It is the extent of forecasters' current ignorance about the economy rather than their knowledge which reinforces the case for a tight Budget on 15 March.

What is it that causes hand-wringing at the Bank of England, finger-wagging by apocalyptic, apoplectic monetarists and head-scratching by stupefied Keynesians? The answer is the collapse of the saving ratio which, according to official figures, fell to all-time lows last year. In the third quarter personal sector saving as a proportion of disposable income dropped to a mere 5%, the lowest level seen since the late 1950s. Even if it perked up in the final quarter, it is likely that the saving ratio in 1987 as a whole was less than half the peak rate of over 14% registered in 1980.

Revealed in the official statistics, then, we have the dramatic vision of British households becoming increasingly less provident and living instead on tick. The drama can be heightened further by deducting from personal saving the cash flow of life assurance and pension funds which the official statistics lump in with the personal sector. After this deduction, it appears that households were actually **dis-saving** — a negative saving ratio — to the tune of 2% of their incomes in 1987. On this definition, the saving ratio has fallen a full 9 percentage points since 1980. This compares with a drop of a mere 8 percentage points in the official personal sector measure (Table 1, Graph 1).

Graph 1 The collapsing saving ratio



Surveying the scene of booming credit growth and pounding activity the Bank of England warned darkly in its latest bulletin that 'The sharpness and extent of the recent fall in savings raises questions about the appropriate response of monetary and fiscal policy'. And it added: 'the latest economic and monetary indicators depict a still buoyant economy amply provided with credit, giving little sign so far that the pressures from domestic demand will abate soon'. The Bank's nightmare is that the glacier of liquidity, represented by the overhang of over-fast money supply growth, is at last melting. **Households' collective attempt to offload excess money balances could be driving saving down, pushing consumption up and sending the economy into overdrive.**

D FOR ACCURACY

Fears about overheating are quite justified in our judgement. The economy's true growth rate in the second half of last year at around 7% (ex-oil) was well in excess of most estimates of the rate of expansion compatible with stable and low inflation. But the monetarist interpretation of events and of consumer behaviour in particular is far more open to question.

The problem is one of simple fact. **Official statistics on personal sector savings are dreadfully inaccurate.** They are derived as the difference between two large numbers — for personal disposable income and consumption. So comparatively small errors in estimating either of these magnitudes can have a disproportionate impact on the measure of saving. On 1986 figures, a 1% under-estimate of disposable income combined with a 1% over-estimate of consumption would have generated a 26% under-statement of total saving and a 1¾% percentage point understatement of the saving ratio.

In terms of reliability, the statisticians award their estimates of saving the wooden spoon: a D rating. This makes saving numbers amongst the least reliable of all national account statistics, fluctuating between plus or minus 20% of the true figure 90% of the time. The latest provisional figures are naturally even more suspect. **Indeed, there are good reasons for believing that the recent plunge in savings is grossly over-stated. A measure of saving inferred from the personal sector's investment and borrowing activities suggests that the saving ratio may even have risen last year, with savings in the third quarter 240% higher than the official measure!**

The alternative measure is derived from the identity which links the sources and uses of funds in the personal sector. The sources of its funds are saving, as officially defined, and new borrowing. The uses to which these funds can be put include physical investment, purchasing homes for example, and all forms of financial investments — ranging from simple deposits with banks and building societies to investments in stocks and shares.

In theory, the total use of funds should just exhaust the sum raised from the various sources. By implication, the official measure of saving should equal the value of physical investment by the personal sector plus its acquisition of financial assets, net of new borrowing.¹ But in practice, there is an awfully large gap between these two definitions of saving, thanks to measurement errors in various parts of the accounts.

¹ Denote S = officially-defined saving, B = new borrowing, I = physical investment, D = deposits and acquisition of other financial assets. Sources of funds = S+B. Uses of funds = I+D. In the absence of measurement errors, S+B = I+D. It follows that S = I+D-B where D-B is the net acquisition of financial assets.

Table 1 The collapsing saving ratio (saving as % of disposable income)

	1963	1973	1980	1983	1984	1985	1986	1987†
Official measure	8	11	14½	10½	10½	9	7½	6½
Less pension fund flows	3	4½	7	2½	2½	1	-½	-2

† First three-quarters only. Figures rounded to nearest ½%.

Personal sector figures are particularly prone to error since a number of items are obtained only as a residual after all the transactions of the other sectors in the economy have been taken into account. Estimates obtained this way include those for dividend and net interest receipts and for transactions in financial assets like gilt-edged and company securities. As a result the personal sector ends up as a dustbin for the errors and omissions in the statistics for other parts of the economy.

Table 2 How much saving in 1987 Q3?

£m	
Official measure	
Personal disposable income	69,679
Less: consumers' expenditure	66,132
Equals: saving	3,547
Alternative measure	
Acquisition of financial assets	15,948
Less: borrowing	10,103
Plus: investment*	6,176
Equals: saving	12,021
Plus: consumers' expenditure	66,132
Equals: 'personal disposable income'	78,153
Plus: balancing item	-8,474
Equals: official personal disposable income	69,679
Memo: saving ratio (%) official	5.1
alternative	15.4

* Includes net capital transfers. Figures are not seasonally adjusted.

Table 2 shows the derivation of the alternative measure of saving in the third quarter of 1987. Instead of £3 1/2/bn of saving and a saving ratio of 5%, the alternative measure gives £12bn of saving and a saving ratio in excess of 15%. The balancing item, the gap between the two measures, was a cool (negative) £8 1/2/bn, 12% of measured income.

Graph 2 and Table 3 show longer-term comparisons of the two saving measures. Three features stand out:

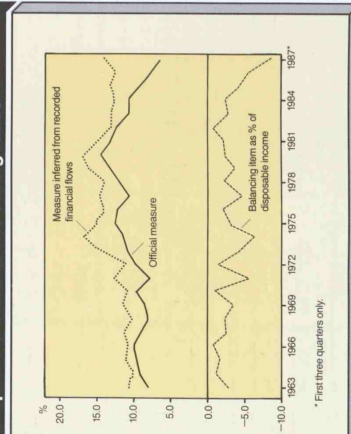
- **The saving ratio inferred from financial flows is generally in excess of the official definition.** Between 1963 and 1985, the average excess each year was around 2 1/2 percentage points. The gap varied considerably, though most of the variation was contained within a range of 1/2 to 4 1/2 percentage points.
- **The saving ratio on the alternative measure stays broadly stable after 1981 at around 13% sharply in contrast to the precipitous fall in the official measure.**
- **The gap between the two measures widened dramatically in 1986 and 1987: first to 5 and then to 7 percentage points.** The balancing item, meanwhile, plumbed new depths.

Table 3 Alternative measure of saving § (% of disposable income)

	1963	1973	1980	1983	1984	1985	1986	1987*
Saving ratio	10 1/2	14 1/2	16 1/2	13	12 1/2	13	12 1/2	13 1/2
Memo	-3	-4 1/2	-2 1/2	-3	-2 1/2	-4 1/2	-5 1/2	-8 1/2
Balancing item §§	2 1/2	4	2	2 1/2	2	4	5	7
Saving gap ¶¶								

* First three quarters only. Figures rounded to nearest 1/2%.
§ Saving ratio inferred from investment and identified net financial flows.
§§ As a % of disposable income.
¶¶ Differences in percentage points between official and inferred saving ratios.

Graph 2 Personal sector saving ratios



* First three quarters only.

UNDERSTATED INCOMES?

Although errors in a number of items will have contributed to the growing balancing item, the most interesting possibility is that the official statistics may have progressively understated incomes and therefore saving. A likely culprit is the estimate of personal sector **rent, dividend and net interest payments**. As one of the items in the personal sector which is inferred by residual, it is rightly regarded as pretty unreliable. It scores a possibly generous C rating in the national accounts; that is, accurate within plus or minus 10 to 20%.

Table 4 shows the latest available official figures split between the receipts of life assurance and pension schemes and those of households, unincorporated businesses and non-profit making bodies which comprise the rest of the personal sector. A surprising feature is the collapse in the net receipts of this latter group after 1983. Recorded net receipts dropped to minus £1bn by 1986 having run at a positive £2 1/2-bn pa in the second half of the 1970s and early 1980s.

Table 4 Rent, dividend and interest receipts*

£bn	1981	1982	1983	1984	1985	1986
Receipts by						
Funds etc	8.8	10.5	11.8	14.0	15.9	17.4
Other	2.9	2.8	2.4	0.6	-0.6	-0.9
Total	11.7	13.3	14.2	14.6	15.3	16.5

* Excluding imputed rent of owner-occupied dwellings.

One explanation of this decline is the surge in mortgage interest payments as households took on ever-more home loans. The movement in the stock of the personal

sector's net financial assets on which interest is likely to be payable provides mild support for this view. The approximate measure given in Table 5 shows net assets in this sense falling after 1984, while mortgage payments were boosted in 1985 by the rise in mortgage rates. The sharp fall in net receipts in 1984 is less easy to explain in these terms, however.

Table 5 Assets and liabilities*

£bn	1982	1983	1984	1985	1986	1987H1
Assets†	186.0	210.8	236.4	282.8	289.5	326.3
Liabilities	116.6	138.3	162.1	189.0	220.9	257.8
Net assets	69.4	72.5	74.3	73.8	68.6	68.5
Memo						
Building society: share rate %	8.8	7.3	7.7	8.7	7.9	8.0
mortgage rate %	13.3	11.0	11.8	13.5	11.9	12.0

* Personal sector excluding insurance and pension funds, average year estimates.
† Excluding direct equity holdings.

Further doubts are raised by the behaviour of balancing items in the other sectors of the economy. The outstanding feature of these black holes in the official statistics is the large and offsetting movements for the personal and overseas sectors (Table 6). Between 1982 and 1986, the negative personal sector balancing item worsened by £12 1/2/bn while the positive overseas sector balancing item rose by £1.3bn. In 1987, however, this inverse relationship broke down. On provisional numbers, the personal sector's balancing item finds a counterpart in the company and monetary sectors, not in the overseas sector. The offsetting movements in the balancing items of personal and overseas sectors in the earlier period nevertheless provides an important clue to the behaviour of true saving.

Table 6 Sector balancing items

£bn	1982	1983	1984	1985	1986	1987*	Change 1982-86
Sector							
Public	-0.8	1.3	0.2	0.2	0.7	0.3	1.5
Company†	7.0	5.0	2.3	6.4	4.6	20.8	-2.4
Personal	-1.8	-5.9	-5.3	-10.4	-14.4	-15.9	-12.6
Overseas	-1.1	1.7	5.8	4.9	11.9	1.3	13.0
Total**	3.3	2.1	2.9	1.0	2.9	6.5	-0.5

* First three-quarters, not seasonally adjusted.
† Equals monetary sector and other financial institutions.
** Equals the income measure of GDP (£323.8bn in 1986) less the expenditure measure of GDP (£321bn in 1986). Figures subject to rounding error.

The large statistical hole in the overseas accounts arises from the gap between the recorded balance of payments on current account and net recorded financial flows across the exchanges. In 1986, for example, the current account was in deficit to the tune of £1bn. In theory, this should have been financed by a net capital inflow of

similar size. But in fact recorded financial outflows across the exchanges exceeded inflows by £11bn. The overseas balancing item was therefore a huge £12bn.

Conventional wisdom has it that most of the errors in the overseas account occur in the measurement of capital flows. But there are good grounds for believing that part of the problem stems from an under-recording of net invisible earnings, especially on portfolio income (see Economic Briefing note No 154).

On present methods of estimation, under-recording of the UK's invisible earnings would feed through one-for-one into an underestimate of personal sector incomes and saving. Table 7 shows how the saving ratio looks after adjustment for our conservative guessimates for under-recorded invisibles. On these tentative numbers, the adjusted saving ratio falls less sharply than the official measure between 1980 and 1984. But the fall thereafter is more pronounced.

In more recent years, then, other factors may have been at work depressing measured incomes. An increase in **black economy** activity is one possibility. Official figures on incomes are based largely on returns to the Inland Revenue whereas spending figures are derived from surveys which guarantee anonymity from the tax man. If tax evasion increases, official statistics will tend to understate income in relation to spending, biasing down measured saving.

To cope with this problem, the official statisticians make a rough allowance for evasion, incrementing their initial estimates of income especially of the self-employed. The total allowance has been fixed at 1 1/2% of the expenditure measure of GDP from 1981 onwards, an addition currently worth about £4 1/2/bn pa. Despite the allowance, the error-prone estimates of self-employment income rate only a C for reliability in the national accounts.

The suspicion is that the evasion allowance is too small. The official allowance does not purport to be a measure of the black economy in total; it is just a device for reducing the gap between initial estimates of income and expenditure in the economy as a whole. The trend in that gap largely determines the size of the official allowance. Unfortunately, this procedure cannot detect certain types of concealed income (like transfers) or concealed expenditure. Moreover, there is a whole host of measurement difficulties, like sampling and timing errors, which contribute to the difference between income and expenditure estimates of GDP. Consequently, the official procedure does not provide a particularly reliable basis for measuring black economy activity.

More reliable estimates have been compiled by Stephen Smith at the Institute for Fiscal Studies. After a

Table 7 Personal saving - invisible adjustment

	1979	1980	1981	1982	1983	1984	1985	1986
Invisibles adjustment £bn	0	+ 1/2	+1	+1 1/2	+2	+3	+2 1/2	+2
Saving ratio %:								
official	13	14 1/2	13	12	10 1/2	10 1/2	9	7 1/2
adjusted	13	14 1/2	13 1/2	13	11 1/2	11 1/2	10	8

comprehensive review of the evidence, he put the size of the black economy at 3-5% of GDP. Even allowing for some differences of definition, this range is well above the official guesstimate and suggests the need for a larger evasion increment to official estimates of income.

Taking the mid-point of Smith's range, we would raise current official estimates of personal pre-tax incomes by over £9bn pa. The increment to measured saving would be less because the official figures miss out taxes payable on black economy earnings. Yet even if the addition were only two-thirds of that to income, current estimates of saving would have to be raised by some 40%, boosting the saving ratio by over 2 percentage points.

Regrettably, an addition of this sort would create another headache for official statisticians. It would increase the amount by which published estimates of GDP based on income statistics already exceed those based on expenditure statistics (Table 6). Official statisticians are naturally very keen to keep this important overall residual error in the nation's statistics as small as possible. **Yet the truth may well be that personal sector incomes and saving are billions of pounds greater than estimated, thanks to the black economy. At the same time and for other reasons, there could be large-scale under-recording of expenditure outside of the personal sector — company investment, for example, or exports.**

Important though they are, black economy considerations do not necessarily explain the downward trend in the measured saving ratio. The trend would have been depressed only if the black economy were expanding in relation to the white economy. For this, Smith says there is no evidence. Nor can the black economy explain another puzzling feature of personal sector statistics — the remarkable strength of tax payments in relation to measured pre-tax incomes. Underlying tax payments, adjusted for changes in tax rates and allowances, were growing twice as fast as pre-tax incomes in the first half of fiscal 1987, implying a tax elasticity of 2 (Table 8). In 1983 and 1984, the elasticity was just 1.4 but has since shown a very pronounced upward trend. Although changes in income distribution may be partly responsible for tax buoyancy, tax experts admit to being stumped for a satisfactory explanation. So the suspicion arises that the official figures may have understated taxed income in more recent years.

Table 8 Taxes and personal incomes

FY	1983	1984	1985	1986	1987H1*
% growth, year-on-year					
Pre-tax income	8.0	6.8	8.0	7.9	7.2
Tax payments †	11.2	9.6	13.3	14.0	14.7
Tax elasticity §	1.40	1.42	1.66	1.77	2.04

* Based on non seasonally adjusted figures. † At given 1982/83 tax structure. § Growth in tax payments divided by growth in pre-tax personal income.

A possible culprit is the estimate of wage and salary income though this is not an explanation which would find great favour in official circles. The statisticians regard their estimates of wages and salaries as the bee's knees. Based on a 1% sample of tax deduction documents, the

estimates are given the accolade of an A rating — reliable to within plus or minus 3% of the truth. But these high-quality sample estimates are currently available only up to and including the 1985 tax year. For most of 1986 and for all of 1987, wages and salaries are derived more uncertainly from an annual survey of average earnings, the Department of Employment's monthly and quarterly numbers on employees in employment and on earnings and from some limited evidence on income tax flows. In the past, it was discovered that estimates based on earnings and employment figures understated the growth in wage and salary incomes. Although a corrective for understatement is now applied, the chances are that it is too small.

TRUE SAVING?

It would be wrong to leave the impression that errors in personal sector statistics arise exclusively in the measurement of income. Estimates of financial transactions are also unreliable and prone to large revisions. Our preference is to take a simple average of alternative measures to get a better guide to saving trends. In 1987, the average of the official measure of saving and the alternative measure based on financial flows suggests a 'true' saving ratio of around 10-3½ percentage points above the official number. As Table 9 shows, this gap can be explained reasonably well in terms of under-recorded invisible receipts of dividends and interest and concealed domestic incomes in the black economy. These two factors would leave less than 1 percentage point to be explained by downward bias in the measurement of taxed incomes — well within the bounds of possibility.

Table 9 Saving breakdown in 1987 %

Average measure	10
Official measure	6½
Difference	3½
Of which	
Under-recording of invisibles	½-1
Black economy under-recording	2-2½
Residual	0-1

Table 10 and Graph 3 overleaf compare the recent history of the official and average measures of the saving ratio. Two features stand out.

■ Both measures indicate a marked fall in saving in the personal sector since the 1980 peak. Lower inflation and easier access to credit probably explain much of this change in behaviour.

■ The fall in the saving ratio on the average measure is much less pronounced especially for years after 1984. Between 1984 and 1987, the average measure falls only 1½ percentage points. In contrast, the official measure dives 4 percentage points.

The conclusion is that the monetarist interpretation of recent consumer behaviour is probably misplaced. The boom in consumers' spending in 1987 was probably due to fast growth in incomes rather than to a collapse in saving. If the true saving ratio remained unchanged, disposable incomes probably rose by 8½% last year —