PART
3

Accounting and price changes

chapter 19

Accounting for price changes

overview

The traditional historical cost system of accounting has serious shortcomings when prices are changing. While these shortcomings are extremely serious when the rate of inflation is high, they do not disappear when the inflation rate is low nor are they corrected in any systematic way by piecemeal revaluations. The cumulative effect of a low annual rate of inflation may be highly significant and, even with an inflation rate close to zero, the rate of change of specific prices may be high.

Accountants in the UK experimented with different methods of accounting for price change in the 1970s and 1980s. We outline these experiments in the first part of this chapter before examining, in some depth, the system of Current Purchasing Power (CPP) accounting.

CPP accounting requires the adjustment of historical cost accounts for changes in the value of money as measured by a general price index such as the Retail Price Index in the UK. The system has the advantages of measuring all assets, liabilities, revenues and expenses in the same currency, pounds on the balance sheet date, and of measuring and disclosing gains and losses from holding monetary liabilities and assets in an inflationary or, indeed, deflationary period.

The figures for non-monetary assets which emerge in a CPP balance sheet are usually far from the current values of those assets and this perceived defect led to experimentation with Current Cost Accounting (CCA), to which we turn in the ensuing chapters.

Introduction

The 1970s and 1980s was an exciting period for accountants who welcomed change. The extremely high rates of inflation that were a feature of the period posed a considerable challenge to the traditional historically based financial accounting model. Within a period of less than twenty years, the professional accountancy bodies turned from conservative advocates of the historical cost status quo to radical reformers urging the introduction of new systems and ideas. As the dragon of inflation was tamed, the urge for radical change dimmed but reform did not come to an end. The challenge to the conventional wisdom that historical cost accounts were all one needed did not go away. The theoretical debate about the nature and purposes of financial accounting that accompanied attempts to take account of changing prices and the discussions about the merits of different models of measurement continued, to a large measure, in the area of standard setting. While the attempt to introduce a new orthodoxy based on the adoption of a system of financial accounting that comprehensively and systematically takes account of changing prices, general, specific or both, was halted, its impact can be found in many places, including the alternative accounting rules included in the UK Companies Act and the increasing attention now being given to fair values by UK and international standard setters.

In this third part of the book, we trace the history of accounting for changing prices and introduce some of the models that were developed in that heady period. We do this not simply to tell tales about the past but in a belief that, even in low inflationary periods historical cost accounting, even in its modified form, is an inadequate model and that, while it is a mistake to focus on only one way of describing an entity's financial position, a set of financial statements that does not report on how an entity was affected by changes in general and relative prices tells an incomplete story. It is also our view that a full appreciation of historical cost accounting depends, in part, on a clear understanding of those things about which historical cost accounting does not report.

In Chapter 4 'What is profit?', we suggested that the traditional system of accounting, based on historical cost asset measurement and financial capital maintenance, suffers from numerous shortcomings when tested against the purposes which financial reporting might sensibly be regarded as serving. This observation is not a new one,[1] but the case for reforming accounts to reflect price changes was not widely accepted in the UK, especially by accountants, until the 1970s.

The high rate of inflation which was a feature of the UK economy of that period highlighted the limitations of the conventional accounting model and, when the annual rate of inflation rose to 25 per cent in 1974, it was no longer possible for accountants and governments to ignore the phenomenon.

A striking example of the consequences of inflation on historical cost accounts was provided by the ASC in its 1986 publication *Accounting for the Effects of Changing Prices: a Handbook*, which will henceforth be referred to as the ASC Handbook. The example compared dividend distributions expressed as a percentage of (a) historical cost profit and (b) a measure of profit based on current cost principles. The results were derived from large samples of companies and covered the period 1980 to 1984, a period in which the UK had significantly lower inflation than in the 1970s. The results are shown in Table 19.1.

Note that, in using a historical cost perception, it appeared that company directors had on average pursued prudent distribution policies, but the results based on current costs indicate that in some years the average dividend exceeded the amount required to be retained in the business to sustain its existing scale of operations.

Table 19.1 Dividend distribution expressed as percentages of profit derived on (a) historical cost and (b) current cost principles

	Historical cost (%)	*Current cost (%)*
1980	37	97
1981	40	111
1982	48	130
1983	50	94
1984	52	64

[1] See Sir R. Edwards, 'The nature and measurement of income', originally published as a series of articles in *The Accountant*, July–October 1938; reprinted in *Studies in Accounting*, W.T. Baxter and S. Davidson (ed), ICAEW, London, 1977, pp. 96–140. This is only one, and by no means the earliest, of many references that could have been selected. In this classic paper Sir Ronald Edwards, an accountant who was both a university professor and successful buinessman, clearly outlined many of the problems inherent in conventional accounting and discussed many important matters which are still controverial issues.

So it seems that in periods of high inflation business financial results based on historical cost asset valuations and money financial capital maintenance paint a misleading and distorted picture of the financial progress of companies. But does the case for accounting reform disappear in periods when inflation is low? It is certainly true that support for reform on the part of most businesspeople and professional accountants does depend on the rate of inflation. When inflation is high there is a strong pressure for change and exposure drafts and standards are issued, whereas when inflation falls the advocates of the status quo gain supremacy and the exposure drafts and standards are withdrawn. But the case for reform does not disappear.[2]

In its 1986 Handbook the ASC stated, 'The limitations of historical cost accounts exist not only in periods of relatively rapid price changes but also when prices are changing more slowly'.[3] Three reasons were advanced to support this view:

(a) Even with low annual rates of inflation, the cumulative effect of inflation over time is significant; for example, with 5 per cent inflation, prices double every 14 years.
(b) The accounting effects of previous high rates of inflation persist over a number of years.
(c) Rates of change of specific prices may be substantial even when the rate of inflation is relatively low.

The progress of accounting reform

The UK path towards accounting reform, which is as yet incomplete, is outlined in Figure 19.1, which can be used as a guide to this and subsequent chapters.

Two lines are shown in Figure 19.1. One represents the current purchasing power (CPP) method, which takes account of general price changes but which ignores specific price changes; in terms of the analysis presented in Chapter 4 it is a system of accounting based on the combination of the adjusted historical cost asset valuation basis and the maintenance of real financial capital. A detailed exposition of CPP accounting is provided later in this chapter. The other line represents an approach generally known as current cost accounting (CCA) which, in the United Kingdom, combines a variant of the replacement cost approach to valuation with either the operating or the real financial capital maintenance concepts. This approach will be discussed in more detail in Chapter 20.

CPP accounting retains most of the significant features of historical cost accounting, and the only real change is the replacement of the money unit of measurement by the purchasing power unit. It will be seen that when compared to a system which attempts to measure current values, the CPP model involves a far less radical departure from the conventional method and it is perhaps not surprising that the first tentative steps on the path to accounting reform taken by the British accountancy profession were on the CPP route; much the same occurred in the United States and Australia.[4]

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[2] Michael Mumford, 'The end of a familiar inflation accounting cycle', *Accounting and Business Research*, Vol. 9, No. 34, Spring 1978, pp. 98–104.

[3] *Accounting for the Effects of Changing Prices: a Handbook*, ASC, London, 1986, p. 11.

[4] For example, in the United States the FASB produced an exposure draft in December 1974 which was similar in content to ED 8, but the Securities Exchange Commission in 1976 called for the disclosure by larger companies of additional information concerning the replacement costs of fixed assets and stock. The subsequent US standard, FAS No. 33 *Financial reporting and changing prices*, September 1979, required supplementary disclosure of both types of information, but this statement was superseded by FAS No. 89, with the same title, in December 1986. This encouraged, rather than required, such disclosure.

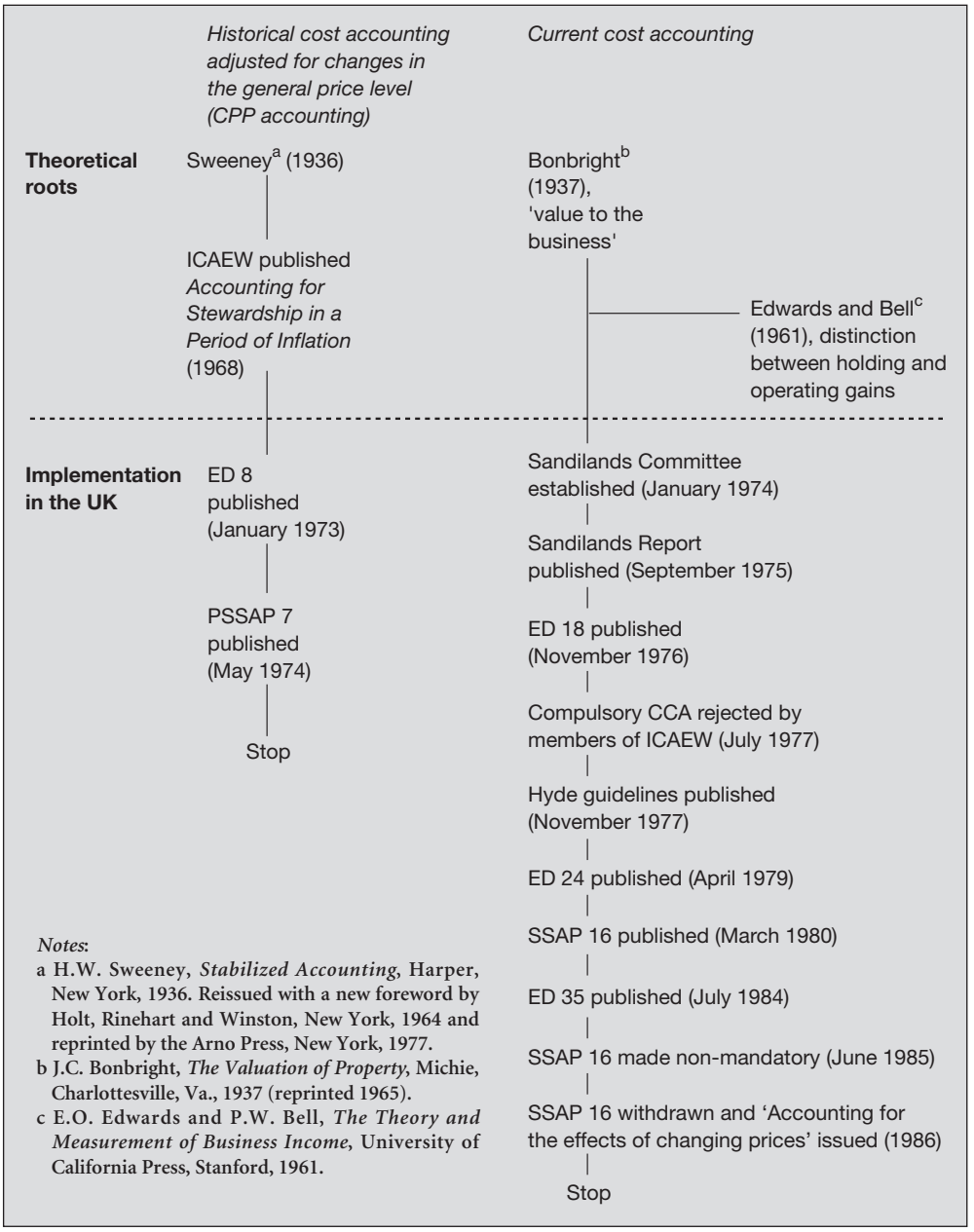

Figure 19.1 The path towards accounting reform

In 1968 the Research Foundation of the ICAEW published *Accounting for Stewardship in a Period of Inflation*. The title is instructive in that it suggests a far more restrictive view of the objectives of financial accounts than is accepted nowadays and does illustrate the extent of the changes that have since taken place. The methods outlined in that document were not original. They had been described in English by Sweeney in 1936[5] and his book was itself

[5] H.W. Sweeney, *op. cit.*

based on work done in Germany during the period of hyperinflation which followed the First World War. The significance of the publication was that it was produced by a body associated with a leading professional accounting institute and indicated that that body was apparently prepared to initiate reform. The seeds took a long time to germinate, and the world had to wait until 1973 for the publication of ED 8 by the Accounting Standards Steering Committee (ASSC). ED 8 proposed that companies should be required to publish, along with their conventional accounts, supplementary statements which would, in effect, be their profit and loss accounts and balance sheets based on CPP principles. ED 8 was followed by the issue of Provisional Statement of Standard Accounting Practice (PSSAP) 7, in May 1974. The inclusion of the word 'provisional' in the title of this standard (the only occasion on which this was done by the ASSC) reflected the uncertainties in the mind of the accountancy profession on this matter, since it meant that companies were requested rather than required to comply with the standard.

Many users of accounting reports, including the Government, were dissatisfied with this approach. Consequently, the Government established its own committee of inquiry into inflation accounting in January 1974, i.e. after the issue of ED 8. The committee was chaired by Sir Francis Sandilands, and its report (usually referred to as the Sandilands Report) was issued in September 1975.[6] The committee recommended the adoption of a system of accounting known as 'current cost accounting' which is, as will be shown later, a very different creature from CPP accounting. As a result of the publication of the Sandilands Report, the ASC[7] abandoned its own proposals and set up a working party, the Inflation Accounting Steering Group (IASG) to prepare an initial Statement of Standard Accounting Practice (SSAP) based on Sandilands' proposals. The outcome of this group's labours was ED 18 *Current Cost Accounting,* which was published in November 1976. This publication came under a good deal of attack from many quarters, including those who supported the main principles of current cost accounting (CCA). The exposure draft was considered by many to be unnecessarily complicated and to deal with too many subsidiary issues. The draft was also attacked by many rank and file – some would say backwoods – members of the ICAEW, and their efforts resulted in the passing of a resolution in July 1977 by members of the Institute that rejected any compulsory introduction of CCA.

This did not halt the advance of CCA. The Government, in a discussion document issued in July 1977 (*The Future of Company Reports*), reiterated its support for the adoption of CCA, while in November 1977 the accountancy profession issued a set of interim recommendations to cover the period until a revised set of detailed proposals could be formulated. These recommendations were called the Hyde guidelines after the name of the chairman of the committee responsible for the recommendations. A second exposure draft, ED 24, was published in April 1979 and was followed by the issue of SSAP 16 *Current Cost Accounting* in March 1980. It was intended that SSAP 16 would prevail for three years while the effect of the introduction of CCA was evaluated.

With certain exceptions, SSAP 16 applied to all companies listed on the Stock Exchange and to large unlisted companies. Such companies were required to publish current cost accounts together with historical cost accounts or historical cost information. The intention was that primacy should be given to the current cost accounts although, as we shall see, things did not turn out in the way intended by the ASC.

Current cost accounts did not replace the historical cost accounts and they were often presented, and perhaps even more often regarded, as being supplementary to the main or, as

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[6] *Report of the Inflation Accounting Committee*, Cmnd. 6225, HMSO, London, 1975.

[7] In 1976 the ASSC stopped steering and became the Accounting Standards Committee, see Chapter 2.

many no doubt believed, the 'real' accounts. Many companies simply failed to comply with the provisions of SSAP 16, and although auditors were obliged to refer to the absence of current cost accounts in the audit report, such references were not regarded as important qualifications and the companies concerned did not seem to suffer as a consequence of their non-compliance.

Following the evaluation of the impact of SSAP 16, ED 35 was published in July 1984. The basic principles of CCA were maintained, albeit with some modifications, but ED 35 proposed that companies should only be required to produce one set of accounts, based on historical costs with notes showing the effect of changing prices. The proposals of ED 35 were not implemented but instead SSAP 16 was made non-mandatory in June 1985. This was, however, not the end of the matter, for in 1986 SSAP 16 was withdrawn and the ASC published its Handbook, *Accounting for the Effects of Changing Prices*. At that time, the presidents of the five leading accountancy bodies in the UK issued a joint statement endorsing the view of the ASC that companies should appraise and, where material, report the effect of changing prices. In addition the presidents supported the view that accounting for the effect of changing prices is of great importance and agreed that a suitable accounting standard should be developed. Numerous reasons can be advanced to explain why it has not proved possible to introduce a generally acceptable system of current cost accounting. Prominent among them is the lack of agreement on the part of those advocating change as to how to account for changing prices, and the associated problem that very many businesspeople and accountants do not understand the basic principles underlying current cost accounting.

We shall continue this chapter with a discussion of the CPP method and will return to current cost accounting in Chapter 20.

Current purchasing power accounting

Introduction

The elements of aimed purchasing power (CPP) accounting were introduced in Chapter 4 – that is the adjusted historical cost basis of valuation coupled with profit measurement based on the maintenance of real financial capital. Before describing how these can be combined to produce a coherent accounting model it is necessary to consider how, and from whose point of view, the purchasing power of money should be measured.

The prices of different goods and services change by different amounts, and the problem faced by those responsible for measuring changes in the purchasing power of money is to find a suitable average value to reflect the different individual price changes which have taken place during the period under review. This could be done by considering all the different goods and services that are traded in the country during the period and to compare their prices with those prevailing in the comparison or base period. This is a massive task, but it is possible to arrive at the required answer by indirect methods, as is done in the United States in the calculation of the gross domestic product implicit price deflator.

An alternative approach is to select a sample of goods and services, measure the changes in their prices, and then average them. This method is used to construct the Index of Retail Prices (RPI), which is based on the price changes that affect 'middle income' households. In order to construct the index it is necessary to assign weights to the various price changes to

take account of their relative importance. These weights are based on the spending patterns of a sample of householders that is drawn so as to exclude households with incomes that are significantly higher and significantly lower than the average.

One of the major provisions of PSSAP 7 was the stipulation that changes in the purchasing power of money should be measured by reference to the RPI. The consequence of this proposal was that changes in purchasing power were not to be measured from the point of view of the individual firm or even all firms but from the point of view of individual consumers. Thus it was the intention that CPP accounts should not be regarded as providing proxies to current value accounts, but rather as restatements of the conventional historical cost accounts in terms which attempted to adjust for the effect of inflation on shareholders and other individuals.

The basic principle underlying CPP accounts is that all monetary amounts should be converted to pounds of CPP in a manner which is analogous to the way in which sums expressed in different foreign currencies are translated to a common base. Assume that we are attempting to measure the CPP profit for a transaction that involved the purchase of goods for £2000 in January 1998 and their sale for £3000 in December 1998. The RPI was 159.5 at the date of purchase and 164.4 at the date of sale. If we wish to measure the profit in terms of purchasing power at December 1998 we would need to convert the £2000, which represented January 1998 purchasing power, in terms of December 1998 purchasing power. In order to carry out such calculations it will be helpful if we use symbols which indicate the purchasing power associated with the monetary amount; we will do this by specifying that £(Jan 98) means January 1998 pounds, and so on.

The calculation of CPP profit for the above transaction could then be shown as follows:

	£(Dec 98)
Sales	3000
Purchases, £(Jan 98) $2\,000 \times \frac{164.4}{159.5}$	2061
	939

The equation:

$$\text{£(Jan 98) } 2000 \times \frac{164.4}{159.55} = \text{£(Dec 98) } 2061$$

means that a consumer would require £2061 in December 1998 in order to be able to command the same purchasing power as was available from the possession of £2000 in January 1998.

The consequence of the extension of the basic CPP principle to the profit and loss account is that all items will be expressed in terms of current (i.e. year-end) purchasing power, and the same will be true in the balance sheet. Thus, all items in the balance sheet will have to be converted in terms of year-end purchasing power except the so-called monetary assets and liabilities which are automatically expressed in such terms. Example 19.1 illustrates the preparation of CPP accounts in the absence of monetary assets and liabilities. To provide clear illustrations in this and subsequent examples, we will assume rates of inflation higher than those that have been experienced in the very recent past.

Example 19.1

Bell Limited's historical cost and CPP balance sheets at 31 December 20X6 (on which date a hypothetical RPI was 120) are given below:

Bell Limited
Balance sheet as at 31 December 20X6

Historical cost		*Note*		*CPP*
		£		£(31 Dec X6)
Fixed assets				
Cost	10 000	(a)		12 000
Accumulated depreciation	4 000	(b)		4 800
	6 000			7 200
Stock	3 300	(c)		3 356
	£9 300		£(31 Dec 20X6)	10 556
Share capital	4 000	(d)		4 800
Retained earnings	5 300	(e)		5 756
	£9 300		£(31 Dec 20X6)	10 556

Notes:

(a) The fixed assets were purchased for £10 000 on 1 January 20X3 when the RPI = 100:

$$\text{£(1 Jan X3) } 10\,000 \times \frac{120}{100} = \text{£(31 Dec X6) } 12\,000$$

(b) Bell Limited depreciates its fixed assets on a straight-line basis over 10 years (assuming a zero scrap value). Thus, at the end of 19X6, four-tenths of the asset has been written off and the accumulated depreciation figure is thus:

$$4/10 \text{ of £(31 Dec X6) } 12\,000 = \text{£(31 Dec X6) } 4800$$

(c) The company's stock was purchased for £3300 on 30 September 20X6 when the RPI was 118:

$$\text{£(30 Sep. X6) } 3300 \times \frac{120}{118} = \text{£(31 Dec. X6) } 3356$$

(d) The share capital consists of 4000 £1 ordinary shares which were issued on 1 January 20X3 when the RPI was 100:

$$\text{£(1 Jan. X3) } 4000 \times \frac{120}{110} = \text{£(31 Dec. X6) } 4800$$

(e) Had CPP accounts been prepared in the past, the CPP retained earnings would have emerged in the same way that retained earnings emerge in the historical cost accounts. In this case the CPP retained earnings is found by treating it as the balancing figure in the CPP balance sheet. It is not possible to find the CPP retained earnings from its historical cost equivalent as the relationship between them depends on the aggregate of the differences between the CPP and historical cost figures of all the balance sheet items.

During 20X7 Bell Limited engaged in the following transactions:

(A) On 31 March 20X7 it sold half its stock for cash of £(31 Mar X7) 5500. £(31 Mar X7) 4400 of the proceeds were used to purchase additional stock while the balance was paid out as a dividend.

(B) On 1 July 20X7 one-quarter of the 1 January 20X7 stock was sold for £(1 July X7) 2750; the proceeds were used to pay for overhead expenses which may be assumed to accrue evenly over the year.

The RPI moved as follows:

Date	*Index*
1 January 20X7	120
31 March 20X7	121
1 July 20X7 (which may be assumed to be the average value for the year)	132
31 December 20X7	143

The CPP profit and loss account for the year ended 31 December 20X7 is given below:

Bell Limited
CPP Profit and loss account for the year ended 31 December 20X7

	£(31 Dec X7)	£(31 Dec X7)
Sales, £(31 Mar X7) $5500 \times \frac{143}{121}$	6 500	
Sales, £(1 July X7) $2750 \times \frac{143}{132}$	2 979	9 479
less Cost of sales		
Opening stock, £(30 Sep X6) $3300 \times \frac{143}{118}$	3 999	
Purchases, £(31 Mar X7) $4400 \times \frac{143}{121}$	5 200	
	9 199	
less Closing stock, £(30 Sep X6) $825 \times \frac{143}{118}$		
+ £(31 Mar X7) $4400 \times \frac{143}{121}$	6 200	2 999
Gross profit		6 480
less Overheads		
£(1 Jul X7) $2750 \times \frac{143}{132}$	2 979	
Depreciation, £1(1 Jan X3) $10\,000 \times \frac{1}{10} \times \frac{143}{100}$	1 430	4 409
Net profit		2 071
less Dividends paid £(31 Mar X7) $1100 \times \frac{143}{121}$		1 300
		771
Retained earnings, 1 Jan X7, £(1 Jan X7) $5756 \times \frac{143}{120}$		6 859
Retained earnings, 31 Dec X7		7 630

Bell Limited
CPP balance sheet as at 31 December 20X7

	£(31 Dec X7)	£(31 Dec X7)
Fixed assets:		
Cost, £(1 Jan X3) 10 000 × 143/100	14 300	
Accumulated depreciation, £(1 Jan X3) 5000 × 143/100	7 150	7 150
Stock:		
£(30 Sep X6) 825 × 143/118	1 000	
£(31 Mar X7) 4400 × 143/121	5 200	6 200
		13 350
Share capital, £(1 Jan X3) 4000 × 143/100		5 720
Retained earnings (from the profit and loss account)		7 630
		13 350

Example 19.1 illustrates the necessity of identifying the dates on which the different transactions took place in order to determine the denominator of the conversion factor (i.e. the RPI at the date of the transaction): the numerator is always the same – the RPI at the balance sheet date. In the example it was practicable to deal with each sale separately, but in practice it would usually be found necessary to make some simplifying assumption, e.g. that the sales accrued evenly over the year, which would mean that the average value of the RPI would be taken as the denominator in the conversion factor. A similar approach would usually be taken in respect to purchases and overhead expenses.

The treatment of depreciation merits special attention. Note that in Example 19.1 the conversion factor used in the calculation of the depreciation expense in the profit and loss account and the fixed asset items in the balance sheet is 143/100. The denominator, 100, is the RPI at the date on which the fixed asset was acquired. It is sometimes suggested that when calculating the depreciation expense, the denominator should be the average value of the RPI for the year on the grounds that 'depreciation is written off over the year'. This is indeed so, but the vital point that is missing in this argument is that the pound of depreciation that is being written off in 20X7 is a pound of 1 January 20X3, because it was pounds with a 1 January 20X3 purchasing power that were given up in exchange for the asset.

Monetary assets and liabilities

A common feature of inflation is that debtors gain in purchasing power while creditors lose.[8] And, because free lunches are not a common feature of our economy, it is – to use the

[8] It is possible for the contracts between lenders and borrowers to be drawn up in terms of purchasing power instead of monetary units. These are often called index-linked agreements.

terminology of game theory – a zero-sum game; the debtors' gains equal the creditors' losses. In other words, all other things being equal, one effect of inflation is to transfer purchasing power from creditors to debtors.

The reason for this is that a person who borrows money in a period of inflation, will repay it in pounds of lower purchasing power (value) than those that were obtained when the loan was granted. The longer the loan then, so long as the inflation continues, the greater will be the difference between the values of the pounds borrowed and of the pounds repaid.

It is, of course, possible for creditors to protect themselves in some cases by increasing the interest rate to take into account the expected rate of inflation. If this is done, the market rate of interest will be based upon the market's view of the likely future rates of inflation. Thus, a quoted rate of interest may be broken down into two parts: one, which we may term the 'real' interest rate, is that which would have been charged in the absence of inflationary expectations; the balance represents the inflation premium. This point has a good deal of relevance to some important questions about the treatment of gains and losses on monetary items. We will return to this point later.[9]

If the above analysis is extended to a company, it can be said that a company will lose purchasing power in a period of inflation if, taking the year as a whole, it holds net monetary assets (in simple terms if its cash plus debtors exceeds its creditors). Conversely, it will gain in purchasing power if, on average, it is in a net monetary liability position. The calculation depends on the meaning of monetary assets and liabilities.

In PSSAP 7 monetary items were defined as:

> **assets, liabilities, or capital, the amounts of which were fixed by contract or statute in terms of numbers of pounds regardless of changes in the purchasing power of the pound.[10]**

Let us first consider the distinction between monetary and non-monetary liabilities. A non-monetary liability would be one in which the payment of interest, or the return on capital, or both, are not subject to a limit expressed in terms of a given number of pound coins. Such liabilities are rare in the private sector of the economy, but the British Government has issued a number of securities in which the returns are dependent on movements of the RPI. In contrast, the obligations on the part of the borrower of a monetary liability are fixed and are not affected by changes in purchasing power.

We will now turn to the distinction between monetary and non-monetary capital. Preference shares which do not entitle their owners to a share of any surplus on liquidation of the company are clearly monetary items in that the rights associated with them – the annual dividend and the repayment of principal – are subjected to upper limits which are expressed in monetary terms. Conversely, equity capital is a non-monetary item because no limits are placed on the amounts that can be paid to the owners of this type of capital. The effect of inflation on the relationship between equity and preference shareholders is similar to that on the relationship between debtors and creditors, i.e. equity shareholders will gain in purchasing power at the expense of preference shareholders because the latter's interests are fixed in money terms and will decline with a fall in the value of money. This point will be illustrated in Example 19.3.

Monetary assets are those assets the values of which are fixed in monetary terms, e.g. cash and debtors. Non-monetary assets, such as stock and fixed assets, are those assets the values of which may be expected to vary according to changes in the rate of inflation. Consider as examples debtors and stock, and suppose that a company has £100 invested in each of these

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[9] See p. 630

[10] PSSAP 7 *Accounting for Changes in the Purchasing Power of Money*, Para. 28.

assets. Assume that as a result of some catastrophe the RPI increases by 100 per cent (or the purchasing power of money falls by 50 per cent) overnight. The violent change in the RPI will not affect the debtors' figure in that the asset will still only realise 100 £1 coins, but it is highly probable that it will have an effect on the stock figure as the cost of the stock will be likely to rise. In other words, it would take $(100 + x)$ £1 coins to buy the stock using the less valuable pounds.

The classification of investments into monetary and non-monetary categories often appears to be difficult, but this is not really so because we can employ the same analysis as was used in our discussion of capital. If the investment is in a fixed interest security where the dividend or interest and the repayment of principal are fixed in monetary terms, then it is a monetary item. An investment in equity shares where there is no limit on the amount that can be received is a non-monetary item.

The computation of gains and losses on a company's net monetary position

We showed earlier that one effect of inflation is to transfer purchasing power from creditors to debtors; we will now show how the amount of the creditors' loss and debtors' gains can be calculated. We will at this stage concentrate on interest-free credit and hence ignore the possibility of creditors reducing or eliminating their loss by incorporating an inflation premium in the rate of interest charged.

Suppose that A Limited borrowed £(1 Jan X4) 300 from B Limited on 1 January 20X4 which is repaid on 30 September 20X4. The year end for both companies is 31 December 20X4. Assume that the RPI moved as follows:

Date	*1 January X4*	*30 September X4*	*31 December X4*
Index no.	120	150	160

We will first consider the position from A Limited's point of view. The company borrowed 300 £1 coins when the index was 120 and repaid the same number of £1 coins when the index was 150. In order to calculate the gain on purchasing power involved we need to convert one or other of the pounds borrowed or repaid so that the comparison can be made in terms of common purchasing power. We will convert the pounds borrowed in terms of 30 September 20X4 purchasing power. The calculation could then be made as follows:

	£(30 Sep X4)
Purchasing power acquired,	
£(1 Jan X4) $300 \times \frac{150}{120}$	375
Purchasing power given up on repayment of the loan	300
Gain	75

The gain in purchasing power, expressed in 30 September 20X4 purchasing power, is thus £(30 Sep X4) 75. If the company's year end is 31 December, then for the purpose of the annual accounts the gain will have to be converted to 31 December 20X4 purchasing power:

$$\text{Gain} = £(30\ \text{Sep X4})\ 75 \times \frac{160}{150}$$
$$= £(31\ \text{Dec X4})\ 80$$

Note that the analysis has been confined to the borrowing made by A Limited. If A Limited has used all or part of the borrowing to invest in monetary assets (which would include keeping the cash in a bank) it would experience a loss in purchasing power due to the holding of a monetary asset in a period of inflation.

If we consider the creditor, B Limited, a similar analysis will show that its loss of purchasing power resulting from the loan is £(31 Dec X4) 80. In making the loan, B Limited gave up purchasing power amounting to £(1 Jan X4) 300 or £(30 Dec X4) 400. The repayment of the loan increased B Limited's purchasing power by £(30 Sep X4) 300 or £(31 Dec X4) 320. Thus its loss of purchasing power is £(31 Dec X4) 80.

The above analysis can be generalised as follows.

Suppose that a monetary asset of £(1)A was acquired at time 1 when the RPI was I_1, was sold at time 2 when the RPI was I_2 and that the year end is considered to be time 3 when the RPI was I_3. Then the purchasing power given up by virtue of the investment in the monetary asset is given by:

$$£(1)A = £(2)A\ \frac{I_2}{I_1}$$

The purchasing power regained from the disposal of the asset is given by £(2)A. The loss of purchasing power in time 2 purchasing power is:

$$£(2)A\,\frac{I_2}{I_1} - £(2)A = £(2)A\left(\frac{I_1}{I_2} - 1\right)$$

and the loss of purchasing power in time 3 (year end) purchasing power is:

$$£(3)A\left(\frac{I_2}{I_1} - 1\right)\frac{I_2}{I_1} = £(3)AI_3\left(\frac{1}{I_1} - \frac{1}{I_2}\right)$$

In the special case where the asset is still in existence at the year end, $I_2 = I_3$ and the loss can be stated as follows:

$$\text{Loss} = £(3)AI_3\left(\frac{1}{I_1} - \frac{1}{I_3}\right) = £(3)A\left(\frac{I_3}{I_1} - 1\right) \qquad (19.1)$$

If £*A* is replaced by –£*A* the above approach can be used to calculate the gain in purchasing power resulting from holding a monetary liability in a period of rising prices.

In the above analysis we concentrated on a single monetary item, but in practice a company's net monetary position will fluctuate on a daily basis. The foregoing method can be adapted to deal with this problem in the following way.

Suppose that a company starts the year on 1 January with net monetary assets of £200, reduces its net monetary assets by £280 on 1 April and finally increases its net monetary assets by £100 on 1 October. If this were the case, the company would have held net monetary assets of £200 for three months (January–March), net monetary liabilities of £80 for the next six months (April–September) and been a net monetary creditor of £20 for the last three months of the year. An alternative way of viewing the position, which we will use to calculate the total loss or gain on the company's monetary position, is to say that it: (a) held a monetary asset of £200 for the whole of the year; (b) held a monetary liability of £280 for the nine-month period from April to December; (c) held a monetary asset of £100 for the three-month period from October to December.

Assume that the appropriate index numbers are:

Date	*1 January*	*1 April*	*1 October*	*31 December*
Index no.	100	140	150	180

The loss or gain on each of the three hypothetical items can then be calculated by substituting the appropriate values in equation (19.1) as follows:

$$\text{(a)}\quad \text{Loss} = £(31\ \text{Dec})\ 200 \times \left(\frac{180}{100} - 1\right)$$

$$\text{(b)}\quad \text{Loss} = -£(31\ \text{DEC})\ 280 \times \left(\frac{180}{140} - 1\right)$$

$$\text{(c)}\quad \text{Loss} = £(31\ \text{Dec})\ 100 \times \left(\frac{180}{150} - 1\right)$$

The total loss is given by:

$$£(31\ \text{Dec}) \left\{200\left(\frac{180}{100} - 1\right) - 280\left(\frac{180}{140} - 1\right) + 100\left(\frac{180}{150} - 1\right)\right\}$$

$$= £(31\ \text{Dec}) \left(-200 + 280 - 100 + 200 \times \frac{180}{100} - 280 \times \frac{180}{140} + 100 \times \frac{180}{150}\right)$$

$$= £(31\ \text{Dec}) \left(200 \times \frac{180}{100} - 280 \times \frac{180}{140} + 100 \times \frac{180}{150}\right) - £(31\ \text{Dec})\ 20$$

Note that the second term in the right-hand side of the above expression, £(31 Dec) 20, is the balance of the company's net monetary assets at the year end. We can now see that it is possible to calculate a company's total gain or loss by first converting all changes to the company's net monetary assets to year-end purchasing power (this gives us the first term on the right-hand side of the expression) and then subtracting the actual balance of net monetary assets.

The loss in this case will be:

$$£(31\ \text{Dec})\ 120 - £(31\ \text{Dec})\ 20 = £(31\ \text{Dec})\ 100$$

The above result may be interpreted as follows. If the company had been in a position to arrange its affairs so that cash, debtors and creditors had been in the form of non-monetary items of values that had changed exactly in step with inflation, it would have had 'net monetary assets' of £120 at the year end. It could have achieved this result had it been able to get its debtors to agree that they would repay the company with pounds which represented the same purchasing power as was represented by the amount of the debt at the date at which it was established, and had made a similar arrangement with its creditors. The company's bank balance is a special case of a creditor or debtor depending on whether or not the account is overdrawn.

The hypothetical £120 is then compared with the actual closing balance of £20 and it can be seen that the company's policy of holding net monetary assets over the year has resulted in a loss of purchasing power of £(31 Dec) 100.

The above argument can be generalised in the following fashion:

Let a_1 be the opening balance of net monetary assets plus the increases in net monetary assets for the first day of the year and let aj, $j = 2, \ldots, 365$, be the increases in net monetary assets for day j. Then the loss of the holding of net monetary assets expressed in terms of year-end purchasing power, £(day 365), using equation (19.1) on p. 631, is given by:

$$\text{Loss} = £(\text{day } 365)\left[a_1\left(\frac{I_{365}}{I_1} - 1\right) + a_2\left(\frac{I_{365}}{I_2} - 1\right) + a_3\left(\frac{I_{365}}{I_3} - 1\right) + \ldots + a_{365}\left(\frac{I_{365}}{I_{365}} - 1\right)\right]$$

$$= £(\text{day } 365)\left(I_{365}\sum_{j=1}^{365}\frac{a_j}{I_j} - \sum_{j=1}^{365}a_j\right)$$

Note that $\sum_{j=1}^{365} a_j$ represents the actual closing balance of net monetary assets which we can call *A*. Therefore:

$$\text{Loss} = £(\text{day } 365)\left(I_{365}\sum_{j=1}^{365}\frac{a_j}{I_j} - A\right)$$

The use of computing facilities makes the above approach feasible in practice but, in preparing CPP accounts, it was customary to take averages and assume that, depending on the circumstances, the increases in net monetary assets due to sales took place evenly either over the year as a whole or over each month or quarter, etc. If the annual assumption were made, the increase in net monetary assets would be assumed to have taken place at a date on which the general price index was at the average value for the year. If the calculation were done on a quarterly basis, the average values of the general price index for the quarters would be used.

Example 19.2 shows how one can calculate the loss or gain on a company's net monetary position.

Example 19.2

On 1 January 20X8 Match Limited's monetary items were as follows:

	£
Balance at bank	8000
Trade debtors	2000
Trade creditors	6000
Proposed dividend	1000

A summary of the company's cashbook for 20X8 revealed the following:

		£			£
1 Jan	Opening balance	8 000	1 Jan	Purchases of fixed assets	50 000
Jan–Jun	Cash sales	5 000	Jan–Jun	Trade creditors	16 000
	Trade debtors	18 000	1 July	Payment of 19X7 dividend	1 000
1 July	Issue of ordinary shares	30 000	July–Dec	Trade creditors	20 000
July–Dec	Cash sales	8 000	31 Dec	Closing balance	6 000
	Trade debtors	24 000			
		£93 000			£93 000

Credit sales for the year were:

January–June	£21 000
July–December	£28 000

Credit purchases for the year were:

January–June	£14 000
July–December	£21 000

The values of a suitable general price index at appropriate dates were

Date	*1 January*	*Average Jan–Jun*	*1 July*	*Average July–Dec*	*31 December*
Index	140	148	160	162	165

We must identify the changes in the company's net monetary balances. Note that the sale of goods results in an immediate increase in the company's net monetary assets regardless of whether the sale was made for cash or credit. If the sale was made on credit, the increase in debtors will increase the company's net monetary assets, but the consequence of this is that the payment of cash by debtors will not affect the total net monetary position of the company. Similarly, the payment of the proposed dividend does not affect the net monetary position of the company. It merely reduces cash and the liability of proposed dividends, both of which are monetary items.

The changes in the company's net monetary assets may be summarised as follows:

		Increase £	*Decrease* £	*Net* £	*Balance* £
1 Jan	Opening balance				
	Bank	8 000			
	Debtors	2 000			
	Creditors		6 000		
	Proposed dividend		1 000		
		£10 000	£7 000	£3 000	3 000
1 Jan	Reduction in cash (purchase of fixed assets)		£50 000	£(50 000)	(47 000)
Jan–Jun	Increase in cash (cash sales)	5 000			
	Increase in debtors (credit sales)	21 000			
	Increase in creditors (credit purchases)		14 000		
		£26 000	£14 000	£12 000	(35 000)
1 July	Increase in cash (issue of shares)	£30 000		£30 000	(5 000)
July–Dec	Increase in cash (cash sales)	8 000			
	Increase in debtors (credit sales)	28 000			
	Increase in creditors (credit purchases)		21 000		
		£36 000	£21 000	£15 000	£10 000[11]

[11] The closing balance of the net monetary assets is made up as follows:

	£
Bank	6 000
Debtors	9 000
	15 000
less Creditors	5 000
	10 000

The company's loss or gain on its monetary position can now be found by converting all changes in net monetary items to year-end purchasing power.

		Conversion factor	*Increase* £	*Decrease* £
1 Jan	Opening balance	165		
	£(1 Jan X8) 3000	140	3 536	
1 Jan	Decrease	165		
	£(1 Jan X8) 50 000	140		58 929
Jan–Jun	Increase	165		
	£(Jan–Jun) 12 000	148	13 378	
1 July	Increase	165		
	£(1 July X8) 30 000	160	30 938	
July–Dec	Increase	165		
	£(July–Dec) 15 000	162	15 278	
31 Dec	Balance			4 201
			63 130	63 130

	£(31 Dec X8)
Actual balance of net monetary assets	10 000
Balance from above	4 201
Gain £(31 Dec X8)	5 799

Note that the company gained in purchasing power even though it disclosed positive net monetary assets in both the opening and closing balance sheets because it was, over the year as a whole, a net monetary debtor.

Example 19.3 combines the features of Examples 19.1 and 19.2 in that it demonstrates how a set of CPP accounts can be produced in a case where a company holds net monetary items. It also shows how a set of historical cost accounts can be 'converted' into CPP accounts.

Example 19.3

(A) Parker Limited's historical cost and CPP balance sheets as at 1 January 20X5 (when the value of a hypothetical RPI was 150) are as follows:

Parker Limited
Balance sheets as at 1 January 20X5

	Historical cost		*Notes, conversion factors*	*CPP*	
	£	£		*£(1 Jan X5)*	*£(1 Jan X5)*
Fixed assets					
Net book value		8 000	(a) 150/100		12 000
Current assets					
Stock	1 200		(b) 150/140	1 286	
Debtors plus cash	600	1 800	(c)	600	1 886
		9 800		£(1 Jan X5)	13 886
Share capital					
£1 10% preference shares	2 000		(c)	2 000	
£1 ordinary shares	4 000	6 000	(d) 150/80	7 500	9 500
Reserves		2 400	(e)		2 986
Owners' equity		8 400			12 486
15% debentures		1 000	(c)		1 000
Current liabilities		400	(c)		400
		£9 800		£(1 Jan X5)	13 886

Notes:
(a) The fixed assets were acquired when the RPI was 100.
(b) The stock was purchased over a period for which the average value of the RPI was 140.
(c) Monetary items.
(d) The ordinary shares were issued on a date at which the RPI was 80.
(e) The 'CPP reserve' is the balancing figure in the CPP balance sheet.

(B) During 20X5, Parker Limited issued 2000 £1 ordinary shares at a premium of 25 pence per share on 1 April when the RPI was 160 and purchased fixed assets of £(1 Sept X5) 3000; the RPI on 1 September 20X5 was 175.

Parker Limited's historical cost profit and loss account for 20X5 is given opposite.

Parker Limited
Profit and loss account

	£	£
Sales		12 000
less Opening stock	1 200	
Purchases	7 000	
	8 200	
less Closing stock	1 600	6 600
Gross profit		5 400
less Sundry expenses	1 450	
Debenture interest	150	
Depreciation (20% reducing balance)	2 200	3 800
		£1 600

No dividends were declared during the year.
A full year's depreciation has been provided on the fixed assets purchased on 1 September 20X5.

(C) In order to prepare the CPP accounts it is necessary to make certain assumptions about the dates on which the various transactions took place. It will be assumed that sales, purchases, expenses and debenture interest all accrued evenly over the year and that the average RPI for the year was 170. It will further be assumed that the average age of the closing stock was two months and that the RPI on 31 October 20X5 was 178. The RPI at the year end will be taken to be 180.

For convenience the RPI at appropriate dates are summarised below:

Date	*Index*
Issue of original ordinary shares	80
Purchase of original fixed assets	100
Purchase of opening stock	140
1 January 20X5	150
1 April 20X5 (issue of 2000 ordinary shares)	160
Average for 20X5	170
1 September 20X5 (purchase of fixed assets)	175
31 October 20X5 (purchase of closing stock)	178
31 December 20X5	180

(D) We will now calculate the losses or gains resulting from the company's monetary position. The loss or gain on short- and long-term items will be calculated separately. The calculations are usually done separately because of the different factors which give rise to a company's holding of short-term and long-term monetary items. The short-term items depend on the company's policy regarding its investment in working capital; in most cases the short-term items are equivalent to a company's net current assets excluding stock. The longer-term position is a consequence of the company's overall financing strategy and depends on the level of gearing at which the company operates.

The short-term position may be calculated as follows:

		Actual		*Conversion factor*	*Year-end pounds*	
		+	–		+	–
1 Jan	Opening balance	200		180/150	240	
1 Apr	Issue of shares	2 500		180/160	2 812	
Average for year	Sales less purchases, expenses + interest	3 400		180/170	3 600	
1 Sept	Purchase of fixed assets		3 000	180/175		3 086
31 Dec	Closing balance		3 100			3 566
		£6 100	£6 100		(31 Dec X5) £6 652	(31 Dec X5) £6 652

The company's actual balance of short-term monetary items is £3100, but had the company been able to maintain the purchasing power of these items it would have had £3566. Hence, the loss on holding short-term monetary items for the year is:

$$£(31\ \text{Dec X5})\ [3566 - 3100] = £(31\ \text{Dec X5})\ 466.$$

The company's long-term monetary liabilities consist of the preference shares and the debentures. The opening balances for these items are:

	£(1 Jan X5)
Preference shares	2 000
Debentures	1 000
£(1 Jan X5)	3 000

The above balance is equivalent in year-end pounds to:

$$£(31\ \text{Dec X5})\left[3000 \times \frac{180}{150}\right] = (31\ \text{Dec X5})\ 3600$$

However, since we are dealing with monetary items, these values are not affected by the changes in the price level and the value at the year end is £(31 Dec X5) 3000.

The company has therefore gained in purchasing power from holding monetary liabilities and the gain is given by:

$$£(31\ \text{Dec X5})\left[3000 \times \frac{180}{150} - 3000\right] = £(31\ \text{Dec X5})\ 3000\left[\frac{180}{150} - 1\right]$$
$$= £(31\ \text{Dec X5})\ 600$$

(E) We are now in a position to prepare the CPP profit and loss account and balance sheet.

Parker Limited
CPP profit and loss account for the year ended 31 December 20X5

	£(31 Dec X5)	£(31 Dec X5)
Sales, $12\,000 \times \frac{180}{170}$		12 706
less Opening stock, $1200 \times \frac{180}{140}$	1 543	
Purchases, $7000 \times \frac{180}{170}$	7 412	
	8 955	
less Closing stock, $1600 \times \frac{180}{178}$	1 618	7 337
Gross profit		5 369
less Sundry expenses, $1450 \times \frac{180}{170}$	1 535	
Debenture interest, $150 \times \frac{180}{170}$	159	
Depreciation,		
$0.20 \times 8000 \times \frac{180}{100}$	2 880	
$0.20 \times 3000 \times \frac{180}{175}$	617	5 191
Net trading profit		178
Gain on long-term monetary items	600	
less Loss on short-term monetary items	466	134
Profit for the year	£(31 Dec X5)	312

CPP balance sheet as at 31 December 20X5

	£(31 Dec X5)	£(31 Dec X5)
Fixed assets		
Net book value:		
$(8000 - 1600) \times \frac{180}{100}$	11 520	
$(3000 - 600) \times \frac{180}{175}$	2 469	13 989
Current assets		
Stock, $1600 \times \frac{180}{178}$	1 618	
Cash *plus* debtors less creditors	3 100	4 718
	£(31 Dec X5)	18 707
Share capital		
£1 10% preference shares	2 000	
£1 ordinary shares:		
$4000 \times \frac{180}{80}$	9 000	
$2000 \times \frac{180}{160}$	2 250	11 250
c/f		13 250

b/f			13 250
Reserves			
Share premium account,			
$500 \times \frac{180}{160}$	562		
Reserves, 1 January 20X5,			
$2986 \times \frac{180}{150}$	3 583		
Profit for 20X5	312		4 457
Owners' equity			17 707
15% Debentures			1 000
		£(31 Dec X5)	18 707

The nature of the loss or gain on a company's net monetary position

One of the more important features of a set of CPP accounts is its disclosure of the loss or gain arising from the company's net monetary position. It attempts to show the results, from the point of view of the equity shareholders, of the financing policy adopted by the company in a period of changing prices.

The figures disclosed by CPP accounts have, however, been criticised on a number of grounds. One cause for criticism stems from the observation that the nominal interest normally includes some compensation for the fact that, in a period of rising prices, debtors will discharge their debts in pounds of a lesser value than that of the pounds, they borrowed. If, at the time the debt was issued, the market correctly assessed the future course of inflation, the 'gain' that apparently accrues to the borrower will be equal to the compensation for inflation that is included in the nominal rate of interest. If this were the case, it would seem sensible to set off the gain against the interest payable in the accounts of the borrower and to set off the corresponding loss against the interest receivable in the accounts of the lender. If this were done, the accounts would disclose the 'real' interest payable and receivable.

In practice the market will not be correct in its assessment of the future course of inflation and there will be a real loss or gain arising from the company's net monetary position. The loss or gain will depend on the difference between the anticipated and actual rates of inflation and thus, so far as interest-bearing loans are concerned, the debtor will not automatically gain nor the creditor automatically lose. The debtor will only gain if inflation turns out to be greater than that which was anticipated when the borrowing was made.

Suppose that £10 000 debentures were issued at a nominal rate of interest at 12 per cent and let us suppose that it is known that the market believed that prices would rise by 9 per cent each year for the period of the loan. It could thus be argued that the real rate of interest is 3 per cent.

Assume that the actual rate of inflation in 20X7 was 15 per cent. The items relating to the loan which would appear in the CPP profit and loss account for 20X7 would be:

Interest payable, 12% of £10 000	£1 200[12]
Gain on long-term borrowing, £10 000 $\left(\frac{115}{100} - 1\right)$	£1 500

[12] For simplicity it has been assumed that interest is paid at the year end and the question of whether the interest should be deemed to have accrued evenly throughout the year, which would require the interest payment to be converted to pounds of year-end purchasing power, has been ignored.

It could, however, be argued that the following would provide a more realistic description of what in fact took place:

Interest payable, 3% of £10 000	£300
Gain on long-term borrowing, £10 000 $\left(\frac{115}{100} - 1\right)$ – 9% of £10 000	£600

In practice it is not possible to break down the nominal interest rate into the two elements – the real interest rate and the compensation for anticipated inflation – and hence it is not possible to present the CPP accounts in the above manner. However, it is clear that in the case of interest-bearing loans the loss and gain on the company's net monetary position will be overstated in the CPP accounts of the borrower and lender. There is thus a strong case for the suggestion that the loss or gain should be shown in the same section of the CPP profit and loss account as interest payable or receivable, and that the criticism referred to above is more concerned with the format of the CPP profit and loss account as proposed in PSSAP 7 than with the principles involved.

It must be emphasised that the above discussion refers only to interest bearing items. The CPP profit and loss account will not overstate the loss or gain on non-interest-bearing items such as cash at bank on current account or trade creditors.

It has also been argued that it is misleading to measure the loss or gain by reference to changes in the RPI, as this assumes that the alternative of putting, say, £10 000 into a bank account is the payment of a dividend of that amount. In reality only a very small proportion of the cash generated by a company is used to pay dividends; the greater proportion is recirculated in the business and is used to purchase stock and fixed assets and to pay wages and other overheads. It has been suggested that the loss in purchasing power experienced if a company deposited £10 000 in a bank account for one month should be measured by reference to the increase in prices of those items which will be purchased by the company.

The above argument can be countered by the assertion that the purpose of business activity is to increase future consumption and that physical assets are not acquired for their own sake. The objective of CPP accounts is to show the effect of changing prices on the consumption opportunities of the equity shareholders and not on the potential asset purchases of the firm.

Suppose that a slothful company starts the year with £100 000 in the bank and does nothing until the end of the year when it purchases assets the cost of which has increased by 10 per cent over the year. Let us also assume that the RPI has increased by 15 per cent over the same period. Is the loss on holding money £10 000 or £15 000? From the point of view of the equity shareholders it is £15 000. Had the £100 000 been distributed at the beginning of the year the shareholders could have consumed goods and services amounting to £100 000. As prices had on average gone up by 15 per cent over the year they would have required £115 000 at the year end to purchase an equivalent bundle of goods and services.

At the year end, the directors of the company must decide how best to maximise the total potential consumption over time of their shareholders. If the directors decide to invest the whole of the £100 000 in assets it must be on the basis of the belief that such action will be more beneficial to the shareholders than would the distribution of the cash. The shareholders would sacrifice immediate consumption in return for what are hoped will be greater consumption opportunities in the future.

It can be seen that there are two steps in the argument. First, the potential consumption opportunities of the shareholders have fallen by £15 000 (measured in year-end pounds) over the year. Second, a sacrifice of the consumption opportunity of £100 000 at the year end is required if the investment is to be made.

To show the loss on holding money as £10 000 would not reflect the fact that the potential consumption opportunity of the equity shareholders had fallen by £15 000 over the year.

Strengths and weaknesses of the CPP model

As we pointed out in Chapter 4, an accounting model can be appraised in terms of the selected capital maintenance test and asset valuation basis. We will now evaluate the CPP model in this way.

The real financial (money) capital maintenance test appears to be a sensible choice. Money is not of itself a valuable commodity – its utility depends on what can be done with it or, in other words, what it can buy either now or in the future. Thus, given that the purchasing power of money does vary over time, it seems reasonable to suggest that it is more helpful for many purposes to use a benchmark based on the maintenance of real money capital rather than on money capital. In particular, the use, in CPP accounting, of a price index based on changes in consumer prices does seem to be the appropriate basis for the preparation of financial statements which serve to show the impact of an entity's operations on the economic welfare of its owners. The case for the use of the real financial capital test in such circumstances can be highlighted by the presentation of a simple example.

Suppose that all the business of a sole trader is conducted on a cash basis such that the trader's only business asset is cash and that the business has no liabilities. Assume that the trader starts the year with £100 000 and has £120 000 at the end of the year, during which time no cash has been either introduced or withdrawn.

The profit which would be disclosed by the conventional accounting method that uses the money capital test is £20 000, but does this represent the owner's increase in 'well-offness' over the year? The question cannot be answered in the absence of any knowledge of the change in the purchasing power of money over the year. If the rate of inflation was less than 20 per cent, then it seems reasonable to suggest that the owner was better off at the end of the year than at the beginning of the year in the sense that more goods and services could be purchased. Similarly, if the rate of inflation was more than 20 per cent the owner would be worse off.

Let us now turn to the CPP basis of asset valuation. It is here that the CPP model is weak. As has already been stated, the CPP model does not purport to show the current economic value of assets since the basis of valuation is historical cost. With CPP accounting it is money and not the asset that is 'revalued'. Thus, the CPP model suffers from much the same limitations as historical cost accounting which were outlined in Chapter 4, and most authorities appear to agree that the CPP approach is not an adequate response to the criticisms of the conventional method.

Given the obvious usefulness of the real money capital test and the weakness of the CPP asset valuation basis, many people, including the authors, believe that it would be sensible to combine the profit measure based on real financial capital maintenance with a basis of asset valuation which does reflect current values. We will introduce such an approach in Chapter 21 but in Chapter 20 we will first introduce Current Cost Accounting.

Summary

In the first part of this chapter we have provided an account of the history of the attempts to introduce a new approach to financial accounting that would have systematically reflected

the impact of changing general price levels or the changing values of specific asset and liabilities. We saw how, in periods of high inflation, strong support for the introduction of new methods of accounting emerged, even from those such as the professional bodies that had previously resisted reform.

In the second part of the chapter, we introduced CPP accounting and showed that while it has a number of useful features, such as disclosing the loss or gain arising from an entity's monetary position, it suffers from a number of important defects, not the least of which is its failure to recognise changes in relative prices.

Recommended reading

See end of Chapter 21.

Questions

See end of Chapter 21.