Profitability and company finance[1]

This note presents revised and updated estimates of real profitability and the cost of capital, and other information on the finance of companies:

- *The pre-tax and post-tax real rate of return on trading assets and on the equity interest.*
- *The real cost of capital and the valuation ratio ('q').*
- *The appropriation of income, income gearing, capital gearing, and sources and uses of funds.*

Profitability

Returns on trading assets

Latest estimates of the pre-tax real rate of return on trading assets[2] confirm the pattern described in previous *Bulletins*, with real profitability falling to a record low of just under 3% in 1980.[3] After a gentle decline in the 1960s and early 1970s (see Table A and Chart A), the pre-tax real rate of return fell sharply in 1974–76 (to 5¼%), as capacity utilisation fell and inflation accelerated. The easing of cost pressures during 1977 and 1978 allowed some modest recovery to 6¼%. But in 1979 real profitability began to fall again as costs accelerated and the appreciation of sterling affected output and the ability of companies to pass on cost increases in higher prices. As the economy moved into deep recession in 1980 and competitiveness declined further, real profitability continued to deteriorate, falling below 2¼% by the end of the year.

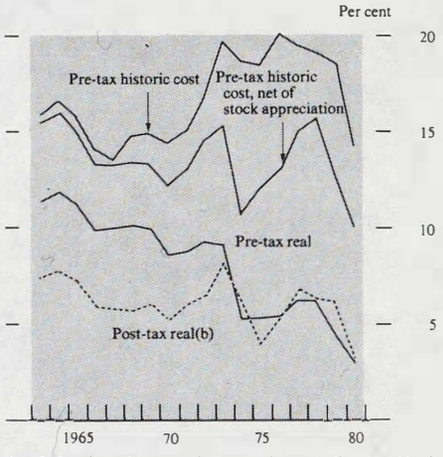
Table A
Rates of return on trading assets[a]

Per cent

	Pre-tax historic cost	Pre-tax historic cost, net of stock appreciation	Pre-tax real	Post-tax real[b]
1963	15.9	15.4	11.4	7.4
1964	16.6	15.9	11.9	7.8
1965	15.8	15.0	11.2	7.3
1966	14.1	13.3	9.9	5.9
1967	13.6	13.3	10.0	5.8
1968	14.8	13.4	10.1	5.7
1969	14.9	13.3	9.9	6.0
1970	14.4	12.2	8.6	5.2
1971	15.1	13.1	8.8	6.1
1972	16.8	14.5	9.3	6.5
1973	19.8	15.3	9.1	8.1
1974	18.7	10.7	5.2	6.0
1975	18.5	12.1	5.3	3.9
1976	20.1	13.1	5.4	5.4
1977	19.4	15.0	6.2	6.8
1978	19.0	15.6	6.2	6.3
1979	18.5	12.4	4.3	6.1
1980	14.2	10.0	2.9	3.2

(a) Industrial and commercial companies, excluding their North Sea activity.
(b) Backward-looking.

Chart A
Rates of return on trading assets[a]



(a) Industrial and commercial companies, excluding their North Sea activity.
(b) Backward-looking.

The post-tax real rate of return[4] (Table A and Chart A) is calculated on the basis that tax accruals both of corporation tax and of income tax on interest payments (at the basic rate) represent a return to the government stake in the trading assets represented by the implicit deferred tax balances created by the provision of, for example, accelerated capital allowances.[5] The relative movements of the pre-tax and post-tax rates of return show that the 'government's rate of return' on trading assets fell sharply in the early 1970s, mainly as a result of the extension of 100% first-year allowances on plant and machinery to the whole country in 1972 and the introduction of stock relief

(1) A list of earlier *Bulletin* articles on this and closely related topics can be found in the June 1980 *Bulletin*, page 191, and some revisions to earlier estimates were presented in the December 1980 *Bulletin*, page 455. Detailed definitions of the concepts described in these articles have not been repeated.

(2) Gross trading profits, plus rent, net of stock appreciation and capital consumption at replacement cost, as a percentage of capital employed at replacement cost. This section, and the following sections on the valuation ratio and returns to the equity interest, relate to industrial and commercial companies *excluding* their North Sea activity.

(3) Estimates of gross trading profits in 1976 to 1979 have been revised downwards since the publication of *National Income and Expenditure, 1980 edition* (the 'Blue Book'), the most substantial being a revision of almost £1 billion for 1979. In consequence, estimates for the pre-tax real rate of return are slightly lower than those published in the December 1980 *Bulletin*.

(4) Backward-looking. The backward-looking measure of the post-tax real rate of return is the preferred indicator of the realised level of post-tax profitability as it takes account of the system of capital allowances in force when units of the capital stock were installed. The forward-looking measure, on the other hand, is calculated by reference to the current system of investment incentives and is therefore an indicator of the incentive to invest.

(5) The deferred tax balances are calculated on the basis of the tax liability that would arise if all the trading assets were sold at replacement cost in the period concerned.

(which applied retrospectively to 1973) in 1974. But as tax concessions grow and pre-tax profitability falls, an increasing number of firms do not pay corporation tax. This is not fully incorporated into the presented measure of post-tax profits, which assumes that firms with tax losses (i.e. with tax allowances exceeding income) transfer the losses to tax-paying companies. The post-tax measure is thus increasingly likely to underestimate the true tax liability of profitable firms and to overestimate the true level of post-tax profitability. Conversely, any favourable change in the tax regime will be overestimated in the presented measure.

The Chancellor announced a new system of stock relief in the March 1981 Budget. This scheme, which removes the possibility of 'clawback' of earlier tax relief as companies reduce their stocks as a result of financial pressures, will apply retrospectively to many companies in 1980. This has not yet been incorporated into the backward-looking measure presented in Table A, but a very provisional estimate indicates that the new scheme might increase the recorded backward-looking rate of return by over one percentage point, although this is likely to be a substantial overestimate of the true impact of the switch to the new scheme because of the problems with the backward-looking measure discussed above.

Valuation ratio ('q')

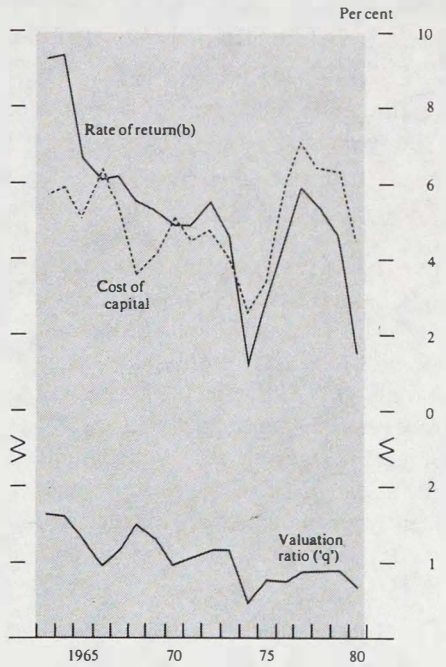
The relationship between the profitability of an extra unit of capital (the rate of return) and the cost of financing the extra unit (the cost of capital) is likely to be an important influence on the volume of industrial investment. This influence is proxied by the valuation ratio ('q'), the ratio of the average rate of return on existing trading assets to the cost of capital (both expressed in post-tax real terms).[1]

The latest estimates of 'q' still show a downward trend during the 1960s and early 1970s, followed by a sharp fall in 1974 (Chart B). After this, 'q' recovered a little until 1979, but remained below unity, and then dropped back in 1980. At its present level, 'q' represents only a very weak inducement to invest, which is consistent with the fall in industrial investment forecast for this year in the May 1981 Department of Industry Investment Intentions Survey (see the economic commentary, page 155).

Returns to the equity interest

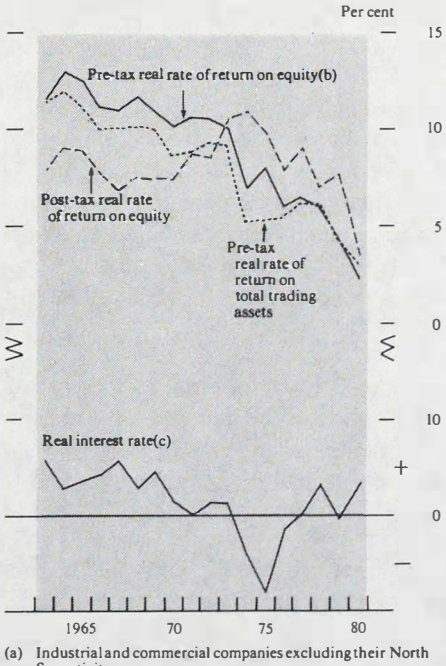
The pre-tax real rate of return to the equity interest[2] will normally be higher than the return on trading assets by a factor reflecting capital gearing. This relationship will, however, be modified when real interest rates change, so that the rate of return on equity will rise relative to that on trading assets if real interest rates fall. (Chart C confirms this view.) Capital gearing was little changed in 1980, but the sharp rise in real interest rates, as inflation fell more rapidly than nominal interest rates, caused the pre-tax equity rate of return of industrial and commercial

Chart B
Rate of return, cost of capital and valuation ratio ('q')[a]



(a) The rate of return covers non-North Sea industrial and commercial companies, but the cost of capital and the valuation ratio ('q') are for all industrial and commercial companies.
(b) Forward-looking post-tax real rate of return on trading assets.

Chart C
Rates of return on equity and on total trading assets[a]



(a) Industrial and commercial companies excluding their North Sea activity.
(b) Incorporating a 'natural' gearing adjustment.
(c) The implied nominal rate of interest on industrial and commercial companies' gross debt, adjusted for changes in the retail price index during the period.

(1) For a discussion of the econometric evidence on the influence of 'q' on industrial investment in the United Kingdom see *Investment, profitability and the valuation ratio*, by N H Jenkinson, Bank of England Discussion Paper (forthcoming).

(2) The rate of return to the equity interest measures the profitability accruing to the holders of the equity in the company sector, as opposed to the return on trading assets, which also includes returns to debt holders. The measure is presented with a 'natural' gearing adjustment, which credits to profits the decline in the real value of debt at a time of inflation. For alternative measures of the gearing adjustment, see the article in the December 1978 *Bulletin*.

companies (excluding their North Sea activity) to fall below that earned on trading assets.

Estimates of the post-tax real equity rate of return are presented for the first time. To move from a pre-tax to a post-tax measure[1] two adjustments are necessary:

- tax accruals on the equity stake need to be subtracted from pre-tax equity profits;
- deferred tax needs to be subtracted from the denominator.

The relationship between the pre-tax and post-tax real equity rates of return (Chart C) has been similar to that between pre-tax and post-tax measures of real profitability on trading assets, with post-tax equity profitability being higher than pre-tax profitability following the introduction of stock relief and more generous capital allowances.[2] However, the difficulties in measuring post-tax profitability on trading assets apply also in calculating post-tax equity profitability; consequently recent figures are likely to be overestimates.

Appropriation of income[3]

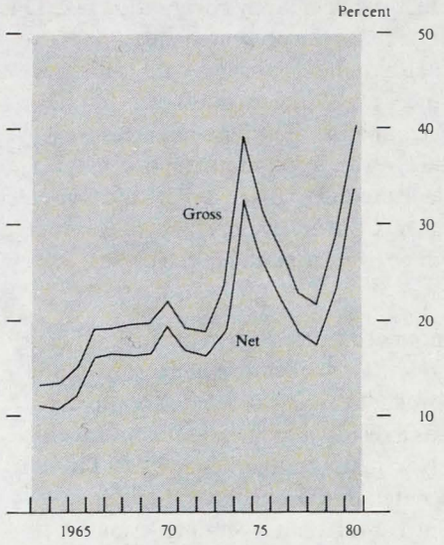
In 1980, average interest rates were substantially higher than in 1979, and companies' bank borrowing grew strongly (see below). As a result, interest payments increased by over 30%. The growth in interest payments, combined with a fall in post-tax income, pushed gross income gearing to over 40%, slightly above the previous peak in 1974 (Chart D). But the reductions in minimum lending rate in July and November 1980 and in March 1981 should reduce companies' interest payments by about £1 billion this year, despite continued growth in the stock of outstanding debt.

Despite the marked fall in profitability between 1979 and 1980, gross dividend payments were maintained, falling by only 3% (at current prices) from the historically high nominal level of 1979, which reflected catching up after a period of controls. In consequence, dividends as a share of distributable income[4] (the dividend payout ratio) increased sharply, almost reaching the 1974 peak of nearly 40% (Chart E).

Last year, tax payments rose by £1.7 billion, an increase of over 40%. Almost £1.1 billion of the increase represented higher payments of petroleum revenue tax by oil companies, while the rest reflected higher payments of advance corporation tax.

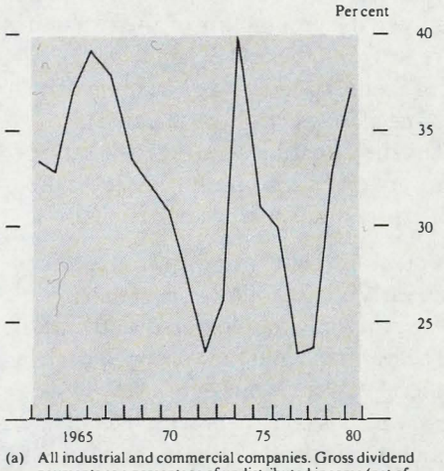
With appropriations rising much more quickly than income (excluding stock appreciation), the share of retained earnings in total income fell to its lowest since 1974 (Chart F), illustrating one aspect of the financial pressures on the company sector.

Chart D
Income gearing[a]



(a) All industrial and commercial companies. Gross income gearing is measured as interest payments (including preference dividends) as a percentage of gross trading profits (net of stock appreciation) and other income, less tax payments. Net income gearing expresses the interest charge net of interest receipts, and also excludes interest income from the denominator.

Chart E
Dividend payout ratio[a]



(a) All industrial and commercial companies. Gross dividend payments as a percentage of undistributed income (net of stock appreciation and adjusted for unremitted profits and capital transfers) plus gross dividend payments.

Sources and uses of funds[5]

The deterioration in retained earnings in 1980 would have led to a sharp increase in companies' financial deficit if firms

(1) Calculated on a disposal basis, which is conceptually consistent with the backward-looking post-tax real rate of return. For a further discussion, see N P Williams, *Influences on the profitability of twenty-two industrial sectors*, Bank of England Discussion Paper No. 16.

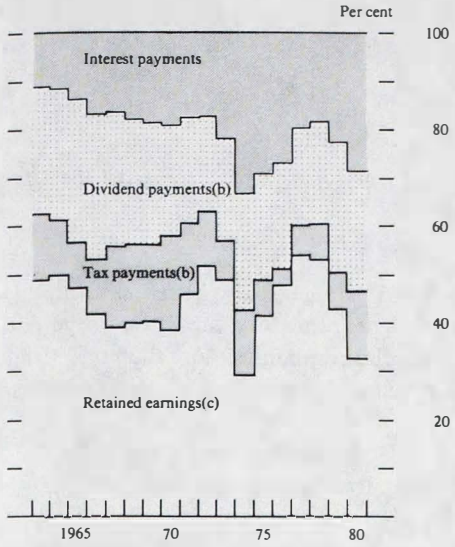
(2) A comparison of pre-tax and post-tax rates of return to the equity interest does not give a realistic indication of the government's return from companies' activities, because the government's return also includes tax on the income of debt holders. See above for a brief description of the government's return on trading assets. Neither of the implied 'government returns' conforms with the more commonly accepted concept of the incidence of tax liabilities on company equity profits. For estimates of this, see 'Incidence of company taxation', *Economic Progress Report*, No. 132, April 1981, HM Treasury.

(3) All subsequent measures of companies' financial performance relate to all industrial and commercial companies because separate data for their North Sea activity are not available.

(4) Dividends are gross of advance corporation tax. Distributable income is defined as undistributed income net of stock appreciation and adjusted for unremitted profits and net capital transfers, plus gross dividend payments.

(5) For more details, see the article on sector financing (page 210).

Chart F
The distribution of appropriations[a]



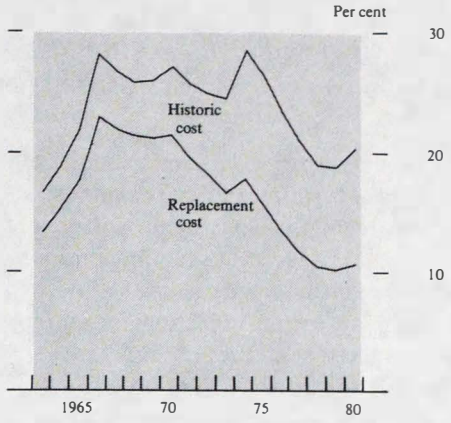
(a) As a percentage of total appropriations, for all industrial and commercial companies.
(b) Payments of advance corporation tax are included in dividend payments.
(c) Undistributed income net of stock appreciation and adjusted for unremitted profits.

had not been so successful in reducing total capital spending. Although expenditure on fixed investment increased by 11½% (in current prices), companies were able to cut their overall capital spending by over £4 billion by means of a record reduction in stocks. In consequence, companies' financial deficit fell from £4½ billion in 1979 to £2¾ billion in 1980, although the net borrowing requirement fell by only just over £½ billion.[1] The main reason for the smaller fall in the net borrowing requirement was a turnround in net trade and other credit, partly because of the effects of the Post Office billing dispute.

Bank borrowing grew strongly in 1980, with the stock of bank advances outstanding increasing by almost 20%. As a result, bank borrowing was more than sufficient to cover the net borrowing requirement. Table B shows the importance of bank borrowing as a source of funds. There was some pick up in UK capital issues in 1980 reflecting a slight revival in issues of loan capital: issues of ordinary shares were much the same as in the previous year.

The growth in borrowing led to a rise in capital gearing, measured at either replacement or historic cost, for the first time since 1974 (see Chart G). Nevertheless, capital gearing at replacement cost remains substantially below the previous peak in 1974.

Chart G
Capital gearing[a]



(a) All industrial and commercial companies. Net debt as a percentage of trading assets measured at historic cost or replacement cost.

Table B
Sources of funds[a]

£ billions

	Internal funds[b]	Bank borrowing	Other loans and mortgages	UK capital issues[c]	Overseas[d]	Import and other credit received[e]
1963	2.4	0.5	0.1	0.3	0.2	- 0.1
1964	2.8	0.8	0.1	0.4	0.1	- 0.1
1965	2.7	0.5	0.2	0.4	0.1	- 0.1
1966	2.3	0.2	0.1	0.6	0.2	- 0.1
1967	2.7	0.3	0.1	0.4	0.3	- 0.1
1968	3.0	0.6	0.2	0.5	0.3	—
1969	3.4	0.7	0.2	0.5	0.3	—
1970	3.1	1.1	0.3	0.2	0.5	—
1971	4.2	0.7	0.2	0.4	0.5	0.1
1972	5.0	3.0	0.2	0.6	0.3	0.1
1973	6.2	4.5	0.7	0.2	0.9	—
1974	3.7	4.4	0.1	0.1	1.6	- 0.3
1975	5.8	0.5	0.5	1.2	1.2	- 0.2
1976	7.5	2.4	0.4	0.8	1.4	- 0.6
1977	10.8	3.0	—	0.7	1.5	- 0.1
1978	13.1	2.9	0.4	0.8	1.4	- 0.7
1979	14.2	4.9	0.6	0.9	—	- 0.4
1980	10.2	6.6	0.7	1.3	- 0.6	- 0.7

(a) All industrial and commercial companies.
(b) Undistributed income (net of stock appreciation), capital transfers (net receipts) and increases in the tax balance.
(c) Issues of ordinary shares, debentures and preference shares.
(d) Overseas capital issues, overseas direct investment in securities, and intra-company investment by overseas companies.
(e) Net of export and other credit given.

(1) The net borrowing requirement differs from the financial deficit in making an allowance for the impact on companies' financial position of unremitted profits and several other financial flows, such as net identified trade and other credit. After these adjustments, the two measures differ by the amount of unidentified financial transactions.