

# Company profitability and finance

This article updates and revises previous estimates, based largely on national income statistics, of real profitability and company finance.<sup>(1)</sup> Among the main developments:

- The recovery in company profitability gathered pace in 1983 and appears to have continued in the early part of this year.
- Undistributed income rose sharply in 1983, contributing to an £8 billion financial surplus for the industrial and commercial company sector.
- Borrowing from banks fell back last year, and capital market issues revived further; company acquisitions of financial assets, especially bank deposits, were substantial.

An appendix describes some of the statistics used in this article in more detail. An article on page 360 examines various measures of company profitability and liquidity derived from the reported accounts of some 1,800 non-oil companies.

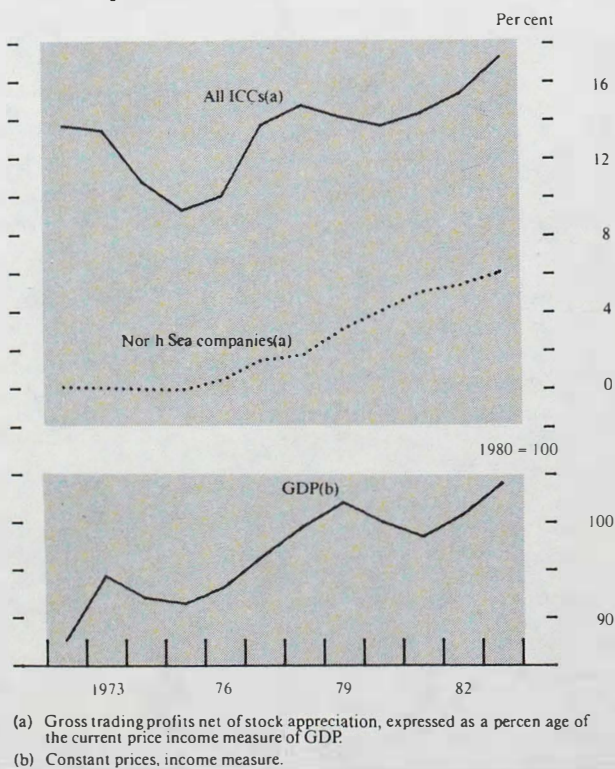
## Gross trading profits and profitability

As the UK economy started to move out of recession after 1981, profits of industrial and commercial companies (ICCs) began a substantial and sustained revival. In nominal terms, profits<sup>(2)</sup> in the sector rose 18% in 1982 and 23% in 1983, well ahead of increases in the GDP deflator (6½% and 5½% respectively). Underlying this, the rate of profits growth in North Sea and non-North Sea activities was almost the same in the two years (Table A); not surprisingly, North Sea profits had grown strongly throughout the recession.<sup>(3)</sup>

Company profits tend to fluctuate with GDP in a more or less cyclical fashion. The resultant swings in the share of ICCs' profits in GDP have been pronounced over the past decade or so (Chart 1), although, in the recent recession, rising profits from the North Sea sector cushioned the impact on ICCs as a whole. But while a sizable part of the current recovery in profits reflects the normal cyclical movement in the share of profits in output, companies have also made strenuous efforts to increase their efficiency in the face of recession and severe financial pressures. This has been achieved by shedding labour and stocks, closing uneconomic capacity and by increasing the productivity of existing resources.

In an economic upturn, the rise in profits stems partly from higher turnover, even with unchanged margins. Additionally, higher output allows fuller utilisation of capital and labour resources, spreading overhead costs more widely and leading to improvements in

Chart 1  
Share of profits in GDP



productivity. Higher demand may also allow producers to charge higher prices. In the current recovery manufacturing industry did not benefit from higher output until the second half of 1983. Unit labour costs in manufacturing nonetheless increased especially

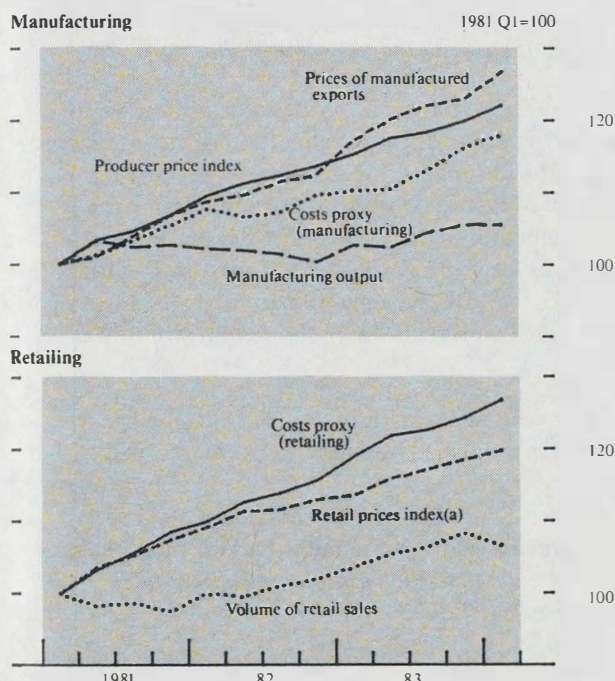
(1) Previous articles in this series have appeared in June issues of the *Bulletin*.

(2) Net of stock appreciation.

(3) The profits of North Sea activities in 1983 were boosted by the privatisation of Britoil and its consequent reallocation to the company sector at the end of 1982.



**Chart 2**  
Prices, costs and output



slowly from 1981 onwards, even while output was not rising. Earnings increases have been more moderate and productivity has risen much faster than in the 1970s as companies sought to curb costs and rationalise their production processes. The cost of materials has risen somewhat faster than labour costs since 1981 but, overall, unit costs in manufacturing have risen more slowly than output prices for both domestic and export sales (Chart 2). Thus profit margins in the sector have widened. This has been helped by a gradual decline in sterling over much of the period, which has eased some of the competitive pressure on both domestic and export prices charged by UK manufacturers. Retailers' and distributors' profit margins, by contrast, may have fallen as the costs of their principal inputs—domestic and imported manufactures—have risen more than their selling prices; their profits have nonetheless risen because of rapid growth in the volume of retail sales since early 1982, and improvements in efficiency.

The path of company profits has been reflected in pre-tax real rates of return<sup>(1)</sup> (upper panel of Chart 3). Figures for all ICCs have been heavily influenced by the increased importance of North Sea profits since the late 1970s. Whereas the profitability of non-North Sea ICCs fell to an historically low level in 1981, the profits of all ICCs, including North Sea activities, were substantially stronger than in the 1974–5 trough.

In the period of recovery, the pre-tax real rate of return of non-North Sea ICCs has risen from an average of 3.6% in 1981 to 6.1% last year; by the first quarter of 1984 it

is estimated to have reached 8.5%—above its last peak in 1978 but still lower than throughout the 1960s. Profitability in manufacturing industry turned up before there was any substantial growth in manufacturing output, and stemmed in large part from gains in profit margins. The recovery in profitability has not been evenly spread across industry, however. (More detailed analysis of sectoral profitability can be found in the article on page 360.)

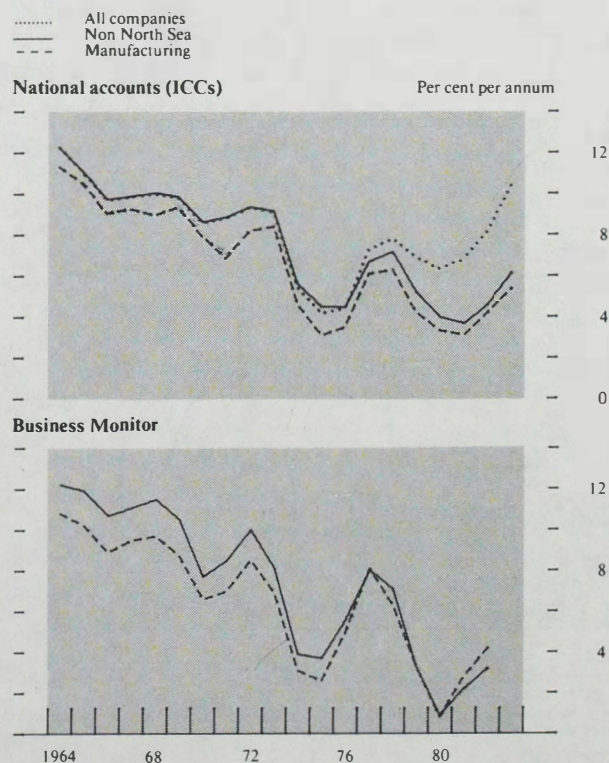
Besides the national accounts sources used to derive rates of return in Chart 3, estimates of profitability can also be made (up to 1982) from the accounts of 550 large listed companies drawn from the sample used by the Department of Trade and Industry in its *Business Monitor MA3 'Company finance'*. Although the methodology and coverage are different,<sup>(2)</sup> much the same picture is provided by both sets of statistics.

Other measures of profitability—the equity rate of return, post-tax measures of profitability and the cost of capital—are discussed in the appendix.

### Other company income and appropriations

In the period since 1981, other company income has not grown as fast as gross trading profits. Income from abroad tends to fluctuate with the exchange rate, but, taking one year with another, has remained roughly flat in nominal terms over the last five years, reflecting in part the weakness of activity abroad for much of this time. At £6.1 billion in 1983, this item was 17%

**Chart 3**  
Pre-tax real rates of return



(1) Defined as the ratio of gross trading profits plus rent income net of stock appreciation and capital consumption (at replacement cost) to the replacement cost capital stock (including stocks).

(2) See the June 1983 *Bulletin*, page 234 for a description of the main differences in the two approaches.



**Table A**  
**Industrial and commercial companies' income and appropriations**

£ billions; seasonally adjusted

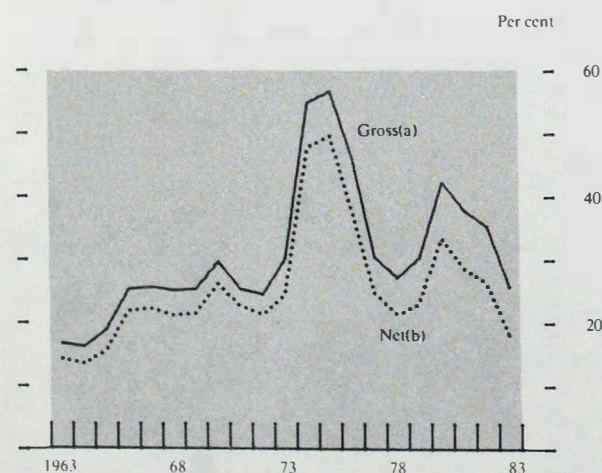
	1980	1981	1982	1983		
	Year	Year	Year	Year	H1	H2
Gross trading profits (net of stock appreciation):						
Non-North Sea	18.1	19.1	22.7	27.7	13.2	14.5
North Sea	8.1	10.9	12.7	15.7	7.3	8.3
Total	26.2	30.0	35.4	43.4	20.5	22.8
Rent, non-trading income and income from abroad	8.2	8.9	9.0	9.6	4.5	5.1
<b>Total income</b>	<b>34.4</b>	<b>38.9</b>	<b>44.4</b>	<b>53.0</b>	<b>25.0</b>	<b>27.9</b>
<b>Distribution of income</b>						
Dividends	3.3	3.2	3.5	4.3	1.6	2.7
Interest payments	7.6	7.7	8.9	8.2	4.2	4.0
Profits due abroad	4.5	4.2	4.1	5.0	2.4	2.6
Tax payments (including North Sea royalties)	6.7	8.8	10.4	12.5	6.0	6.4
<b>Total distributed income</b>	<b>22.1</b>	<b>23.9</b>	<b>26.9</b>	<b>30.0</b>	<b>14.2</b>	<b>15.7</b>
Undistributed income (net of stock appreciation)	12.3	14.9	17.5	23.0	10.8	12.2

higher than in 1982, but only 9% higher than in 1979. Rent and non-trading income (including gross interest income) increased steadily after 1979, but declined in 1983 as interest rates steadied and then fell.

The improvement in company incomes has not been matched by a corresponding increase in appropriations, so that undistributed income, net of stock appreciation, has grown very rapidly since 1981 (Table A).

Both dividend and tax payments have lagged behind the improvement in income. In the case of tax payments there is a normal lag between the accrual of a tax liability in one year and payment which is not due until the next; also, a feature of recent years has been the large stock of unused tax reliefs arising from the stock relief scheme, investment allowances and actual losses, which can be

**Chart 4**  
**Income gearing**



(a) Gross interest payments as a percentage of income net of stock appreciation, tax payments and capital consumption.

(b) Net interest payments as a percentage of non-interest income net of stock appreciation, tax payments and capital consumption.

(1) For more discussion of dividend behaviour see page 363.

(2) In 1973-77 the error resulted in overstatement of ICCs' dividends (excluding those paid abroad) in the national accounts by around 18%. In 1978-80 this averaged over 25% and was 42% and 66% in 1981 and 1982 respectively.

(3) Defined in Chart 4.

carried forward and set against current profits. As profits rise, the accruing tax liabilities go partly to reduce accumulated tax losses, only a proportion being reflected in increased tax payments.

During the recent recession, dividend payments were maintained at a significantly higher level relative to income than in 1976-78. In part, this may have reflected the abolition of dividend controls in 1979, but companies are often reluctant to cut dividends when profits are depressed, as was seen in the 1974-5 recession. With the revival of profits, dividend cover improved in 1983 but not to the levels seen when dividend restraint was in force.<sup>(1)</sup>

In the past year, an element of double counting has been discovered in published statistics for payments of dividends on ordinary shares. As a result ICCs' dividend payments in the United Kingdom have been overstated in recent years. Corrected figures were published for the first time in the 1984 edition of the *National Income and Expenditure Blue Book*.<sup>(2)</sup>

Profits due abroad increased quite substantially in 1983, after falling in nominal terms for several years. Profits in both the oil and non-oil sectors contributed to the rise; more than half of this item is now accounted for by oil company transactions. Taxes on oil revenues have also become a dominant part of total ICCs' tax payments (Table B).

**Table B**  
**Oil companies' profits due abroad and UK taxes**

Percentage shares of corresponding ICCs' totals

	1970-73	1974-78	1979	1980	1981	1982	1983
Tax payments <sup>(a)</sup>	2	8	34	58	78	80	82
Profits due abroad	10	24	52	66	66	64	61

(a) Comprises corporation tax, PRT and North Sea royalties.

Companies' gross interest payments rose strongly between 1978 and 1980 as interest rates rose and their debt grew. As interest rates subsided after 1981, companies' interest payments began to level out. Reflecting these developments and the upturn in profits, companies' income gearing<sup>(3)</sup> reached its peak in 1980, declined slowly in 1981 and 1982, and then fell rapidly in 1983 (Chart 4). By the beginning of this year, gross income gearing had fallen still further. Net income gearing, which takes account of companies' interest receipts on their rapidly rising stock of liquid assets, has followed a broadly similar path.

### Capital spending and financial balance

The ICC sector's financial surplus or deficit is equal to the balance of its appropriation and capital accounts. The 'receipts' side comprises undistributed income,



investment grants and other capital transfers, while 'expenditure' is made up of fixed investment, stockbuilding and payments of taxes on capital.

For much of the period since 1979, company spending on fixed investment has been depressed and stocks run down as companies adjusted to the weak markets and financial pressures associated with the recession. Until 1982, ICCs' fixed investment was virtually flat in nominal terms; underlying this, the volume of manufacturing investment fell sharply, while investment by distribution and service industries remained quite buoyant. Stocks were run down<sup>(1)</sup> by a substantial £7½ billion (equivalent to about 13% of the book value of stocks at end-1979) in the three years 1980-82.

As undistributed income began to recover in line with profits, ICCs' financial position was transformed, from a £1¼ billion deficit in 1979 to a £4½ billion surplus in 1982. Last year, destocking was checked<sup>(2)</sup> while total investment volumes began to revive. But with undistributed profits growing rapidly, ICCs' financial surplus climbed to an estimated £8 billion. Provisional estimates point to a further surplus of £3½ billion in the first quarter of 1984. In previous cycles, improvements in company incomes have generally been followed—with a lag—by stronger capital expenditure. DTI and CBI surveys point to such a revival in fixed investment in 1984 and 1985, although from very low levels in the case of manufacturing industry. On the other hand, surveys conducted by the CBI suggest that stock levels are unlikely to be rebuilt in the foreseeable future, perhaps as a result of improved stock control techniques learned during the recession.

### Financial transactions

As defined, the financial surplus of ICCs should be matched by the sector's financial transactions, such as various forms of borrowing, changes in tax balances, trade credit, net overseas investment, etc. In practice, because of measurement errors in all parts of the accounts, the accounts rarely add up, and the difference is shown as 'unidentified', or the 'balancing item'. In recent years, this error item has been highly volatile, quarter by quarter, but on average the recorded financial surplus has consistently exceeded the recorded total of net financial assets acquired by companies. The size of the discrepancy has been such that on occasion it is difficult to interpret companies' behaviour.

In the period 1980-82, ICCs continued to borrow heavily, especially from the banking sector, even though the sector's financial position was improving rapidly. At the same time the sector built up substantial financial assets, both at home and abroad, including liquid assets and especially bank deposits. This simultaneous acquisition of both debt and financial assets is difficult to

**Table C**  
**Industrial and commercial companies' capital account and financial transactions**

£ billions

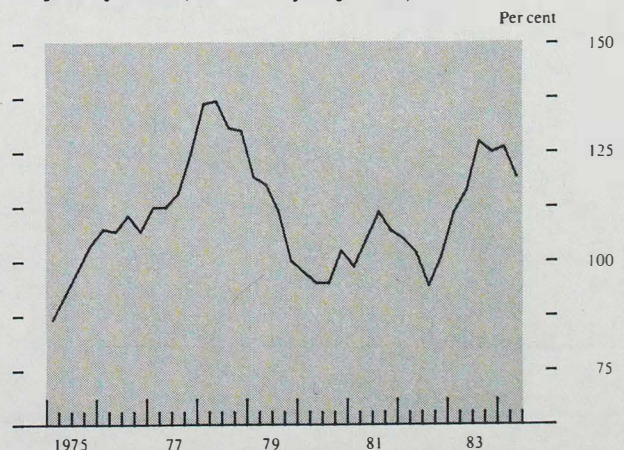
	1980	1981	1982	1983		
	Year	Year	Year	Year	H1	H2
<b>Undistributed income</b> (net of stock appreciation)	<b>12.3</b>	<b>14.9</b>	<b>17.5</b>	<b>23.0</b>	<b>10.8</b>	<b>12.2</b>
Net capital transfers	0.4	0.6	0.6	0.5	0.3	0.2
Fixed investment	-15.2	-15.0	-15.6	-15.9	- 7.7	- 8.2
Stockbuilding (increase-)	2.8	2.7	2.0	0.3	- 0.7	- 0.3
<b>Financial balance</b>	<b>0.3</b>	<b>3.1</b>	<b>4.4</b>	<b>7.9</b>	<b>4.0</b>	<b>3.8</b>
<b>Financial transactions(a)</b>	<b>2.0</b>	<b>- 1.7</b>	<b>0.1</b>	<b>- 5.3</b>	<b>- 0.9</b>	<b>- 4.7</b>
<i>Of which:</i>						
Accruals adjustment(b)	1.1	1.0	- 2.1	0.6	1.5	- 0.9
Investment in UK company securities	- 0.9	- 1.3	- 1.3	- 1.4	- 0.8	- 0.6
Direct and other investment overseas	- 3.0	- 3.9	- 2.7	- 2.4	- 1.0	- 1.4
Liquid assets	- 3.6	- 4.8	- 2.7	- 6.3	- 1.1	- 5.2
Other financial assets	- 0.4	- 1.5	- 1.5	- 1.7	- 0.5	- 1.3
Net trade credit	- 0.9	- 0.6	0.6	- 0.9	- 0.5	- 0.3
Bank borrowing(c)	6.3	5.8	6.6	2.0	- 0.5	2.5
Other loans and mortgages	0.1	0.5	0.7	0.7	0.2	0.5
UK capital issues	1.3	1.7	1.0	2.1	1.1	1.0
Overseas investment in the United Kingdom	2.0	1.3	1.4	1.9	0.6	1.3
<b>Unidentified (balancing item)</b>	<b>- 2.2</b>	<b>- 1.4</b>	<b>- 4.5</b>	<b>- 2.6</b>	<b>- 3.1</b>	<b>- 0.5</b>

(a) Inflow of funds +, outflow -. Totals may not match components, owing to rounding errors.  
(b) Including net unremitted profits.  
(c) Including Bank of England Issue Department transactions in commercial bills.

explain, but may reflect a wider dispersion of experience of different companies in the current recovery phase. Nonetheless, there was an underlying strengthening in the balance sheet of the sector as a whole.

In 1983, bank borrowing fell sharply, especially in the first half of the year, although there was higher borrowing after mid-year which continued into early 1984. The large increase in the ICCs' financial surplus, together with increased equity issues, and investment funds from abroad, meant that in aggregate companies were able to make substantial acquisitions of liquid assets. Hence both net and gross liquidity improved further in 1983. According to the DTI survey of company

**Chart 5**  
**Liquidity ratio (seasonally adjusted)**



Source: Department of Trade and Industry survey of company liquidity.

(1) Physical change in stocks.

(2) Recent figures show some further destocking in the first half of 1984.

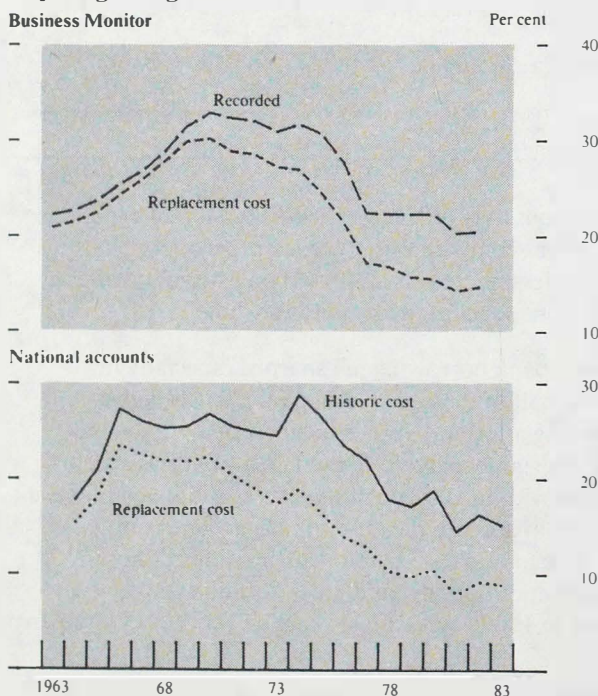


liquidity,<sup>(1)</sup> by the end of 1983 companies' aggregate liquidity position had reached the level of 1978, before the recession began (Chart 5). In the first half of 1984, ICCs have run down their bank deposits somewhat; the DTI survey points to a deterioration in liquidity positions.

### The structure of company debt

The structure of company debt, and particularly the role of bank borrowing, has changed over the last two decades (Table D). The importance of bank finance increased sharply in the early 1970s and banks now play a dominant role, with corporate bonds and other loans of only minor importance compared with their share in the mid-1960s. Some recent increase in debenture and preference share issues has made little impact on this

**Chart 6**  
Capital gearing<sup>(a)</sup>



(a) Net debt as a percentage of trading assets measured at 'historic cost' or replacement cost. The Business Monitor recorded estimates incorporate any revaluation of fixed assets made by companies in their historic cost accounts, while the national accounts estimates are 'true' historic cost.

**Table D**  
Debt structure of industrial and commercial companies

£ billions: amounts outstanding at end-year

	Bank borrowing (a)	Debenture and loan stock(b)	Other loans	Gross debt (columns 1+2+3)	Liquid assets	Net debt (columns 4-5)
	1	2	3	4	5	6
1966	5.0	3.2	2.2	10.4	3.5	6.9
1969	6.5	4.1	2.9	13.5	4.2	9.3
1972	11.2	6.4	3.8	21.4	7.2	14.2
1975	19.5	4.2	4.6	28.3	11.5	16.8
1978	27.2	4.6	5.0	36.8	17.5	19.3
1979	30.8	4.4	5.5	40.7	17.7	23.0
1980	36.5	4.2	5.3	46.0	20.9	25.1
1981	44.4	3.8	5.4	53.6	26.4	27.2
1982	52.7	6.0	4.9	63.6	30.0	33.3
1983	55.9	6.8	5.1	67.8	36.8	31.0

(a) Includes Bank of England holdings of commercial bills.

(b) Expressed at market values.

position. The improvement in liquidity in 1983, with a lower rate of bank borrowing, is reflected in the fall in net debt last year.

Despite the high levels of borrowing in recent years, capital gearing<sup>(2)</sup> does not appear to have increased, although the decline of the 1970s has almost ceased (Chart 6). Capital gearing is a measure of companies' cumulative reliance on external borrowing, as opposed to equity issues or retained profits, in financing their capital stock. In both historic and replacement cost terms unprecedented levels of bank borrowing in 1974 caused capital gearing to increase. Subsequently, gearing declined in the middle part of the 1970s as retained profits revived as a source of company funds.<sup>(3)</sup> Greatly increased rates of inflation in 1972-76 caused the replacement cost measure of capital stock to increase more rapidly than the historic cost capital stock; the fall in the historic cost measure of gearing occurred somewhat later. This process caused the proportionate difference between the two measures to continue increasing up to 1982. The sample of large listed companies used in the Business Monitor calculations of capital gearing has rather higher gearing than the national accounts figures, but shows a broadly similar path. In viewing all of these figures it should be noted that the volume of off balance sheet finance has increased sharply over this whole period.

(1) Based on a sample of 266 large industrial and commercial companies.

(2) Defined as the ratio of net debt to the value of the capital stock at historic or replacement cost.

(3) See also Chart 1 on page 372.



## Appendix

In addition to the concepts of profitability discussed in the main article, a number of alternatives are available. This appendix concentrates on the equity rate of return and the two measures of post-tax profitability. Reference is also made to the cost of capital and the valuation ratio, 'q'. Two other issues relating to the statistics are also discussed: the changes in the corporation tax regime announced in the 1984 Budget, and the revision to the asset life assumptions used by the Central Statistical Office (CSO) in the derivation of estimates of the capital stock and capital consumption.

### The pre-tax rate of return to the equity interest

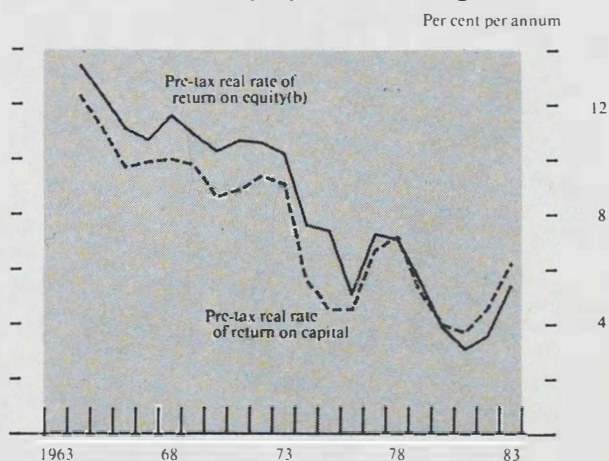
The *rate of return to capital* measures the return on trading assets irrespective of how they are financed; it is defined as the ratio of operating profits at replacement cost<sup>(1)</sup> to the sum of net debt and the equity interest. Measuring the *return to equity* involves subtracting net interest payments from profits and subtracting net debt from the denominator. Additionally, a gearing adjustment<sup>(2)</sup> is made to profits to reflect changes in the real value of nominal debt that result from general price inflation.

With real rates of return on trading assets exceeding real ex-post interest rates for much of the period to the late 1970s, the rate of return to equity typically exceeded the return on trading assets by a factor reflecting income gearing. When real interest rates rise, however, the rate of return on equity tends to fall relative to that earned on trading assets; indeed, since 1980 the sharp rise in real interest rates has pushed the return on equity below the real rate of return on the trading assets of non-North Sea ICCs.

### Real post tax-profitability

The *real post-tax rate of return* measures the real rate of return after taking account of both tax liabilities on income and of tax subsidies in the capital stock. This calculation relies on the assumption that the company sector is always earning sufficient profits for it to claim all tax allowances (see earlier articles in this series, eg the June 1983 *Bulletin*, page 238). This would be true if companies making tax losses could transfer them to tax paying companies (eg by way of mergers, takeovers, leasing, etc); because this has not happened, a stock of tax losses has accumulated<sup>(3)</sup> and in any particular quarter actual tax accruals may be either higher (because of the inability to set off current allowances against current profits) or lower (because of the use of carried forward

**Chart 7**  
Rates of return<sup>(a)</sup> to equity and on trading assets



(a) Excluding North Sea activity; national accounts data.  
(b) Incorporating a natural gearing adjustment.

losses against profits) than our calculations. On average, however, the accumulation of unused tax allowances means that the post-tax rates of return as calculated have overstated the actual figure, although the extent of this error is uncertain.

There are two ways in which a post-tax rate of return can be calculated. The *backward-looking* measure calculates the tax adjusted capital stock using the actual post-tax cost of each unit of capital installed, ie by using the tax system in operation at that time. This gives a measure of realised profitability to compare with the pre-tax rates of return discussed earlier. The *forward-looking* measure uses the tax system in operation in a particular year to adjust the value of the whole existing capital stock, treating it as if it were all installed in that year; this gives a measure of the post-tax return to be expected on new investment, which can most appropriately be compared with the cost of capital.<sup>(4)</sup>

The acceleration in inflation in the early 1970s masked the decline in real pre-tax profitability which is not evident in the historic cost measures shown in Chart 8. Movements in the real tax burden on companies have also resulted from changes in the tax structure such as the introduction of 100% initial allowances on investment in plant and machinery in 1972 and the stock relief scheme introduced in 1974 (retrospectively to the 1973/4 tax year). These measures closed the gap between pre and post-tax rates of return in subsequent

(1) Gross trading profits plus rent less stock appreciation less replacement cost capital consumption.

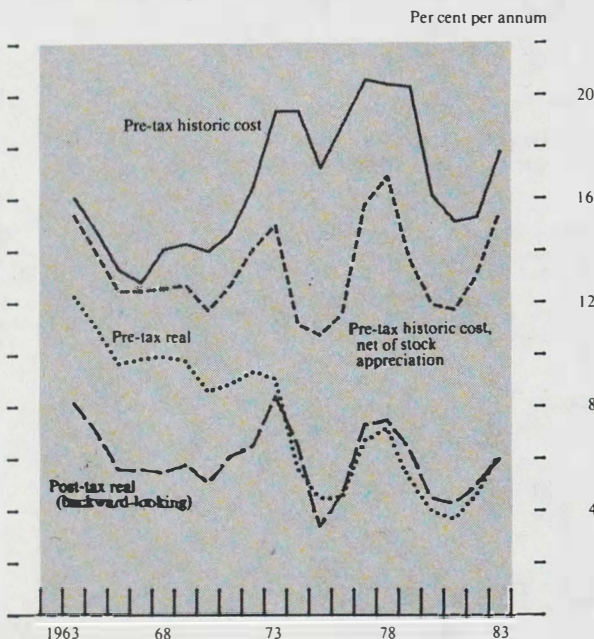
(2) A 'natural' gearing adjustment is used here, obtained by multiplying the stock of net debt by the rate of inflation. Alternative gearing adjustments are discussed in the December 1978 *Bulletin*, page 513.

(3) The Inland Revenue estimate that at the end of 1983 approximately £25 billion of unused corporation tax allowances were outstanding.

(4) For a detailed explanation of the concepts behind these and other measures discussed in this appendix, see the articles published in the March 1976 and June 1976 *Bulletins*, 'Trends in company profitability' and 'The cost of capital, finance and investment', respectively.



**Chart 8**  
Rate of return on trading assets of industrial and commercial companies<sup>(a)</sup>



(a) Excluding North Sea activity.

years. Thus the post-tax rate of return has fluctuated around a level similar to that seen in the late 1960s despite the marked decline in pre-tax profitability.

The forward-looking post-tax rate of return has followed a rather different path from the backward-looking measure. Comparison with the *cost of capital* <sup>(1)</sup> (Chart 9) provides a measure of the incentive to invest—in principle it is worthwhile investing only if the post-tax rate of return exceeds the cost of capital. <sup>(2)</sup> The *valuation ratio*, 'q', is the ratio of these two quantities or, equivalently, <sup>(3)</sup> the ratio of the market value of equity plus debt to the replacement value of trading assets (hence 'valuation' ratio).

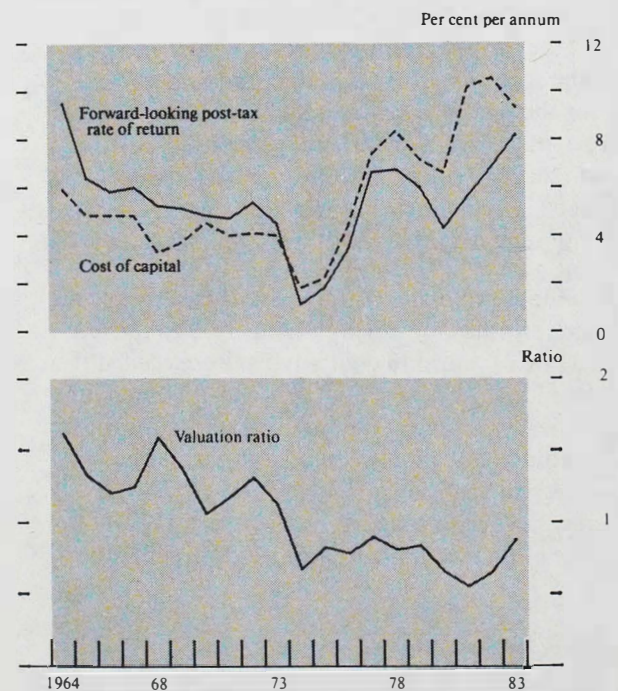
The valuation ratio suffers from all the problems of post-tax calculations mentioned earlier, and the Bank measure of the market value of equity (dividends

divided by the dividend yield published by the Financial Times) may not be completely appropriate. As an indicator of the incentive to invest, 'q' is at best a proxy for the 'marginal q' which is theoretically more relevant, and suffers from these data deficiencies and other conceptual problems.

**The effect of the 1984 Budget**

The changes in the corporation tax system<sup>(4)</sup> announced in the 1984 Budget do not affect any of the backward-looking post-tax measures (except for the reduction in the rate from 52% to 50% for the 1983/4 tax year). Neither do they affect the forward-looking measures for any periods for which data now exist, since the tax changes were not known until March 1984. The full effect of the changes is complicated but an indication is

**Chart 9**  
Real rate of return, cost of capital and valuation ratio<sup>(a)</sup>



(a) All industrial and commercial companies.

(1) The cost of capital in principle measures the minimum rate of return required on an investment for a company to be able to pay suppliers of finance their required returns. An average measure of this is provided by the ratio:

$$\frac{\text{forward-looking post-tax profits}}{\text{market value of equity plus net debt}}$$

See the June 1976 *Bulletin* article, *op cit*.

(2) In fact, the rate of return on, and cost of, the marginal unit of capital are the relevant quantities, but direct measurement of these is not feasible. Some discussion of these issues and use of 'q' in econometric work can be found in Bank of England Discussion Paper No 17 'Investment, profitability and the valuation ratio', by N H Jenkinson.

(3) 
$$\text{Post-tax rate of return} = \frac{\text{post-tax profits/replacement cost capital stock}}{\text{Cost of capital}} = \frac{\text{post-tax profits/market valuation of firms}}{\text{replacement cost capital stock}} = \frac{\text{market valuation}}{\text{replacement cost capital stock}}$$

(4) The corporation tax system for each of the years 1983/4–1986/7 is as follows:

	First year investment allowances			Corporation tax rate(b)
	Plant and machinery	Industrial buildings(a)	Commercial buildings(a)	
1983/4	100	75	—	50
1984/5	75(c)	50	—	45
1985/6	50(c)	25	—	40
1986/7	—(c)	—	—	35

(a) Both industrial and commercial buildings also qualify for a 4% straight line writing down allowance (WDA); from 1986/7 this will be the only WDA available for buildings.

(b) Large companies.

(c) From 1986/7 only a 25% WDA is claimable, from the first year onwards, on a reducing balance basis. In 1984/5 and 1985/6, this WDA is allowed in the first year in addition to the first year allowances, to give a total write-off against tax in the first year of 81.4% and 62.4% respectively (and 25% in 1986/7).



provided by comparing the forward-looking post-tax rate of return calculated using 1983 profits data on the alternative assumptions of the pre-Budget tax structure and the structure as it will be in 1986/7. On the former basis, the rate of return was over 8%; if the new rates of tax and allowances were already in operation, this would have been reduced to 6½%, the abolition of stock relief and reduced investment allowances outweighing the lower tax rate.

#### **The effect of asset life revisions**

The June 1983 *Bulletin* article (page 232) used estimates of the capital stock, compiled by the CSO, which assumed for manufacturing industry that the life of a building was 80 years, and of plant and machinery on average about 30 years, figures that were substantially different from commercial practice. The CSO altered its

assumptions in the 1983 *National Income and Expenditure* Blue Book. The assumed lives have been gradually reduced and are now 60 years for buildings of 1930 and later vintage and on average about 23 years for plant and machinery installed since 1970.

There are two effects of this change which work in different directions. On the one hand, estimates of capital consumption are increased, tending to reduce real profitability; on the other hand, the size of the capital stock is reduced, with the opposite effect. The impact of these changes on the rate of return calculations is not significant until the late 1970s. The reduction in the capital stock outweighs the higher capital consumption; but 1981–82 pre-tax real rates of return are estimated to be only about ¼ percentage point higher as a result.