

Profitability and company finance: a supplementary note

Introduction

This note presents revised and updated estimates of real profitability, and other information on the finance of companies.⁽¹⁾ Particular attention is paid to the pre-tax and post-tax real rate of return on trading assets of industrial and commercial companies (excluding their North Sea activities) and to the pre-tax real rate of return to the equity interest in these companies. Latest estimates of the real cost of capital and the valuation ratio are presented. The previous analysis of trends in the income gearing, capital gearing and debt structure of industrial and commercial companies is extended to the published accounts of a sample of large, listed companies. Changes in the sources of companies' funds during the 1960s and 1970s are reported.

Profitability

Returns on trading assets

Gross trading profits have been revised upwards by at least £1 billion in each of the years 1973 to 1979 and, in consequence, the pre-tax real rate of return on trading assets⁽²⁾ has been about one percentage point higher than previously estimated (see Table A). Nevertheless, the earlier conclusions about trends in profitability

Table A
Effect of revisions to profits

	Gross trading profits revisions(a) (£ billions)	Pre-tax real rates of return on trading assets (per cent)	
		Earlier estimates(a)	Revised estimates (as in Table B)
1970	0.1	8.5	8.7
1971	0.2	8.6	8.9
1972	0.5	8.5	9.3
1973	1.1	7.3	8.8
1974	1.2	4.0	5.2
1975	1.0	3.8	4.7
1976	1.3	4.1	5.1
1977	1.5	4.8	5.8
1978	2.0	4.8	5.9
1979	1.6	3.3	4.1

(a) Using figures available in January 1980 and an estimate for the fourth quarter of 1979.

remain valid.⁽³⁾ The pre-tax real rate of return still shows a gentle downward trend during the 1960s and early 1970s (see Table B and Chart A), followed by a sharp fall (to 5%) in 1974-76 as inflation accelerated and capacity utilisation fell. The modest recovery to 6% in 1977 and 1978 reflected the easing of cost pressures. But real profitability was severely squeezed again in 1979 as costs (principally of raw materials) accelerated and UK trading competitiveness was adversely affected by the appreciation of sterling (see economic commentary). The pre-tax rate in 1979 was 4%, the lowest so far.

Table B
Rates of return on trading assets of industrial and commercial companies^(a)

	Pre-tax historic cost	Pre-tax historic cost, net of stock appreciation	Pre-tax real	Post-tax real(b)
1963	16.1	15.6	11.6	6.5
1964	16.9	16.1	12.1	6.8
1965	16.0	15.2	11.4	6.3
1966	14.3	13.5	10.1	4.3
1967	13.7	13.5	10.2	4.6
1968	15.0	13.5	10.3	5.0
1969	15.0	13.4	10.0	5.2
1970	14.5	12.2	8.7	4.4
1971	15.3	13.3	8.9	5.1
1972	16.8	14.5	9.3	4.9
1973	19.6	15.0	8.8	6.1
1974	19.1	10.9	5.2	4.3
1975	17.7	11.2	4.7	3.6
1976	19.6	12.8	5.1	3.8
1977	18.8	14.4	5.8	4.2
1978	18.0	14.9	5.9	4.5
1979	17.8	11.6	4.1	3.5

(a) Excluding their North Sea activities.

(b) Backward-looking.

The upward revisions both to profits and to depreciation allowances have, however, eliminated a good deal of the previous pronounced decline in the post-tax real rate of return on trading assets in the mid-1970s. Broadly speaking, the backward-looking measure⁽⁴⁾ is now estimated to have been relatively stable (fluctuating mainly between about 4%-5%) since the introduction of the 'classical' system of company taxation in 1965, although lower than in the early 1960s. The real tax burden on companies, as implied by the relative movements of the pre-tax and

(1) Previous estimates, and discussion of closely related topics, were published in articles in the March and June 1976 issues of the *Bulletin*, in supplementary notes in the June 1977 and June 1979 issues, and in articles in the December 1978 and December 1979 issues. Detailed definitions are not repeated here.

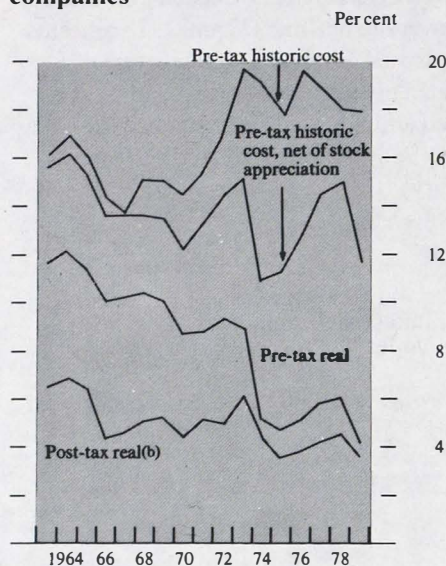
(2) Gross trading profits, plus rent, net of stock appreciation and capital consumption at replacement cost, as a percentage of capital employed at replacement cost.

(3) The trend in the pre-tax real rate of return on trading assets as shown in Table B is similar to that derived independently from the published accounts of over 1,000 large, listed companies as published in the Department of Industry's *Business Monitor MA3: Company Finance* (see the article 'The profitability of UK industrial sectors' in the December 1979 *Bulletin*). Unlike the national accounts estimates for industrial and commercial companies, the *Business Monitor* sample is restricted to large companies, and includes some overseas activities. The December 1979 *Bulletin* article presented the most up-to-date estimates of profitability based on this sample, and these are not reproduced here.

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

post-tax measures (see Table B) fell sharply in the early 1970s, principally because of the extension of 100% initial allowances on plant, machinery, ships and aircraft to the whole country in 1972⁽¹⁾ and of the introduction of stock relief, with retrospective effect, in 1974. Subsequently, the real tax burden appears to have been little changed.

Chart A
Rates of return on trading assets of industrial and commercial companies^(a)



(a) Excluding their North Sea activities.
(b) Backward-looking.

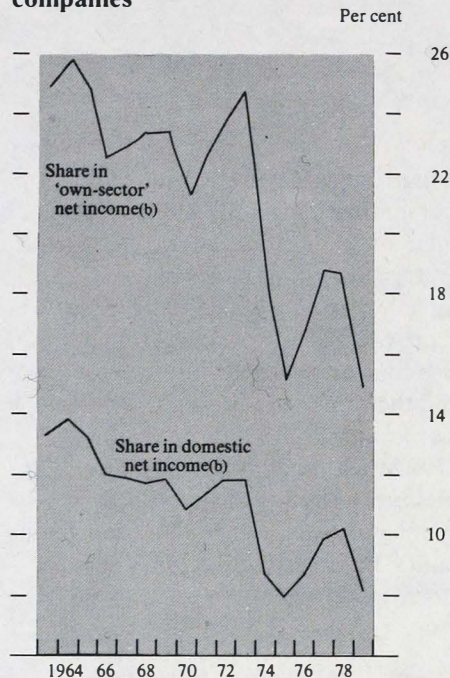
Profit shares

The general picture of declining pre-tax real profitability is confirmed by an analysis of shares of the profits of industrial and commercial companies (excluding their North Sea activities) in income (see Chart B). Shares of real profits in income have, however, fallen more slowly than real rates of return as a corollary of a marked rise in the capital/output ratio in the mid-1970s and some further subsequent increase.⁽²⁾ The share of real profits in domestic net income fell to 8% in 1979.

Valuation ratio ('q')

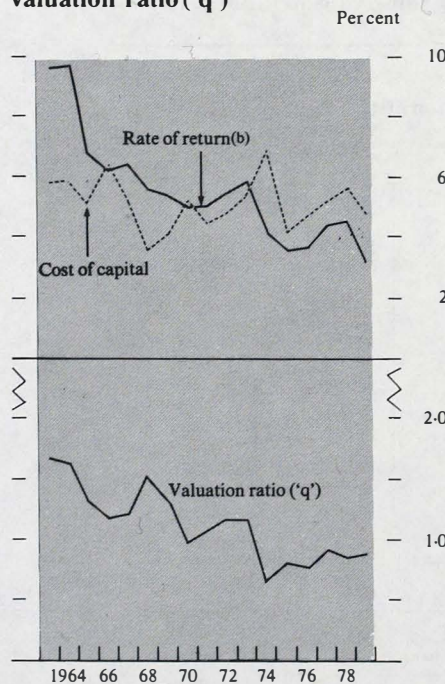
The relationship between the rate of return on trading assets and the cost of capital (both expressed in post-tax real terms) is likely to be an important influence on the volume of industrial investment. The valuation ratio ('q') is a summary measure of the ratio of the rate of return to the cost of capital. The estimates of the rate of return, cost of capital and 'q' have been affected by modifications to the calculation of the present value of investment allowances and of the financial valuation of industrial and commercial companies, but the latest estimates of 'q' still indicate a downward trend during the 1960s and early 1970s, followed by a sharp fall in 1974 (see Chart C). Subsequently, 'q' has recovered a little but it has remained below unity, representing a weak inducement to invest.

Chart B
Shares of pre-tax real profits of industrial and commercial companies^(a)



(a) Excluding their North Sea activities.
(b) Net income is defined as total factor income, net of stock appreciation and capital consumption at replacement cost. 'Own-sector' income is for industrial and commercial companies (excluding their North Sea activities) and domestic income is for the whole economy.

Chart C
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 data availability dictates that 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.

(1) The initial allowance on industrial buildings was increased at the same time from 30% to 40%, and subsequently to 50%.
(2) Illustrated in the December 1978 *Bulletin* article, page 513.

Returns to the equity interest

The December 1979 *Bulletin* article presented estimates of the pre-tax real rate of return on equity of manufacturing, distribution and service companies, based on the *Business Monitor* sample of company accounts. These are not reproduced here. The corresponding estimates for industrial and commercial companies (excluding their North Sea activities) based on the national accounts are more up to date but rather less reliable, in part because of the lack of comprehensive balance-sheet data, though this should not seriously distort the resulting estimates. The 'natural' gearing adjustment credits to profits the decline in the real value of debt at a time of inflation. As stated in the December 1978 *Bulletin*:

- the return to equity [with a 'natural' gearing adjustment] will "normally" be higher than that to total trading assets by a factor reflecting aggregate capital gearing; but that
- this relationship will be modified whenever real interest rates change—the differential in favour of the return to equity rising when real interest rates fall.⁽¹⁾

Accordingly, as real interest rates fell during the 1960s and early 1970s, the real return to equity (incorporating a 'natural' gearing adjustment) shows a more modest decline than in that on trading assets as a whole (see Table C). As real interest rates fell sharply between 1973 and 1975, so the return to equity fell very much less than that on trading assets. Between 1975 and 1978, the latter recovered modestly but, with real interest rates rising, the return on equity continued to fall. In 1979, the return on each was

Table C
Rates of return on equity and on total trading assets of industrial and commercial companies^(a)

Per cent

	Pre-tax real rate of return on equity		Pre-tax real rate of return on trading assets	Real interest rate ^(b)
	'Natural' gearing adjustment	SSAP16 gearing adjustment		
1963	11.8	11.7	11.6	5.6
1964	13.1	12.5	12.1	2.7
1965	12.6	12.0	11.4	3.3
1966	11.4	10.8	10.1	4.0
1967	11.1	10.7	10.2	5.5
1968	11.8	10.8	10.3	2.7
1969	11.1	10.3	10.0	4.5
1970	10.3	8.9	8.7	1.3
1971	10.7	9.2	8.9	- 0.3
1972	10.4	9.4	9.3	0.8
1973	9.6	8.4	8.8	0.8
1974	6.9	4.4	5.2	- 6.5
1975	7.2	3.8	4.7	- 13.1
1976	5.6	4.3	5.1	- 2.5
1977	6.1	5.0	5.8	- 0.7
1978	5.6	5.1	5.9	3.3
1979	4.0	2.8	4.1	- 1.5

(a) Excluding their North Sea activities.

(b) Derived from the implied nominal rate of interest on industrial and commercial companies' gross debt. Table E shows the relationship between this implied rate and an estimate of the nominal rate on 'floating-rate' debt.

much the same, at about 4%. Table C also shows estimates of the return to equity incorporating an SSAP16⁽²⁾ gearing adjustment, which credits to real profits the geared portions of stock appreciation, and of the adjustments for depreciation⁽³⁾ and monetary working capital.⁽⁴⁾ During the years looked at, rates of return on equity incorporating an SSAP16 gearing adjustment have been lower than estimates incorporating a 'natural' gearing adjustment.

Gearing

This section revises and updates previous estimates of the debt structure, and of the capital and income gearing of industrial and commercial companies⁽⁵⁾ and examines the extent to which these trends in gearing are shared by the *Business Monitor* sample.

Table D shows that the nominal value of the net debt of industrial and commercial companies rose sharply in 1974 but was then little changed until 1978; more bank finance was roughly offset by the acquisition of liquid assets. Increased bank borrowing was responsible for the renewed growth of net debt during 1979. With regard to the composition of gross debt, bank finance has accounted for a steadily growing proportion during the 1970s, rising from just over 40% in 1970 to 75% in 1979. Meanwhile, owing to the virtual absence of new issues since 1973 (see Table G), the proportion of debentures and loan stock fell from nearly 50% in 1970 to less than 25% in 1979. Past *Bulletin* articles have drawn attention to the greater attractiveness of floating-rate bank borrowing, compared with fixed-rate debt, to risk-averse borrowers when future inflation rates over the life of a loan are particularly uncertain.

Table D
Composition of net debt: industrial and commercial companies

£ billions; annual averages

	Bank advances	Debentures and loan stock	Preference shares	Gross debt ^(a)	Liquid assets	Net debt ^(b)
	1	2	3	4	5	6
1963	2.8	2.4	2.2	7.4	3.5	3.8
1964	3.3	3.0	2.2	8.4	3.7	4.7
1965	3.9	3.6	2.2	9.7	3.7	6.0
1966	4.2	5.6	2.1	11.9	3.5	8.4
1967	4.2	5.7	2.1	12.0	3.7	8.3
1968	4.6	5.9	1.9	12.5	4.0	8.4
1969	5.2	6.2	1.7	13.1	3.9	9.3
1970	6.0	6.9	1.5	14.4	3.9	10.5
1971	6.5	7.3	1.6	15.3	4.5	10.8
1972	8.6	7.3	1.4	17.3	6.0	11.3
1973	11.8	7.7	1.3	20.8	8.5	12.3
1974	16.2	8.7	1.7	26.6	9.6	17.0
1975	18.2	8.6	1.6	28.4	10.4	18.0
1976	20.2	8.9	1.6	30.7	12.5	18.3
1977	22.8	8.9	1.6	33.4	14.1	19.3
1978	25.1	8.9	1.3	35.3	16.4	18.9
1979	28.6	8.6	1.1	38.4	17.4	21.0

(a) Gross debt equals columns 1 + 2 + 3.

(b) Net debt equals columns 4 - 5.

(1) These relationships depend on the level of, and movements in, the real interest rate on net debt. Table C shows, instead, the real rate of interest on gross debt (a more familiar concept), with which the real rate of interest on net debt is closely, but not precisely, related.

(2) 'Current cost accounting', *Statement of standard accounting practice No. 16*. The Institute of Chartered Accountants in England and Wales, March 1980.

(3) The depreciation adjustment is that from historic cost to current cost.

(4) Inadequate data on net trade credit means that it has not been possible to compute a monetary working capital adjustment for these estimates. However, the December 1979 *Bulletin* article demonstrated that, for the *Business Monitor* sample, the monetary working capital adjustment is relatively small.

(5) All remaining material derived from the national accounts relates to all industrial and commercial companies.

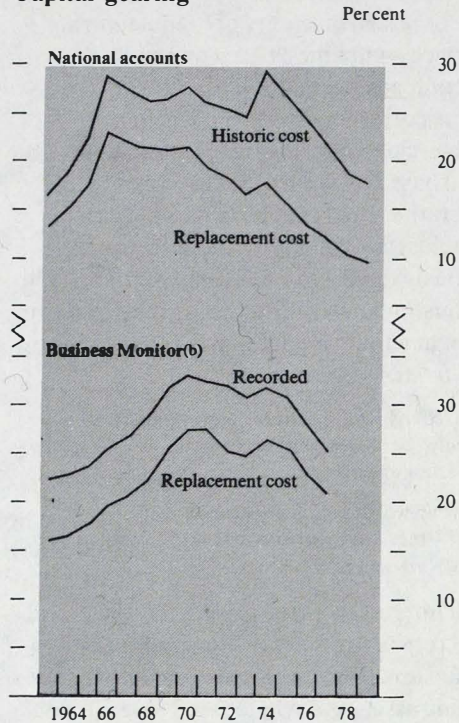
The acceleration of inflation during the 1970s, through its impact on the current valuation of capital employed, has meant that capital gearing at replacement cost has declined (see Chart D). The big increase in net debt in 1974 was in fact associated with no more than a modest rise in capital gearing. Thereafter, gearing has fallen sharply and, by 1979, was less than half the level in 1970. Although in 1979 there was a resurgence of growth in borrowing from banks (the amount outstanding grew by about 15%), gearing did not worsen. Estimates of capital gearing at historic cost, which probably give a more accurate representation of many companies' perceptions of gearing, also show a marked decline since 1974, reaching their lowest level for fifteen years in 1979.

Estimates of gearing based on the *Business Monitor* sample of manufacturing, distribution and service companies are also shown in Chart D. These estimates have been higher than the national accounts-based estimates throughout the period from 1963 to 1977, especially in more recent years. This tendency could, in part, reflect the more complete balance-sheet data provided in company accounts. The estimates derived from this sample for replacement cost capital gearing are in fact higher in 1977 than in the early and mid-1960s. Nevertheless, a pronounced downward trend in gearing at replacement cost since the early 1970s is common to both series. Capital gearing as actually recorded in companies' balance sheets also shows a modest downward trend in the 1970s, and by 1977 was the lowest for ten years.

Companies' income gearing represents that part of income which is pre-empted by interest payments. Previous estimates in the *Bulletin* have focused on the gross income gearing of industrial and commercial companies, and these estimates are updated in Chart E. After falling continuously between 1974 and 1978, companies' gross income gearing increased from 21% in 1978 to 30% in 1979, higher than in any previous year in the period except 1974 and 1975. This rise can be principally attributed to higher interest rates (see Table E), and, to a lesser extent, to an increased stock of debt. Chart E also shows estimates of industrial and commercial companies' net income gearing, which tell a broadly similar story.

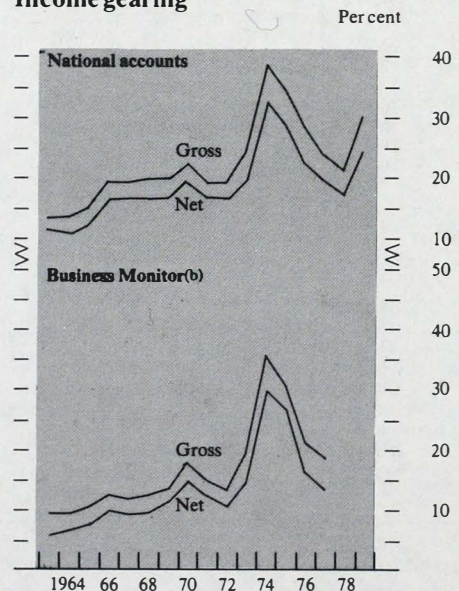
The implied nominal rate of interest on companies' total debt has, of course, been much less volatile than the rate of interest on floating-rate debt (see Table E) because of the continued, though reduced, importance of fixed-rate debt as a source of companies' finance; even so, the implied rate for industrial and commercial companies rose from about 11½% in 1978 to about 15½% in 1979.

Chart D
Capital gearing^(a)



- (a) Net debt as a percentage of trading assets measured at 'historic cost' or replacement cost. The national accounts historic cost estimates are not strictly comparable with the estimates recorded in the *Business Monitor* accounts; the latter incorporates a partial revaluation of fixed assets whilst the former is at 'true' historic cost.
- (b) *Business Monitor* estimates for 1978 and 1979 are not available.

Chart E
Income gearing^(a)



- (a) 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 receipts from the denominator; it is thus consistent with the measurement of debt in net terms.
- (b) *Business Monitor* estimates for 1978 and 1979 are not available.

Table E
Estimates of rates of interest on floating-rate and total debt

Per cent; annual averages

	Rate of interest on floating-rate debt(a)	Implied rates of interest on gross debt(b)	
		National accounts	Business Monitor
1963	6.0	7.5	5.1
1964	7.1	7.5	5.6
1965	8.4	7.9	6.0
1966	8.5	7.7	6.3
1967	8.2	7.9	6.7
1968	9.5	8.6	7.2
1969	9.8	9.3	7.5
1970	9.2	9.1	7.4
1971	7.9	8.7	7.2
1972	7.7	8.8	7.3
1973	11.8	11.4	9.0
1974	14.3	12.7	10.8
1975	12.5	11.8	10.5
1976	13.1	12.6	10.3
1977	10.9	11.4	9.9
1978	11.0	11.7	..
1979	15.7	15.7	..

.. not available.

(a) Approximated by clearing banks' base rate + 2%.

(b) Interest payments as a percentage of gross debt.

Sources of funds

Internal funds provided more than half of companies' capital requirements in every year from 1963 to 1979 except for 1973 and 1974 (see Table F). In the years since 1977, internal funds have accounted for about 70%, broadly the same proportion as in the 1960s. Bank borrowing increased sharply in 1972-74, rising from an annual average of under £1 billion before 1972 to about £4-5 billion in both 1973 and 1974. In part, this increase reflected the greater attractiveness of floating-rate than of fixed-rate debt

Table F
Sources of funds of industrial and commercial companies

£ billions

	Internal funds(a)	Bank borrowing	Other loans and mortgages	UK capital issues(b)	Overseas (c)	Import and other credit received(d)
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	0.2	-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	0.0
1969	3.4	0.7	0.2	0.5	0.3	0.0
1970	3.1	1.1	0.4	0.2	0.5	0.0
1971	4.2	0.7	0.2	0.4	0.5	0.1
1972	4.9	3.0	0.1	0.6	0.3	0.1
1973	6.2	4.6	0.8	0.2	0.9	0.0
1974	3.8	4.4	0.1	0.1	1.6	-0.3
1975	5.0	0.5	0.5	1.2	1.2	-0.1
1976	7.1	2.4	0.5	0.8	1.4	-0.5
1977	10.3	3.0	0.1	0.7	1.5	0.0
1978	12.9	2.9	0.3	0.8	1.3	-0.4
1979	13.1	4.9	0.6	0.9	0.5	-0.1

(a) Undistributed income (net of stock appreciation), capital transfers (net receipts), and increases in the tax balance.

(b) Issues of ordinary shares, debentures and preference shares.

(c) Overseas capital issues, overseas direct investment in securities, and intra-company investment by overseas companies.

(d) Net of export and other credit given.

during an inflationary period (see above), but it is chiefly the result of the failure of companies to reduce capital spending and dividend payments⁽¹⁾ in the short term in response to the sudden, and largely unexpected, pressure on company profits. Bank borrowing fell sharply in 1975 as companies ran down their stocks but, as noted above, it rose sharply again in 1979 as company profits came under increased pressure. Although bank borrowing was at a nominal record level in 1979 (about £5 billion), after allowing for inflation it was substantially lower than in the period 1972-74. The fall in issues of debentures and preference shares, particularly during the 1970s, is shown in Table G.⁽²⁾

Table G
Composition of UK capital issues

£ billions; average annual rate

	Ordinary shares	Debentures and preference shares
1963-67	0.1	0.3
1968-72	0.2	0.2
1973-75	0.4	0.1
1976-79	0.8	—

Ordinary share issues, on the other hand, have shown a clear upward trend during the 1960s and 1970s, even after allowance has been made for inflation. Of course, there has been substantial short-term volatility, in large part reflecting changes in stock market sentiment. For instance, falling stock market prices contributed to the very small amount of equity issues in 1973 and 1974 (about £0.1 billion each year) and, with internal funds also under pressure, may have contributed to the sharp increase in bank borrowing by companies. The recovery of share prices, coupled with companies' desire to reduce their relatively high (recorded) capital gearing, seem likely to have contributed to the resurgence of equity issues in 1975.

An increasingly important source of finance for industrial and commercial companies in recent years is represented by capital assets leased from financial companies. This leasing has many of the properties of borrowing. It has grown rapidly during the 1970s, largely because of the favourable terms which financial companies can offer to industrial and commercial companies—by taking advantage of initial capital allowances to postpone their corporation tax liability—particularly to those companies which cannot use tax allowances themselves because of low profits. Between 1972 and 1977, Equipment Leasing Association (ELA) estimates show a rise from £0.1 billion to £0.7 billion in the acquisition of assets for leasing, while in the two succeeding years leasing business increased to £1.8 billion.⁽³⁾

(1) In addition, tax payments were reflecting, with a lag of about eighteen months, higher profits earned in earlier periods.

(2) Their reduced importance among forms of gross debt is shown in Table D.

(3) These estimates cover only members of the ELA—about 80% of the business in recent years. Some of the assets are leased to sectors other than industrial and commercial companies.