Inflation and Financial Accounts

The Treatment of Loan Capital

by L. P. FOLDES, B.Conv., M.Sc.(E.con.)

In his article entitled 'The Effects of Currency Debase-
ment as Illustrated by Gas Industry Accounts' (The
Accountant, May 7th, 1970), Mr D.R. Myddelton demon-
strated the adjustment of profit and loss accounts and
balance sheets for changes in the general purchasing power
of money.

Although not concerned primarily with the special finan-
cial arrangements of nationalized industries, Myddelton
takes as his example the accounts of the gas industry for the
period 1950-59. His calculations suggest that conventional
profits, over 20 years, of £4,355 million before interest, or
£27 million after interest, are transformed into adjusted
figures of £267 million and —£244 million (losses) in
1952 money, or £444 million and —£217 million in 1969
money.

Treatment of debt

Myddelton's contribution is devoted largely to a discussion
of the treatment of fixed assets, and this item is responsible
for most of his adjustment of figures of profit before
interest. This adjustment is accepted for the purposes of
the present article, which deals only with the treatment of
loan capital and its effect on the calculation of adjusted
profits after charging the cost of such capital. This cost is
particularly significant in the case of public corporations
whose long-term external capital consists entirely of debt,
but arguments analogous to those presented here apply
also to the loans of ordinary companies.

The procedure with which I shall take issue is described
in the following passage from Myddelton's article:

'In the gas industry adjustments, Government debt capital
has been treated as if it were equity (i.e., not as a monetary
liability), and interest is equivalent to ordinary dividends
paid. This a nationalized industry's profit after interest on this
basis is equivalent to a private company's 'retained earnings'
for a period. Interest charged to nationalized industries is
generally low, because of exceptionally low interest rates
just after the war at the time of nationalization. This
test not much affects the difference made by currency
debasement adjustments, but it does indicate that even the
large adjusted losses after interest shown in the appendices
may be too low.'

This approach seems to me to be unsatisfactory; if
accounts are to be adjusted to real terms at all, one should
either take as the measure of profit only the adjusted profit
before interest, or one should consider the adjusted
profit after charging the real cost of debt, i.e., adjusted profit
after interest with credit taken for the falling real value
of debt. The following arguments support this position:

(i) The terms on which debt is issued and redeemed and the
interest to be paid are related parts of a single agreement
between debtor and creditor. A concept of profit which
takes account of one aspect but not the other is, therefore,
difficult to defend. In particular, inflation has recently
come to be generally expected, and this has pushed up
rates of interest. The interest paid is, to some extent,
compensation for the anticipated depreciation in the real
value of debt, and any calculation of profit after interest
should take credit for this factor.

It is true that this argument does not apply fully to the
early years after nationalization, when most investors
did not anticipate the inflation which actually occurred;
but it has been important in recent years, and will no
doubt be more important in the future.

(ii) It is a primary object of financial accounts to trace
the rights and obligations arising out of the legal and com-
mercial arrangements which actually exist. Indeed this
fact, historical approach, constitutes the distinctive
and indispensable contribution of financial accounts to
commercial life. (No doubt these accounts also convey
information of economic relevance - concerning, for

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example, the returns to investment in alternative uses, or the maintenance of capital intact; but it goes without saying that other forms of information, and other techniques, are more appropriate for the essentially forward-looking and speculative business of economic evaluation, And there would, of course, be no need to write articles to argue that economic evaluation should take account of changes in the value of money.)

From the primary standpoint of financial accounting, the use of debt capital rather than equity, and the low rates of interest charged to the gas industry in the years following nationalisation, are simply facts whose financial consequences must be accurately recorded. If the accounts are to be adjusted for inflation, and a correct picture given of real obligations, the value of both interest and debt must be adjusted also. Speculation about the possible economic consequences of alternative arrangements which might have been made in the past are irrelevant.

Adjusted losses cannot be ‘too low’ because they might have been greater if prices had risen more slowly or if interest rates had been higher; a correct account is an account of what actually happened. It is no answer to say that debt capital can be treated as if it were equity because it is put up (wholly or in part) by the owners of the industry (the community or the government). Indeed, every debt is owed in a certain sense ‘to the community’, but it cannot on that account be ignored, because it affects the distribution of wealth among members of the community — in this case, the consumers of gas, the Boards, the holders of Gas and Treasury Stock, and the taxpayers. For similar reasons, it would also be irrelevant to say that the depreciation of loan-stock represents no real change in the allocation of economic resources; and in any case the same is true of other accounting items, such as the sums written off specialized assets acquired in the past.

(iii) Finally, it is inconsistent to write down the gas industry’s monetary assets for inflation, while leaving its loan liabilities untouched; book notes, after all, are just a special kind of interest-free loan. This item is not negligible — real losses on monetary assets account in Myddelton’s calculations for £55 million in 1962 money over the 20 years.

Incidentally, it is also incorrect to treat stocks simply as monetary assets; increases in selling price generate (nominal) profits on stocks, so that stocks do not necessarily depreciate if we treat them as cash. A correction of Myddelton’s calculations on this score would, no doubt, somewhat reduce the figure of £55 million.

Real value of debt
Whatever the merits of the preceding arguments, it is interesting to consider how Myddelton’s profits of adjustment for the gas industry would be affected by taking credit for the inflationary real value of debt. Some estimates are presented in the table opposite. To permit the calculations, accurately would require knowledge of the timing of all new loans and repayments over a long period; but approximate figures can be obtained by using the fact that the gas industry’s total loan liabilities are always close to the figure of total net assets.

If one assumes that loans are obtained (or repaid) at the same time as assets are acquired (or depreciated), one can use Myddelton’s figures for total net assets at 1962 prices as if they were loan liabilities at 1962 prices. More precisely, the estimates of loan liabilities shown in column (1) of the table are the simple averages in each year of the opening and closing figures of net total assets at 1962 prices given by Myddelton, except that in 1950 the opening figure of net monetary assets is assumed to be equal to the closing figure. These figures of loan liabilities are then used to obtain the real gains to the industry due to rising prices, in the same way as Myddelton calculated real losses due to rising prices from figures of net monetary assets (net monetary losses) in his terminology.

In fact, loans are normally not repaid gradually in line with depreciation, but in full after the total period of the loan; on average, loan capital will be older than net total assets and so will be larger when measured in 1962 money, and gains due to rising prices will tend to be understated.

Losses or profits? As the table shows, the real profits on debt were large enough in most years to convert the losses calculated by Myddelton into profits. The total profit over the period of £279 million in 1962 money is close to Myddelton’s figure of total profit before interest of £255 million; in other words, the total cost of debt in real terms to the gas industry over 20 years was approximately zero. This result will hardly surprise those familiar with post-war movements of prices and rates of interest.

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<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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<td>Increase</td>
<td>Fall in</td>
<td>Profit</td>
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Total profit (loss) 1962 £ (244) £278m
Total profit (loss) 1969 £ (317) £338m