PART

2

Financial reporting in practice

chapter 5

Assets I

overview

A key practical and theoretical issue in accounting is when should an asset be recognised and how should it be measured? In what circumstances does expenditure result in an asset and when in an expense? If an asset is to be recognised should it be recorded at cost, and how should that cost be measured, or at a current value that may be more or less than the asset's historical cost? Most assets do not last forever and so we must decide how we should measure the consumption of the asset.

In this chapter we concentrate on fixed assets, including investment properties, and will discuss the issues involved both in the way in which they are initially recognised in the financial statements and in the way in which changes in their carrying value are effected. Thus we will cover both depreciation and impairment reviews and the use of current values. We will in the following chapter cover other topics related to assets: inventory, research and development and accounting for grants, while we will deal with contingent assets in Chapter 7, along with contingent liabilities.

The various statements and standards covered in the chapter are:

- FRS 15 *Tangible Fixed Assets* (1999)
- FRED 29 *Property, Plant and Equipment and Borrowing Costs* (2002)
- IAS 16 *Property, Plant and Equipment* (revised 1998)
- IAS 23 *Borrowing Costs* (revised 1993)
- SSAP 19 *Accounting for Investment Properties* (amended 1994)
- FRS 10 *Goodwill and Intangible Assets* (1997)
- FRS 11 *Impairment of Fixed Assets and Goodwill* (1998)
- IAS 36 *Impairment of Assets* (1998)
- *Exposure draft of an amendment to FRS 15 and FRS 10* (2000)

The proposals of FRED 29, which was issued as part of the convergence programme between UK and international standards, are intended to lead to the replacement of FRS 15 by two standards. One would be based on the existing International Standard, IAS 23 *Borrowing Costs*, and the other on a planned revised version of IAS 16 *Property, Plant and Equipment*.

Introduction

In Chapter 4 we introduced the various approaches to the valuation of assets in a balance sheet. These included historical cost, historical cost adjusted for inflation, replacement cost, net realisable value and present value. We shall, in Part 3 of the book, explore systems of accounting which attempt to adjust for the effects of changing prices in various ways but in this and the following chapter we will discuss a number of problems of accounting measurement and disclosure of assets in the context of current financial accounting practice. The

current system used in the UK has long been known as the 'modified historical cost accounting system' although, in its *Statement of Principles*, the ASB now uses the term 'mixed measurement system' (see Chapter 1). It is a system of accounting in which most assets are shown at an amount based upon historical cost while other assets are shown at their current values. In the UK and a few other countries,[1] fixed assets may be shown at their current values even when this is higher than the carrying values based upon historical cost.

While efforts to replace historical cost accounting by current cost accounting as the main basis of accounting have failed, the debate has had a considerable impact on financial accounting practice. During the 1970s and 1980s, those inflationary decades, both the accountancy profession and the UK Government made moves towards the greater use of current values in financial statements and the main elements of that particular saga are described in Chapter 19. In a period of low inflation much of the heat has gone out of the debate, but there are some important legacies of the controversy including the 'alternative accounting rules' of the Companies Act 1985 and the fact that the subject of revaluation is now an important aspect of any financial reporting standard dealing with assets. As we explained in Chapter 1, it is quite clear that the ASB favours the greater use of current values in financial statements and this enthusiasm is undoubtedly shared by the present IASB.

The nature of assets

The ASB deals with the general nature of assets in its *Statement of Principles* issued in December 1999, in which assets are defined thus:

> **Assets are rights or other access to future economic benefits controlled by an entity as a result of past transactions or events. (Para. 4.6)**

Note that the key elements are *control* (not ownership), *future economic benefits* and the need to identify *past transactions or events* that gave rise to the asset. We shall show how these elements affect the treatment of assets in the course of the chapter.

Tangible and intangible assets

Company legislation and accounting standards make much of the distinction between tangible and intangible assets. The balance sheet formats of the Companies Act require the separation of the two types of assets while they are dealt with different financial reporting standards. In the past when manufacturing was king and 'real' assets were things that you could touch it might have been appropriate to treat the two classes of assets as being fundamentally different but in the modern economy where knowledge, brands and rights may be far more significant sources of wealth than plant and equipment the distinction seems far less sensible.

The distinction may actually be very unhelpful because it deflects us from understanding the basic principle that an asset is only an asset if it is a source of future economic benefits. Its tangibility or intangibility has nothing to do with that. A piece of plant and equipment is a potential heap of rust; the right to the 'Mars' brand is a very 'real' source of wealth.

[1] The ASB is part of a group of national standard setters from jurisdictions in which the revaluation of fixed assets is permitted together with the IASB. This is referred to as the 'Revaluation Group' and comprises representatives from standard-setting bodies of Australia, New Zealand, South Africa and the UK. Upward revaluations of fixed assets are not permitted in most countries including major players such as Canada, Germany, Japan and the USA.

An interesting example of the somewhat odd outcome that emerges from the debates about an asset's tangibility relates to websites. A well-designed and skilfully targeted website will generate considerable economic benefits and hence must be regarded as constituting an asset, but is it tangible or intangible? This question, and here one is rather reminded of angels dancing on pins, was addressed by the Urgent Issues Task Force (UITF) which published an abstract on the subject in February 2001.[2]

It was concluded that a website does indeed constitute an asset if there existed reasonable grounds for supposing that future economic benefits would exceed the costs to be capitalised. If the case could be made, the amount to be capitalised would be the expenditure related to infrastructure costs (including the cost of registering the domain name and software) and the costs of designing the site and in preparing and posting the content of the site.

It might be thought that the asset has more of a virtual than a physical substance but even so the UITF experienced some difficulty in determining whether it should be treated as a tangible or an intangible asset. They did, however, identify a precedent in paragraph 2 of FRS 10 *Goodwill and Intangible Assets* where it is stated that software development costs that are directly attributable to bringing a computer system into working condition should be treated as part of the cost of the related hardware rather than as a separate intangible asset. On the basis of this somewhat imperfect analogy, the UITF decided that website development costs should be treated as a tangible asset.

It is not altogether clear how this view can be squared with the FRS 15 definition of a tangible asset that includes the requirement that it has a 'physical substance' (see p. 100). A more important question, however, is does it matter whether website expenditure is tangible or intangible? We shall return to this question on p. 122 after dealing with the standards relating to these tangible and intangible assets respectively.

A multiplicity of standards

In its recent work the ASB has more closely linked the issues surrounding the special case of the intangible asset of goodwill arising from a business combination with intangible assets in general. One consequence is that there are now three key interlinking standards, FRS 10 *Goodwill and Intangible Assets*, FRS 11 *Impairment of Fixed Assets and Goodwill* and FRS 15 *Tangible Fixed Assets*, which are based on consistent principles, as well as three surviving SSAPs, 19, 9 and 13, which deal with investment properties, stocks and work-in-progress, and research and development. We will, in this chapter, focus on FRS 15, FRS 10 and SSAP 19, but will also discuss some elements of FRS 11. We will return to a more extensive discussion of goodwill and impairment in Chapter 13 where we deal with the subject of business combinations.

The nature of the issues

Before proceeding to the detailed discussion it might be helpful to identify the main issues relating to accounting for assets that need to be considered:

1 What is the actual nature of the asset that is to be recorded? It may be necessary to distinguish between the economic benefits that accrue from the ownership of the asset, the right to acquire the asset (an option), or the right to receive some or all of the returns that will be generated by the asset.

[2] UITF Abstract 29, 'Website development cost'.

2 Who controls the right to benefit from the use of the asset? This might not be the same entity as its legal owner.
3 What was the cost of acquiring an asset?
4 Does the asset have a finite useful economic life? If so, how should it be depreciated?
5 What is the current value of the asset and on what basis should the current value be determined? These questions need to be answered even for historical cost accounts to help decide whether the carrying value of the asset needs to be written down.
6 To what extent, and how, should current values be recognised in historical cost accounts?
7 What is the appropriate treatment of gains and losses from the revaluation and disposal of assets?

While we deal with most of these issues in this chapter some, like the second, control of the right to benefit from the use of the asset, are best dealt with in later chapters of the book.

The basis of valuation

We will start not with the first issue but with the fifth, because the answer to the question 'What is the asset's current value?' has an important impact on many of the issues. We will in Part 3 of the book deal with some of the theoretical aspects of current value but, at this stage, we will confine our discussion to the two concepts that have impacted on UK and International Standards, namely *fair value* and *value to the business*.

While, in its early standards, the ASB used the fair value approach to obtaining current values, it subsequently adopted the more sophisticated and logically consistent value to the business model that, as it points out in its *Statement of Principles*, provides the most relevant basis for arriving at the current value of an asset.[3] Unfortunately the IASB remains committed to the fair value approach that, as we shall see, reappears in the UK in FRED 29. It appears that the ASB is prepared to accept the less satisfactory fair value approach to current value as part of the cost of convergence.

Value to the business

We will start by considering *value to the business*, also known as *deprival value*, which we briefly introduced in Chapter 1 and to which we will return, in more detail, in Chapter 20. The key question in determining an asset's value to the business (the loss the entity would suffer if deprived of the asset) is whether an entity would, if deprived of the asset, replace it. If it would, the loss, and hence the value to the business, is the asset's replacement cost.[4] But in some instances the entity would not choose to replace the asset because the economic benefit that comes from ownership is less than the cost of replacement. In such a case the value to the business, which would be less than the replacement cost, would depend on what a 'rational entity' is intending to do with the asset; the critical question is whether the asset is being held for sale or not. If the best thing the entity could do is sell the asset (but not replace it) then the value to the business is the asset's net realisable value: sales proceeds less the future costs of sale.

[3] Para. 6.7.
[4] Strictly, the loss includes any consequent costs due, for example, to delays in production. In practice these consequential losses are, unless they are substantial, ignored.

However, there may be some assets which are not worth replacing but which it would not be sensible to sell, because they are worth more to keep than would be realised through their sale. A good example of such an asset is an old specialised machine which would not be replaced but which is still producing cash flows with a present value far in excess of its net realisable value. In such a case, the asset would be retained and used rather than sold.

Assets that fall into this intermediate category are valued by reference to their value in use, which is defined as:

> **The present value of the future cash flows obtainable as a result of the asset's continued use, including those resulting from its ultimate disposal.[5]**

The higher of the net realisable and value in use is the assets *recoverable amount*; we will discuss this subject in more detail later in the chapter when we introduce FRS 11.

So when a company exercises its option to show assets at current value, rather than on the basis of historical cost, the value to the business will usually be its replacement cost, or to be more precise in the case of a fixed asset, the replacement cost of that portion of the assets that has not been consumed. If the asset is not worth replacing, its value to the business is its recoverable amount.

The above can be summarised as follows:

Value to the business	**=**	**lower of:**	**Replacement cost**
			Recoverable amount
Recoverable amount	**=**	**higher of:**	**Value in use**
			Net realisable value

Fair value

Let us now turn to fair value, which is defined in FRED 29 as:

> **the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.[6]**

In other words fair value is the market value of an asset in a good market, that is one where there are willing buyers and sellers, where the parties are knowledgeable and where there are no forced sales.

The problem with this approach is that it ignores the different hypothetical positions of the willing partners. The market value is always dependent on the asset holder's relation to the market. Take for example a motor vehicle retailer who lives on the difference between the price he pays a knowledgeable and willing seller, such as BMW, and receives from a willing and knowledgeable purchaser, who may be one of our readers. The difference between these two prices is often quite considerable – how else might one account for the plush car showrooms?

The FRED 29 definition is quite deficient in that it provides no guidance as to which of the two possible figures represent the fair value of the retailer's inventory of BMWs. The definition has to be interpreted in the light of other factors. To value inventory at its realisable value would be to take credit for a profit yet to be realised and would thus be rejected in favour of replacement cost. The value to the business rule would produce the same answer

[5] FRS 11, Para. 2.
[6] Para. 6

but would do so in a more satisfactory and logical fashion. If the retailer would replace the cars then their current value is given by their replacement cost; if they are not worth replacing the value is given by their recoverable amount, in this case their net realisable value.

Another major weakness in the definition of fair value as set out in FRED 29 is that it does not deal explicitly with those cases where there is not a market for the asset, as might often be the case for highly specialised items of plant and equipment. In such cases, FRED 29 would require the asset to be valued on the basis of its depreciated replacement cost.[7] But, as we pointed out earlier this approach might not be valid if the asset's value in use is less than the depreciated replacement cost. The exposure draft does not deal with this point.

Tangible fixed assets

For convenience we will consider the various issues surrounding the accounting treatment of tangible fixed assets in the same order as is found in FRS 15 *Tangible Fixed Assets,* [8] which was issued in 1999. The main issues and related provisions of FRS 15 are summarised in Table 5.1.

Table 5.1 Summary of main issues and related provisions of FRS 15 *Tangible fixed assets*

Issues	*Provisions*
Initial measurement of TFAs	At cost
Capitalisation of finance costs	Optional
Write-down of TFAs to their recoverable amounts	Required
Treatment of subsequent expenditure on TFAs	Write-off to P&L, with three exceptions
Revaluation of TFAs	Optional
Depreciation of TFAs	Required, other than for land and investment properties, but may be immaterial
Treatment of gains and losses on disposal and revaluation of TFAs	Show in P&L if due to consumption of economic benefits, otherwise in STRGL but with exceptions
Disclosure requirements	Various

Tangible fixed assets (TFAs) are defined in FRS 15 as:

> **Assets that have physical substance and are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes on a continuing basis in the reporting entity's activities. (Para. 2)**

This definition seems clear enough[9] but it does beg at least one important question. To what extent should an item be regarded as a single asset or a collection of assets? A factory is

[7] FRED 29, Para. 31.

[8] It appears that the convergence process will lead to a change in terminology in that, following IASB practice, FRED 29 includes in its title the phrase 'Property, plant and equipment' which, in the minds of the ASB members, has a similar meaning to 'Tangible fixed assets' (FRED 29, Para. 4).

[9] But see p. 97 where it is explained that the UITF believes that a website has a physical substance.

clearly a collection of assets while a motor car would almost always be treated as a single asset. But the question is not always capable of a simple answer. Take, as an example, trailers that are towed by articulated trucks. The tyres of the trailers constitute a substantial portion of the total cost of the trailer but have a much shorter life than that of the bodies of the trailers. The owner of a large trailer fleet might well find it sensible to treat the tyres separately from the bodies and, for example, to apply a different depreciation pattern to the tyres as compared to the bodies.

This is an important topic that FRS 15 touches upon but does not completely resolve. It is recognised that when an asset is made up of two or more major components with substantially different useful economic lives, then each component should be accounted for separately for depreciation purposes (FRS 15, Para. 83). But this, perhaps, does little more than shift the debate to what is the nature of a component.

One way of approaching the question is to consider the acquisition of the asset and argue that an identifiable asset is one that was acquired as a result of a single event but, as described earlier, the ASB's definition allows an asset to be acquired as a consequence of more than one event. Thus, in Appendix IV to FRS 15, which deals with the development of the standard, the Board is reduced to relying on such phrases as that the decision will '*depend upon the individual circumstances*' and expressing the expectation that entities will use '*a common sense approach*' (FRS 15, p. 77, emphasis added). The use of such phrases by standard setters is usually a pretty fair indication that there are issues still to be resolved.

The initial cost of a tangible fixed asset

Whether a TFA is acquired or self-constructed, its initial cost is made up of its purchase price and '*any costs directly attributable to bringing it into working condition for its intended use*' (Para. 8, emphasis added). Thus general overheads should not be included, but the cost does include, as well as any directly attributable labour costs, '*the incremental costs to the entity that would have been avoided only if the tangible fixed asset had not been constructed or acquired*' (Para. 9(b), emphasis added).

While it is clear that the Standard calls for the identification of truly marginal costs, it is likely that, in practice, the usual overhead recovery rates will be used as proxy to arrive at the incremental costs.

Of particular interest are the costs that the ASB say should not be included: Para. 11 states:

> Abnormal costs (such as those relating to design errors, industrial disputes, idle capacity, wasted materials, labour or other resources and production delays) and costs such as operating losses that occur because a revenue earning activity has been suspended during the construction of a tangible fixed asset are not directly attributable to bringing the asset into working condition for its intended use.

This paragraph seems both impractical and inconsistent. Its impracticability stems from the assumption that such things as design errors are 'abnormal'. Anyone who has experience of any large-scale construction knows that designers and engineers do not get everything right the first time and that a reasonable amount of rectification and redesign is part of the normal cost of construction.

The inconsistency is to be found in the different treatments of acquired and self-constructed tangible fixed assets. In the case of an acquisition the cost is the cost, which may or may not be the 'best price' at which it might have been purchased in the market and, in the case of complex assets, is likely to include an element for cost recovery of the 'inefficiencies' listed in Para. 11 of

FRS 15. Hence, it is possible to capitalise the entity's purchasing inefficiency and the supplier's production inefficiency and excess profit, but not the entity's production inefficiency.

A more consistent and realistic approach would be to measure and record the cost actually incurred in constructing the asset, warts (inefficiencies) and all, and then apply the usual tests of impairment to determine whether the carrying value should be written down to its recoverable value (see p. 104).

Another major problem that can arise in determining the initial cost of an asset occurs when the asset is not acquired in isolation but as part of a package that might, in the extreme, involve the purchase of an entire business. As we will show in Chapter 13 it is necessary, in such circumstances, to attempt to arrive at the fair values, or to be more precise, values to the business, of the assets involved using the bases we described earlier.

FRED 29 includes a proposal that has not previously been found in UK standards which relates to assets that have been acquired in exchange. The exchange of assets appears to be much more common in Eastern European countries and the exposure draft proposes that, where such exchanges occur, the cost of the assets should be measured by reference to the fair value of the assets given up or, if more clearly evident, the fair value of the assets acquired. This would preclude the use of the carrying amount of the asset that has been given up in the exchange, unless it was impossible to determine reliably either of the two fair values.

The capitalisation of borrowing costs

Considerable uncertainty surrounds the question of whether borrowing (finance)[10] costs should be capitalised when a fixed asset, say a building, is paid for in advance, often by a series of progress payments, or when such an asset takes a considerable time to bring into service. The debate about whether or not borrowing costs should be capitalised is often conducted with a fervour reminiscent of the more extreme medieval religious conflicts, but the basic point is, however, extremely simple.

The only point at issue is when the cost of borrowing should be charged to the profit and loss account. If the cost is not capitalised it will be charged over the life of the loan, whereas if it is capitalised the cost will be charged to the profit and loss account over the life of the asset as part of the depreciation expense. The rationale for the view that borrowing costs should be capitalised can best be demonstrated by the use of a simple example.

Assume that the client, A Limited, is offered the following choice by the builder, B Limited: 'The building will take two years to construct, you can either pay £10 million now or £12 million in two years' time.' If A Limited decides to select the first option, it may well have to borrow the money on which it will have to pay interest. If A Limited selects the second option, it will still have to pay interest, but in this case the interest will be included in the price paid to B Limited.

The above example is extreme, but it does highlight the principles involved. If we assume that both companies have to pay the same interest rate, then A Limited will be in exactly the same position at the end of two years whatever option is selected, and it does not seem sensible to suggest that the cost of the building is different because in one case the interest is paid directly by the client while in the second case the interest is paid via the builder.

The basic stance adopted in FRS 15 is that an entity can choose to capitalise or not to capitalise borrowing costs but, having chosen, it must be consistent.

[10] FRS 15 refers to finance costs but, following international practice, FRED 29 uses the term borrowing costs.

The ASB acknowledges that it would have been better if it climbed off the fence and either prohibited the capitalisation of borrowing costs or made it mandatory. It agrees that there are conceptual arguments for the capitalisation on the grounds of comparability as demonstrated in the above example. However, the ASB was influenced by the argument that, if capitalisation were made mandatory, then companies would demand that notional interest charges should also be capitalised. This would be relevant in cases where entities did not need to resort to borrowing to acquire the fixed asset but instead relied on their internal resources that have, not a direct cost, but an opportunity cost related to the benefit that the entity would have obtained had the resources not been used for this particular project. This is, the Board states, 'a contentious issue' and, until an internationally acceptable approach is agreed, the Board will continue with the optional approach that it says is consistent with that taken by IAS 23, *Borrowing Costs*, as revised in 1993.

The provisions of FRS 15 relating to the capitalisation of borrowing costs may be summarised as follows:

1 When an entity adopts a policy of capitalisation of finance costs that are directly attributable to the construction of tangible fixed assets, the finance cost should be included in the cost of the asset and the policy should be consistently applied (Paras 19 and 20).
2 When the entity borrows funds specifically to be used for the project the amount to be capitalised should be restricted to the actual costs incurred and should be capitalised on a gross basis, i.e. before the deduction of any tax relief (Paras 21 and 22).
3 If the funds used are part of the entity's general borrowings the amount to be capitalised should be based on the average cost of capital but, in calculating the cost, funds raised for specific purposes should be excluded (Paras 23 and 24).
4 Capitalisation should begin when:
   (a) finance costs are being incurred and
   (b) expenditure for the asset are being incurred and
   (c) activities to get the asset ready for use are in progress (Para. 25).
5 Capitalisation should stop when all the activities are substantially complete (Para. 29).
6 Where a policy of capitalisation is adopted that fact should be disclosed, together with:
   (a) the aggregate amount of finance costs included in the cost of tangible fixed assets;
   (b) the amount of finance costs capitalised during the period;
   (c) the amount of finance costs recognised in the profit and loss account during the period;
   (d) the capitalisation rate used to determine the amount of finance costs capitalised during the period (Para. 31).

FRED 29

There are no significant differences between the provisions of FRS 15 and FRED 29 so far as borrowing costs are concerned. The exposure draft does, however, indicate that debate on this issue has not yet come to an end in that it is reported that the IASB, when considering the revision of IAS 23, became inclined to the view that all borrowing costs be reporting as an expense in the period in which they are incurred (Para. 20) but it recognised that to do so would conflict with the views of national standard setters. Hence, more thought will be given to the matter as part of an IASB project dealing with measurement of the initial recognition of assets.

The writing down of new tangible fixed assets to their recoverable amounts

It is, as we shall see, a main theme of FRS 11 *The Impairment of Fixed Assets and Goodwill*, that fixed assets are not carried at more than their recoverable amounts and we deal with this later in the chapter. At this stage it is necessary just to point to Paras 32 and 33 that state that, when a new TFA is acquired, through either purchase or construction, it should not be carried at an amount that exceeds its *recoverable amount*.

Subsequent expenditure

'Subsequent expenditure' is a relatively new, useful term that covers all expenditure on the TFA after it has come into use.

One of the more slippery areas of accounting is the distinction between repairs and enhancement with the temptations often pulling in opposite directions. The enterprise wishing to minimise its tax bill would tend to write off as much as possible to repairs, while an enterprise more concerned with showing a good profit would opt for capitalisation.

FRS 15 is clear that expenditure to ensure that a fixed asset maintains its previously assessed standard of performance should be written off to the profit and loss account as it is incurred (Para. 34). The circumstances under which subsequent expenditure can be capitalised are set out in Para. 36, which we will reproduce in full.

> Subsequent expenditure should be capitalised in three circumstances:
>
> (a) where the subsequent expenditure provides an enhancement of the economic benefits of the tangible fixed asset in excess of the previously assessed standard of performance.
>
> (b) where a component of the tangible fixed asset that has been treated separately for depreciation purposes and depreciated over its individual useful economic life is replaced or restored.
>
> (c) where the subsequent expenditure relates to a major inspection or overhaul of a tangible fixed asset that restores the economic benefits of the asset that have been consumed by the entity and have already been reflected in depreciation.

The drafting of the paragraph is not entirely clear but the concepts are pretty simple. Paragraph 36(a) states that capitalisation is appropriate when the asset has been improved in some way, such as extending its life or improving its efficiency. Paragraph 36(b) takes us back to the question of when an asset is an individual asset or a bundle of assets. As mentioned earlier, an asset with two or more major components may have different depreciation patterns for each of the components and this clause is simply a consequence of this. Paragraph 36(c) refers to situations, such as those found in the airline industry, where there is a mandatory inspection and overhaul of the asset every, say, three years. Then the cost of the inspection and the overhaul can be capitalised and written off over the period until the next inspection is due.

The revaluation of tangible fixed assets

The various attempts to introduce a system of financial reporting based primarily on current values are described elsewhere in this book. In this section we will be concerned with what the ASB refers to as the 'mixed measurement system'. Under this system some assets

are carried in the balance sheet at their current values and some are not. While historical costs accounting has always required the writing down of assets, by, for example, depreciation, revaluation in an upward direction is not permitted in most countries of the world.[11] However the revaluing of certain TFAs, particularly property, has long been common in the UK, a practice which has been given additional legislative force by the inclusion of the alternative accounting rules in the Companies Act 1985.

In previous pronouncements the ASB and its predecessor, the Accounting Standards Committee, set out the arguments for and against the greater use of current values, sometimes tending to favour such a practice[12] and sometimes not.[13] In FRS 15 the ASB's position seems to be one of studied neutrality as evidenced by the awe-inspiring declaration in a paragraph printed in bold and hence part of the standard itself, that:

> Tangible fixed assets should be revalued where the entity adopts a policy of revaluation. (Para. 42)

So it should only be done when you want to do it!

Given that the entity has adopted a policy of revaluation the standard sets out the parameters within which the policy should be applied. These are summarised below.

1 The policy should be applied consistently to all assets within an individual class of tangible fixed assets but need not be applied to all classes of such assets (Para. 42).
2 Assets subject to the policy of revaluation should be included in the balance sheet at their current values (Para. 43).

The ASB has tried to ensure some consistency of practice within a given class of assets and outlawed the previous practice whereby companies would revalue one or more assets in a class at one point in time but then not update that value. It has thus outlawed the use of obsolete revaluations!

Classification of tangible fixed assets

In the UK the formats for financial reporting contain three groups for TFAs:

- Land and buildings
- Plant and machinery
- Fixtures, fittings, tools and equipment

However, in applying the provisions of this standard entities may adopt narrower classes, e.g. freehold properties. Little guidance is given as to what would be an appropriate class other than the not very forceful phrase that 'entities may, within reason, adopt . . . narrower classes' (Para. 62).

There is one exception to the rule that requires all assets within the same class to be revalued. These are assets that are held outside the UK or the Republic of Ireland for which it is impossible to obtain a reliable valuation. Such assets can continue to be carried at historical cost but the fact that this override has been used must be stated.

[11] One of the authors used a machine with an American spell check which gave an error message every time he typed 'revalued'. See n. 1 above, on the 'Revaluation Group'.
[12] See *Accounting for the Effects of Changing Prices*, published in 1986.
[13] See ED 51 *Accounting for Fixed Assets and Revaluations*, issued in 1990.

Frequency

Most quoted entities made use of the alternative accounting rules but generally did so on a spasmodic basis.[14] Large numbers of companies, particularly quoted companies, have incorporated revaluations into their financial statements, often cherry-picking assets for this treatment. These revaluations have usually related to properties but the revalued amounts have rarely been updated on an annual basis. Thus, in addition to showing their TFAs at 'historical costs' and 'current values', companies have frequently included assets at 'obsolete current values'. This third category is obviously unhelpful in that it tells the user nothing of value and has now wisely been outlawed by the ASB. It appears that many companies which have used obsolete revaluations have now reverted to the use of historical cost-based valuations rather than incur the cost of systematically revaluing all assets in a particular class at current value on an annual basis. Thus we are probably now closer to a historical cost system of accounting than we have been for many years!

The standard requires that, if an entity opts for a policy of revaluation in respect of a particular class of tangible fixed assets, the balance sheet should reflect the current values of those assets. This does not mean, however, that revaluation need be an annual process (Para. 44). In general, the requirements of the standard would be satisfied if there were a full revaluation every five years with an interim valuation in year 3. In addition an interim valuation should be carried out in any year where it is 'likely that there has been a material change in value' (Para. 45).

Special considerations apply to entities that hold a portfolio of non-specialised properties.[15] In such cases it is suggested that a full valuation could be achieved on a rolling programme designed to cover all the properties over a five-year cycle, together with interim valuations where it is likely that there has been a material change in value.

We have in the preceding paragraphs been free with the phrases '*full valuation*', '*interim valuation*' and '*likely to be a material change in value*'. What do these phrases actually mean?

The differences between full and interim valuations are described in the case of properties but not for other types of TFAs. For properties a full valuation would include a detailed inspection of the property, enquiries of local planning authorities, solicitors, etc. and research into market transactions involving similar properties and the identification of market trends (Para. 47). The less detailed interim valuation would involve the last of these together with the confirmation that there have been no significant changes to the physical fabric of the property and an inspection (but not a detailed inspection) if there are indications that such would be necessary (Para. 48).

No effective guidance is provided as to what is meant by a material change. In attempting this the standard does little more than restate its position by explaining that 'A material change in value is a change in value that would reasonably influence the decision of a user of the accounts' (Para. 52).

Who should make the valuations?

With the single exception referred to below revaluations should be made by qualified valuers. These may be internal, employed by the entity, but if they are, then the valuation process should be reviewed by a qualified external valuer.

[14] FRS 15, p. 73.

[15] FRS 15 follows the definitions used by the Royal Institute of Chartered Surveyors (RICS) that are reproduced in Appendix 1 to the standard. In summary, non-specialised buildings are those which can be used for a range of purposes.

The exception relates to those assets for which there exists an active second-hand market, as is the case for used cars, or where suitable indices exist that enable the entity's directors to establish the asset's value with reasonable certainty. In such instances the valuations can be made by the directors but if this option is selected the valuations should be done on an annual basis.

Bases of valuation

Assets other than properties

The basic principle for the revaluation of all tangible assets, other than property, is set out in Para. 59:

> **Tangible fixed assets other than properties should be valued using market value, where possible. Where market value is not obtainable, assets should be valued on the basis of depreciated replacement cost.**

For the reasons we explained earlier, while the use of the imprecise phrase 'market value' is far from helpful, it was clear that the ASB believed, at the time it issued FRS 15, that the 'practical interpretation' of this paragraph leads to the use of the value-to-the-business model. This view, following FRED 29, seems to have changed in the interest of convergence.

Properties

A distinction must be made between *specialised properties and non-specialised properties.* Drawing on the work of the RICS, the ASB states that specialised properties are 'those which, due to their specialised nature, are rarely, if ever, sold on the open market for single occupation for continuation of their existing use, except as part of a sale of the business in occupation' (FRED 29, p. 57). Examples of specialised properties listed include oil refineries, power stations, hospitals, universities and museums. In addition a property may be regarded as specialised if, although otherwise normal, it is of such a substantial size given its location that there is no market for such properties.

Valuation of specialised properties

Because of the lack of a market for such assets they should be valued by reference to their depreciated replacement cost (Para. 53(c)).

Valuation of non-specialised properties

In assessing current value, an important difference between properties and most other tangible assets is that the value of properties depends heavily on the use to which the property is put. Consider as an example a warehouse in the middle of an area which had once been industrial but which is now increasingly residential. The value of the property as a warehouse might be much less than its value as a shell for conversion into flats, but, even so, the entity needs a warehouse and would, if deprived of the asset, replace it. Thus, following the principles underlying value to the business, the asset should be valued on the basis of its replacement cost. But we must be clear as to what is being replaced: in this case it is a

warehouse not a potential housing site. Hence, FRS 15 specifies that, if they are being revalued, non-specialised assets:

> should be valued on the basis of existing use value (EUV), with the addition of notional directly attributable acquisition costs where material. Where the open market value (OMV) is materially different from EUV, the OMV and the reasons for the difference should be disclosed in the notes to the accounts. (Para. 53(a))

If the asset is surplus to the entity's requirements the above argument does not hold and hence these should be valued on the basis of the OMV less any expected material directly attributable selling costs (Para. 53(c)).

Detailed definitions of EUV and OMV are provided in the standard. Both models are based on an opinion of the best price at which the sale of an interest in the property would have been completed unconditionally for cash consideration at the date of valuation, on the assumption that there is a good market for the property and specifically that there is no possibility of a bid by a prospective purchaser with a special interest. The last of these factors means that the value would not be enhanced by the possibility that a specific potential purchaser, perhaps the owner of the adjacent property, might be prepared to pay more for the property than anyone else.

The essential difference between the two bases, EUV and OMV, is that the estimate of existing use value is based on the additional assumption 'that the property can be used for the foreseeable future only for the existing use' (p. 60).

The adoption of the proposals set out in FRED 29 would change this approach to the valuation of non-specialist buildings. Since FRED 29 is based on the fair value concept non-specialist buildings would be valued on the basis of their open market values rather than on the basis of their existing use value.

Reporting losses and gains on revaluation

There can be no question that losses on revaluation reduce owners' equity and gains on revaluation enhance it. The only issue that presently detains us is how the loss or gain should be reported; should it be through the profit and loss account or through the statement of total recognised gains and losses (STRGL)?

In FRS 15 a distinction is made between those losses that are caused by 'clear consumption of economic benefits' and other losses. A loss of the first type, which is regarded as being akin to depreciation, is usually due to a factor which is intrinsic to the asset, such as physical deterioration, while the second type of loss may be characterised by a general fall of value in the type of asset concerned.

The starting position is that 'All revaluation losses that are caused by a clear consumption of economic benefits should be recognised in the profit and loss account' (Para. 65).

Otherwise losses should be recognised in the STRGL.

Now for the complications. If the carrying amount falls below the depreciated historical cost then, in general, any further revaluation losses, whatever their cause, should be recognised in the profit and loss account. But there is an exception to this where it can be shown that the recoverable amount exceeds the revalued amount, in which case the loss should be recorded in the STRGL to the extent that the recoverable amount exceeds the revalued amount (Para. 65).

In order to help understand this it might be helpful to be reminded that a non-specialised property is valued by reference to its OMV. It may well be that the value of the property has

fallen, because of a general fall in the market, but the directors of the entity can demonstrate that the recoverable amount (the present value of the cash flows that flow from the ownership of the asset) is greater than the OMV. The asset is still written down to its OMV, and owners' equity reduced, but as the loss is not regarded as resulting from a consumption of economic benefit it can be recorded in the STRGL.

Revaluation gains should in general be recognised in the STRGL other than to the extent that gain reverses revaluation losses on the same asset that were recognised in the profit and loss account (Para. 63).

Because the basis of valuation underpinning FRED 29 does not incorporate the notion of recoverable amount, the exposure draft's proposals on the treatment of revaluation losses is that:

- All revaluation losses that exceed existing revaluation surpluses should be charged to the profit and loss account
- Losses that are reversals of previously recognised gains should be shown in the STRGL. (Para. 38)

This would undoubtedly be a much more straightforward, if less theoretically sound, approach to apply in practice.

Reporting losses and gains on disposal

> The profit or loss on the disposal of a tangible fixed asset should be accounted for in the profit and loss account of the period in which the disposal occurs as the difference between the disposal proceeds and the carrying amount, whether carried at historical cost (less any provisions made) or at a valuation. (Para. 72)

This formulation, which follows the relevant provision of FRS 3, Para. 21, gives rise to a serious inconsistency. If the entity had, at some stage in the past, revalued the asset the revaluation gain would not have passed through the profit and loss account but would instead have been recorded in the STRGL. But if the asset had not been revalued the whole of the gain goes through the profit and loss account. The ASB recognises that this is inconsistent and in FRED 17, the exposure draft for FRS 15, it proposed that the whole of the gain should appear in the STRGL.

For a number of reasons the responses to FRED 17 made it clear that this proposal was not acceptable. It seems that the main reasons for this reaction were the view that it would be premature to make the change in advance of a more far reaching review of the STRGL and that the proposed treatment was inconsistent with the treatment of gains and losses on the disposal of businesses, subsidiaries and investments. Thus it appears, as we discuss in Chapter 11, that further changes are on their way.

Disclosures relating to revaluation

Paragraph 74 specifies what has to be disclosed, and includes details of the timing of valuations, the names and status of those who carried them out as well as the total amount of material notional directly attributable acquisition costs or expected selling costs that are included in the valuation.

Depreciation

Prior to the issue of FRS 15 depreciation merited its own standard. It was the subject of SSAP 12, which was issued in 1977, amended in 1981 and revised in 1987. The 1977 version was firmly rooted in the historical cost tradition while the 1987 revision was relevant to both historical cost and current value accounting.

To those well versed in the ethos of historical cost accounting and the mechanics of double entry bookkeeping depreciation is a pretty straightforward matter. The asset that the entity owns will be a source of economic benefit for a number of time periods and hence the recognition of the cost of the asset should be spread over the same period. To such folk, depreciation is all about spreading the cost or, to use a clumsier expression, expensing the asset.

To many other people, including many who run successful businesses, the idea is not so simple because they have difficulty in grasping the concept that the accountant wants to recognise the using up of an asset. The layman has difficulty in distinguishing this from a fall in the value of the asset and becomes completely confused when told that depreciation is necessary in a period in which the value of the asset is actually increasing.

Well brought-up accountants, on the other hand, know that they must distinguish between two events: the consumption of a portion of the asset and the increase in value of that part of the asset that remains:

> The fundamental objective of depreciation is to reflect in operating profit the cost of the use of the tangible fixed assets (i.e. amount of economic benefits consumed) in the period. This requires a charge to operating profit even if the asset has risen in value or been revalued. (FRS 15, Para. 78)

One major element of the continuing saga of accounting standards for depreciation is the desire of standard setters to ensure that all assets other than land, the one asset which most people would agree might not be consumed, are depreciated. There is, however, pressure from the business community to identify other exceptions. Investment properties provide an interesting example of an asset about which there has been a continuing debate. The requirement that investment properties be depreciated was included in the original 1977 version of SSAP 12 but was dropped, after pressure from property companies, from the 1981 version. In that year the ASC issued SSAP 19 *Accounting for Investment Properties* which, although threatened with review, is still in issue. We discuss SSAP 19 later in this chapter.

As we shall see, the ASB accepts that there are some assets either whose life is so long or whose likely residual value is so high that an annual depreciation charge would not be material. They do not, it must be noted, retreat from the position that all tangible assets (except land) depreciate, but they are prepared to concede that some do not depreciate very much. FRS 15 is therefore more flexible than its predecessors in accepting that depreciation need not be recognised in certain limited circumstances, but it extracts a price, the *Impairment Review*. If depreciation is not to be recognised on the grounds of immateriality the entity must undertake an impairment review. We will discuss this topic later in the chapter and at this point simply explain that an impairment review is a systematic process that tests whether an asset's carrying value exceeds its recoverable amount.

Depreciation is more easily applied to a single identifiable asset whose cost and condition can be relatively easily measured and whose economic contribution to the entity easily assessed, the latter point being relevant to decisions as to whether the carrying value of the asset should be reduced to its recoverable value. But life is not always as conveniently simple as this and assets are often used in combination. A particularly noteworthy feature of FRS 15 is the way in which it deals with the topic of combined and interrelated assets (see p. 113).

FRS 15 and depreciation

The topics covered in the depreciation section of FRS 15 can be summarised as follows:

- General principles
- Changes in the methods used to account for depreciation
- Changes in estimates of remaining useful life and residual value
- Combined assets
- Renewals accounting
- Disclosure

General principles

Depreciation is defined as:

> **The measure of the cost or revalued amount of the economic benefits of the tangible fixed asset that have been consumed during the period.**
>
> **Consumption includes the wearing out, using up or other reductions in the useful economic life of a tangible fixed asset whether arising from use, effluxion of time or obsolescence through other changes in technology or demand for the goods and services produced by the asset. (Para. 2)**

The underlying principle is:

> **The depreciable amount of a tangible fixed asset should be allocated on a systematic basis over its useful economic life. The depreciation method used should reflect as fairly as possible the pattern in which the asset's economic benefits are consumed by the entity. The depreciation charge for each period should be recognised as an expense in the profit and loss account unless it is permitted to be included in the carrying amount of another asset. (Para. 77)**

Depreciable amount is defined as:

> **The cost of a tangible fixed asset (or, where an asset is revalued, the revalued amount) less its residual value. (p. 10)**

The final sentence in Para. 77 is logically necessary if depreciation is to be included in the costs of stocks and work-in-process or the cost of a self-constructed fixed asset.

There are, of course, a number of methods of charging depreciation and two, straight line and reducing balance, are described in the text of the standard. In general, the method of depreciation employed should be consistent with the pattern of consumption of the benefit. If approximately constant annual benefits are expected throughout the asset's useful economic life, the straight line method would be appropriate. If, however, greater benefits were derived in the earlier years of the asset's life, then the reducing balance is likely to be the more appropriate method. If the pattern of consumption is uncertain, the Board notes that the straight line method is usually employed (Para. 81).

Interest methods of depreciation

There are other, arguably more sophisticated, methods of depreciation that take into account the time value of money. These are known as 'interest methods of depreciation' and, of these, the best known method is the annuity method. The basic idea is that the total cost of an asset is not simply the purchase price but it also includes the 'borrowing cost'. Suppose an asset costs £1 million and that it is to be entirely financed by borrowing over the total

estimated life of the asset; the 'total' cost of the asset is then £1 million plus the cost of finance, say, £700,000. The interest charge would be at its maximum in year 1 and then reduce as the loan is paid off. Thus, if the benefits from the use of the asset are more or less constant each year and it is desired to match these benefits with a constant annual expense, a 'real straight line approach', then the depreciation element of the total expense would need to increase each year to offset the falling interest costs.

FRS 15 does not refer, either positively or negatively, to interest depreciation methods, but in June 2000, the ASB issued an exposure draft of an amendment to FRS 15 and FRS 10, which would outlaw the general use of such interest methods of depreciation:

> The annuity method, and other interest methods of depreciation that are designed to take into account the time value of money, should not be used to allocate the depreciable amount of a tangible fixed asset over its useful economic life. (Para. 1)

This proposed prohibition is not based upon any fundamental criticism of the interest methods of depreciation. Indeed, the exposure draft states quite clearly 'in principle, interest methods more fairly reflect the economic cost of the benefits consumed in each accounting period' (Para. 2). Rather, the proposed prohibition was based upon grounds of comparability. If most companies are not using interest-based depreciation methods, then no companies should be permitted to use interest-based depreciation methods!

A second reason for the prohibition can also be recognised. Use of the annuity method of depreciation results in a low–high pattern of depreciation charges over the life of the fixed asset; the depreciation expense is 'back-end loaded'. This is therefore less conservative than the more usual straight line method of depreciation. The ASB did not wish to prohibit the use of back-end loaded depreciation methods in general, for the exposure draft accepted that a low–high pattern of depreciation will be appropriate where this reflects the expected pattern of consumption of economic benefits without regard to the time value of money.

No such provision is found in FRED 29 which, like FRS 15, manages to avoid specific reference to interest-based methods of depreciation. At the time of writing (January 2003) the proposed amendment to FRS 15 and FRS 10 had never been implemented nor withdrawn. The ASB's web page[16] states that the issue of interest methods of depreciation will be considered in the context of its leasing project (see Chapter 9) but also points out that FRS 15 is to be superseded by FRED 29. The relevance of the latter comment is not obvious, however, since there are no differences between FRS 15 and FRED 29 on this issue.

Depreciation and materiality

As we noted earlier, one of the more interesting features of FRS 15 is its acceptance that the depreciation charge may not always be material. The drafting of the relevant part of the standard is a little strange in that it does not say that depreciation need not be recognised but instead says what must happen when it is not recognised.

> Tangible fixed assets, other than non-depreciable land, should be reviewed for impairment, in accordance with FRS 11, at the end of each reporting period when either:
>
> (a) no depreciation charge is made on the grounds that it would be immaterial (either because of the length of the estimated remaining useful life or because the estimated residual value of the tangible fixed asset is not materially different from the carrying value of the asset); or
>
> (b) the estimated remaining economic life of the tangible fixed asset exceeds 50 years.
>
> (Para. 89)

[16] **www.asb.org.uk** (current projects).

Of the two grounds for immateriality, high residual value is generally more problematic than long life, as assets with very long lives, such as paintings and sculptures, can usually be readily identified. This is much less true of the high residual value group and hence the standard sets out a number of factors which could be used to justify the case for immateriality, including whether the assets are regularly maintained and whether, in the past, similar assets have been sold for amounts close to their carrying values.

Changes in the method of depreciation

A change is only permitted on the grounds that the new method will give a fairer presentation of the results and financial position (Para. 82). The change is not to be regarded as a change in accounting policy and hence the carrying amount of the asset at the date of change is simply depreciated, using the new method, over its remaining useful life.

Changes in estimated useful remaining life and residual value

The useful remaining economic life of a TFA should be reviewed at the end of each accounting period if 'expectations are significantly different from previous estimates' (Para. 93) while, 'Where the residual value is material it should be reviewed at the end of each reporting period' (Para. 95).

The standard, in respect of remaining useful life, seems rather unhelpful and tautological in that it is not possible to know whether expectations have changed without carrying out a review, albeit a superficial one.

The residual value should be measured on the basis of the same prices as apply to the carrying value of the asset, either the prices at acquisition or a subsequent valuation.

Note that one review, that for assets with long lives, only has to be carried out if there are significantly different expectations while the other, for assets with high residual values, has to be done annually. But this does depend on what is regarded as material in the case of the residual value. Of course if it is very material, depreciation may not be recognised, in which case an annual impairment review would be required.

The accounting consequences in changes of estimates of both types are the same: in each case no change is made to past results and the current carrying value is written off over the revised period or on the basis of the new assumption of residual value.

Combined assets

When an asset is made up of two or more of what the standard describes as 'major components' that have substantially different economic lives then each component should be treated separately for the purposes of depreciation (Para. 83). This is, of course, an approach that has been adopted for many years in the case of land and buildings but there are many other circumstances where it might sensibly be applied.

Renewals accounting

Renewals accounting is a technique that has been developed to deal with what might be termed an *infrastructure system* or *network*. An example of such might be a subway or light railway system. The trains, stations and other major identifiable assets can be treated as separate items but the system also includes, and depends on, a myriad of wires, computer chips and other small components. Such a situation poses some interesting questions. Should the cost of the

small components be written off in the year of acquisition or should they be treated as other TFAs (for TFAs they surely are) and written off over their useful economic lives?

Neither approach is satisfactory. The first is unsatisfactory because it might produce a very unrealistic charge to profit and loss that would not adequately reflect the economic benefit consumed. It also would allow for manipulation of the reported profit, that is, cut back essential expenditure if there was a desire to increase profit, spend heavily in advance if there was a desire to reduce profit. The alternative approach is unrealistic in a practical sense, in that it would cost far too much to account individually for the millions of small components.

Renewals accounting can – in appropriate circumstances – be used to overcome the dilemma. The use of renewals accounting depends on knowing the level of expenditure required to maintain the operating capacity of the system. As an example it might be agreed that it requires £20 million per annum to be spent on the replacement of the smaller components in order to maintain the operating capacity of the system, which might be defined as the ability to operate the same number of trains travelling at the same average speed at the same level of reliability. Then, under renewals accounting, £20 million is the annual depreciation charge to be made to the profit and loss account and added to accumulated depreciation. The actual expenditure per year is capitalised and added to the cost of the asset. Hence, if the entity actually spends £20 million in a year, the carrying value would be maintained, if less, the carrying value is reduced and, if more, it would be increased. Note the primacy that is given to the charge to the profit and loss account. Assuming that £20 million is indeed a good estimate of the average cost then £20 million is the annual expense irrespective of the pattern of spending.

The treatment is not without its theoretical problems, for it could be argued that any excess expenditure over the £20 million is in effect a prepayment because less will have to be incurred in future years, while the effect of spending less is to create something very akin to an accrued expense. In other words, would it be better to reflect the differences between actual and planned expenditure in the working capital part of the balance sheet rather than in the cost of fixed assets?

In practice it is unlikely that the differences between planned and actual expenditure would be very large, in that one of the conditions that has to be satisfied, if renewals accounting is to be used, is that the system is mature, or in a steady state, and that the annual cost of maintenance is relatively constant (Para. 99). The other significant condition is that the required level of annual expenditure is derived from an asset management plan that has been certified by a suitably qualified and independent person (Para. 97).

Disclosure requirements relating to depreciation

The disclosure requirements are to be found in Para. 100. In summary they require that, for each class of TFA, the following be shown:

- the depreciation method used;
- the useful economic lives or the rates of depreciation used;
- the financial effects of any changes in estimates of either the remaining useful life or residual value, but only if material;
- the cost, or revalued amount, accumulated depreciation and net carrying amount at the beginning of the financial period and at the balance sheet date;
- a reconciliation of the movements.

In addition, Para. 102 requires that if there has been a change in the method of depreciation, the effect, if material, and the reason for the change should be disclosed.

FRED 29 and depreciation

Part of the cost of convergence is the adoption of less satisfactory standards and the treatment of depreciation provides a good example of this. In both instances of difference between FRS 15 and FRED 29, the latter adopts the inferior approach. The two areas are Renewals accounting and Charges in the estimates of residual values.

Renewals accounting

FRED 29 makes no reference to renewals accounting, which means that it provides no help in dealing with the dilemma we described on p. 113. This is a serious omission and the ASB has asked respondents to the exposure draft whether the absence of guidance from the standard would prevent entities from using renewals accounting and whether they believe that UK entities should be permitted to continue to use the method.

Changes in the estimates of residual values

When expected residual values change, FRS 15 requires that they be based on prices that are consistent with those used in determining the carrying value of the asset, either the prices at acquisition or, if the asset is not being carried at historical cost, the prices that prevailed at the most recent revaluation. In contrast FRED 29, in accordance with IAS 16, proposes that the prices used should be those at the date of the restatement of the residual value. FRED 29 states:

> An estimate of an asset's residual value is based on the amount recoverable from disposal, at the date of the estimate of similar assets that have reached the ends of their useful lives and have operated under conditions similar to those in which the asset will be used. (Para. 46)

While in many cases the differences between the two approaches will in practice be immaterial the FRED 29 proposal does mix up different bases of measurement, historical cost and current valuation. Consider the following example.

Suppose a company, which records assets on the basis of historical cost, buys an asset for £800 000 which has a life of five years and an estimated residual value of £300 000 and further suppose that all prices increase by 50 per cent at the start of year 3.

FRS 15

Annual depreciation charge £100 000 but excess provision for depreciation of £150 000 written back in year 5, as the residual value is £450 000 not £300 000.

FRED 29

Depreciation in years 1 and 2: £100 000. But since, due to the doubling of the prices, assets that are five years old are being sold for £450 000, the company would at the end of year 3 have to write off £150 000 (£600 000 – £450 000) over three years, so the depreciation charges for years 3–5 would be £50 000 per year, but, if prices stayed constant, there would be no excess depreciation to write back.

Compliance with International Accounting Standards

The implementation of FRED 29 would to a very large extent bring convergence between UK and International Standards. Table 5.2 summarises the changes that would be made if the proposals of FRED 29 were implemented also serves as a distillation of the existing differences between FRS 15 and the international standards and exposure drafts. The table shows that the only fundamental difference is in the basis for arriving at current value.

Table 5.2 Summary of the differences between FRED 29 and FRS 15

Topic	*FRED 29 treatment*	*FRS 15 treatment*
Basis of current value	Fair value (market value)	Current value (value to the business)
Terminology	(a) Property, plant and equipment (b) Borrowing costs	(a) Tangible fixed assets (b) Finance costs
Assets acquired in exchange	Should where possible be measured in terms of the fair value of assets given up	No coverage
Treatment of revaluation losses	Does not distinguish between losses caused by the consumption of economic benefit and other losses, nor does it take account of an asset's recoverable value	Distinguishes between such losses and takes account of recoverable value
Renewals accounting	Not covered	Included
Price level to be used in the revision of residual values	At the date of the revision	Either those relating to the date of acquisition or those prevailing at the most recent revaluation of the asset, whichever is appropriate

Investment properties

One important group of TFA, investment properties, needs to be considered separately because of the different accounting treatment that applies in their case. Investment properties have been a major feature of two interrelated debates: to depreciate or not depreciate and to revalue or not to revalue.

The original, 1977, version of the first standard on depreciation, SSAP 12, did not exclude investment properties from its scope and required all buildings, including those held for investment, to be depreciated. This was fiercely contested by property companies whose profits would, of course, be substantially reduced if they had to provide for depreciation on their buildings. It was argued that the profits of property companies would be distorted if depreciation were charged to the profit and loss account while the surpluses on revaluation had, under the provisions which were then in force of SSAP 6 (*Extraordinary Items and Prior Year Adjustments*), to be credited to reserves.

The ASC's response (which may, according to taste, be described as reflecting the committee's weakness or its flexibility) was to allow companies owning investment properties exemption from this provision, and this exemption was confirmed with the issue, in 1981, of SSAP 19 *Accounting for Investment Properties*, which specified the conditions under which depreciation need not be charged on properties held as investments.

It was argued in SSAP 19 that, for the proper appreciation of the position of the enterprise, it is of prime importance for users of the accounts to be aware of the current value of

the investment properties and the changes in their values. For this purpose investment properties are defined as an interest in land and/or buildings:

(a) in respect of which construction work and development have been completed; and
(b) that is held for its investment potential, any rental income being negotiated at arm's length.

The following are specifically excluded from the definition:

(a) A property that is owned and occupied by a company for its own purposes is not an investment property.
(b) A property let to and occupied by another group company is not an investment property for the purposes of its own accounts or the group accounts.

The standard was revised in July 1994, to take account of the introduction of the new performance statement, the statement of total recognised gains and losses, but otherwise the revised version is virtually identical to the original version and reflects more the attitudes of 1981 than those of 1994.

In outline, SSAP 19 specifies:

- 'Investment properties should not be subject to a depreciation charge as otherwise required by SSAP 12 (now FRS 15), except for properties held on a lease which should be depreciated on the basis set out in SSAP 12 at least over the period when the unexpired term is 20 years or less' (SSAP 19, Para. 10). In other words, leaseholds with more than 20 years to run can be depreciated while other leases must be depreciated.
- Investment properties should be included in the balance sheet at their 'open market value', which might be defined as the best price at which the asset might reasonably be expected to be sold. The bases of valuation should be disclosed in a note to the accounts.
- The names of the persons making the valuation, or particulars of their qualification, should be disclosed together with the bases of valuation used by them. If the person making the valuation is an employee or officer of the company or group that owns the property, this should be disclosed.
- The carrying value of the investment properties and the investment revaluation reserve should be displayed prominently.
- With one exception (see below), changes in the market value of investment properties should not be taken to the profit and loss account but should be treated as a movement on an investment revaluation reserve and, consequently, be included in the STRGL. The exception is when there is a deficit on an individual property that is expected to be permanent; in this case the deficit should be charged to the profit and loss account.[17]

The ASB notes that the application of the standard will usually represent a departure from the legal requirement to provide depreciation on any fixed asset which has a limited economic life, but justifies this on the grounds that this treatment will more closely adhere to the overriding requirement to provide a true and fair view. In such circumstances the financial statements must include a statement giving particulars of the departures from the specific requirements of the Act with the reasons for and effect of the departure.[18]

Not everyone would agree with the stance, originally taken by the ASC in 1981 and confirmed by the ASB in 1994, in that it does appear that a fuller, truer and fairer picture would

[17] There is an exception to the exception in the case of investment companies and unit trusts, where deficits on individual investment properties may only be shown in the STRGL (SSAP 19, p. 13, as amended in 1994).
[18] Companies Act 1985, s. 222(5) as amended by Companies Act 1989, s. 4.

be revealed if both the increase in value and the proportion of the total value that has been consumed by the passage of time were shown in the financial statements.

It does appear that the life of SSAP 19 is limited in that in FRS 15 the ASB makes the point that it was considering the treatment of investment properties, in tandem with the international project on this subject. The ASB believes that it is appropriate to maintain the status quo until this work is completed[19] and hence investment properties were excluded from the scope of FRS 15, as they are from FRED 29.

Intangible assets

Some intangible assets are very identifiable and separable; patents and the right to use a famous brand name, are examples. Intangible assets like these can be easily bought and sold. But this is not true for other types of intangible asset.

In this 'Information Age', the skill and loyalty of its staff may be an entity's only significant asset. While this is an economically significant asset it is not, since the abolition of slavery, readily saleable. In practice the only way that the owner of such an entity can sell this asset is to dispose of the company that employs the skilled staff, in which case the sales proceeds will be very much greater than the sum of the carrying values of the assets and liabilities that have been recognised in the company's balance sheet.

In many cases it is very difficult to disentangle intangible assets from other residual elements that make up goodwill. This is why the ASB has chosen to deal with both goodwill and intangible assets in the same standard, FRS 10, *Goodwill and Intangible Assets*.

In the Discussion Paper[20] that preceded FRS 10 the Board expressed the view that certain intangible assets such as brands and the titles of published works could not be disposed of separately from the business and that there was, in any event, no generally agreed way of valuing such assets. Hence, the Board intimated that it was of a mind to specify that intangible assets that were part of a business acquisition should be subsumed within the value attributable to goodwill. This suggestion was met with strong opposition as corporate respondents said that such assets were critical to their business and that it was important to account for them separately (App. III, Para. 22).

The Board accepted that point and hence accepted that intangible assets can sometimes be separated from goodwill and shown as such, as long as they satisfy the legal and conceptual requirements for identifiability and can, at the time they are initially recognised, be measured with sufficient reliability. However, given what will in many cases be a pretty hazy distinction, the second principle underlying FRS 10 is that in order to avoid the results of the entity being shown in a more, or less, favourable light, merely by classifying expenditure as an intangible asset rather than goodwill, the accounting treatment of intangible assets and goodwill should be aligned (App. III, Para. 23).

We will return to FRS 10 in Chapter 13 when dealing with goodwill, and in this chapter we shall concentrate on the standard's treatment of intangible assets.

[19] FRS 15, p. 94.
[20] *Goodwill and Intangible Assets*, ASB, 1993.

FRS 10 and its treatment of intangible assets

In this section of the chapter we will discuss the following topics:

- The nature of intangible assets and the conditions necessary for recognition as a separate asset
- The determination of their carrying value at initial recognition
- The depreciation of intangible assets
- The revaluation of intangible assets
- Disclosure requirements

The nature of intangible assets

Intangible assets are defined as:

> **Non-financial fixed assets that do not have a physical substance but are identifiable and are controlled by the entity through custody or legal rights. (Para. 2)**

Identifiable assets are defined in FRS 10, in line with company legislation, as assets that are capable of being disposed of without disposing of a business of the entity.[21] So the test is, in simple terms, can the asset be sold without forcing the entity to get out of one or more of its businesses?

It is recognised that control can be exercised other than through the possession of legal rights; it can also be exercised through *custody*. An example of control through custody is technical or intellectual knowledge that is maintained secretly.

Initial carrying value

In determining the value at initial recognition we need to consider three cases – *intangible assets purchased separately from a business*, *internally developed intangible assets* and *intangible assets that are purchased as part of the acquisition of a business.*

The first is straightforward: an intangible asset purchased separately **should** be capitalised at its cost (Para. 9).

An internally developed intangible fixed asset **may** be capitalised only if it has a readily ascertainable market value (Para. 14). Note that in this case the entity has the choice whether to capitalise the asset or not. This means that it is very difficult to compare the results of companies in industries where, by the nature of the business, internally generated intangible assets are of significance.

The test of whether the internally generated asset can be recognised is whether it has a readily ascertainable market value which is a value that is established by reference to a market where:

(a) the asset belongs to a homogenous population of assets that are equivalent in all material respects; and
(b) an active market, evidenced by frequent transactions, exists for that population of assets (Para. 2).

[21] This seems to be a case where the use of the word does not accord with its basic meaning, as there are many 'identifiable' assets, such as the human resource of a business, that are readily identifiable but do not satisfy the accounting definition.

This is a stringent condition for recognition and would preclude assets such as brands and publishing titles that are one-offs that are not equivalent 'in all material respects' to a group of other assets.[22]

The third type of asset, an intangible fixed asset acquired as part of a purchase of a business:

> should be capitalised separately from goodwill if its value can be measured reliably on initial recognition. It should initially be recorded at its fair value, subject to the constraint that, unless the asset has a readily ascertainable market value, the fair value should be limited to an amount that does not create negative goodwill arising on acquisition. (Para. 10)

So there are two tests for recognition. Is the asset separable and, if so, can it be measured reliably?

The measurement test depends on whether it is possible to determine the asset's fair value. We discussed the problematic definition of fair value earlier in the chapter, and would repeat our conclusion here, that the use of fair values based solely on market values can be problematic. In the case of intangible fixed assets, FRS 10 recognises that many intangible assets are unique and are not traded in the market and the ASB accepts that acceptable techniques for their valuation have been developed including multiples of turnover and, where these exist, they can be used to provide a fair value for intangible assets.

In order to avoid the creation of negative goodwill a restriction is placed on the fair value that can be assigned to intangible assets. The fair value is reduced until the negative value of goodwill disappears, unless, that is, the carrying value of the intangible asset satisfies the more stringent test of being based on a readily ascertainable market value.

Depreciation of intangible fixed assets

We have already, in the context of FRS 15, discussed the arguments as to whether all fixed assets, other than land, should be depreciated. Intangible assets provide, of course, a very fruitful field for this debate.

FRS 10 takes a more relaxed line on the need to depreciate than FRS 15 where the view was that 'all tangible fixed assets, other than land, depreciate but the amount may not be material'. It is recognised in FRS 10 that certain intangible assets, not possessing a physical form that must wither with time, can have an indefinite life. Thus:

> **Where goodwill and intangible assets are regarded as having indefinite useful economic lives, they should not be amortised. (Para. 17; note the word 'should')**

The estimation of the useful life of a fixed asset is usually fairly subjective but this is particularly true in the case of intangible assets. The standard does specifically warn against using the uncertainty of the estimate as grounds for selecting an unrealistically short life (Para. 22). In addition to the impairment reviews, the useful lives of intangible assets should be reviewed at the end of each reporting period and revised if necessary (Para. 33).

The standard draws a distinction between those assets whose estimated lives are less than 20 years and those which have either an estimated life of 20 or more years or an indefinite life. The choice of 20 years as the cut-off is 'based largely on judgement' (App. III, Para. 33).

[22] As we will explain later in the following chapter FRS 10 does not cover the potential intangible assets that might result from development expenditure.

Assets with a life not exceeding 20 years

Because of the greater subjectivity, and because of the problems of separability when they are acquired as part of a purchase of a business, intangible assets are subject to more rigorous requirements than tangible assets. Intangible assets must be the subject of an impairment review:

(a) at the end of the first full financial year following the acquisition (the 'first year' review): and
(b) in other periods if events or changes in circumstances indicate that the carrying values may not be recoverable (Para. 34).

Assets with a life of 20 years or more, including those with an indefinite life

There is a rebuttable presumption that the useful life of purchased goodwill and intangible assets is limited to periods of 20 years or less. This presumption can be rebutted only if:

(a) the durability of the acquired business or intangible asset can be demonstrated and justifies estimating a life to exceed 20 years; and
(b) the goodwill or intangible asset is capable of continued measurement (so that annual impairment reviews will be feasible) (Para. 19).

Thus a case has to be made to justify a life of 20 years or more and an annual impairment review is required.

Revaluation of intangible assets

Only an intangible asset that has a readily ascertainable market value (see p. 119) may be revalued to its market value. If such a policy is selected then, in line with the provisions of FRS 15 for tangible assets, if one asset is revalued all intangible assets of the same class must be revalued and the operation must be repeated sufficiently often to ensure that the carrying value does not differ materially from the market value (Para. 43).

The effect of Para. 43 is that those intangible assets that were recognised as part of the purchase of the business on the grounds *inter alia* that they could be reliably measured, but for which a readily ascertainable market value does not exist, cannot be revalued. One of the members of the ASB argued, in a note of dissent, that it was inconsistent to accept that the reliability of measurement that was sufficient for initial recognition could not be the basis of subsequent valuation (App. IV, Para. 8).

Impairment losses can be reversed only in respect of those assets that have a readily ascertainable market value or, in what are regarded as rare circumstances, where both the original impairment loss and its subsequent reversal are attributable to external events (Para. 44). It is argued that to allow reversal in other circumstances would, in effect, be allowing the capitalisation of internally generated intangible assets.

Disclosure requirements

In general the disclosure requirements, to be found in Paras 52 to 59, are similar to those set out in FRS 15 in respect of tangible fixed assets. The additional requirements include the need to state, if appropriate, the grounds for rebutting the 20-year life presumption, which should be a reasoned explanation based on the specific factors contributing to the durability of the asset.

Compliance with international accounting standards

The corresponding international standard IAS 38, issued in 1998, does not differ from FRS 10 in substance but there are some differences in detail, including:

- IAS 38 does not accept that intangible assets can have an indefinite life and hence requires amortisation of such assets in all circumstances.
- Internally developed intangibles can, under the international standard, be capitalised as long as costs can be measured reliably. Thus a readily ascertainable market value is not required. But since IAS 38 specifically states that the costs of generating brands, mastheads and similar assets cannot be measured reliably, there are unlikely to be significant differences in practice between the two approaches.

Differences in the treatment of tangible and intangible fixed assets

We referred earlier to the difficulties that standard setters experienced in distinguishing between tangible and intangible assets. We are now in a position to consider the consequences of the decision. They may be summarised as follows:

- More stringent rules are applied to the recognition of intangible assets; e.g. an internally generated intangible asset can only be recognised if it has a readily ascertainable market value.
- An entity might choose not to recognise an internally generated intangible asset but would have to recognise a self-constructed tangible asset.
- It is more likely that depreciation would not be charged against intangible assets.
- Intangible assets are more likely to be subject to impairment reviews.

The more stringent rules applied to the recognition of intangible assets has a profound effect on the extent to which conventional financial statements can adequately report on the major assets that comprise an enterprise. The tangible assets of a successful management consultancy company will be minimal in comparison to the value of the business, as the real assets of such a company are to be found in such things as the skills and competence of its staff, its reputation and access to clients. It is very unlikely that such assets will have readily ascertainable market values and hence cannot be recognised if they have been internally generated. But if they have been acquired as part of the purchase the assets will find their way to a balance sheet, albeit as part of goodwill. So much for comparability!

Impairment reviews

It is a long-established principle that a fixed asset should be written down if its carrying value exceeds its economic worth to the entity but, prior to the publication of FRS 11, *Impairment of Fixed Assets and Goodwill*, there was little guidance on how to measure the economic worth of the asset and how any losses should be treated. For reasons, that we will describe below, the concept of recoverable amount, that will be rejected in the case of individual assets if the proposals of FRED 29 are implemented, would survive in the context of impairment reviews. The reason for this is that an impairment review is normally conducted on the

basis of the cash flows associated with a bundle of assets, or *income-generating units*, and not the fair values of the assets. However, the provisions of FRS 11 fit more logically with FRS 15 than they would with a standard based on FRED 29.

FRS 11 *Impairment of Fixed Assets and Goodwill*

This standard is the last of the trinity dealing with fixed assets. Its main purpose is to set the principles and methodology for accounting for the impairment of fixed assets and goodwill which necessitates the reduction of their carrying values to their recoverable amounts. We have already introduced the term *recoverable amount*, which we defined as the higher of an asset's net realisable value and value in use.

The standard does not deal with investments covered by the Board's projects on derivatives and other financial instruments.

An impairment review is an exercise involving the valuation of an individual asset, where it is possible to assign the generation of cash flows to an individual asset, or, otherwise, the smallest bundle of assets to which a series of cash flows can be related.

In discussing FRS 11 we will cover the following topics:

- When to perform an impairment review
- The calculation of recoverable amount
- The bundle of assets to be valued or the 'income-generating unit'
- The estimation of cash flow
- The choice of discount rates
- The allocation of impairment losses
- Subsequent monitoring of cash flows
- Disclosure

When to perform an impairment review

We have already touched upon the special requirements for goodwill and intangible assets (see p. 121). For the generality of assets a review need only be carried out if 'events and changes in circumstances indicate that the carrying amount of the fixed asset or goodwill may not be recoverable' (Para. 8).

The events or circumstances can relate specifically to the asset, such as the emergence of a new, more efficient version, or to the business in which the asset is used, perhaps the making of large losses over an extended period. It is, of course, not possible to define precisely what constitutes a significant event that should trigger a review. This must be a matter of judgement at the margin, although there will be events of such magnitude that there will be no doubt as to the need for a review.

The calculation of recoverable amount

> **Recoverable amount is the higher of an asset's net realisable value and its value in use and . . . , in making the comparison between value in use and net realisable value, regard must be paid to deferred tax balances that would arise in each case. (Para. 19).**

Otherwise the calculations are made on the basis of pre-tax flows.

It is then necessary to compare the carrying value of the asset with the recoverable amount. Only where the recoverable amount is lower than the carrying value is it necessary to write down the asset.

While the standard sets out, in some considerable detail, how the calculations of value in use should be made, it also points out that in many cases a simple estimate will be enough to demonstrate that the value in use is either above the carrying value or below net realisable value, thus obviating the need for a more detailed calculation.

Income-generating units

Ideally, the value in use of assets should be estimated on an individual basis but this is often not possible, because of what the economists call the allocation problem, that is the impossibility of dividing the cash flows generated by the whole business between the individual assets. Thus, it is necessary to identify *income-generating units* that are found by dividing the total income stream of the entity into as many largely independent income streams as is reasonably possible. With the exception of any central assets which cannot meaningfully be apportioned across the units, all the identifiable assets and liabilities, excluding deferred tax balances, interest-bearing debt, dividends payable and other items relating wholly to finance, should be attributed to, or apportioned between, the various income-generating units.

Thus the main business is divided into two or more 'mini-businesses', as independent as possible. In practice, the businesses may not be very 'mini' for, given the highly integrated nature of many enterprises, it may not be possible to break down some very large entities into more than two or three income-generating units. An illustration of this is one of the examples provided in the standard. This is of a transport company that operates a number of trunk routes each fed by a number of supporting routes. In this case the units are each of the trunk routes together with their supporting routes.

In some cases it is possible to apportion central assets, such as the head office, to the different units using some rule of thumb such as proportion of turnover. This is more likely to be possible when the units are fairly homogeneous in nature. When they are very different, involving, say, a large-volume manufacturing plant and a small highly specialised research laboratory, this might not be possible. In such cases it may be necessary first to undertake a review at the level of the individual units, ignoring the asset value and the income flows relating to the central asset, and then to combine the units with the central assets and to again compare carrying value with recoverable amount. It might be that no impairment is identified at the individual unit level but is found at the aggregate level.

As we will explain in Chapter 13 a similar approach is used for goodwill.

The estimation of the cash flows

The standard is quite prescriptive in the way it requires the cash flows necessary to allow an asset's (or more likely an income-generating unit's) value in use to be estimated. The estimates must be based on two elements, first the most up-to-date budgets and plans that have been approved by management which, other than in exceptional circumstances, should be for a period not exceeding five years. Thereafter the cash flows should be based on the assumption of steady or declining (but not increasing) growth rates and that, again with a let-out in exceptional circumstances, the growth rate used should not exceed the long-term average of the country or countries in which the entity operates (Para. 36). Note that the rules are framed in terms of the growth rate not the rate itself, hence if the average rate of growth in the period covered by the budgets was, say, 3 per cent it would be permissible to extrapolate this rate of growth into the future so long as it was consistent with estimates of the growth rate in the appropriate country or countries.

In general the cash flow estimates should be based on the current condition of the assets and should include neither future expected cash savings from future reorganisations for which provision has not yet been made nor future capital expenditure that will enhance the asset in excess of its originally assessed standard of performance (Para. 38). There is one exception to this provision that applies in the case of a newly acquired income-generating unit such as a subsidiary. In instances such as these the purchase price might well reflect the synergies that will result from the acquisition but which will depend on additional expenditure. In these cases the cash flow estimates can, up till the end of the first full year following the acquisition, take the costs and benefits resulting from that expenditure into account (Para. 39).

Discount rate

> **The present value of the income-generating unit under review should be calculated by discounting the expected cash flows of the unit. The discount rate used should be an estimate of the rate the market would expect on an equally risky investment. It should exclude the effects of any risk for which the cash flow has been adjusted and should be calculated on a pre-tax basis. (Para. 41)**

The standard goes on to suggest ways by which the rate can be estimated, placing great emphasis on the need to ensure that the rates used for comparison are derived from cash flows from operations with the same risk profile or are adjusted for risk. The ASB is a trifle sanguine about the ease with which adjustments can be made for risk. As an example, it states (Para. 45) that it is likely that the use of a discount rate equal to the rate of return that the market would expect on an equally risky investment is likely to be the easiest way of dealing with risk, which begs the question of how one finds an equally risky investment. It goes on the state that an equally acceptable alternative is to adjust the cash flows for risk and then to discount using a risk-free rate, e.g. government bond rate, which begs the question of how to adjust the cash flows for risk (Para. 45)!

The standard warns against the danger of double-counting inflation: if cash flows are expressed in current prices they should be discounted using a real discount rate, if expressed in future prices a nominal discount rate should be employed (Para. 46).

The allocation of impairment losses

When the impairment review is conducted at the level of the income-generating unit it might not be possible to identify the asset whose carrying value should be reduced. If it is not obvious then the procedure specified in FRS 11 is to allocate the impairment loss first to those assets whose value is the most subjective. Hence the order is:

1 Goodwill
2 Any capitalised intangible asset
3 The tangible assets, on a pro rata or more appropriate bases (Para. 48)

Subsequent monitoring of cash flows

In those cases where the recoverable amount is based on the, generally, more subjective of the possible two measures, the asset's *value in use*, the standard requires that, for the period of five years following the review, the cash flows actually achieved should be compared with those used in the review (Para. 54). Such a comparison can have only three outcomes: the

actual cash flows may be broadly in line with those that had been estimated, in which case no further action is required, or the position may turn out to be better or worse than had been originally anticipated.

If the cash flows turn out to be better than had been forecast then it might be possible to recognise a complete or partial reversal of the impairment loss.

If the actual cash flows are worse than had been expected, then the additional loss that would have been shown, had the actual cash flows been used, must be recognised.

Disclosure requirements

These appear at Paras 67–73 and may be summarised as follows:

- Impairment losses shown in the profit and loss account should, if appropriate, be shown as an exceptional item; those appearing in the STRGL should be disclosed separately.
- For assets shown at depreciated historical costs the impairment losses should be included within cumulative depreciation.
- If the loss is measured by reference to value in use, the discount rate used should be disclosed and, if a risk-free rate is used, an indication of the risk adjustments made to the cash flow should be provided.
- If an impairment loss is reversed, information relating to the circumstances and assumptions used in the calculation of the recoverable amount must be provided.
- If, in the measurement of value in use, the period before the assumption of steady or declining growth extends to more than five years, the note should state both the length of the period and its justification; if the long-term growth rate exceeds the average, the rate used and its justification should also be provided.

It can be seen that superficially a great deal of information has to be provided, especially in relation to value-in-use calculations but, in practice, there must be some doubt as to the extent that the disclosures will be useful to users of the financial statements, who may have difficulty in determining the reasonableness of the assumptions underpinning the calculations.

Compliance with international accounting standards

The equivalent international standard is IAS 36 *Impairment of Assets*, which was issued in 1998. The basic approach of the two standards is the same and, while the detailed requirements are very similar, among the more interesting differences are:

- The FRS treats intangible assets in much the same way as goodwill while the IAS aligns their treatment to that of tangible assets. As a consequence, for the allocation of impairment losses, the FRS sets them off first against intangible assets, while the IAS sets them off against all assets pro rata; for the recognition of the reversal of impairment losses, the IAS does not restrict the reversal of losses in respect of intangible assets.
- The FRS requires estimates of value in use to be monitored for five years, the IAS does not.
- The IAS has additional disclosure requirements.

Summary

In this chapter, we have examined the accounting treatment of both tangible and intangible fixed assets. We have examined the initial recognition and measurement of such assets, the need for depreciation and how to handle changes that occur over time, including impairment. We have seen that, whereas most countries in the world require the use of historical cost accounting, the UK is one of the few countries to permit upward revaluations of fixed assets under its 'mixed measurement approach'.

We have seen that the financial reporting standards relating to fixed assets are very flexible at a fundamental level while they are more rigid at the operational level. Thus companies may choose whether or not to capitalise borrowing costs and, perhaps much more seriously, may choose whether to show their various classes of fixed assets on the basis of historical cost or at current values. The choices which they make may lead to enormous differences between financial statements in practice and hence raise serious questions about the comparability of financial statements.

There has been considerable vacillation on the key issue of how to determine current values. It appeared that the ASB had finally settled on the value-to-the-business approach, the basis that is now enshrined in its *Statement of Principles*, but this now seems to be in flux as it appears that the Board is prepared to accept the alternative fair value approach in order to achieve convergence between UK and international standards.

One very major issue remains sorely neglected. For an increasing number of businesses the major assets are intangible, including staff competence, knowledge and reputation. Such assets do not usually appear among the assets of a business unless they have been acquired as part of the purchase of another business when they may appear as part of the figure for goodwill. We are still some way from developing financial reporting standards that require the recognition of such major assets in financial statements in a systematic fashion.

Recommended reading

'Avoiding depreciation', *Company Reporting*, No. 134, August 2001.

C.R. Baker, *Impairment tests for goodwill instead of amortisation: the potential impact on British companies*, Colchester, University of Essex Department of Accounting, Finance and Management, 2001.

W.T. Baxter, 'Depreciation and interest', *Accountancy*, October 2000.

B. Lev, 'Rethinking accounting – Intangibles at a cross road: what's next?', *Financial Executive* March/April 2002.

Excellent up-to-date and detailed reading on the subject matter of this chapter and on much of the contents of this book is provided by the most recent edition of:

UK and International GAAP, A. Wilson, M. Davies, M. Curtis and G. Wilkinson-Riddle, (eds), Ernst & Young, Butterworths Tolley, London. At the time of writing, the latest edition is the 7th, published in 2001.

Questions

5.1 The valuation and depreciation of fixed assets are covered by both mandatory accounting standards and the Companies Acts as sources of authority.

Requirement
Identify the main accounting issues involved in the valuation and depreciation of fixed assets and discuss to what extent these are addressed in the above sources of authority.

ICAEW, Financial Reporting, November 1995 **(10 marks)**

5.2 The managing director of your company has always been unhappy at depreciating the company's properties because he argues that these properties are in fact appreciating in value.

Recently he heard of another company which has investment properties and does not depreciate those properties.

You are required to write a report to your managing director explaining:
(a) the consequence of not depreciating the company's existing properties; (2 marks)
(b) the meaning of investment properties; (5 marks)
(c) the accounting treatment of investment properties in published financial statements. (8 marks)

CIMA, Advanced Financial Accounting, May 1991 **(15 marks)**

5.3 X Ltd is a retail supermarket chain which regularly constructs its own superstores. During the year ending 31 December 1995, X Ltd began work on a new site.

On 1 January 1995, a leasehold interest in the site (of 50 years) was purchased for £20 million.

It was considered that a further £10 million would be required to build and fit the superstore. £6 million of the additional £10 million would be spent on the construction of the building and £4 million on fixtures and fittings. Past experience has led the management of X Ltd to believe that the fixtures and fittings would have an average useful economic life of ten years from first use before requiring replacement.

On 1 January 1995, X Ltd borrowed £30 million to finance the project. The £30 million carries no interest but is repayable on 31 December 1997 at a premium of £9.93 million (i.e. £39.93 million is to be repaid in total).

The superstore is to be brought into use on 1 January 1996.

Requirements
(a) Set out the arguments for and against the capitalisation of borrowing costs on constructed fixed assets. (9 marks)
(b) Assuming that borrowing costs ARE capitalised where appropriate, calculate:
(i) the total amount to be included in fixed assets in respect of the development at 31 December 1995, and
(ii) the total amount to be charged to the profit and loss account in respect of the development for the year ending 31 December 1996. (11 marks)

Present value factors are shown below.

Years t	*Present value of £1 to be received after t years*		
	5%	*10%*	*15%*
1	0.952	0.909	0.870
2	0.907	0.826	0.756
3	0.864	0.751	0.658
4	0.823	0.683	0.572
5	0.784	0.621	0.497

CIMA, Financial Reporting, November 1995 **(20 marks)**

5.4 C & R plc is a large company which operates a number of retail stores throughout the United Kingdom. The company makes up financial statements to 30 September each year.

On 1 October 1996 the company purchased two plots of land at two different locations, and commenced the construction of two retail stores. The construction was completed on 1 October 1997.

Details of the costs incurred to construct the stores are as follows:

	Location A £000	*Location B £000*
Cost of land	500	700
Cost of building materials	500	550
Direct labour	100	150
Site overheads	100	100
Fixtures and fittings	200	200

The construction of the stores was financed out of the proceeds of issue of a £10 million zero coupon bond on 1 October 1996. The bond is redeemable at a price of £25 937 000 on 30 September 2006. This represents the one and only payment to the holders of the bond.

Both stores were brought into use on 1 October 1997. The store at Location A was used by C & R plc but, due to a change of plan, the store at Location B was let to another retailer at a commercial rent.

It is the policy of C & R plc to depreciate freehold properties over their anticipated useful life of 50 years, and to depreciate fixtures and fittings over 10 years. The cost of such properties (including fixtures and fittings) should include finance costs, where this is permitted by the regulatory framework in the United Kingdom.

Requirements

(a) **Compute the amounts which will be included in fixed assets in respect of the stores at Locations A and B on 30 September 1997.**
Give full explanations for the amounts you have included. (11 marks)

(b) **Compute the charge to the profit and loss account for depreciation on the fixed assets at the two locations for the year to 30 September 1998, stating clearly the reasons for your answers.** (9 marks)

CIMA, Financial Reporting, November 1997 **(20 marks)**

5.5 L plc has never revalued its land and buildings. The directors are unsure whether they should adopt a policy of doing so. They are concerned that FRS 15 – *Tangible Fixed Assets* has an "all or nothing" approach which would impose a duty on them to maintain up-to-date valuations in the balance sheet for all land and buildings into the indefinite future. They are also concerned that the introduction of current values will make the accounting ratios based on their balance sheet appear less attractive to shareholders and other users of the financial statements.

Required

Authors' note: Students should ignore part (c) of this question as the relevant data has not been provided.

(a) **Explain why FRS 15 requires those companies who revalue fixed assets to revalue all of the assets in the relevant classes and why these valuations must be kept up to date.** (7 marks)

(b) **Explain whether it is logical for FRS 15 to offer companies a choice between showing all assets in a class at either cost less depreciation or at valuation.** (4 marks)

(c) **Calculate the figures that would appear in L plc's financial statements in respect of land and buildings if the company opts to show the factories at their valuation. You should indicate where these figures would appear, but do NOT prepare any detailed notes in a form suitable for disclosure.** (6 marks)

(d) **Explain how the revaluation of fixed assets is likely to affect key accounting ratios and explain whether these changes are likely to make the company appear stronger or weaker. Do NOT calculate any ratios in respect of L plc.** (8 marks)

CIMA, Financial Accounting – UK Accounting Standards, November 2001 **(25 marks)**

5.6 You are the management accountant of Historic Ltd. Historic Ltd makes up its financial statements to 30 September each year. The financial statements for the year ended 30 September 2000 are currently being prepared. The Directors have always included fixed assets under the historical cost convention. However, for the current year, they are considering revaluing some of the fixed assets. They obtained professional valuations as at 1 October 1999 for the two properties owned by the company. Details of the valuations were as follows:

	Historical cost NBV *£000*	*Current use value* *£000*	*Market value* *£000*
Property One	15 000	16 800	17 500
Property Two	14 000	12 000	12 500

No acquisitions or disposals of properties have taken place since 1 October 1999 and none are expected in the near future. The buildings element of the two properties comprises 50% of both historical cost and the revalued amounts. Each property is reckoned to have a useful economic life to the company of 40 years from 1 October 1999.

Given the results of the valuations, the Directors propose to include Property One at its market value in the financial statements for the year to 30 September 2000. They wish to leave Property Two at its historical cost. They have no plans to revalue the other fixed assets of the company, which are plant and fixtures.

Requirements

(a) **State briefly the key arguments for and against including fixed assets at revalued amounts.** (6 marks)

(b) **Evaluate the Directors' proposal to revalue Property One as at 1 October 1999 but to leave all other fixed assets at historical cost. Your answer should include reference to appropriate Accounting Standards.** (4 marks)

(c) **The Directors have decided to revalue the fixed assets of the company in accordance with their original wishes, amended where necessary to comply with appropriate Accounting Standards. Compute the net book value of each property as at 30 September 2000. You should clearly explain where any differences on revaluation will be shown in the financial statements.** (5 marks)

CIMA, Financial Reporting, November 2000 **(15 marks)**

5.7 K is a CIMA member who has recently established a limited company which specialises in biotechnology applications. The company has just reached the end of its first year of trading. K is working through the accounting records prior to drafting the company's first annual report. The fixed assets section of the balance sheet is causing him some difficulty. The company has invested heavily in sophisticated equipment and K is checking whether the associated costs have been accounted for in accordance with the requirements of FRS 15 – *Tangible Fixed Assets*.

K is reviewing the file relating to a sophisticated oven that is used to heat cell cultures to a precisely controlled temperature:

	£
(i) List price paid to supplier	50 000
(ii) Wages and materials costs associated with testing and calibrating oven, up to start of operations	800
(iii) Ongoing wages and materials costs associated with calibrating oven since start of operations	2 000
(iv) Expected costs of disposing of oven at the end of its useful life	16 000

The oven is used to heat cell cultures to a temperature range that must be closely controlled. The oven's controls will have to be regularly checked and calibrated throughout its working life.

The oven will have to be dismantled and sterilised by an expert contractor at the end of its life and then disposed of at a special facility. K has already provided £16 000 against these costs, in accordance with the requirements of FRS 12 – *Provisions, Contingent Liabilities and Contingent Assets*.

The machine's expected useful life is five years. K is planning to adopt the straight-line basis of depreciation. The market value/value in use of the machine at the year end is £28 000. This decrease in value from new is partly because the oven has been used to culture dangerous organisms and so it is much less valuable. K is unsure whether to value equipment at cost less depreciation or at valuation. This decision will be based on an analysis of the resulting figures in terms of two of the 'pervasive concepts' (those of relevance and reliability) contained in FRS 18 – *Accounting Policies*.

Required

(a) **Calculate the cost of the oven, applying the requirements of FRS 15. Explain your treatment of items (ii), (iii) and (iv).** (10 marks)

(b) (i) **Calculate the figures that will appear in respect of the oven in the profit and loss account for the company's first year and the balance sheet at the year end under both the historical cost and valuation bases.** (4 marks)

(ii) **Discuss the relevance and reliability of both sets of figures you have calculated in answer to requirement (b) (i) above.** (6 marks)

CIMA, Financial Accounting – UK Accounting Standards, November 2002 **(20 marks)**

5.8 (a) Accounting practices for fixed assets and depreciation can be said to have developed in a piecemeal manner. The introduction of FRS 11 'Impairment of Fixed Assets' has meant that a standard on the measurement of fixed assets was required to provide further guidance in this area. FRS 15 'Tangible Fixed Assets' deals with the measurement and valuation issue.

Required

Describe why it was important for a new accounting standard to be issued on the measurement of fixed assets. (6 marks)

(b) Aztech, a public limited company manufactures and operates a fleet of small aircraft. It draws up its financial statements to 31 March each year,

Aztech also owns a small chain of hotels (carrying value of £16 million), which are used in the sale of holidays to the public. It is the policy of the company not to provide depreciation on the hotels as they are maintained to a high standard and the economic lives of the hotels are long (20 years remaining life). The hotels are periodically revalued and on 31 March 2000, their existing use value was determined to be £20 million, the replacement cost of the hotels was £16 million and the open market value was £19 million. One of the hotels included above is surplus to the company's requirements as at 31 March 2000. This hotel had an existing use value of £3 million, a replacement cost of £2 million and an open market value of £2.5 million, before expected estate agents and solicitors fees of £200 000. Aztech wishes to revalue the hotels as at 31 March 2000. There is no indication of any impairment in value of the hotels.

The company has recently finished manufacturing a fleet of five aircraft to a new design. These aircraft are intended for use in its own fleet for domestic carriage purposes. The company commenced construction of the assets on 1 April 1998 and wishes to recognise them as fixed assets as at 31 March 2000 when they were first utilised. The aircraft were completed on 1 January 2000 but their exterior painting was delayed until 31 March 2000.

The costs (excluding finance costs) of manufacturing the aircraft were £28 million and the company has adopted a policy of capitalising the finance costs of manufacturing the aircraft. Aztech had taken out a three year loan of £20 million to finance the aircraft on 1 April 1998. Interest is payable at 10% per annum but is to be rolled over and paid at the end of the three year period together with the capital outstanding. Corporation tax is 30%.

During the construction of the aircraft, certain computerised components used in the manufacture fell dramatically in price. The company estimated that at 31 March 2000 the net realisable value of the aircraft was £30 million and their value in use was £29 million.

The engines used in the aircraft have a three year life and the body parts have an eight year life; Aztech has decided to depreciate the engines and the body parts over their different useful lives on the straight line basis from 1 April 2000. The cost of replacing the engines on 31 March 2003 is estimated to be £15 million. The engine costs represent thirty per cent of the total cost of manufacture.

The company has decided to revalue the aircraft annually on the basis of their market value. On 31 March 2001, the aircraft have a value in use of £28 million, a market value of £27 million and a net realisable value of £26 million. On 31 March 2002, the aircraft have a value in use of £17 million, a market value of £18 million and a net realisable value of £18.5 million. There is no consumption of economic benefits in 2002 other than the depreciation charge. Revaluation surpluses or deficits are apportioned between the engines and the body parts on the basis of their year end carrying values before the revaluation.

Required:

(i) Describe how the hotels should be valued in the financial statements of Aztech on 31 March 2000 and explain whether the current depreciation policy relating to the hotels is acceptable under FRS 15 'Tangible Fixed Assets'. (6 marks)

(ii) Show the accounting treatment of the aircraft fleet in the financial statements on the basis of the above scenario for the financial years ending on:

(a) 31 March 2000. (4 marks)

(b) 31 March 2001, 2002. (6 marks)

(c) 31 March 2003 before revaluation. (3 marks)

Candidates should use FRS 15 'Tangible Fixed Assets' in answering all parts of the above question.

ACCA, Financial Reporting Environment (UK Stream), June 2000 **(25 marks)**