CHAPTER 16

Leasing

16.1 Introduction

The main purpose of this chapter is to introduce the accounting principles and policies that apply to lease agreements.

Objectives

By the end of this chapter, you should be able to:

- critically discuss the reasons for IAS 17;
- account for leases by the lessee;
- account for leases by the lessor;
- critically discuss the reasons for the proposed revision of IAS 17.

16.2 Background to leasing

In this section we consider the nature of a lease; why leasing has become popular; and why it was necessary to introduce IAS 17.

16.2.1 What is a lease?

IAS 17 *Leases* provides the following definition:

> A *lease* is an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time.

In practice, there might well be more than two parties involved in a lease. For example, on leasing a car the parties involved are the motor dealer, the finance company and the company using the car.

16.2.2 Why has leasing become popular?

Prior to the issue of IAS 17, three of the main reasons for the popularity of leasing were the tax advantage to the lessor able to make use of depreciation allowances, the commercial advantages to the lessee and the potential for off balance sheet financing.

Commercial advantages for the lessee

There are a number of advantages associated with leases. These are attributable in part to the ability to spread cash payments over the lease period instead of making a one-off lump sum payment. They include the following:

- **Cash flow management**. If cash is used to purchase non-current assets, it is not available for the normal operating activities of a company.
- **Conservation of capital**. Lines of credit may be kept open and may be used for purposes where finance might not be available easily (e.g. financing working capital).
- **Continuity**. The lease agreement is itself a line of credit that cannot easily be withdrawn or terminated due to external factors, in contrast to an overdraft that can be called in by the lender.
- **Flexibility of the asset base**. The asset base can be more easily expanded and contracted. In addition, the lease payments can be structured to match the income pattern of the lessee.

16.2.3 Off balance sheet financing

Leasing provides the lessee with the possibility of off balance sheet financing,[1] whereby a company has the use of an economic resource that does not appear in the statement of financial position, with the corresponding omission of the liability.

An attraction of off balance sheet financing is that the gearing ratio is not increased by the inclusion of the liability.

16.2.4 Why was IAS 17 necessary?

As with many of the standards, action was required because there was no uniformity in the treatment and disclosure of leasing transactions. The need became urgent following the massive growth in the leasing industry and the growth in off balance sheet financing which by 2007 had grown to US$760 billion worldwide.

Leasing has become a material economic resource but the accounting treatment of the lease transaction was seen to distort the financial reports of a company so that they did not represent a true and fair view of its commercial activities.

IAS 17, therefore, required lease agreements that transferred substantially all the risks and rewards to the lessee to be reported in the financial statements. The asset and liability were both brought onto the statement of financial position.

There was some concern that this might have undesirable economic consequences,[2] by reducing the volume of leasing and that the inclusion of the lease obligation might affect the lessee company's gearing adversely, possibly causing it to exceed its legal borrowing powers. However, in the event, the commercial reasons for leasing and the capacity of the leasing industry to structure lease agreements to circumvent the standard prevented a reduction in lease activity. Evidence of lessors varying the term of the lease agreements to ensure that they remained off balance sheet is supported by Cranfield[3] and by Abdel-Khalik *et al.*[4]

A standard was necessary to ensure uniform reporting and to prevent the accounting message being manipulated.

16.2.5 The approach taken by IAS 17

The approach taken by the standard was to distinguish between two types of lease – finance and operating – and recommends different accounting treatment for each. In brief, the definitions were as follows:

- **Finance lease**: a lease that transfers substantially all the risks and rewards of ownership of an asset. Title may or may not eventually be transferred.
- **Operating lease**: a lease other than a finance lease.

Finance leases were required to be capitalised in the lessee's accounts. This means that the leased item should be recorded as an asset in the statement of financial position, and the obligation for future payments should be recorded as a liability in that statement. It was not permissible for the leased asset and lease obligation to be left out of the statement.

In the case of operating leases, the lessee is required only to expense the annual payments as a rental through the statement of comprehensive income.

16.3 Why was the IAS 17 approach so controversial?

The proposal to classify leases into finance and operating leases, and to capitalise those which are classified as finance leases, appears to be a feasible solution to the accounting problems that surround leasing agreements. So, why did the standard setters encounter so much controversy in their attempt to stop the practice of charging all lease payments to the statement of comprehensive income?

The whole debate centres on one accounting policy: **substance over form**. Although this is not cited as an accounting concept in the IASC *Framework*, para. 35 states:

> If information is to represent faithfully the transactions and other events that it purports to represent, it is necessary that they are accounted for and presented in accordance with their substance and economic reality and not merely their legal form.

The real sticking point was that IAS 17 invoked a substance over form approach to accounting treatment that was completely different to the traditional approach, which has strict regard to legal ownership. The IASC argued that in reality there were two separate transactions taking place. In one transaction, the company was borrowing funds to be repaid over a period. In the other, it was making a payment to the supplier for the use of an asset.

The correct accounting treatment for the borrowing transaction, based on its substance, was to include in the lessee's statement of financial position a liability representing the obligation to meet the lease payments, and the correct accounting treatment for the asset acquisition transaction, based on its substance, was to include an asset representing the asset supplied under the lease.

IAS 17, para. 10, states categorically that 'whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form of the contract'.

16.3.1 How do the accounting and legal professions differ in their approach to the reporting of lease transactions?

The accounting profession sees itself as a service industry that prepares financial reports in a dynamic environment, in which the user is looking for reports that reflect commercial reality. Consequently, the profession needs to be sensitive and responsive to changes in commercial practice.

There was still some opposition within the accounting profession to the inclusion of a finance lease in the statement of financial position as an 'asset'. The opposition rested on the fact that the item that was the subject of the lease agreement did not satisfy the existing criterion for classification as an asset because it was not 'owned' by the lessee. To accommodate this, the definition of an asset has been modified from 'ownership' to 'control' and 'the ability to contribute to the cash flows of the enterprise'.

The legal profession, on the other hand, concentrates on the strict legal interpretation of a transaction. The whole concept of substance over form is contrary to its normal practice.

It is interesting to reflect that, whereas an equity investor might prefer the economic resources to be included in the statement of financial position under the substance over form principle, this is not necessarily true for a loan creditor. The equity shareholder is interested in resources available for creating earnings; the lender is interested in the assets available as security.

Another way to view the asset is to think of it as an asset consisting of the ownership of the right to use the facility as opposed to the ownership of the physical item itself. In a way this is similar to owning accounts receivable or a patent or intellectual property. You do not have a physical object but rather a valuable intangible right.

16.4 IAS 17 – classification of a lease

As discussed earlier in the chapter, IAS 17 provides definitions for classifying leases as finance or operating leases, then prescribes the accounting and disclosure requirements applicable to the lessor and the lessee for each type of lease.

The crucial decision in accounting for leases is whether a transaction represents a finance or an operating lease. We have already defined each type of lease, but we must now consider the risks and rewards of ownership.

IAS 17 provides in paragraph 10 a list of the factors that need to be considered in the decision whether risks and rewards of ownership have passed to the lessee. These factors are considered individually and in combination when making the decision, and if met would normally indicate a finance lease:

(a) the lease transfers ownership of the asset to the lessee by the end of the lease term;

(b) the lessee has the option to purchase the asset at a price that is expected to be sufficiently lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised;

(c) the lease term is for the major part of the economic life of the asset even if title is not transferred;

(d) at the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset; and

(e) the leased assets are of such a specialised nature that only the lessee can use them without major modifications.

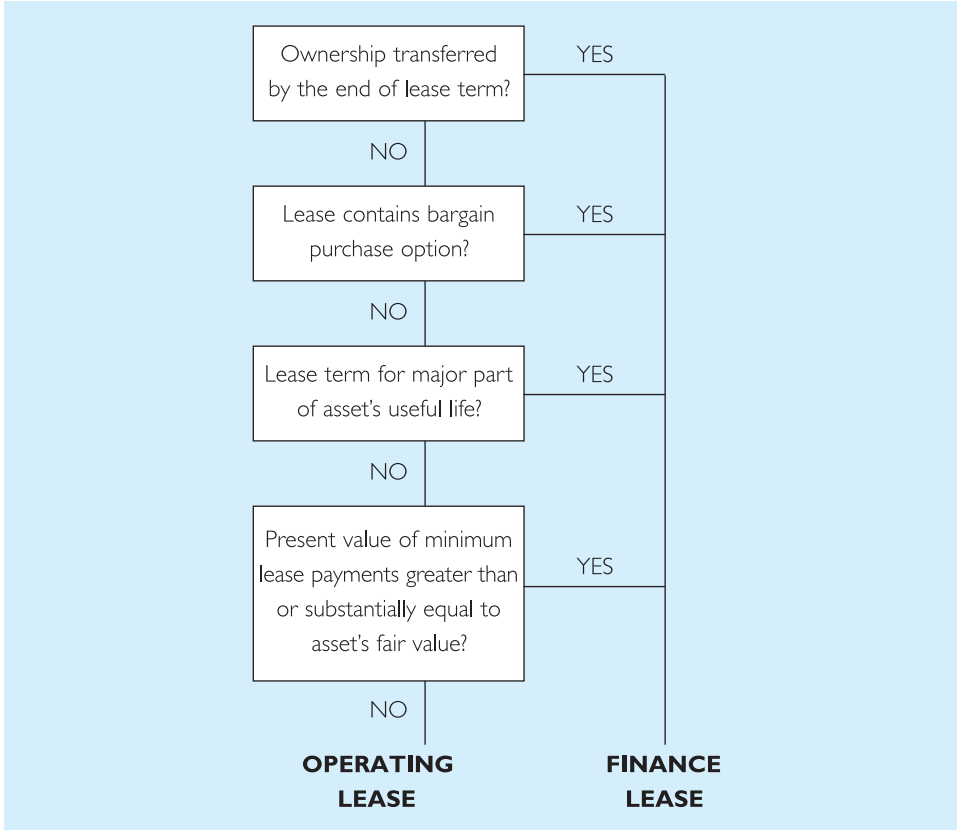
Leases of land

If land is leased and legal title is not expected to pass at the end of the lease, the lease will be an operating lease. The reason is that the lease can never be for the substantial part of the economic life of the asset (criterion (c) above). This means that if a land and buildings lease is entered into it should be classified as two leases, a land lease which is usually an operating lease and a buildings lease which could be an operating or a finance lease. The lease payments should be allocated between the land and buildings elements in proportion to the relative fair values of the land element and the buildings element of the lease at its inception.

This split is not required by lessees if the land and buildings are an investment property accounted for under IAS 40, and where the fair value model has been adopted.

IAS 17 (revised 1997) included a helpful flow chart, prepared by the IAS secretariat, which represents examples of some possible positions that would normally be classified as finance leases (Figure 16.1).

Figure 16.1 IAS 17 aid to categorising operating and finance leases



16.5 Accounting requirements for operating leases

The treatment of operating leases conforms to the legal interpretation and corresponds to the lease accounting practice that existed before IAS 17. No asset or obligation is shown in the statement of financial position; the operating lease rentals payable are charged to the statement of comprehensive income on a straight-line basis unless another systematic basis is more representative of the time pattern of the user's benefit.

16.5.1 Disclosure requirements for operating leases

IAS 17 requires that the total of operating lease rentals charged as an expense in the statement of comprehensive income should be disclosed, and these rentals should be broken down for minimum lease payments, contingent costs, and sublease payments. Disclosure is required of the payments that a lessee is committed to make during the next year, in the second to fifth years inclusive, and over five years.

EXAMPLE ● OPERATING LEASE Clifford plc is a manufacturing company. It negotiates a lease to begin on 1 January 20X1 with the following terms:

Term of lease	4 years
Estimated useful life of machine	9 years
Purchase price of new machine	£75,000
Annual payments	£8,000

This is an operating lease as it does not apply only to a major part of the asset's useful life, and the present value of the lease payments does not constitute substantially all of the fair value.

The amount of the annual rental paid – £8,000 p.a. – will be charged to the statement of comprehensive income and disclosed. There will also be a disclosure of the ongoing commitment with a note that £8,000 is payable within one year and £24,000 within two to five years.

16.6 Accounting requirements for finance leases

We follow a step approach to illustrate the accounting entries in both the statement of financial position and the statement of comprehensive income.

When a lessee enters into a finance lease, both the leased asset and the related lease obligations need to be shown in the statement of financial position.

16.6.1 Statement of financial position step approach to accounting for a finance lease

Step 1 The leased asset should be capitalised in property, plant and equipment (and recorded separately) at the lower of the present value of lease payments and its fair value.

Step 2 The annual depreciation charge for the leased asset should be calculated by depreciating the asset over the shorter of its estimated useful life or the lease period.

Step 3 The net book value of the leased asset should be reduced by the annual depreciation charge.

Step 4 The finance lease obligation is a liability which should be recorded. At the inception of a lease **agreement**, the value of the leased asset and the leased liability will be the same.

Step 5 (a) The finance charge for the finance lease should be calculated as the difference between the total of the minimum lease payments and the fair value of the asset (or the present value of the minimum lease payments if lower), i.e. it represents the charge made by the lessor for the credit that is being extended to the lessee.

(b) The finance charge should be allocated to the accounting periods over the term of the lease. Three methods for allocating finance charges are used in practice:

- **Actuarial method**. This applies a constant periodic rate of charge to the balance of the leasing obligation. The rate of return applicable can be calculated by applying present value tables to annual lease payments.

- **Sum of digits method**. This method ('Rule of 78') is much easier to apply than the actuarial method. The finance charge is apportioned to accounting periods on a reducing scale.
- **Straight-line method**. This spreads the finance charge equally over the period of the lease (it is only acceptable for immaterial leases).

Step 6 The finance lease obligation should be reduced by the difference between the lease payment and the finance charge. This means that first the lease payment is used to repay the finance charge, and then the balance of the lease payment is used to reduce the book value of the obligation.

16.6.2 Statement of comprehensive income steps for a finance lease

Step 1 The annual depreciation charge should be recorded.

Step 2 The finance charge allocated to the current period should be recorded.

16.7 Example allocating the finance charge using the sum of the digits method

EXAMPLE ● FINANCE LEASE Clifford plc negotiates another lease to commence on 1 January 20X1 with the following terms:

Term of lease	3 years
Purchase price of new machine	£16,500
Annual payments (payable in advance)	£6,000
Clifford plc's borrowing rate	10%

Finance charges are allocated using the sum of digits method.

16.7.1 Categorise the transaction

First we need to decide whether the lease is an operating or a finance lease. We do this by applying the present value criterion.

- Calculate the fair value:
  Fair value of asset = £16,500
- Calculate the present value of minimum lease payments:

$$£6{,}000 + \frac{£6{,}000}{1.1} + \frac{£6{,}000}{(1.1)^2} = £16{,}413$$

- Compare the fair value and the present value. It is a finance lease because PV of the lease payments is substantially all of the fair value of the asset.

16.7.2 Statement of financial position steps for a finance lease

Step 1 Capitalise lease at fair value (present value is immaterially different):
Asset value = £16,500

Step 2 Calculate depreciation (using straight-line method):
£16,500/3 = £5,500

Step 3 Reduce the asset in the statement of financial position:

Extract as at		*31 Dec 20X1*	*31 Dec 20X2*	*31 Dec 20X3*
ASSET	Opening value	16,500	11,000	5,500
(Right to	Depreciation	5,500	5,500	5,500
use asset)	Closing value	11,000	5,500	—

Or if we keep the asset at cost as in published accounts:

ASSET	Cost	16,500	16,500	16,500
(Right to	Depreciation	5,000	11,000	16,500
use asset)	Net book value	11,000	5,500	—

Step 4 Obligation on inception of finance lease:
Liability = £16,500

Step 5 Finance charge:

Total payments	3 × £6,000	= £18,000
Asset value		= £16,500
		£1,500

Finance charge
Allocated using sum of digits:

Year 1 = 2/(1 + 2) × £1,500 = (£1,000)
Year 2 = 1/(1 + 2) × £1,500 = (£500)

Note that the allocation is only over two periods because the instalments are being made in advance. If the instalments were being made in arrears, the liability would continue over three years and the allocation would be over three years.

Step 6 Reduce the obligation in the statement of financial position:

Statement of financial position (extract) as at		*31 Dec 20X1*	*31 Dec 20X2*	*31 Dec 20X3*
Liability	Opening value	16,500	11,500	6,000
(Obligation	Lease payment	6,000	6,000	6,000
under finance		10,500	5,500	—
lease)	Finance charge	1,000	500	—
	Closing value	11,500	6,000	—

Note that the closing balance on the asset represents unexpired service potential and the closing balance on the liability represents the capital amount outstanding at the period end date.

16.7.3 Statement of comprehensive income step approach to accounting for a finance lease

Step 1 A depreciation charge is made on the basis of use. The charge would be calculated in accordance with existing company policy relating to the depreciation of that type of asset.

Step 2 A finance charge is levied on the basis of the amount of financing outstanding.

Both then appear in the statement of comprehensive income as expenses of the period:

	Extract for year ending		
	31 Dec 20X1	*31 Dec 20X2*	*31 Dec 20X3*
Depreciation	5,500	5,500	5,500
Finance charge	1,000	500	—
Total	6,500	6,000	5,500

16.7.4 Example allocating the finance charge using the actuarial method

In the Clifford example, we used the sum of the digits method to allocate the finance charge over the period of the repayment. In the following example, we will illustrate the actuarial method of allocating the finance charge.

EXAMPLE ● FINANCE LEASE Witts plc negotiates a four-year lease for an item of plant with a cost price of £35,000. The annual lease payments are £10,000 payable in advance. The cost of borrowing for Witts plc is 15%.

First we need to determine whether this is a finance lease. Then we need to calculate the implicit interest rate and allocate the total finance charge over the period of the repayments using the actuarial method.

- Categorise the transaction to determine whether it is a finance lease.

Fair value of asset = £35,000
PV of future lease payments:
£10,000 + (10,000 × $a_{\overline{3}|15}$)
£10,000 + (10,000 × 2.283) = £32,830

The PV of the minimum lease payments is substantially the fair value of the asset. The lease is therefore categorised as a finance lease.

- Calculate the 'interest rate implicit in the lease'.

Fair value = Lease payments discounted at the implicit interest rate
£35,000 = £10,000 + (10,000 × $a_{\overline{3}|i}$)
$a_{\overline{3}|i}$ = £25,000/10,000 = 2.5
i = 9.7%

- Allocate the finance charge using the actuarial method.

Figure 16.2 shows that the finance charge is levied on the obligation during the period at 9.7%, which is the implicit rate calculated above.

16.7.5 Disclosure requirements for finance leases

IAS 17 requires that assets subject to finance leases should be identified separately and the net carrying amount disclosed. This can be achieved either by separate entries in the property, plant and equipment schedule or by integrating owned and leased assets in this schedule and disclosing the breakdown in the notes to the accounts.

The obligations relating to finance leases can also be treated in two different ways. The leasing obligation should either be shown separately from other liabilities in the statement

Figure 16.2 Finance charge allocation using actuarial method

Period	Obligation (start) £	Rentals paid £	Obligation (during) £	Finance 9.7% £	Obligation (end) £
Year 1	35,000	10,000	25,000	2,425	27,425
Year 2	27,425	10,000	17,425	1,690	19,115
Year 3	19,115	10,000	9,115	885	10,000
Year 4	10,000	10,000	—	—	—

of financial position or integrated into 'current liabilities' and 'non-current liabilities' and disclosed separately in the notes to the accounts.

The notes to the accounts should also analyse the leasing obligations in terms of the timing of the payments. The analysis of the amounts payable should be broken down into those obligations falling due within one year, two to five years, and more than five years.

Note that Figure 16.2 also provides the information required for the period end date. For example, at the end of year 1 the table shows, in the final column, a total obligation of £27,425. This can be further subdivided into its non-current and current components by using the next item in the final column, which represents the amount outstanding at the end of year 2. This amount of £19,115 represents the non-current element, and the difference of £8,310 represents the current liability element at the end of year 1.

This method of calculating the current liability from the table produces a different current figure each year. For example, the current liability at the end of year 2 is £9,115, being £19,115 – £10,000. This has been discussed in *External Financial Reporting*, where the point was made that the current liability should be the present value of the payment that is to be made at the end of the next period, i.e. £10,000 discounted at 9.7%, which gives a present value for the current liability of £9,115 for inclusion at each period end until the liability is discharged.[5] We use the conventional approach in working illustrations and exercises, but you should bear this point in mind.

EXAMPLE ● DISCLOSURE REQUIREMENTS IN THE LESSEE'S ACCOUNTS It is interesting to refer to the disclosures found in published accounts as illustrated by the Nestlé Group accounts.

Extract from the Nestlé Group – Annual Report and Accounts 2008

Accounting policies

Leased assets

Assets acquired under finance leases are capitalised and depreciated in accordance with the Group's policy on property, plant and equipment unless the lease term is shorter. Land and building leases are recognised separately provided an allocation of the lease payments between these categories is reliable. The associated obligations are included under financial liabilities.

Rentals payable under operating leases are expensed.

The costs of the agreements that do not take the legal form of a lease but convey the right to use an asset are separated into lease payments and other payments if the entity has the control of the use or of the access to the asset or takes essentially all the output of the asset. Then the entity determines whether the lease component of the agreement is a finance or an operating lease.

Other notes

Lease commitments
The following charges arise from these commitments:

Operating leases
Lease commitments refer mainly to buildings, industrial equipment, vehicles and IT equipment.

In millions of CHF	2008	2007
	Minimum lease payments future value	
Within one year	**609**	559
In the second year	**487**	425
In the third to fifth year inclusive	**918**	859
After the fifth year	**524**	571
	2,538	2,414

Finance leases

In millions of CHF	2008		2007	
	Minimum future payments			
	Present value	*Future value*	*Present value*	*Future value*
Within one year	**65**	**67**	78	88
In the second year	**54**	**64**	100	120
In the third to fifth year inclusive	**101**	**139**	146	208
After the fifth year	**74**	**181**	122	264
	294	**451**	446	680

The difference between the future value of the minimum lease payments and their present value represents the discount on the lease obligations.

16.8 Accounting for the lease of land and buildings

Land and buildings are dealt with separately. Each has to be reviewed to determine whether to classify as an operating or finance lease. This is illustrated in the Warehouse Company example.

Let us assume that:

- The Warehouse Company Ltd, whose borrowing rate was 10% per annum, entered into a ten-year lease under which it made payments of $106,886 annually in advance.
- The present value of the land was $500,000 and of the buildings was $500,000.
- The value of the land at the end of ten years was $670,000 and the value of the buildings was $50,000.

Classifying the land segment of the lease

We first need to classify the land lease. As there is no contract to pass title at the end of the contract and the land is expected to increase in value, it is clear that the land segment of the contract does not involve the lessor transferring the risk and benefits to the lessee. This means that the lessee has to account for the lease of the land as an operating lease.

Classifying the building segment of the lease

The building segment of the lease is different. The residual value has fallen to $50,000 which has a present value of $19,275 (50,000 × 0.3855). This means that 96% of the benefit has been transferred (500,000 – 19,275) and the building segment is, therefore, a finance lease.

How to apportion the lease payment in the statement of comprehensive income

The payment should be split at the commencement of the lease according to the fair value of the components covered by the lease. In the case of the land, the present value of the land is $500,000 of which $258,285 (670,000 × 0.3855) represents the present value of the land at the end of the contract so the balance of $241,715 represents the present value of the operating lease. Similarly the amount covered by the finance lease is $480,725. Splitting the lease payment of $106,886 in those proportions (241,715:480,725) gives $35,763 for the land component and $71,123 for the finance lease representing the buildings leased.

How to report in the statement of financial position

For the finance lease covering the building the lessee will have to show a $480,725 asset initially which will be depreciated over the ten years of the lease according to the normal policy of depreciating buildings which are going to last ten years. At the same time a liability representing an obligation to the legal owner of the buildings (the lessor) for the same amount will be created. As lease payments are made the interest component will be treated as an expense and the balance will be used to reduce the liability.

In this example the risk and rewards relating to the building segment were clearly transferred to the lessee. If the residual value had been say, $350,000 rather than $50,000 then the present value at the end of the lease would have been $134,925 which represents 27% of the value. This does not indicate that substantially all the benefits of ownership have been transferred and hence it would be classified as an operating lease. The lessee would not, therefore, capitalise the lease but would charge each period with the same leasing expense.

16.9 Leasing – a form of off balance sheet financing

Prior to IAS 17, one of the major attractions of leasing agreements for the lessee was the off balance sheet nature of the transaction. However, the introduction of IAS 17 required the capitalisation of finance leases and removed part of the benefit of off balance sheet financing.

The capitalisation of finance leases effectively means that all such transactions will affect the lessee's gearing, return on assets and return on investment. Consequently, IAS 17 substantially alters some of the key accounting ratios which are used to analyse a set of financial statements.

Operating leases, on the other hand, are not required to be capitalised. This means that operating leases still act as a form of off statement of financial position financing.[6] Hence, they are extremely attractive to many lessees. Indeed, leasing agreements are increasingly being structured specifically to be classified as operating leases, even though they appear to be more financial in nature.[7]

An important conclusion is that some of the key ratios used in financial analysis become distorted and unreliable in instances where operating leases form a major part of a company's financing.[8]

To illustrate the effect of leasing on the financial structure of a company, we present a buy versus leasing example.

EXAMPLE ● RATIO ANALYSIS OF BUY VERSUS LEASE DECISION Kallend Tiepins plc requires one extra machine for the production of tiepins. The MD of Kallend Tiepins plc is aware that the gearing ratio and the return on capital employed ratio will change depending on whether the company buys or leases (on an operating lease) this machinery. The relevant information is as follows.

The machinery costs £100,000, but it will improve the operating profit by 10% p.a. The current position, the position if the machinery is bought and the position if the machinery is leased are as follows, assuming that lease costs match depreciation charges:

	Current	*Buy*	*Lease*
	£	£	£
Operating profit	40,000	44,000	44,000
Equity capital	200,000	200,000	200,000
Long-term debt	100,000	200,000	100,000
Total capital employed	300,000	400,000	300,000
Gearing ratio	0.5:1	1:1	0.5:1
ROCE	13.33%	11%	14.66%

It is clear that the impact of a leasing decision on the financial ratios of a company can be substantial.[9] Although this is a very simple illustration, it does show that the buy versus lease decision has far-reaching consequences in the financial analysis of a company.

16.10 Accounting for leases – a new approach

The total annual leasing volume was reported in 2007 as being US$760 billion. Whilst finance leases are reported on the statement of financial position, many of the lease contracts have been classified as operating leases and do not appear on the statement.

There has been criticism on theoretical grounds that this effectively ignores assets and liabilities that fall within the definition of assets and liabilities in the Conceptual Framework and on practical grounds that the difference in the accounting treatment of finance leases and operating leases provides opportunities to structure transactions so as to achieve a particular lease classification. This means that the same transaction could be reported differently by companies and comparability reduced.

Some users have attempted to overcome this by adjusting the statement of financial position to capitalise the operating leases. For example, credit rating agencies capitalise operating lease obligations on the basis that all leasing is a form of financing that creates a claim on future cash flows and the distinction between finance and operating leases is artificial. The approach taken by the credit agency, Standard & Poor, is to capitalise operating leases by discounting the minimum lease commitments using the entity's borrowing rate to calculate the present value of the commitments.

The data in the financial statements is then adjusted, for example, EBITDA is re-calculated with the interest element of the lease payments deducted from the rental figure that had been deducted in arriving at the EBITDA. Other adjustments are made as discussed below in considering the impact on financial statements.

The standard setters (the IASB and FASB) have, therefore, proposed that operating leases give rise to an asset which is the right-of-use and a liability and both should be reported on the statement of financial position.

16.10.1 Impact on financial statements

Where an industry uses operating leases extensively, there could be significant impact on key performance indicators. For example, there is an impact on the Statement of comprehensive income resulting from the rental charge being separated into a depreciation and interest charge, so that the EBITDA figure increases; and an impact on the Statement of cash flows in which the operating cash flow and free cash flow increase; and an impact on the Statement of financial position in which the gearing increases. This is illustrated in an article[10] relating to the retail industry.

Discount rate

The Boards (FASB and IASB) decided that a lessee should initially measure both its right-of-use asset and its lease obligation at the present value of the expected lease payments and that a lessee should discount the lease payments using the lessee's incremental borrowing rate for secured borrowings. It follows from this that a lease with the same terms and conditions would be reported at different amounts by different entities.

This differs from IAS 17 which requires the discount rate to be at the interest rate implicit in the lease and, only if this cannot be determined, at the lessee's incremental borrowing rate.

Contingent rentals

The Boards decided to develop a new approach for contingent lease payments by requiring a lessee to measure contingent rentals based on the lessee's best estimate of the expected lease payments over the term of the lease. However, there is no requirement to probability-weight possible outcomes. For example, if lease rentals are contingent on changes in an index or rate, such as the consumer price index or the prime interest rate, the lessee would measure the contingent rentals using the index or rate existing at the inception of the lease in its initial determination of the best estimate of expected lease payments.

IAS 17 *Leases* is unclear on the issue and contingent rentals have generally not been included in the amount to be recognised. This will presumably be clarified when a revised standard is issued.

Residual value guarantees

The proposal is that these should be based on the lessee's best estimate of the expected lease payments over the term of the lease. IAS 17 *Leases* requires a lease to be classified as a finance lease if the lessee assumes the residual value risk of the asset and the lease liability would be recognised in full.

There are other matters under consideration such as how to treat lease extension options – whether to discount the cash flows for (a) the the initial period where there is no legal or constructive obligation to take up the option, or (b) the total period including the option extension, or (c) the initial period plus a probability adjusted extension period, or (d) the best estimate of the likely total period. Conceptually one would have thought that unless there is a legal or constructive obligation to take up the option then no liability exists which implies that only (a) is conceptually sound, however the preliminary views of the Boards support option (d) above.

16.11 Accounting for leases by lessors

There are essentially two different types of situation.

The first is where a manufacturer enters into a lease to enable a potential purchaser to 'buy' their product. In this situation it is necessary to separate the sale transaction from the leasing transaction. All costs relating to making the sale must be included in calculating the profit or loss on the sale and must not be included in the lease accounting.

The second scenario is where an asset is purchased by the finance company at the request of a client and is then leased to the client. The lease is then classified as a financial lease or as an operating lease, as seen below.

16.11.1 Finance lease

The lessor will recognise a finance lease receivable in its assets. The amount initially shown will be the cost of the asset plus any direct costs necessarily incurred in setting up the lease. Suppose the XYZ plc finance company purchases a machine for $157,000 at the request of Flexible Manufacturing plc which then leases it for $58,000 per annum for three years, payments being made at the commencement of each year. XYZ plc incurs costs of $1,661 to establish the lease.

XYZ plc, the lessor, will record an asset of $158,661 being the amount which is to be recovered from Flexible Manufacturing plc. In addition, it is entitled to interest on the transaction. To ascertain the rate of interest, we ascertain by trial and error the rate of interest which equates the present value of the lease payments ($58,000 in years 0, 1 and 2) to the amount to be recovered, in this case $158,661. The interest rate is 10%.

So at the start of the first year XYZ plc will receive $58,000. Of that $10,066 will be recorded as interest and $47,934 as recovery of the initial investment. (Initial investment $158,661 less immediate recovery of $58,000 leaving a balance of $100,661 outstanding for a year at 10% or $10,066 interest. This means of the $58,000 paid, $10,066 represents interest and the remaining $47,934 is a repayment of capital.) At the end of the first year the lease asset would show as $110,727 ($158,661 – $47,934). Interest recognised in the next year would be $5,273 (10% of (110,727 – 58,000)).

In tabular format:

Year	*Recoverable b/f*	*Rental*	*Interest @ 10%*	*Recoverable c/f*
1	158,661	58,000	10,066	110,727
2	110,727	58,000	5,273	58,000
3	58,000	58,000	—	
		174,000	15,339	

There are also disclosure requirements relating to the timing of cash flows, unearned finance income, allowances for uncollectible amounts, unguaranteed residuals expected under the contracts, and contingent rents.

16.11.2 Operating leases

The asset will be capitalised at its cost plus the direct cost of arranging the lease. The asset will then be depreciated like any other non-current asset.

The revenue will be matched against periods according to the pattern of benefits received, which in most cases will be on a straight-line basis.

Summary

The initial upturn in leasing activity in the 1970s was attributable to the economy and tax requirements rather than the popularity of lease transactions *per se*. High interest rates, a high inflation rate, 100% first year tax allowances and a sequence of annual losses in the manufacturing industry made leasing transactions extremely attractive to both the lessors and the lessees.

Off balance sheet financing was considered a particular advantage of lease financing. IAS 17 recognised this and attempted to introduce stricter accounting policies and requirements. However, although IAS 17 introduced the concept of 'substance over form', the hazy distinction between finance and operating leases still allows companies to structure lease agreements to achieve either type of lease. This is important because, while stricter accounting requirements apply to finance leases, operating leases can still be used as a form of off statement of financial position accounting.

We do not know the real extent to which IAS 17 is either observed or ignored. However, it is true to say that creative accountants and finance companies are able to circumvent IAS 17 by using 'structured' leases. Future development will change this position considerably.

REVIEW QUESTIONS

1 Can the legal position on leases be ignored now that substance over form is used for financial reporting? Discuss.

2 (a) Consider the importance of the categorisation of lease transactions into operating lease or finance lease decisions when carrying out financial ratio analysis. What ratios might be affected if a finance lease is structured to fit the operating lease classification?

(b) Discuss the effects of renegotiating/reclassifying all operating leases into finance leases. For which industries might this classification have a significant impact on the financial ratios?

3 State the factors that indicate that a lease is a finance lease under IAS 17.

4 The favourite off-balance sheet financing trick used to be leasing. Use any illustrative numerical examples you may wish to:

(a) Define the term 'off-balance sheet on financing' and state why it is popular with companies.

(b) Illustrate what is meant by the above quotation in the context of leases and discuss the accounting treatments and disclosures required by IAS 17 which have limited the usefulness of leasing as an off-balance sheet financing technique.

(c) Suggest two other off-balance sheet financing techniques and discuss the effect that each technique has on statement of financial position assets and liabilities, and on the income statement.

5 The Body Shop International PLC 2004 Annual Report included the following accounting policy:

Leased assets
Assets held under finance leases are capitalised at amounts approximating to the present value of the *minimum lease payments* payable over the term of the lease. The corresponding leasing commitments are shown as amounts payable to the lessor. Depreciation on assets held under finance leases is charged to the income statement.

Leasing payments are analysed between capital and interest components so that the interest element is charged to the income statement over the period of the lease and *approximates to a constant proportion of the balances of capital payments outstanding.*

All other leases are treated as operating leases with annual rentals charged to the income statement on a straight-line basis over the term of the lease.

(a) Explain the meaning of 'minimum lease payments' and 'approximates to a constant proportion of the balances of capital repayments outstanding'.

(b) Explain why it is necessary to use present values and approximate to a constant proportion.

6 Peter Mullen says in an article sent in to the UK Accounting Standards Board (ASB), the following:

the ASB advocates that all leasing type deals should essentially be accounted for in relation to the extent of asset and liability transfer that they involve…

On the first point, the ASB seems to have a point – 90% [for recognition of a finance lease] is unquestionably an arbitrary figure. But 'arbitrariness' is not in itself wrong: indeed often it is necessary. The speeding limit on a motorway is set at 70 mph, a driver driving at 71 mph is therefore breaking the law, where one driving at a 'substantially similar' speed is not. One could easily think of many similar examples where the demands of pragmatism means that a 'bright line' being drawn somewhere is preferable to no line at all. There is only a convincing case for dispensing with arbitrariness in these situations if the replacement does not give rise to something which is equally arbitrary, and this is where the ASB starts to run into problems.

…If assets and liabilities mean what the ASB wants them to mean they have to do so in all circumstances. The range of contracts that give rise to similar liabilities and assets, however is vast.

At a very simple level, Leaseguard has retainer agreements with its clients which are typically between two and four years' duration. Under any sensible extension of ASB's logic these should be capitalised rather than treated as revenue items. Imagine a world, however, where just about every contract for the provision of future services or assets that an organisation enters into is scrutinised for its asset and liability content.

Discuss whether this is a valid argument for not treating all leases in the same manner.

EXERCISES

An extract from the solution is provided on the Companion Website (www.pearsoned.co.uk/elliott-elliott) for exercises marked with an asterisk (*).

* Question 1

On 1 January 20X8, Grabbit plc entered into an agreement to lease a widgeting machine for general use in the business. The agreement, which may not be terminated by either party to it, runs for six years and provides for Grabbit to make an annual rental payment of £92,500 on 31 December each year. The cost of the machine to the lessor was £350,000, and it has no residual value. The machine has a useful economic life of eight years and Grabbit depreciates its property, plant and equipment using the straight-line method.

Required:

(a) Show how Grabbit plc will account for the above transaction in its statement of financial position at 31 December 20X8, and in its statement of comprehensive income for the year then ended, if it capitalises the leased asset in accordance with the principles laid down in IAS 17.

(b) **Explain why the standard setters considered accounting for leases to be an area in need of standardisation and discuss the rationale behind the approach adopted in the standard.**

(c) **The lessor has suggested that the lease could be drawn up with a minimum payment period of one year and an option to renew. Discuss why this might be attractive to the lessee.**

* Question 2

(a) When accounting for finance leases, accountants prefer to overlook legal form in favour of commercial substance.

Required:

Discuss the above statement in the light of the requirements of IAS 17 *Leases*.

(b) State briefly how you would distinguish between a finance lease and an operating lease.

(c) Smarty plc finalises its accounts annually on 31 March. It depreciates its machinery at 20% per annum on cost and adopts the 'Rule of 78' for allocating finance charges among different accounting periods. On 1 August 20X7 it acquired machinery on a finance lease on the following agreement:

(i) a lease rent of £500 per month is payable for 36 months commencing from the date of acquisition;

(ii) cost of repairs and insurance are to be met by the lessee;

(iii) on completion of the primary period the lease may be extended for a further period of three years, at the lessee's option, for a peppercorn rent.

The cash price of the machine is £15,000.

Required:

(1) **Set out how all ledger accounts reflecting these transactions will appear in each of the four accounting periods 20X7/8, 20X8/9, 20X9/Y0 and 20Y0/Y1.**

(2) **Show the statement of comprehensive income entries for the year ended 31 March 20X8 and statement of financial position extracts as at that date.**

Question 3

The Mission Company Ltd, whose year-end is 31 December, has acquired two items of machinery on leases, the conditions of which are as follows:

Item Y: Ten annual instalments of £20,000 each, the first payable on 1 January 20X0. The machine was completely installed and first operated on 1 January 20X0 and its purchase price on that date was £160,000. The machine has an estimated useful life of ten years, at the end of which it will be of no value.

Item Z: Ten annual instalments of £30,000 each, the first payable on 1 January 20X2. The machine was completely installed and first operated on 1 January 20X2 and its purchase price on that date was £234,000. The machine has an estimated useful life and is used for 12 years, at the end of which it will be of no value.

The Mission Company Ltd accounts for finance charges on finance leases by allocating them over the period of the lease on the sum of the digits method.

Depreciation is charged on a straight-line basis. Ignore taxation.

Required:

(a) Calculate and state the charges to the statement of comprehensive income for 20X6 and 20X7 if the leases were treated as operating leases.

(b) Calculate and state the charges to the statement of comprehensive income for 20X6 and 20X7 if the leases were treated as finance lease and capitalised using the sum of the digits method for the finance charges.

(c) Show how items Y and Z should be incorporated in the statement of financial position, and notes thereto, at 31 December 20X7, if capitalised.

Question 4

X Ltd entered into a lease agreement on the following terms:

Cost of leased asset	£100,000
Lease term	5 years
Rentals six-monthly in advance	£12,000
Anticipated residual on disposal of the assets at end of lease term	£10,000
Lessee's interest in residual value	97%
Economic life	8 years
Inception date	1 January 20X4
Lessee's financial year-end	31 December
Implicit rate of interest is applied half-yearly	4.3535%

Required:

Show the statement of comprehensive income entries for the years ended 31 December 20X4 and 20X7 and statement of financial position extracts at those dates.

Question 5

At 1 January 20X5 Bridge Finance plc agreed to finance the lease of machinery costing $37,200 to Rapid Growth plc at a lease cost of $10,000 per annum payable at the end of the year, namely 31 December. The period of the lease is five years. Bridge Finance plc incurred direct costs of $708 in setting up the contract.

Required:

Show for Bridge Finance plc the amount that would be charged to the statement of comprehensive income for the year ending 31 December 20X7 and the amount of the leased asset that would appear in the statement of financial position at that date.

Question 6

Alpha entered into an operating lease under which it was committed to five annual payments of £50,000 per year. It was subsequently decided to treat the lease as a Right-of-use asset reported on the Statement of financial position. Alpha's borrowing rate was 10%.

Required:

Calculate the amount to be reported in the Statement of financial position and Statement of comprehensive income.

Question 7

Construction First provides finance and financial solutions to companies in the construction industry. On 1 January 2007 the company agreed to finance the lease of equipment costing $145,080 to Bodge Brothers over its useful life of five years at an annual rental of $39,000 payable annually in arrears. The interest rate associated with this transaction is 10% and Construction First incurred direct costs of $2,761 in setting up the lease.

Construction First agreed with the manufacturer of the equipment to pay the amount owing in 3 equal six-monthly instalments beginning on 31 January 2007.

Required:

Show the entries that would appear in Construction First's statement of income and statement of financial position (balance sheet) for the year ended 31 December 2008 together with comparative figures and an appropriate disclosure note.

(*Association of International Accountants*)

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