

January 2016

Effects Analysis
International Financial Reporting Standard®

IFRS 16 *Leases*

This Effects Analysis accompanies, but is not part of, IFRS 16.

What is the purpose of this Effects Analysis?

This Effects Analysis describes the likely costs and benefits of IFRS 16. The costs and benefits are collectively referred to as ‘effects’. The International Accounting Standards Board (IASB) gains insight on the likely effects of new or revised Standards through its exposure of proposals, and through its analysis and consultation with stakeholders. This document describes those considerations.

The document discusses the effects of IFRS 16 mainly from a lessee perspective. This is because the accounting for a lessor is largely unchanged. The effects of IFRS 16 on lessor accounting are discussed in Section 9 of the document.

Background

IFRS 16 supersedes IAS 17 *Leases* (and related Interpretations) and is effective from 1 January 2019.

The IASB and the US national standard-setter, the Financial Accounting Standards Board (FASB), have been working jointly to improve the accounting for leases in International Financial Reporting Standards (IFRS) and US Generally Accepted Accounting Principles (US GAAP).

IFRS 16 completes the IASB’s project to improve financial reporting for leases.

Executive Summary

The IASB has developed a new *Leases* Standard, IFRS 16, which supersedes IAS 17 *Leases*. The IASB worked jointly with the FASB on this project. The FASB expects to publish its new *Leases* Standard in early 2016. A company¹ is required to apply IFRS 16 from 1 January 2019. A company can choose to apply IFRS 16 before that date but only if it also applies IFRS 15 *Revenue from Contracts with Customers*.

The IASB and the FASB have reached the same conclusions in many areas of lease accounting, including requiring leases to be reported on the balance sheet, how to define a lease and how lease liabilities are measured. The IASB and the FASB also both agreed to substantially carry forward the previous lessor accounting requirements. However, for some leases, the IASB and the FASB have reached different conclusions about the recognition and presentation of expenses related to leases in the income statement and of cash flows in the cash flow statement.²

Lessee accounting has changed substantially.
There is little change for lessors.

The need for change

In 2005, the US Securities and Exchange Commission (SEC) estimated that US public companies may have approximately US\$1.25 trillion of off balance sheet leases. Responding to concerns about the lack of transparency of information about lease obligations, the IASB and the FASB initiated a project to improve the accounting for leases. To meet this objective, the IASB and the FASB agreed that a customer (lessee) leasing assets should recognise assets and liabilities arising from those leases. This is because at the start of a lease a lessee obtains the right to use an asset for a period of time and, if payments are made over time, incurs a liability to make lease payments. Contrary to that view, most leasing transactions were not reported on a lessee's balance sheet applying previous lease accounting requirements. The significance of the missing information varied by industry and region and between companies. However, for many companies, the effect on reported assets and financial leverage was substantial. The absence of information about leases on the balance sheet meant that investors and analysts were not able to properly compare companies that borrow to buy assets with those that lease assets, without making adjustments.

Previous lessee accounting

IAS 17—as well as FASB Topic 840 *Leases*—focused on identifying when a lease is economically similar to purchasing the asset being leased (the 'underlying asset'). When a lease was determined to be economically similar to purchasing the underlying asset, the lease was classified as a finance lease (referred to as a 'capital lease' in US GAAP) and reported on a company's balance sheet. All other leases were classified as operating leases and not reported on a company's balance sheet (they were 'off balance sheet leases'). Off balance sheet leases were accounted for similarly to service contracts, with the company reporting a rental expense in the income statement (typically the same amount in each period of the lease—a so called straight-line lease expense).

What changes in a company's balance sheet?

IFRS 16 eliminates the classification of leases as either operating leases or finance leases for a lessee.³ Instead all leases are treated in a similar way to finance leases applying IAS 17. Leases are 'capitalised' by recognising the present value of the lease payments and showing them either as lease assets (right-of-use assets) or together with property, plant and equipment. If lease payments are made over time, a company also recognises a financial liability representing its obligation to make future lease payments.

¹ In this document the term 'company' refers to any entity that prepares financial statements applying IFRS, or in some cases US GAAP.

² See Section 8—*Effects of differences between IFRS and US GAAP*.

³ See Section 2—*Changes to the accounting requirements*.

The most significant effect of the new requirements will be an increase in lease assets and financial liabilities.⁴ Accordingly, for companies with material off balance sheet leases, there will be a change to key financial metrics derived from the company's reported assets and liabilities (for example, leverage ratios).⁵

	IAS 17 / Topic 840		IFRS 16 / FASB model ⁶
	Finance leases	Operating leases	All leases
Assets	→ 🏠	---	→ 🏠 → ✈️ → 🚗 → 🚚
Liabilities	\$\$	---	→ \$\$\$\$\$\$
Off balance sheet rights / obligations	---	→ 🚗 → 🚚 → \$\$\$\$\$\$	---

Are there any exemptions?

Yes. IFRS 16 does not require a lessee to recognise assets and liabilities for (a) short-term leases (ie leases of 12 months or less) and (b) leases of low-value assets (for example, a lease of a personal computer).⁷

What does IFRS 16 mean for a company's income statement?

For companies with material off balance sheet leases, IFRS 16 changes the nature of expenses related to those leases. IFRS 16 replaces the straight-line operating lease expense for those leases applying IAS 17 with a depreciation charge for the lease asset (included within operating costs) and an interest expense on the lease liability (included within finance costs). This change aligns the lease expense treatment for all leases. Although the depreciation charge is typically even, the interest expense reduces over the life of the lease as lease payments are made. This results in a reducing total expense as an individual lease matures. The difference in the expense profile between IFRS 16 and IAS 17 is expected to be insignificant for many companies holding a portfolio of leases that start and end in different reporting periods.⁸

The income statement treatment applying IFRS 16 for former off balance sheet leases also differs from the treatment applying the FASB model for those leases. This is because the FASB model is designed so that expenses related to those leases are reported typically on a straight-line basis and are included within operating costs.

	IAS 17 / Topic 840 / FASB model		IFRS 16
	Finance leases	Operating leases	All leases
Revenue	x	x	x
Operating costs (excluding depreciation and amortisation)	---	Single expense	---
EBITDA			↑↑
Depreciation and amortisation	Depreciation	---	Depreciation
Operating profit			↑
Finance costs	Interest	---	Interest
Profit before tax			↔

Who will be affected by the changes?

Off balance sheet lease financing numbers are substantial. Listed companies using IFRS or US GAAP disclose almost US\$3 trillion of off balance sheet lease commitments. For almost half of listed companies using IFRS or US GAAP, amounts recognised are expected to be affected by the changes in lease accounting.⁹ Some industry sectors will be more affected than others.

⁴ See Section 6.1—Effects on the balance sheet.

⁵ See Section 6.5—Effects on key financial metrics.

⁶ In this document 'FASB model' refers to the decisions of the FASB as at 31 December 2015.

⁷ See Section 5.3—Key cost reliefs.

⁸ See Section 6.2—Effects on the income statement.

⁹ See Section 3—Companies affected by changes in lessee accounting.

Many smaller unlisted companies are not expected to be directly affected by IFRS 16 on the grounds that (a) the *IFRS for SMEs* has not been changed by IFRS 16 and (b) a limited number of smaller unlisted companies are required to apply full IFRS.

Will IFRS 16 affect the cost of borrowing and debt covenants?

The change to lease accounting does not affect a company's economic position or commitments to pay cash, which are typically already considered by lenders. Accordingly, the IASB is of the view that any changes to the cost of borrowing following the implementation of IFRS 16 will result from improved decision-making, which will in turn be the result of improved transparency about a company's financial leverage.¹⁰ Although the terms and conditions of future debt covenants may change, the IASB expects that those changes will be undertaken in a manner that differentiates true economic changes from accounting changes.¹¹

Are there any implications for lessors?

Few. IFRS 16 substantially carries forward lessor accounting from IAS 17.¹²

The demand for assets changes only if there are changes to the economy, technology or the way companies operate their businesses. In other words, changes to accounting do not create or reduce the demand for assets. Accordingly, the IASB does not expect IFRS 16 to change the overall need for assets by companies. However, the IASB acknowledges that the change in lessee accounting might have an effect on the leasing market if companies decide to buy more assets and, as a consequence, lease fewer assets. The IASB observed that there are many reasons why companies lease assets that will continue to exist after IFRS 16 is effective. Consequently, the IASB does not expect significant behavioural changes when IFRS 16 is effective (ie a company is not expected to systematically borrow to buy assets, rather than leasing them, as a result of the change in accounting).¹³

Conclusion—do the benefits outweigh costs?

Yes. The IASB has concluded that the benefits of IFRS 16 outweigh the costs. IFRS 16 will result in a more faithful representation of a company's assets and liabilities and greater transparency about the company's financial leverage and capital employed. This is expected to:

(a) reduce the need (i) for investors and analysts to make adjustments to amounts reported on a lessee's balance sheet and income statement and (ii) for companies to provide 'non-GAAP' information about leases. IFRS 16 provides a richer set of information than was available applying IAS 17, giving further insight into a company's operations.¹⁴

- (b) improve comparability between companies that lease assets and companies that borrow to buy assets.¹⁵
- (c) create a more level playing field in providing transparent information about leases to all market participants. A company will more accurately measure assets and liabilities arising from leases applying IFRS 16 as compared to the estimates made by only more sophisticated investors and analysts when companies applied IAS 17.

IFRS 16 is expected to facilitate better capital allocation by enabling better credit and investment decision-making by both investors and companies.

The significance of the implementation costs depends on the size of a company's lease portfolio, the terms and conditions of its leases and the systems already in place to account for leases applying IAS 17. The IASB expects that companies with material off balance sheet leases will incur costs to (a) set up systems and processes, including educating staff; (b) determine the discount rates used to measure lease assets and lease liabilities on a present value basis; and (c) communicate changes to reported information to external parties.¹⁶ Once a company has updated its systems to provide the information required by IFRS 16, the IASB expects costs to be only marginally higher compared to those incurred when applying IAS 17. The data required to apply IFRS 16 is similar to that needed to apply IAS 17, with the exception of discount rates that are required for all leases when applying IFRS 16.¹⁷

¹⁰ See Section 7.1—*Effects on the cost of borrowing*.

¹¹ See Section 7.2—*Effects on debt covenants*.

¹² See Section 9—*Effects analysis for lessor accounting*.

¹³ See Section 7.4—*Effects on the leasing market and access to finance for smaller companies*.

¹⁴ See Section 4.1—*Improved quality of financial reporting*.

¹⁵ See Section 4.2—*Improved comparability*.

¹⁶ See Section 5.1—*Implementation costs*.

¹⁷ See Section 5.2—*Ongoing costs*.

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1—Introduction

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What is an Effects Analysis?

Before the IASB issues new Standards, or makes amendments to existing Standards, it considers the costs and benefits of the new requirements. This includes assessing the effects on the costs for both preparers and users of financial statements. The IASB also considers the comparative advantage that preparers have in developing information that would otherwise cost users of financial statements to estimate. One of the main objectives of developing a single set of high quality global accounting Standards is to improve the allocation of capital. The IASB therefore takes into account the benefits of better economic decision-making resulting from improved financial reporting.

Consultation process

The IASB gains insight on the likely effects of new or revised Standards through its exposure of proposals and through its analysis and consultations with stakeholders through outreach activities. The IASB has undertaken three public consultations on its proposals to change lease accounting and held hundreds of meetings, round tables and other outreach activities. This included extensive discussions with preparers (both lessors and lessees) and users of financial statements, regulators, standard-setters and accounting firms worldwide. In addition, the IASB and the FASB established a joint Lease Accounting Working Group to obtain access to additional practical experience and expertise.¹⁸

This Effects Analysis is based on the feedback received through this process.

Extensive consultation

- 2009 Discussion Paper (the 2009 DP)
- 2010 Exposure Draft (the 2010 ED)
- 2013 Revised Exposure Draft (the 2013 ED)
- More than 1,700 comment letters received and analysed
- Meetings with the IASB's advisory bodies
- Hundreds of outreach meetings with investors, analysts, preparers, regulators, standard-setters, accounting firms and others. The meetings with preparers included 40 fieldwork meetings discussing the costs of implementation in detail.
- 15 public round tables¹⁹

¹⁸ The working group comprised individuals from a variety of backgrounds—preparers and users of financial statements, auditors, subject-matter experts, and others.

¹⁹ The IASB and the FASB conducted those meetings with stakeholders jointly.

Methodology to assess the effects

The evaluation of costs and benefits is mainly qualitative, instead of quantitative. This is because quantifying costs and, particularly, benefits, is very difficult. Although some have undertaken similar types of analyses, there are not sufficiently well-established and reliable techniques for quantifying either costs or benefits in this analysis.

In addition, the assessment undertaken is that of the likely effects of the new lease accounting requirements, because the actual effects will not be known until after the new requirements have been applied. The actual effects are considered through the Post-implementation Review process.

In evaluating the likely effects of IFRS 16, the IASB has considered:

- (a) how activities will be reported in the financial statements of those applying IFRS;
- (b) how comparability of financial information will be affected both between different reporting periods for the same company and between different companies in a particular reporting period;
- (c) how the ability of users of financial statements to assess the future cash flows of a company will be affected;
- (d) whether better economic decision-making as a result of improved financial reporting will be possible;
- (e) the effects on the compliance costs for preparers, both on initial application and on an ongoing basis; and
- (f) the effects on the costs of analysis for users of financial statements.

The following sections of this document describe the IASB's analysis of the likely effects that will result from IFRS 16.

2—Changes to the accounting requirements

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Definition of a lease

A company assesses whether to apply the requirements in IFRS 16 by identifying whether a contract is (or contains) a lease. IFRS 16 defines a lease and includes application guidance to help companies make this assessment. The definition applies to both parties to a contract, ie the customer ('lessee') and the supplier ('lessor').

IFRS 16 retains the definition of a lease in IAS 17 but changes the guidance setting out how to apply it. The changes mainly relate to the concept of control used within the definition—IFRS 16 determines whether a contract contains a lease on the basis of whether the customer has the right to control the use of an identified asset for a period of time.

The changes to the guidance on the definition in IFRS 16 are not expected to affect conclusions about whether contracts contain a lease for the vast majority of contracts (ie a lease applying IAS 17 is generally expected to be a lease applying IFRS 16).

However, the IASB expects that IFRS 16 will exclude from its scope a number of service contracts that may have been considered to be leases applying IAS 17 (for example, some supply contracts).

When a company first applies IFRS 16, the company is not required to reassess whether existing contracts contain a lease. Instead, the company can choose to apply IFRS 16 to leases identified applying IAS 17, and not apply IFRS 16 to other contracts.

Because leases and services are often combined in a contract and the accounting for leases and services is different, IFRS 16 also addresses the separation of lease and service components of contracts. IFRS 16 applies only to leases, or lease components of a contract.

IFRS 16 does not change the accounting for services. Although leases and services are often combined in a single contract, amounts related to services are not required to be reported on the balance sheet.

Lessee accounting

IAS 17 focused on identifying when a lease is economically similar to purchasing the asset being leased. When a lease was determined to be economically similar to purchasing the asset being leased, the lease was classified as a finance lease and reported on a company's balance sheet. All other leases were classified as operating leases and not reported on a company's balance sheet (they were 'off balance sheet leases'). Applying IAS 17, off balance sheet leases were accounted for similarly to service contracts, with the company reporting a rental expense (typically on a straight-line basis) in each period of the lease.

Former off balance sheet leases (operating leases)

IFRS 16 changes significantly how a company accounts for leases that were off balance sheet applying IAS 17, other than short-term leases (leases of 12 months or less) and leases of low-value assets (such as personal computers and office furniture).

Applying IFRS 16, in essence for all leases, a company is required to:

- (a) recognise lease assets and lease liabilities in the balance sheet, initially measured at the present value of unavoidable future lease payments;
- (b) recognise depreciation of lease assets and interest on lease liabilities in the income statement over the lease term; and
- (c) separate the total amount of cash paid into a principal portion (presented within financing activities) and interest (typically presented within either operating or financing activities) in the cash flow statement.

IFRS 16 is expected to change the balance sheet, income statement and cash flow statement for companies with material off balance sheet leases.

Former on balance sheet leases (finance leases)

IFRS 16 does not change substantially the accounting for finance leases in IAS 17. The main difference relates to the treatment of residual value guarantees provided by a lessee to a lessor. This is because IFRS 16 requires that the company recognise only amounts expected to be payable under residual value guarantees, rather than the maximum amount guaranteed as required by IAS 17.

Lessor accounting

IFRS 16 does not change substantially how a lessor accounts for leases. This is because feedback received on changes proposed to lessor accounting, including feedback from many investors and analysts, indicated that the costs of changing lessor accounting would outweigh the benefits of doing so at this time.

Accordingly, a lessor will continue to classify leases as either finance leases or operating leases applying IFRS 16, and account for those two types of leases differently.

Compared to IAS 17, IFRS 16 requires a lessor to disclose additional information about how it manages the risks related to its residual interest in assets subject to leases.

The accounting requirements for lessors are substantially unchanged. Disclosure is enhanced.

Refer to Section 9—*Effects analysis for lessor accounting* for additional details about the effects of IFRS 16 on lessor accounting.

3—Companies affected by changes in lessee accounting

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Listed companies

The IASB has assessed the effects of the changes to lessee accounting by analysing information available about leases classified as operating leases applying previous lease accounting requirements in IFRS and US GAAP²⁰ ('off balance sheet leases').

Because of limitations on the availability of relevant information, quantitative effects of the changes to lessee accounting are estimated using various assumptions. The information included in this section and the following sections should be viewed considering the assumptions set out in Appendix A. In particular, the IASB used financial data aggregators to gather information about off balance sheet leases applying previous lease accounting requirements. In this section, any reference to listed companies refers to listed companies using IFRS or US GAAP captured by financial data aggregators.

The table below provides a summary indicating the prevalence of the use of off balance sheet leases by listed companies throughout the world.

Percentage of IFRS / US GAAP companies who disclose off balance sheet leases ²¹	
North America	62%
Europe	47%
Asia / Pacific	43%
Latin America	23%
Africa / Middle East	23%
Total future minimum payments for off balance sheet leases (<i>undiscounted</i>)	US\$2.86 trillion
Present value of future minimum payments for off balance sheet leases (<i>estimate</i>) ²²	US\$2.18 trillion

Listed companies only

The IASB observed that over 14,000 listed companies (of about 30,000 listed companies) disclose information about off balance sheet leases in their latest annual reports. The future payments for off balance sheet leases for those 14,000 listed companies totalled US\$2.86 trillion (on an undiscounted basis). The present value of those payments is estimated to be US\$2.18 trillion.

IFRS 16 is expected to affect the amounts reported by almost half of listed companies. This also means that IFRS 16 is not expected to affect the amounts reported by the other half.

IASB sample

Further analysis of off balance sheet leases for listed companies reveals that 1,145 of these companies (ie 3.8 per cent—1,145 of about 30,000) account for over 80 per cent of the present value of total off balance sheet leases (ie US\$1.83 trillion of a total of US\$2.18 trillion). These companies each have estimated off balance sheet leases of more than US\$300 million, calculated on a discounted basis.

²⁰ Applying previous lease accounting requirements, the criteria for determining whether a lease was either a finance lease or an operating lease were similar applying IFRS and US GAAP; however, US GAAP provided explicit quantitative thresholds that defined when some of these criteria were met. Within the previous requirements in US GAAP, finance leases were typically called capital leases.

²¹ Based on a sample of about 30,000 listed companies using IFRS or US GAAP captured by financial data aggregators.

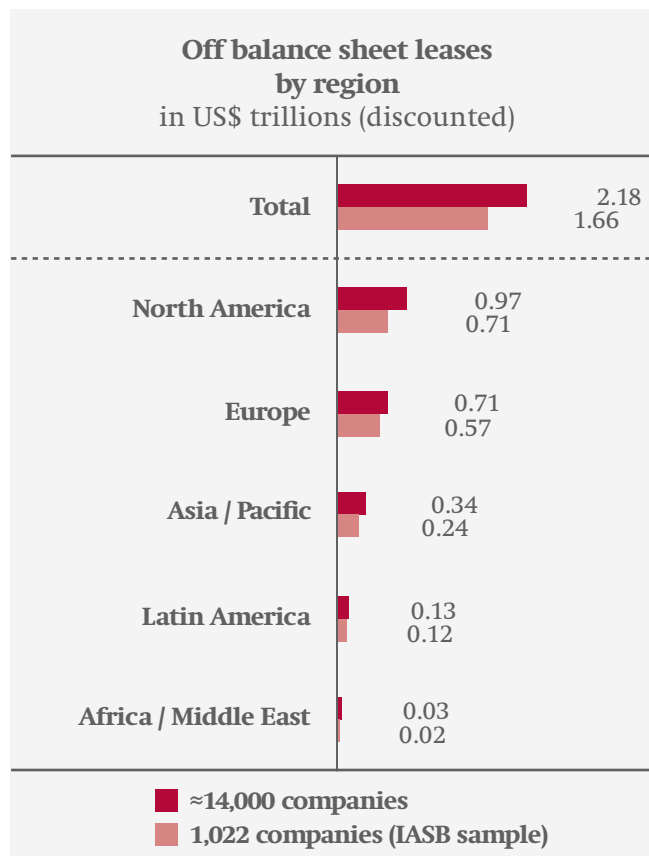
²² Estimated using the assumptions set out in Appendix A.

The IASB has used this sample of 1,145 companies as a starting point for further analysis. However, the IASB excluded banks²³ and insurance companies from the sample because of the disproportionate size of their respective balance sheets as compared to other companies, resulting in a sample of 1,022 companies.

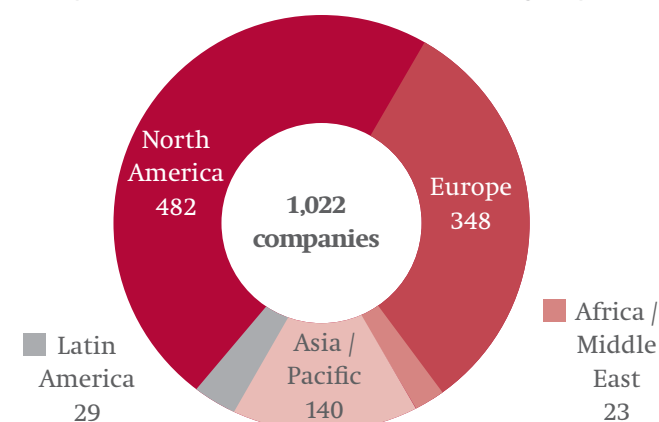
The present value of future payments for off balance sheet leases for those 1,022 companies amounts to US\$1.66 trillion—this represents 76 per cent of total off balance sheet leases for listed companies (US\$2.18 trillion on a discounted basis).

The proportion of total off balance sheet leases by region included in the IASB sample is shown in the chart on this page and is summarised as follows:

- North America – 73%
(ie US\$0.71 trillion of US\$0.97 trillion)
- Europe – 80%
- Asia / Pacific – 71%
- Latin America – 92%
- Africa / Middle East – 67%



IASB sample—No. of companies with most significant off balance sheet leases by regions



The IASB compared the off balance sheet leases to the total assets of these 1,022 companies. That analysis indicated that the prevalence of off balance sheet leases is very different for different industries. Detailed information by industry sector is reported on the table on the next page.

Off balance sheet lease financing numbers are substantial. However, the use of off balance sheet leases is highly concentrated within some industry sectors and within some companies.

²³ See Section 7.3—Effects on regulatory capital requirements for the IASB’s analysis of expected effects on financial institutions.

Industry sector	Number of companies	Total assets (in millions of US\$)	Future payments for off balance sheet leases <i>(undiscounted)</i> (in millions of US\$)	Future payments for off balance sheet leases / total assets	Present value of future payments for off balance sheet leases <i>(estimate)</i> (in millions of US\$)	Present value of future payments for off balance sheet leases / total assets
Airlines	50	526,763	151,549	28.8%	119,384	22.7%
Retailers	204	2,019,958	571,812	28.3%	431,473	21.4%
Travel and leisure	69	403,524	115,300	28.6%	83,491	20.7%
Transport	51	585,964	90,598	15.5%	68,175	11.6%
Telecommunications	56	2,847,063	219,178	7.7%	172,644	6.1%
Energy	99	5,192,938	400,198	7.7%	287,858	5.5%
Media	48	1,020,317	71,743	7.0%	55,764	5.5%
Distributors	26	581,503	31,410	5.4%	25,092	4.3%
Information technology	58	1,911,316	69,870	3.7%	56,806	3.0%
Healthcare	55	1,894,933	72,149	3.8%	54,365	2.9%
Others	306	13,959,223	401,703	2.9%	306,735	2.2%
Total	1,022	30,943,502	2,195,510	7.1%	1,661,787	5.4%

See Appendix A to this document for information about the assumptions used to estimate the amounts shown in this table.

For an individual company, the use of off balance sheet leases may be very different from the average within its industry sector.

This table shows that, for example, for 36 per cent of retailers in the sample (73 of 204 companies) the estimated present value of future payments for off balance sheet leases to total assets is greater than 50 per cent as compared to 21.4 per cent for all companies in the sample in that sector.

In contrast, for 43 per cent of telecommunications companies in the sample (24 of 56 companies) the estimated present value of future payments for off balance sheet leases to total assets is lower than 5 per cent as compared to 6.1 per cent for all companies in the sample in that sector.

Industry sector		Present value of future payments for off balance sheet leases / total assets by number of companies															
		<1%		1%–5%		5%–10%		10%–20%		20%–50%		50%–100%		>100%		Total	
Airlines	22.7%	---		2	4%	4	8%	13	26%	17	34%	8	16%	6	12%	50	100%
Retailers	21.4%	---		6	3%	11	5%	37	18%	77	38%	60	30%	13	6%	204	100%
Travel and leisure	20.7%	---		5	7%	11	16%	11	16%	16	23%	15	22%	11	16%	69	100%
Transport	11.6%	---		10	20%	5	10%	17	33%	14	27%	3	6%	2	4%	51	100%
Telecommunications	6.1%	3	5%	21	38%	17	30%	10	18%	5	9%	---		---		56	100%
Energy	5.5%	7	7%	43	44%	22	22%	16	16%	8	8%	2	2%	1	1%	99	100%
Media	5.5%	---		14	29%	13	27%	8	17%	5	10%	8	17%	---		48	100%
Distributors	4.3%	1	4%	6	23%	9	35%	5	19%	5	19%	---		---		26	100%
Information technology	3.0%	3	5%	31	54%	10	17%	8	14%	6	10%	---		---		58	100%
Healthcare	2.9%	8	15%	20	36%	7	13%	4	7%	10	18%	2	4%	4	7%	55	100%
Others	2.2%	35	11%	159	52%	51	17%	26	9%	29	9%	4	1%	2	1%	306	100%
Total	5.4%	57	5%	317	31%	160	16%	155	15%	192	19%	102	10%	39	4%	1,022	100%

See Appendix A to this document for information about the assumptions used to estimate the amounts used to prepare this table.

Other companies

The IASB also considered the effect that IFRS 16 might have on unlisted companies.

Although there is no single definition, the term Small and Medium-sized Enterprises ('SMEs') is widely used around the world. Many jurisdictions have developed their own definitions of the term for a broad range of purposes, including prescribing financial reporting requirements. Often those national or regional definitions include quantitative criteria based on revenue, assets, employees or other factors.

Within the IASB's definition, SMEs are companies that:

- (a) do not have public accountability;²⁴ and
- (b) publish general purpose financial statements for external users of financial statements.²⁵

The term 'private companies' is commonly used in some jurisdictions—in particular in North America—to refer to the kinds of companies that meet the IASB's definition of SMEs.

IFRS for SMEs

In most jurisdictions that have adopted IFRS, unlisted companies can use the *IFRS for SMEs*—the IASB itself permits its use by all unlisted companies that meet the IASB's definition of SMEs. Nonetheless, the extent to which these companies can use the *IFRS for SMEs* may be limited by local laws.²⁶

In May 2015 the IASB issued a revised edition of the *IFRS for SMEs* effective from January 2017. Because IFRS 16 was not finalised at that date, the revised edition continues to include requirements based on IAS 17. The IASB has decided that amendments to the *IFRS for SMEs* would be no more frequent than approximately once every three years. The IASB's working target, however, will be to make updates only once every six years.

Consequently, the *IFRS for SMEs* will be based on IAS 17, rather than IFRS 16, for the near future. Before inclusion, any such change would be subject to the IASB's due process requirements and, thus, would be subject to comment.

When the IASB discusses whether to incorporate requirements based on IFRS 16 within the *IFRS for SMEs*, the IASB will consider the costs and benefits of any changes to lease accounting within the context of SMEs. These may be different from the costs and benefits considered when developing IFRS 16.

European SMEs

Regarding the European Union, within which the adoption of the *IFRS for SMEs* is not allowed, the IASB carried out additional analysis. That analysis focused on the 28 member states of the European Union (EU28), for which, in 2013, SMEs—as defined by the European regulation²⁷—represented 99 per cent of all enterprises active in non-financial business sectors.

Number of enterprises—EU28 ²⁸ (non-financial business sectors)		
Micro (<10 employees)	19,969,338	92.4%
Small (<50 employees)	1,378,374	6.4%
Medium (<250 employees)	223,648	1.0%
European SMEs	21,571,360	99.8%
Large	43,517	0.2%
Total enterprises	21,614,877	100%

The IASB observed that few European SMEs are likely to use IFRS (also referred to as full IFRS), given their size and the particular jurisdictional requirements.

24 A company has public accountability if: (a) its debt or equity instruments are traded in a public market or it is in the process of issuing such instruments for trading in a public market (a domestic or foreign stock exchange or an over-the-counter market, including local and regional markets); or (b) it holds assets in a fiduciary capacity for a broad group of outsiders as one of its primary businesses. Most banks, credit unions, insurance companies, securities brokers/dealers, mutual funds and investment banks would meet this second criterion.

25 Examples of external users of financial statements include owners who are not involved in managing the business, existing and potential creditors, and credit rating agencies.

26 See 'Who uses IFRS' section on the IASB website. That section includes detailed information about the use of IFRS by jurisdiction.

27 According to European law, as of 1 January 2015, European SMEs are enterprises which employ fewer than 250 people and which have an annual turnover not exceeding €50 million, and/or an annual balance sheet total not exceeding €43 million (see Article 2 of the Annex of the European Commission Recommendation 2003/361).

28 Figures from "Annual Report on European SMEs 2013/2014".

This is because, according to information made available by the European Commission,²⁹ in 2013:

- of the 28 member states, only one state requires the use of IFRS for all SMEs; SMEs in that state represent less than 0.2 per cent of European SMEs;
- 99 per cent of European SMEs have fewer than 50 employees; consequently, the IASB does not expect a significant number of those SMEs to apply IFRS on a voluntary basis; and
- of European SMEs with more than 50 employees (223,648 enterprises), about 50 per cent are not permitted to apply IFRS for statutory financial statements—those companies can apply IFRS, on a voluntary basis, only for consolidated financial statements.³⁰

These findings were also noted in a recent survey about the equipment and auto finance and leasing market in Germany.³¹ The survey report states the following “...any changes to International Financial Reporting Standards (IFRS) will mainly affect only larger companies, as 95% of customers use German generally accepted accounting principles (GAAP, or *Handelsgesetzbuch – HGB – locally*)”.

The vast majority of European SMEs will not be required to apply IFRS 16.

Exemption for leases of low-value assets

IFRS 16 does not require a company to capitalise leases of low-value assets—for example, leases of assets that, at the time of issuing IFRS 16 would have a capital value (ie new sales price) in the order of magnitude of US\$5,000 or less. A company using this exemption is required to recognise the payments for those leases as an expense typically on a straight-line basis over the lease term. This results in no change to the accounting for those leases treated as off balance sheet leases applying IAS 17.

This exemption is expected to be most beneficial for smaller companies. Even if those leases would be immaterial in the aggregate, smaller companies in particular are expected to benefit from not having to demonstrate that those leases are immaterial. This is because smaller companies with small balance sheets are likely to incur greater costs in proving that leases of low-value assets are not material (in the aggregate) than larger companies with large balance sheets.

Leaseurope conducted a survey of 3,000 European SMEs regarding the use of leasing.³² That survey indicated that those companies leased a wide range of equipment in 2013 as shown in the table on the right.

Among assets commonly leased, office furniture, personal computers and mobile phones are typically expected to qualify as low-value assets. Consequently, the IASB expects that smaller companies leasing some classes of information and communication technology (‘ICT’) and, office equipment will benefit from this exemption.

Additional information about the work performed by the IASB to assess the effects of the exemption for leases of low-value assets is reported in Section 5.3—*Key cost reliefs*.

Percentage of surveyed EU8 SMEs using leased equipment by type of asset ³³		
Machinery and industrial equipment	22.6%	✘
Passenger cars and light commercial vehicles	21.4%	✘
ICT and office equipment	20.9%	✔
Other equipment	16.3%	✘
Medium and heavy commercial vehicles	14.6%	✘
✔ Individual leased assets some of which are likely to qualify for the low-value asset lease exemption		
✘ Individual leased assets typically not of low value		

²⁹ Refer to the following documents available on the European Commission website: (a) “Use of options of the IAS Regulation by Member States – December 2013” and (b) “Annual Report on European SMEs 2013/2014”.

³⁰ SMEs located in Austria, Belgium, France, Germany, Hungary, Spain and Sweden.

³¹ Germany 2015 Asset & Auto Finance Country Survey performed by Asset Finance International in association with White Clarke Group.

³² See report “The Use of Leasing Amongst European SMEs—July 2015” prepared by Oxford Economics for Leaseurope.

³³ Sample of approximately 3,000 SMEs in France, Germany, Italy, Spain, Sweden, the UK, Poland and the Netherlands.

The IASB does not expect a large number of smaller companies to be directly affected by IFRS 16 in the light of the following:

- (a) the *IFRS for SMEs* has not been changed by IFRS 16. It continues to incorporate the previous accounting requirements for leases.
- (b) a limited number of smaller companies are required to apply full IFRS.

The IASB also expects that the exemption for leases of low-value assets will be of particular benefit for smaller companies that apply full IFRS.

Other considerations

The IASB acknowledges that a change in IFRS might subsequently result in a similar change in national GAAP applied by smaller companies when preparing financial statements.

Although the IASB's role does not include addressing territory-specific or company-specific regulations, the IASB has an ongoing dialogue with national standard-setters. The IASB will continue working with national standard-setters to raise awareness of potential issues so that they can be addressed on a timely basis.

4—Benefits

4.1—Improved quality of financial reporting

The IASB expects IFRS 16 to significantly improve the quality of financial reporting for companies with material off balance sheet leases.

Benefits for investors and analysts

The IASB concluded that recognising assets and liabilities in essence for all leases provides a more faithful representation of the financial position of a company and greater transparency about the company's financial leverage and capital employed. This is expected to enable investors and analysts to better assess the financial position and financial performance of a company.

The IASB expects IFRS 16 to improve the information available to all investors when making investment decisions. This is because, when companies applied previous lease accounting requirements, some investors adjusted for off balance sheet leases (using varied techniques) whereas others did not.

IFRS 16 is expected to reduce the need for those using financial statements to make adjustments by providing a richer set of information than was available when companies applied IAS 17, providing further insight into a company's operations and funding.

Disclosure is not enough

The IASB concluded that providing information about a company's undiscounted commitments for off balance sheet leases only in the notes to the financial statements (as required by IAS 17) is not enough. This is because that information:

- (a) is insufficient for some investors and analysts who often estimate a company's assets and lease liabilities based on the limited information available by using techniques that produce estimates that can vary widely and may not be accurate; and
- (b) is not apparent to other investors and analysts who rely on a company's balance sheet, income statement and cash flow statement to provide information about financial leverage and the asset base of a company without considering information reported in the notes.

The IASB expects investors that analyse financial information without adjusting for off balance sheet leases to be among those who benefit most from IFRS 16. The new information reported is expected to provide a better basis for decision-making.

The following paragraphs provide additional information in this respect.

The Capital Markets Advisory Committee, an investor advisory body to the IASB, stated:

*'...while a disclosure-only solution might be acceptable to expert users of financial statements, it would not be helpful to the majority of investors who require financial statements to provide them with clear information from the outset.'*³⁴

Leases create assets and liabilities

At the start of a lease, a lessee obtains an asset—the right to use an item. If payments for the right to use the item are made over time, the lessee also incurs a liability that is a financial liability.

A lack of information

Applying IAS 17, most leases were not reported on a lessee's balance sheet. Consequently, a lessee did not provide a complete picture of:

- (a) the assets it controlled and used in its operations; and
- (b) the lease payments that, economically, it could not avoid.

³⁴ See a formal recommendation regarding lessee accounting from the Capital Markets Advisory Committee (CMAC) to the IASB dated 24 October 2013 [here](#).

The significance of the information missing from the balance sheet varied by industry and region and between companies. However, for many companies, the effect on reported financial leverage is expected to be substantial.

Long-term liabilities of heaviest users of off balance sheet leases³⁵ understated by:

22%	North America
26%	Europe
32%	Asia / Pacific
45%	Latin America
27%	Africa / Middle East

For example, for a sample of retailers that ultimately went into some form of reorganisation or liquidation, the table on this page shows the extent of off balance sheet lease commitments.

This illustrates how vastly different the financial leverage and operating flexibility of companies can be when the effect of off balance sheet lease commitments is taken into account. The present value of off balance sheet lease commitments of these companies range from approximately 4 times to more than 65 times higher than the long-term debt that they reported on balance sheet.

Investors and analysts frequently adjust lessees' balance sheets

Applying IAS 17, a company provided information about off balance sheet leases in the notes to its financial statements. That information was, however, limited in content and detail.

Most investors and analysts that the IASB consulted used that information to estimate assets and liabilities arising from off balance sheet leases. Some tried to estimate the present value of future lease payments. However, because of the limited information that was available, many others used techniques such as multiplying the annual lease expense by 8 in order to estimate, for example, financial leverage and the capital employed in operations.

These adjustments were made by more sophisticated investors and analysts. Many investors, however, were not in a position to make the adjustments—they relied on data sources such as data aggregators when screening potential investments or making investment decisions.

The table on the next page shows how the estimates of property, plant and equipment, total assets and long-term financial liabilities can vary based on the information available and the techniques used, using a sample of 1,022 companies.³⁸

Retailer	Country	Off balance sheet leases		On balance sheet debt ³⁶	Off balance sheet leases (discounted) as a multiple of on balance sheet debt
		undiscounted ³⁶	discounted ³⁷		
Borders	US	\$2,796M	\$2,152M	\$379M	5.68
Circuit City	US	\$4,537M	\$3,293M	\$50M	65.86
Clinton Cards	UK	£652M	£525M	£58M	9.05
HMV	UK	£1,016M	£809M	£115M	7.03
Praktiker	Germany	€2,268M	€1,776M	€481M	3.69
Woolworths	UK	£2,432M	£1,602M	£147M	10.90

35 IASB sample described in Section 3—Companies affected by changes in lessee accounting. The percentages represent estimated off balance sheet leases (discounted) compared to long-term liabilities reported on the balance sheet, by region.

36 Based on averaged published financial statements data available in the five years before the company entered Chapter 11 (US), liquidation (UK) or bankruptcy (Germany).

37 Estimated using (a) a discount rate of 5 per cent and (b) estimated average lease terms based on information disclosed in the financial statements.

38 IASB sample described in Section 3—Companies affected by changes in lessee accounting.

This table shows both the magnitude of the additional amounts that will be recognised and the variation in amounts estimated depending on the estimation technique used.

(in millions of US\$)	Reported on balance sheet	If all leases on balance sheet (IFRS 16)	Common market practice (annual lease expense x 8)
Property, plant and equipment	9,605,642	11,267,429	12,228,670
Total assets	30,943,502	32,605,289	33,566,531
Long-term financial liabilities	6,440,942	8,102,729	9,063,971
Long-term financial liabilities to equity ratio	59%	74%	82%

See Appendix A to this document for information about the assumptions used to estimate the amounts shown in this table. See page 58 for information about long-term financial liabilities by industry sector.

Some investors and analysts also adjust lessees' income statements

Most investors and analysts that the IASB consulted view leases as creating 'debt-like' liabilities. Accordingly, many view future lease payments as incorporating an interest component.

Applying IAS 17, a company presented expenses related to off balance sheet leases within operating expenses.

When assessing a company's performance, some investors and analysts adjusted a company's income statement, increasing reported operating profit by removing an estimate of interest on off balance sheet leases from operating expenses. Others removed the entire lease expense related to off balance sheet leases from operating profit (as well as adjusting for depreciation, amortisation and interest—EBITDAR), in an attempt to improve comparability between companies that borrow to buy assets and those that lease them.

The table on the right shows how the estimate of (a) profit before interest and tax and (b) profit margin (ie profit before interest and tax to total revenue) can vary based on the information available and the techniques used, using a sample of 1,022 companies.³⁹

(in millions of US\$)	Reported figures	If all leases on balance sheet (IFRS 16)	Common market practice (¹ / ₃ annual lease expense = interest)
Interest expense for off balance sheet leases	n.a.	83,089	109,293
Profit before interest and tax	2,198,689	2,281,778	2,307,982
Profit before interest and tax / total revenue	10.19%	10.58%	10.70%

See Appendix A to this document for information about the assumptions used to estimate the amounts shown in this table.

Credit rating agency methodology for off balance sheet leases

In June 2015, Moody's updated the methodology used in its rating analysis for non-financial corporates globally.⁴⁰ One of the main changes related to a revised standard adjustment for off balance sheet leases as described on the next page.

³⁹ IASB sample described in Section 3—Companies affected by changes in lessee accounting.

⁴⁰ See 'Announcement: Moody's updates its global methodology for financial statement adjustments' dated 15 June 2015.

Credit rating agency methodology for off balance sheet leases

Moody's recently reviewed its methodology regarding the adjustments to reported information for off balance sheet leases. As a consequence, the adjustments used align more closely with IFRS 16.

	Balance sheet	Income statement and cash flow statement
Former approach	<p>The former approach used to capitalise off balance sheet leases focused on a multiple that varied by industry (between 5 times and 8 times annual rent), and that was derived by estimating the typical remaining useful life for leased assets in each industry. The adjustment to debt (and leased assets) was the higher of this amount and the estimate of the present value of minimum lease commitments. The former approach aimed to replicate a scenario in which a company borrows to buy assets rather than leasing them.</p>	<p>Applying the former approach for the income statement adjustment, one-third of the off balance sheet lease expense was reclassified to interest expense and two-thirds to depreciation.</p>
Revised approach	<p>The revised approach reflects the view that the analysis of the effect of leases on credit quality should recognise that companies have greater legal and financial flexibility when employing leases than would be the case if they had issued debt to finance the purchase of assets. The revised approach focuses on the minimum obligation arising from off balance sheet lease commitments. While the credit rating agency continues to compare an estimate of the present value of a company's minimum lease commitments to the industry multiple of annual rent and use the greater of these two amounts, it also uses lower industry multiples for almost all industries (between 3 times and 6 times annual rent, with most industries using a multiple of 3 times).</p>	<p>Applying the revised approach, the credit rating agency continues to reclassify the expense related to off balance sheet leases to interest and depreciation. However, instead of allocating one-third of the expense related to off balance sheet leases to interest expense, the credit rating agency multiplies the off balance sheet lease debt adjustment by an interest rate that represents a theoretical average borrowing cost for each issuer based upon its rating, with the remaining portion of the expense related to off balance sheet leases allocated to depreciation. The change to the calculation of the income statement adjustment flows through to the cash flow statement.</p>
Practical implications	<p>Applying the revised methodology, the present value calculation is the basis for the off balance sheet lease debt adjustment for many more companies than was the case applying the former approach. This methodology is similar to the outcome applying IFRS 16 for a larger number of companies.</p>	<p>The revised methodology—calculating the interest component of payments relating to off balance sheet leases by applying a discount rate to the lease liability—is similar to the outcome applying IFRS 16.</p>

The credit rating agency announced that the revised methodology is expected to have a greater effect on industry sectors in which leases represent a large amount of the adjusted debt estimated by the credit rating agency, such as retail, airlines and shipping.

The credit rating agency also announced that the revised approach for leases may result in:

- (a) an average reduction in the adjusted debt estimated by the credit rating agency of about 5 per cent across all non-financial corporates globally; and
- (b) positive rating actions for approximately 3 per cent of non-financial corporates globally, or about 100 issuer families. The effect is expected to be positive for companies where the reduction in adjusted debt results in a relatively large improvement in financial ratios.

Benefits for companies

The IASB expects that companies will also benefit from the improved quality of financial reporting of leases when applying IFRS 16.

More level playing field

As discussed earlier in this section, when companies applied IAS 17, investors and analysts sometimes estimated lease liabilities for off balance sheet leases at higher amounts than they would be if measured more precisely.

Consequently, the IASB expects some companies to benefit from the more precise measurement—a company's reported financial position is expected to be more accurate applying IFRS 16 as compared to the financial position adjusted by investors and analysts applying IAS 17. This is expected to result in a more level playing field for all companies.

'Non-GAAP' information

Applying IAS 17, some companies *chose* to provide 'non-GAAP' information that adjusted reported figures to reflect off balance sheet leases. Some of the companies who made such adjustments have told the IASB that they did this either because they view leases as a significant source of financing or were responding to requests for that information from investors, analysts or other users of their financial statements. Companies adjusted the reported figures by capitalising off balance sheet lease commitments. Some also apportioned the expense related to off balance sheet leases into interest and depreciation, or apportioned the cash flows for off balance sheet leases into interest and principal repayments. In addition, those companies typically calculated lease-adjusted leverage ratios by adjusting (a) debt (to capitalise off balance sheet leases) and also (b) earnings (to add back rental expense for off balance sheet leases (for example, EBITDAR)). This resulted in a leverage ratio calculated on a basis similar to that which will be provided by IFRS 16 (ie EBITDA applying IFRS 16 excludes all expenses related to leases, so EBITDA applying IFRS 16 corresponds to EBITDAR applying IAS 17). Consequently, for those companies, the IASB expects that there will no longer be a need to present lease-adjusted 'non-GAAP' information after IFRS 16 is effective.

Improved decision-making

The IASB expects that companies with significant off balance sheet leases will benefit from managing all leases in the same way for purposes of financial reporting. Although companies already have all relevant information available to them about their leases, the IASB thinks that it is possible that some companies paid less attention to the efficiency of their leases, especially if lease decisions are decentralised. Because IFRS 16 requires the recognition of lease assets and lease liabilities, companies are required, for example, to determine the discount rate charged in a lease. On the basis of this information, companies may identify improvements in how they finance and operate their businesses. In addition, the IASB has been told that some companies manage their capital structure internally as if all leases were reported on balance sheet (for example, they view lease obligations as being equivalent to long-term debt). Some companies also internally assess lease acquisitions using the same process as for asset acquisitions and capital budgeting. For those companies, the IASB expects management information for leases to be aligned with the financial reporting information provided by IFRS 16.

4.2—Improved comparability

The IASB expects IFRS 16 to significantly improve the comparability of financial information. This is because companies will:

- recognise assets and liabilities, in essence, for all leases;
- measure all lease assets and all lease liabilities in the same way; and
- recognise only the rights that are obtained, and the liabilities that are incurred, through a lease.

As a result, financial statements will reflect the differing operating decisions made by different companies.

When a lease is economically similar to borrowing to buy an asset (for example, a lease of a new aircraft for 20+ years), then the amounts reported applying IFRS 16 will be similar to the amounts that would be reported if the company were to borrow to buy the aircraft.

However, when a lease is economically different from borrowing to buy an asset (for example, a lease of a new aircraft for seven years) then the amounts reported applying IFRS 16 will reflect those different economic decisions. The assets and liabilities reported will be less than would be reported if the company were to borrow to buy the aircraft. In this scenario, the company's right to use the aircraft for seven years is substantively different from the rights that it would obtain if it were to buy the aircraft. Accordingly, the amounts recognised applying IFRS 16 are expected to be substantively different from borrowing to buy that asset.

Comparison between companies

The table below sets out the estimated effects of off balance sheet leases for two companies in the airline industry—ie an industry that uses property, plant and equipment intensively. Airline 2 leases about 70 per cent of its aircraft and Airline 1 less than 10 per cent. Important information used by investors and analysts (for example, total assets and long-term liabilities) can be significantly affected by the off balance sheet treatment of leases.

	Airline 1 (leases <10% of aircraft)		Airline 2 (leases ≈70% of aircraft)	
	Reported on balance sheet (IAS 17)	If all leases on balance sheet ⁴¹ (IFRS 16)	Reported on balance sheet (IAS 17)	If all leases on balance sheet ⁴¹ (IFRS 16)
Property, plant and equipment	16,908	19,926	15,748	24,020
Long-term liabilities	13,232	16,567	9,615	18,320
Equity	6,719	6,402	5,604	5,171
Ratio of long-term liabilities to equity	2.0:1	2.6:1	1.7:1	3.5:1

⁴¹ The figures included in the “if all leases on balance sheet (IFRS 16)” columns are estimates using assumptions about the discount rate and average lease term of leases held by each company.

The table on the previous page contrasts the figures reported by the companies (applying IAS 17) with the figures adjusted for the estimated effects of off balance sheet leases (applying IFRS 16).

The amounts reported applying IAS 17 show that Airline 1 has higher financial leverage and a higher asset base compared to Airline 2, when in fact the opposite is true, taking into account the off balance sheet leases.

Applying IAS 17, the absence of information about leases on the balance sheet meant that investors and analysts could not properly compare companies without making adjustments.

Leases and borrowings to buy assets

As noted above, the accounting for leases and borrowings to buy assets will be more comparable applying IFRS 16. The IASB is aware that this is a comparison in which investors and analysts are interested.

Nonetheless, even when applying IFRS 16, companies that borrow to buy assets often will not report the same amounts in the balance sheet and income statement as companies that lease assets.

Applying IFRS 16, a company will recognise as an asset only the rights obtained through a lease.

This means that the amount recognised as an asset arising from a lease is expected to be different from the amount that would be recognised if the leased item were purchased—unless the lease is for the entire economic life of the item. This is because, for example, the amount paid for a lease would not include the residual value of the leased item at the end of the lease, for which the company has no risks and will obtain no benefits.

The IASB concluded that this is appropriate because, even though economically similar, leases and borrowings to buy assets are not the same transactions.

Through a lease, a company controls the right to use the leased item, but typically does not control the leased item itself. The company also has a liability, but only for the payments specified in the lease. IFRS 16 appropriately reflects the financial flexibility provided by leases as mentioned in the ‘credit rating agency methodology for off balance sheet leases’ in Section 4.1—*Improved quality of financial reporting*.

Recognising assets and liabilities arising from leases improves comparability between companies that lease assets and companies that borrow to buy assets, while also reflecting the economic differences between these transactions.

The following table shows that a company’s asset comprises different rights if the company purchases, or leases, an item.

	Lease	Purchase
Right to use the item	✓	✓
Right to sell and to pledge the item		✓
Right to lease / sublease the item	✓	✓
Legal title to the item		✓

On and off balance sheet leases

One of the main criticisms of IAS 17 was the significant difference in lessee accounting between finance leases (reported on balance sheet) and operating leases (accounted for off balance sheet).

This meant that two leases that were very similar from an economic perspective could be reported very differently.

The accounting depended on various factors such as comparing the lease payments to the fair value of the asset, the assessment of which required the application of judgement. A small difference in the terms and conditions of leases could result in very different accounting. This reduced comparability between companies and provided opportunities to structure transactions to achieve a particular accounting outcome.

IFRS 16 is expected to reduce opportunities to structure leasing transactions to achieve off balance sheet accounting.

Applying IAS 17, most leases did not result in the recognition of lease assets and lease liabilities. Consequently, companies with very different off balance sheet leases (for example, a retailer with a portfolio of 25-30 year off balance sheet leases and a retailer with a portfolio of five to seven year off balance sheet leases) might look very similar in terms of both their reported financial position and their financial performance.

Applying IFRS 16, those differences in lease portfolios will be reflected in the amounts reported on the balance sheet.

Changes in the lease portfolio

The IASB expects IFRS 16 to provide better information about changes in a company's financial flexibility when it extends or shortens the length of its leases.

Applying IFRS 16, any change in a company's lease portfolio is reflected on its balance sheet. Applying IAS 17, such a change was reflected on the balance sheet only if leases were classified as finance leases, or operating leases were modified to become finance leases or vice versa.

For example, assume a company changed its lease portfolio in such a way that the portfolio consisted of 15-year off balance sheet leases rather than five-year off balance sheet leases.

This change in the economic position and commitments of the company would not have been reflected in the reported assets and liabilities of the company applying IAS 17. This change also might not have been evident from the company's income statement or cash flow statement (it might have been reflected only in the disclosure of off balance sheet lease commitments).

In contrast, applying IFRS 16 the change in the economic position and commitments of the company is reflected on the company's balance sheet, which flows through to the income statement and cash flow statement.

Sale and leaseback transactions

When a company changed the size of its lease portfolio by, for example, deciding to sell assets that it owned and leasing those assets back under off balance sheet leases, this significantly changed the company's reported assets and liabilities applying IAS 17 when, economically, the company might have been in a similar position (ie continuing to use the same assets in its business). The company's balance sheet would have implied a smaller asset base and less financial debt.

In contrast, applying IFRS 16, the company reports its rights to use those same assets, together with its financial commitments to make payments for that use.

The IASB expects the number of sale and leaseback transactions to decrease with the implementation of IFRS 16. This is because IFRS 16 reduces the incentive for companies to enter into such transactions by requiring the recognition of assets and liabilities arising from the leaseback, and restricting the amount of any gain recognised on sale of an asset.

Simplified measurement of leases

Applying IFRS 16, a company measures lease liabilities at the present value of future lease payments. However, to reflect the flexibility obtained by a company and to reduce complexity, lease liabilities include only economically unavoidable payments and there is a simplified approach to deal with variability in payments—ie lease liabilities include fixed payments (including inflation-linked payments), and only those optional payments that the company is reasonably certain to make; lease liabilities exclude variable lease payments linked to future use or sales.

The IASB considered whether the information provided about leases applying IFRS 16 would be incomplete because of the simplifications to the measurement of leases. The requirements of IFRS 16 for variable lease payments and options could be viewed as causing the accounting for some economically similar contracts to be less comparable.

Variable lease payments

For example, two leases of a similar retail outlet may be for the same lease term, with (a) lease payments being fixed for one lease and linked to sales for the other; and (b) variable lease payments for the second lease expected to be about the same as the fixed payments for the first lease.

Applying IFRS 16, those two leases are reported differently. This is because only fixed payments are included in the measurement of lease assets and lease liabilities.

Those two contracts could be viewed as economically similar transactions that should be reported in the same way. However, even though both leases may result in the same cash outflows, the companies are in different economic positions. For example, if there is an economic downturn resulting in lower than expected sales, the company committed to make variable lease payments would make correspondingly smaller lease payments than the company committed to make fixed lease payments. The opposite would apply in the case of significant growth.

The IASB concluded that this difference in the contractual commitments of a company is best reflected by reporting different assets and liabilities for those two contracts.

Optional payments

To take another example, assume a company enters into a five-year lease with an option to extend it for three years. If the company's business performs as projected in the first five years, the company intends to exercise the option but it is not reasonably certain to do so at the start of the lease.

Applying IFRS 16, the company reports assets and liabilities arising from that lease (ie assets and liabilities relating to the five-year non-cancellable term) that are different from those reported by a company who enters into a lease of a similar asset for a non-cancellable term of eight years.

Those two contracts could be viewed as being economically similar transactions, for which similar assets and liabilities should be reported. There is, however, an important difference between the two contracts with respect to the financial flexibility provided by one contract (the ability to terminate the lease after five years) but not by the other.

The IASB concluded that this financial flexibility is best reflected by reporting different assets and liabilities for those two contracts. Nonetheless, IFRS 16 requires a company to consider all relevant facts and circumstances that create an economic incentive for the company to exercise options when determining the term of a lease. This requirement ensures that when the two transactions above are in fact economically aligned (for example, the terms and conditions are such that the company is reasonably certain to exercise the extension option), the accounting will be similar.

5—Costs

5.1—Implementation costs

Costs for companies

The IASB expects companies with material off balance sheet leases to incur costs when implementing IFRS 16.

The IASB does not expect costs to be higher for leases classified as finance leases applying IAS 17 ('on balance sheet leases'), either when implementing IFRS 16 or on an ongoing basis. This is because the accounting for those leases does not change substantially (refer to Section 2—*Changes to the accounting requirements*).

The likely implementation costs that the IASB has identified are the following:

- (a) set up of systems and processes;
- (b) determining the discount rate; and
- (c) communication and education.

The significance of the implementation costs depends on the size of a company's lease portfolio, the terms and conditions of those leases and the systems already in place to account for leases applying IAS 17.

Systems changes

The IASB expects that companies with material off balance sheet leases will incur costs in setting up systems to apply IFRS 16. Although the information required to apply IFRS 16 is similar to that required to apply IAS 17, companies may need to adapt their systems to gather that information on a more frequent basis than was required when the information was needed only for disclosure purposes.

The IASB expects that companies with on balance sheet leases will use their existing systems for those leases as the starting point when accounting for all leases in accordance with IFRS 16.

Companies that have less sophisticated systems in place to manage and track leases are expected to incur more significant costs than companies that have sophisticated systems.

Many companies already have systems in place to manage and track leases, which should help to mitigate the costs of implementing IFRS 16. This is because the information required to provide the note disclosures required by IAS 17 is similar to that required to apply IFRS 16, except that a company must also determine the discount rate for each lease applying IFRS 16. Accordingly, the systems in place are likely to already provide most of the information required to apply IFRS 16.

Other companies do not have sophisticated systems in place to manage and track leases. For those companies, the costs of implementing IFRS 16 are likely to be higher. Those companies may have to implement or upgrade IT systems. Software vendors offer lease management systems, and the IASB is aware that at least some of those vendors are adapting systems to take account of the lessee accounting requirements in IFRS 16.

The accounting applying IFRS 16 results in a company depreciating lease assets in the same way as other fixed assets and measuring lease liabilities similarly to other financial liabilities. Consequently, the IASB thinks that some companies could use (a) existing fixed asset information systems to account for lease assets; and (b) existing debt systems to account for lease liabilities (although the existing debt systems of some companies may be unable to cope with the volume of leases).

The case studies in Appendix B to this document illustrate the likely steps to be taken, and the likely costs to be incurred, by companies in implementing IFRS 16.

Process for identifying a lease

The IASB expects that, in order to provide the disclosures required by IAS 17, companies already have an inventory of leases. When first applying IFRS 16, companies are not required to reassess existing contracts to determine whether they contain a lease applying IFRS 16. Accordingly, a company is expected to incur costs in identifying leases within existing contracts only when the company chooses to reassess those contracts because it perceives the benefits of the reassessment to be greater than the related costs.

For contracts entered into after the initial implementation, the IASB expects some companies to incur costs in assessing whether contracts contain a lease. Any costs are expected to relate mainly to developing a process to assess whether contracts contain a lease applying IFRS 16 and, accordingly, are expected to be incurred when first implementing IFRS 16.

In the vast majority of cases, the assessment of whether a contract contains a lease is expected to be straightforward. However, in some scenarios—for example, when both the customer and the supplier make decisions about the use of an item—the assessment may require judgement.

Consequently, the significance of the implementation costs will depend on the complexity of contracts within a company's lease portfolio.

Process for separating leases and services

It is common for contracts to contain both the right to use an asset or assets (lease components) and services (service components).

The IASB expects some companies to incur costs in separating the amounts paid for the lease and the services within multiple-element contracts in applying IFRS 16.

Applying IAS 17, companies were required to separate lease components and service components of a contract. However, the accuracy of the separation and allocation of payments to components will become more important when applying IFRS 16 because of the differences in accounting for leases and services.

In response to feedback received and to provide cost relief, IFRS 16 permits a company to choose either to:

- (a) separate the amounts paid for the lease and the services and then capitalise only the amounts paid for the lease; or
- (b) not separate lease and service components and instead account for them together as a lease.

For those who choose to separate lease and service components, the IASB expects that, for many contracts, practice will evolve whereby lessors will provide the information required by companies to make this allocation.

Information needed

Once a company's systems and processes are in place, the IASB expects relatively little incremental ongoing cost to be incurred by companies in capturing the information needed to apply IFRS 16 compared to IAS 17.

The following table provides a summary of information that a company needs to apply IFRS 16 both on implementation and on an ongoing basis, indicating the information that is already needed to apply IAS 17 properly.

The IASB expects that obtaining the additional information to implement IFRS 16 will be manageable for companies. This is because the three-year implementation time available between the issuance of IFRS 16 and its effective date, and the reliefs available on transition to IFRS 16, are expected to be adequate for companies to establish processes and systems to capture the information needed.

The IASB expects that the majority of information required to apply IFRS 16 is already available in an accessible form. This is because that information is used for accounting and disclosure purposes applying IAS 17. However, the information may need to be gathered on a more frequent basis applying IFRS 16 than when applying IAS 17.

Information	Required to apply IFRS 16	Required to apply IAS 17	Costs to apply IFRS 16
1 Inventory of leases (separate from non-lease components of contracts)	Yes —A company is not required to separate lease and non-lease (service) components of contracts and, instead, can account for them together as a lease.	Yes —A company was not required to separate lease and non-lease (service) components of contracts containing operating leases for disclosure purposes if it is impracticable to do so.	↔ No additional costs —A company is expected to incur costs in identifying a lease for existing contracts only when it perceives the benefits of this reassessment to be greater than the related costs.
2 Terms and conditions of each lease	Yes	Yes	↔ No additional costs
3 Lease term and lease payments for each lease	Yes —A company will monitor the following separately for disclosure purposes: variable lease payments, and, if it chooses to apply the recognition exemptions in IFRS 16, short-term lease payments and low-value asset lease payments.	Yes —A company monitored variable lease payments (contingent rent) separately for disclosure purposes, and monitored payments for finance leases separately from those for operating leases.	↔ No additional costs —The requirements of IFRS 16 regarding the lease term and lease payments are similar to the requirements in IAS 17.
4 Discount rate	Yes —Required for all leases, other than short-term leases and leases of low-value assets.	Yes —Required for finance leases. No —Not required for operating leases.	↑ Additional costs for former off balance sheet leases only
5 Initial direct costs	Yes —Not required for leases commencing before the effective date.	Yes —Required for finance leases. No —Not required for operating leases.	↑ Additional costs for former off balance sheet leases only (although initial direct costs are expected to be incurred by lessees only on relatively few larger leases)
6 Revised contractual payments when a lease contains inflation-linked payments	Yes	Yes —Required to prepare disclosures of expenses in each period and to monitor lease payments being made.	↑ Additional costs —IFRS 16 requires the re-measurement of lease assets and lease liabilities to reflect changes to lease payments linked to inflation.
7 Classification of leases	No —A company will identify short-term leases and leases of low-value assets only when it considers the benefits of doing so to exceed the costs.	Yes —A company was required to classify all leases as finance leases or operating leases.	↓ Reduction in costs

Determining the discount rate

The IASB expects companies with material off balance sheet leases to incur costs in measuring lease assets and lease liabilities at the present value of future lease payments. This is mainly due to the need to determine a discount rate for each lease (other than short-term leases and leases of low-value assets), assuming that the effects of discounting are material to the company. In order to provide the disclosures required by IAS 17, companies already need to have an inventory of leases, and information about the lease term and future lease payments for each lease. Accordingly, costs are not expected to increase to gather the other information required.

To mitigate costs for off balance sheet leases existing when first applying IFRS 16, companies are permitted to use the incremental borrowing rate at the date of initial application for each portfolio of similar leases.

Communication and education

The IASB expects that companies with material off balance sheet leases will incur costs in educating staff and updating internal procedures.

Those costs are expected to be less significant for companies that have finance leases applying IAS 17, and more significant for those that do not. This is because the accounting required by IFRS 16 is similar to the accounting requirements for finance leases in IAS 17.

For some industry sectors, the IASB expects that education may be required in determining whether a contract contains a lease because of the complexity of some industry-specific agreements.

The IASB also expects that companies will incur costs in communicating significant changes to their reported information to external parties (for example, the investor community and lenders). Any costs are expected to be incurred when first communicating the changes and, accordingly, are expected to be incurred only when first implementing IFRS 16.

The IASB expects that the communication will mainly relate to explaining the effect on the particular company's reported financial information—ie companies will not need to explain the accounting. This is because the accounting applying IFRS 16 is similar to that for finance leases in IAS 17, which investors and analysts already understand and use when making adjustments for off balance sheet leases.

IFRS compared to US GAAP

The IASB expects the costs of implementing IFRS 16 to be broadly similar to those of implementing the FASB model. The IASB's considerations in this respect are reported in Section 8—*Effects of differences between IFRS and US GAAP*.

Costs for other stakeholders

As with all new requirements, there will be a period of education and adjustment for users of financial statements, during which they may incur costs. Those costs may include costs to modify their processes and analyses. However, the costs are likely to be non-recurring, and are expected to be significantly outweighed by the longer-term benefits of having more transparent and accurate information provided by IFRS 16 about off balance sheet leases.

In the IASB's view, the greater comparability and consistency of reporting leases applying IFRS 16 justifies the costs that users of financial statements and others may initially incur.

Investors and analysts

The IASB expects the cost of analysis for investors and analysts to decrease once they have updated their methodologies to analyse a lessee's financial statements. This is because the IASB expects the information about off balance sheet leases reported by companies applying IFRS 16 to be more accurate than the estimates previously developed by many investors and analysts (for example, estimates of the present value of off balance sheet lease commitments and estimates of the interest expense related to those commitments).

The IASB expects many investors and analysts (including some of those who made adjustments for off balance sheet leases applying IAS 17) to rely solely on the improved information provided in the balance sheet, income statement and cash flow statement. However, other investors and analysts are expected to continue to make adjustments to suit their needs, but those adjustments are expected to be made on the basis of more useful information available in a company's financial statements (including in the notes).

Regulators and tax authorities

The IASB expects regulators and tax authorities to incur costs relating to IFRS 16 if their respective regulations depend on the accounting in IAS 17. This is because they may need to consider the effect of this change in accounting on their requirements.

The associated costs are expected to vary by jurisdiction based on local requirements.

5.2—Ongoing costs

The IASB expects companies to incur costs in applying IFRS 16 on an ongoing basis.

However, once a company has updated its systems to provide the information required by IFRS 16, the IASB expects costs to be only marginally higher compared to those incurred when applying IAS 17 (refer to the table of information that a company needs to apply IFRS 16 in Section 5.1—*Implementation costs*).

The data required to apply IFRS 16 is similar to that needed to provide note disclosures for off balance sheet leases applying IAS 17, with the exception of needing discount rates to apply IFRS 16. Consequently, the IASB expects the main ongoing costs to arise from gathering the information needed on a timely basis so that lease assets and lease liabilities are reported at each reporting date.

Single lessee model

Unlike IAS 17, IFRS 16 does not require a company (that is a lessee) to classify its leases (for example, as a finance lease or an operating lease).

Consequently, the IASB expects this change to *reduce costs* compared to IAS 17, particularly for those contracts for which lease classification was complicated and required the application of judgement.

A change that the IASB expects to *increase costs* compared to IAS 17 is the requirement in IFRS 16 to discount lease obligations for former off balance sheet leases. A company is required to determine discount rates for each new or modified lease (other than short-term leases and leases of low-value assets), assuming that the effects of discounting are material to the company.

Remeasuring the lease liability

Because of simplifications made to the reassessment requirements of IFRS 16 in response to feedback received, the IASB expects that companies will not need to reassess many lease liabilities. Nonetheless, because some leases are required to be reassessed, the IASB expects some companies to incur costs to remeasure lease liabilities over the term of the lease.

Extension and termination options

The IASB is of the view that, even when a lease contains options to extend or terminate the lease, the remeasurement of the lease liability is unlikely to be onerous because the threshold for reassessment is high.

In essence, IFRS 16 requires reassessment of the lease term after its initial determination only when the company takes actions that could have a significant effect on the lease term. Accordingly, changes to the lease term—and thereby a reassessment of the discount rate and lease payments—are expected only in a small number of cases.

Inflation-linked payments

The IASB expects that costs of remeasuring lease liabilities will arise mainly in relation to leases that include inflation-linked payments.

Some type of leases will be more affected than others in this regard (for example, real estate leases with lease payments linked to changes in the Consumer Price Index). The significance of the costs is expected to depend on the frequency of the change in payments, the number of contracts affected and the systems used to manage leases and capture lease information.

In response to feedback received and to reduce cost and complexity, IFRS 16 requires companies to reassess inflation-linked payments only when there is a contractual change in the cash flows; thus when the change in the inflation rate or index ‘resets’ the cash flows, rather than at each reporting date.

The IASB thinks that this is an effective way to reflect the changes in lease payments and thus provide relevant information about lease assets and lease liabilities, without involving undue costs for a company. This is because a company will reassess lease assets and lease liabilities only when it already knows the actual change in contractual lease payments. It, therefore, removes the complexity of estimating future inflation-linked payments.

Disclosure

The costs of applying the lessee disclosure requirements in IFRS 16 will depend on a company’s lease portfolio.

For example, the IASB expects that higher costs will be incurred by companies that have complex features in their lease contracts and for which leasing is significant to the company. However, for companies with simple leases, the IASB thinks that the information disclosed could be derived from a company’s existing systems (such as its general ledger system) with little ongoing cost. In that case, the ongoing costs incurred are expected to be the same as, or lower than, those incurred when applying IAS 17.

The IASB expects companies to apply judgement in determining the extent to which disclosures should be provided. Accordingly, companies are generally not expected to incur costs in complying with disclosure requirements that are not relevant to users of their financial statements.

5.3—Key cost reliefs

Similarly to other Standards, IFRS 16 does not provide explicit guidance on materiality about particular transactions and events. The concept of materiality in the *Conceptual Framework for Financial Reporting* and in IAS 1 *Presentation of Financial Statements* applies to IFRS 16 as it does to other Standards.

Accordingly, the IASB expects a company to apply a similar materiality methodology to leases as it does to items of property, plant and equipment—whereby companies often do not capitalise the costs of purchasing items of property, plant and equipment when that cost is less than a particular amount. This is expected to result in a company not applying the recognition and measurement requirements in IFRS 16 to leases considered to be immaterial to its IFRS financial statements.

The IASB also expects that some companies may measure lease assets and lease liabilities at the amount of future lease payments (rather than at the present value of those payments) if the effect of discounting is not material to the company's IFRS financial statements.

In addition, IFRS 16 includes some exemptions from recognition on the balance sheet, in particular to address concerns about the costs of applying the requirements to large volumes of small items.

The exemptions apply to leases that are 'low-value' because of their length (short-term leases) or because of the nature of the asset being leased (leases of low-value assets).

Exemptions

IFRS 16 permits a company to elect not to recognise assets and liabilities for:

- 1 leases of 12 months or less (ie short-term leases);
- 2 leases ending within 12 months of the date of first applying IFRS 16; and
- 3 leases of low-value assets (such as personal computers and office furniture).

Instead, a company using any one of these exemptions is required to:

- (a) continue to account for those leases as for off balance sheet leases in IAS 17. Consequently, a company continues to recognise payments for those leases as an expense in the income statement typically on a straight-line basis over the lease term. This results in no change to the accounting for those contracts treated as operating leases applying IAS 17.
- (b) disclose the expenses for those leases, if material.

On the basis of the feedback received, the IASB is of the view that providing those exemptions is a way of providing substantial cost relief for potentially high volumes of low-value leases without any significant effect on the improvements introduced by IFRS 16.

Leases of low-value assets

The IASB performed outreach to assess the effects of the exemption for leases of low-value assets. The IASB selected a global sample of 31 lessees from different industries and 21 lessors—lessors were included in the sample to obtain information about their customers. The IASB requested information about leases of low-value assets such as the classes of assets leased, contract volumes, lease amounts, lease classification applying IAS 17 and lease term.

At the request of some companies included in the sample, the IASB provided a threshold of US\$5,000 in terms of the value of the underlying asset (when new) to help those companies identify the leased assets that might be captured by the exemption.

The IASB received the following responses to the outreach performed:

No. of companies	Lessees	Lessors
Requests sent	31	21
Responses received	25	17
– of which quantifiable*	17	n.a.

* Responses were considered quantifiable if it was possible to estimate the value of leases of low-value assets as a percentage of total non-current assets and non-current liabilities of the company

The IASB estimated leases of low-value assets as a percentage of total non-current assets and non-current liabilities based on information provided by 17 lessee respondents together with their reported financial information. This data is summarised as follows.

Value of leases of low-value assets as a percentage of total non-current assets and non-current liabilities

No. of companies	Non-current assets**	Non-current liabilities**
Less than 0.05%	8	7
0.05% – 0.10%	3	2
0.10% – 0.50%	3	4
0.50% – 1.00%	2	2
1.00% – 4.50%	1	2
Total	17	17

** Total non-current assets and non-current liabilities as reported, plus an estimate of discounted off balance sheet lease commitments

The table above shows that for almost all companies that provided quantifiable responses, leases of low-value assets represent less than 1 per cent of the total non-current assets and non-current liabilities.

Approximately half of the 25 lessee respondents explicitly mentioned that all of their identified low-value assets would be considered to be immaterial in the aggregate. Consequently, the exemption is not expected to have any effect on their reported figures. Several of these lessees were those that did not provide any quantitative data because they considered all leases that could potentially be captured by the exemption to be immaterial. These respondents were typically large companies for which materiality is likely to be assessed at a significantly higher level than the low-value asset exemption.

Some other respondents noted, however, that, without the exemption, they would be required to demonstrate that these leases are not material in the aggregate. Consequently those respondents expressed the view that the exemption would provide cost relief even if leases of low-value assets were not material to the company.

Refer to Section 3—*Companies affected by changes in lessee accounting* for additional information about the effects of the low-value asset exemption on smaller companies.

Simplifications and practical expedients

IFRS 16 also includes some simplifications and practical expedients to provide cost relief for companies both when implementing IFRS 16 and on an ongoing basis.

Combining lease and services

IFRS 16 requires a company to separate lease components and non-lease (service) components of a contract, unless it applies a practical expedient whereby it is not required to separate a lease component from any associated non-lease components. The IASB decided to permit this practical expedient for cost benefit reasons and in response to requests from companies not to require separation in all scenarios. In the IASB's view, the practical expedient will reduce cost and complexity for some companies, while not creating significant issues of comparability. This is because, in general, a company is not expected to adopt the practical expedient for leases with significant service components because that would significantly increase the company's lease liabilities. The IASB expects that companies are likely to adopt this practical expedient when the service components of the contract are relatively small.

Variable lease payments and optional payments

IFRS 16 has simplified measurement requirements for lease assets and lease liabilities. In particular:

- (a) for variable lease payments, those linked to future sales from, or use of, the leased item are excluded from the measurement of lease assets and lease liabilities. Instead, these costs are recognised as expenses in the period in which they are incurred. Inflation-linked payments are included as part of lease liabilities, however they are measured in a simplified way—the measurement is based on the current contractual payments (and, thus, does not require a company to forecast future inflation).
- (b) for optional payments, such as those relating to extension options, those payments are also excluded from the measurement of lease assets and lease liabilities unless the company is reasonably certain to exercise the option.

Transition—comparative amounts

The IASB decided that companies adopting IFRS 16 should not be required to restate comparative information when first applying IFRS 16. This is expected to significantly reduce a company's costs when first implementing IFRS 16.

Transition—measurement of lease assets relating to former off balance sheet leases

IFRS 16 permits a company to choose how to measure lease assets relating to off balance sheet leases when first implementing IFRS 16.

A company can either measure lease assets as if IFRS 16 had always been applied or at an amount based on the lease liability. The IASB expects that measuring the lease asset based on the lease liability will reduce implementation costs because a company would not need to capture historical information, such as lease start dates and historical payment schedules. However, lease assets are expected to be initially measured at a higher amount applying this method than if measured as if IFRS 16 had always been applied. Thus, the effect of choosing the least costly option is expected to be an increase in operating expenses (ie higher depreciation) for the remainder of the term of the lease. Consequently, the IASB expects that a company will select this option only for leases for which the costs of applying a more accurate transition approach outweigh the benefit of achieving a 'correct' post-transition income statement.

6—Effects on a company's financial statements

6.1—Effects on the balance sheet

The IASB considered the effect that IFRS 16 will have on a company's balance sheet.

Effects on the balance sheet

↑ **Lease assets**

↑ **Financial liabilities**

↓ **Equity**

For companies that have material off balance sheet leases, IFRS 16 is expected to result in an increase in lease assets and financial liabilities.

The carrying amount of lease assets will typically reduce more quickly than the carrying amount of lease liabilities. This will result in a reduction in reported equity compared to IAS 17 for companies with material off balance sheet leases. This is similar to the effect on reported equity that arises from financing the purchase of an asset, either through a former on balance sheet lease or a loan.

The examples in Appendix C illustrate this.

Effects on assets and liabilities

IFRS 16 requires a company to report on the balance sheet lease assets and lease liabilities for all leases (other than short-term leases and leases of low-value assets).

For companies with material off balance sheet leases, the IASB expects the most significant effect of IFRS 16 to be an increase in lease assets and lease liabilities.

The newly recognised lease asset—the right-of-use asset—is a non-current non-financial asset, and the lease liability is part of current and non-current financial liabilities, depending on the timing of lease payments. Accordingly, the IASB expects key financial ratios derived from a company's reported assets and liabilities to change as discussed in Section 6.5—*Effects on key financial metrics*.

Refer to the following sections for quantitative information about the effects of IFRS 16 on assets and liabilities for a sample of companies:

- Section 3—*Companies affected by changes in lessee accounting* (off balance sheet leases over total assets by industry sector);
- Section 4.1—*Improved quality of financial reporting* (effects of IFRS 16 on property, plant and equipment and long-term financial liabilities);
- Section 7.1—*Effects on the cost of borrowing* (effects on long-term financial liabilities by industry sector); and
- Appendix C—*Effects on a company's financial statements: illustrative examples*.

Effects on equity

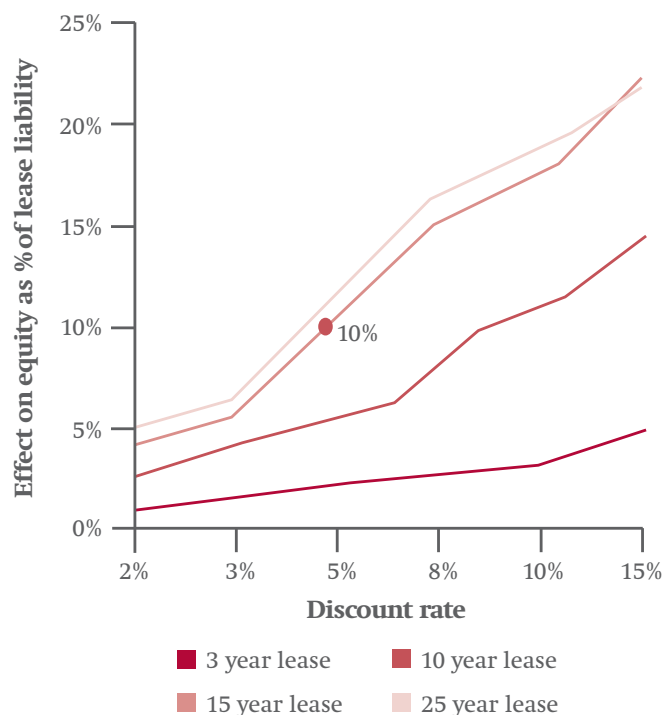
For off balance sheet leases applying IAS 17, shareholders' equity is usually reduced each period by the amount of lease payments.

The IASB expects IFRS 16 to affect reported equity as described below.

Applying IFRS 16 to an individual lease, the carrying amount of the lease asset would typically reduce more quickly than the carrying amount of the lease liability. This is because, in each period of the lease, the lease asset is typically depreciated on a straight-line basis, and the lease liability is (a) reduced by the amount of lease payments made and (b) increased by the interest—reducing over the life of the lease. Consequently, although the amounts of the lease asset and lease liability are the same at the start and end of the lease, the amount of the asset would typically be lower than that of the liability throughout the lease term. Because this effect is expected for each individual lease, it is also expected when considering the ‘portfolio effect’ of companies holding a mix of leases with different remaining lease terms.

Accordingly, assuming that all other factors that might affect equity are constant, for companies with material off balance sheet leases, applying IFRS 16 will typically reduce reported shareholders’ equity compared to IAS 17. The reduction in reported equity is expected to occur when a company first implements IFRS 16—ignoring other factors, reported equity would then remain constant thereafter to the extent that the company’s lease portfolio remains constant. However, the timing of the reduction in equity depends on the decisions made by a company when first implementing IFRS 16.

The chart below shows the expected effect on reported equity for various evenly distributed portfolios of leases (an evenly distributed portfolio being a portfolio with the same number of leases starting and ending in any one period, with the same terms and conditions).



For example, the chart shows that for an evenly distributed portfolio of leases with an average length of 15 years and an average discount rate of 5 per cent, lease liabilities are expected to be higher than lease assets by around 10 per cent. The diagram ignores the effect of tax. Because lease assets and lease liabilities would be different throughout the lease term, this might give rise to a deferred tax asset, which would reduce the effect on reported equity. For example, assuming (a) that cash payments related to leases are deductible for tax purposes and (b) a tax rate of 30 per cent, the effect on reported equity would be around 7 per cent for a portfolio of 15-year leases and an average discount rate of 5 per cent.

The analysis considers the effect on equity relative to lease liabilities. The effect on equity increases as lease terms lengthen and discount rates increase.

The actual effect on a company’s reported equity will depend on the company’s financial leverage, the terms of its leases and the ratio of lease liabilities to equity. This in turn depends on the proportion of assets the company owns, the proportion of assets leased and how the company finances its operations.

The IASB does not expect the effect on equity to be significant for most companies (Distributor example on pages 95–96 illustrates this). Airline and Retailer examples on pages 88–94 illustrate the expected effects for companies with significant off balance sheet leases.

6.2—Effects on the income statement

The IASB considered the following effects that IFRS 16 will have on a company's income statement:

- (a) recognition of the expense related to leases for both an individual lease and a portfolio of leases;
- (b) presentation of the expense related to leases; and
- (c) other effects.

Although the effects on the balance sheet are expected to be significant for companies with material off balance sheet leases, for many companies the overall effect on profit or loss is not expected to be significant.

IFRS 16 is expected to result in higher EBITDA and operating profit⁴² for companies that have material off balance sheet leases.

Effects on the income statement

- ↑↑ **EBITDA**
- ↑ **Operating profit and finance costs**
- ↔⁴³ **Profit before tax**

For companies that have material off balance sheet leases, IFRS 16 is expected to result in higher profit before interest (for example, operating profit) compared to the amounts reported applying IAS 17. This is because, applying IFRS 16, a company presents the implicit interest in lease payments for former off balance sheet leases as part of finance costs. In contrast, applying IAS 17, the entire expense related to off balance sheet leases was included as part of operating expenses.

The size of the increase in operating profit, and finance costs, depends on the significance of leasing to the company, the length of its leases and the discount rates applied.

The examples in Appendix C illustrate this.

Recognition—individual lease

Over the term of a lease, the expense recognised for an individual lease is the same applying IFRS 16 and IAS 17 (ie a company recognises the total cash paid for the lease as an expense in profit or loss over the lease term). However, applying IFRS 16, the total expense recognised in any individual reporting period is expected to be different from the expense recognised applying IAS 17 for an individual off balance sheet lease.⁴⁴

For an individual off balance sheet lease, the expense recognised was typically the same in each period throughout the lease term, ie a company recognised operating lease expenses typically on a straight-line basis (excluding variable lease payments). In contrast, the pattern of expense recognition for leases applying IFRS 16 depends on the length of the lease term, the timing of lease payments and the rate charged in the lease.

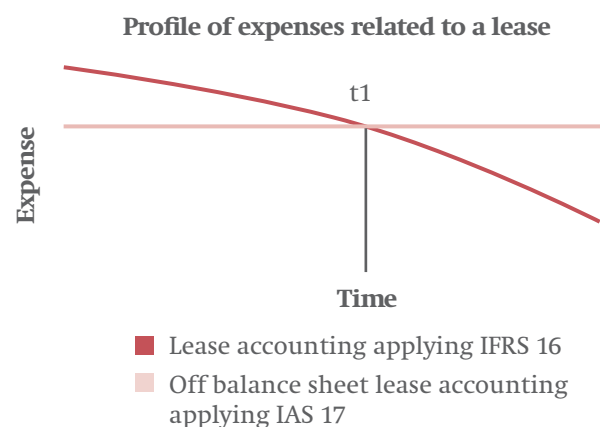
Applying IFRS 16, the sum of the interest expense and the depreciation charge during the first half of the lease term is generally expected to be higher than a straight-line expense for off balance sheet leases recognised applying IAS 17. The opposite is expected to be true in the second half of the lease term—ie the sum of the interest expense and the depreciation charge during the second half of the lease term is generally expected to be lower than a straight-line expense for off balance sheet leases.

⁴² IFRS does not define terms such as EBITDA and operating profit that are commonly used to measure the profitability of a company—accordingly, those terms are defined independently of IFRS requirements.

⁴³ Little change expected for many companies because of the effect of holding a portfolio of leases—see sub-section on 'recognition—portfolio of leases' within this section.

⁴⁴ With the exception of short-term leases and leases of low-value assets for which the expense profile is unchanged applying IFRS 16 compared to the profile for off balance sheet leases applying IAS 17.

This is because the depreciation of the lease asset typically will be recognised on a straight-line basis while the interest expense generally decreases over the lease term as the lease liability decreases.



The expense profiles applying IFRS 16 and IAS 17 are shown in the chart for an individual lease (assuming lease payments are even throughout the lease term).

The chart shows the following:

- (a) the sum of interest and depreciation on a lease applying IFRS 16 is higher than a straight-line expense for off balance sheet leases at the beginning of the lease term and lower at the end of the lease term.
- (b) the point at which interest plus depreciation is equal to the straight-line off balance sheet lease expense (t1 in the chart) occurs somewhere after the mid-point of the lease. This is also the point at which the difference between the carrying amounts of the lease asset and the lease liability is greatest.

In the IASB analysis, the conclusions noted above are consistent for a range of lease terms from three to 40 years and using a range of discount rates from 2 to 20 per cent. However, the point at which the expenses related to leases become equal applying IFRS 16 and IAS 17 (t1 in the chart) depends on the length of the lease term and the discount rate applied to the lease.

Recognition—portfolio of leases

Companies typically hold a portfolio of leases at any one time, and the size of the effect of adopting IFRS 16 on the income statement will depend on the terms and conditions of the leases and how far those leases are into their respective lease terms.

For example, if a company's lease portfolio is evenly distributed,⁴⁵ then the overall effect on the income statement from adopting IFRS 16 is expected to be neutral. This is because no difference is expected between the sum of depreciation and interest for leases applying IFRS 16 compared to a straight-line expense for off balance sheet leases applying IAS 17. For example, if a company had a portfolio of three-year leases, one third of that portfolio would have an expense 5 per cent higher than a straight-line expense for off balance sheet leases, one third would be 5 per cent lower and one third would be the same.⁴⁶ Consequently, the overall effect on expenses related to leases is expected to be neutral, assuming that all leases in an evenly distributed lease portfolio have equal lease payments.

If the composition of the portfolio is not evenly distributed, then IFRS 16 may have an effect on a company's profit or loss. For example, if a company is growing and funds its growth by expanding its lease portfolio, then the company may report higher expenses related to leases than it would have applying IAS 17 because it will have a greater number of leases in the early part of their life. This outcome improves comparability with growing companies that fund their growth by borrowing to buy assets—those companies will generally incur higher interest expense on borrowings in the early years of their growth and recognise depreciation of assets purchased on a straight-line basis.

⁴⁵ An evenly distributed portfolio is a portfolio with the same number of leases starting and ending in any one period, with the same terms and conditions.

⁴⁶ Using a discount rate of 6 per cent per annum.

For many companies with relatively stable lease portfolios, the effect on profit or loss is not expected to be significant on the basis of the testing carried out by the IASB and others.

When a company has a portfolio of leases that is constantly evolving, with leases expiring and new leases being added, there may be relatively little effect on profit or loss of applying IFRS 16.

Testing of the portfolio effect

The IASB tested the effect of changes that might occur to a company's lease portfolio—for example, when new leases have different terms and conditions to leases that they replace, when the size of the lease portfolio changes or when the discount rate changes. The results of the IASB's testing is summarised in Appendix D to this document.

The IASB also obtained information from a software provider that had set up a test portfolio of 50 property leases with differing lease terms and conditions, beginning and ending in different periods. The results of that test indicated that there is likely to be little effect on profit or loss from applying IFRS 16 for portfolios of leases. For the portfolio of 50 property leases, the effect on profit or loss was estimated at approximately 1 per cent of the total expense arising from those contracts.

Lease portfolio testing conducted by the FASB staff produced similar outcomes and conclusions. In addition, that portfolio testing indicated that the greater the number of leases within a company's lease portfolio, the more likely it is that IFRS 16 will have little effect on profit or loss.

Presentation—effects on EBITDA and profit margin

Unlike IAS 17, for all leases (including former off balance sheet leases), IFRS 16 requires a company to recognise interest on lease liabilities separately from depreciation of lease assets. A company is expected to present interest expense as part of finance costs, and depreciation within a similar line item to that in which it presents depreciation of property, plant and equipment. Applying IAS 17, lease payments for off balance sheet leases were generally presented within operating expenses.

To test the effect on the income statement of recognising and presenting depreciation of lease assets separately from interest on lease liabilities for off balance sheet leases, the IASB used the same sample described earlier in this document.⁴⁷

The table on the next page shows, by industry sector, the estimated effect of applying IFRS 16 on (a) EBITDA and (b) profit margin (ie profit before interest and tax to total revenue).

EBITDA

Applying IFRS 16, EBITDA will be notably higher compared to IAS 17 for companies with material off balance sheet leases. This is because EBITDA applying IFRS 16 does not include expenses related to leases whereas EBITDA applying IAS 17 included the entire expense related to off balance sheet leases.

EBITDA is a profit measure that is often used by investors and analysts in assessing financial leverage.

Profit before interest and tax

Profit measures before interest and tax, such as EBIT or operating profit, will also increase applying IFRS 16. This is because those measures applying IFRS 16 exclude interest on lease liabilities whereas, applying IAS 17, they included the entire expense related to off balance sheet leases.

The IASB is aware that, when assessing the operating performance of a company or determining enterprise value, investors and analysts often use profit measures before interest and tax in their analyses. This is because they often wish to assess the performance of a company, independently of its financing or ownership structure.

The IASB noted that, for some industry sectors, such as healthcare, the increase in profit margin is not very significant. However, for industry sectors that use significant amounts of off balance sheet leases, such as airlines, retailers and travel and leisure, the increase in profit margin is expected to be significant.

The examples in Appendix C to this document illustrate this.

⁴⁷ IASB sample described in Section 3—*Companies affected by changes in lessee accounting*.

Industry sector	EBITDA (in millions of US\$)		Profit before interest and tax / total revenue		Increase in profit margin %before interest and tax (percentage points)
	Reported (IAS 17)	If all leases on balance sheet (IFRS 16)	Reported (IAS 17)	If all leases on balance sheet (IFRS 16)	
Airlines	51,624	73,849	6.33%	7.69%	1.36 (=136 basis points)
Retailers	270,403	347,716	6.01%	6.66%	0.65
Travel and leisure	50,299	63,279	11.80%	13.15%	1.35
Transport	71,177	87,580	10.00%	10.70%	0.70
Telecommunications	399,328	434,452	13.18%	13.80%	0.62
Energy	688,370	745,273	8.11%	8.42%	0.31
Media	118,156	128,959	17.70%	18.29%	0.59
Distributors	29,350	35,047	3.70%	3.94%	0.24
Information technology	298,655	312,392	18.28%	18.50%	0.22
Healthcare	254,616	265,181	15.41%	15.63%	0.22
Others	1,162,512	1,228,643	10.63%	10.83%	0.20
Total	3,394,490	3,722,371	10.19%	10.58%	0.39

See Appendix A to this document for information about the assumptions used to estimate the amounts shown in this table.

This table shows average information by industry sector. The effect of IFRS 16 on EBITDA, profit before interest and tax and profit margin on specific companies is expected to differ from the average shown in this table. See the analysis for an industry sector in one region on page 49.

Increase in profit margin percentage by number of companies

The data in the table indicates that an individual company's profit margin percentage before interest and tax is estimated to increase by less than 1 percentage point (ie less than 100 basis points) for two out of three companies in the sample. For some companies, a change of less than 1 percentage point may not be significant. However, for companies that have low profit margins, such as retailers and distributors (see table on the previous page), an increase of 0.5-1 percentage point (ie between 50 and 100 basis points) could be significant.

In addition, the profit margin percentage before interest and tax is estimated to increase by more than 1 percentage point (ie more than 100 basis points) for one out of three companies in this sample. Those differences could be important for some investors and analysts when analysing individual companies and making investment decisions about those companies.

The IASB is of the view that separating depreciation of lease assets and interest on lease liabilities in a company's income statement provides important information to investors and analysts.

Industry sector	Increase in profit margin % before interest and tax (percentage points) by number of companies					
	<0.2 (=20 basis points)	0.2–0.5	0.5–1	1–5	5–10	>10
Airlines	---	8%	14%	72%	4%	2%
Retailers	4%	10%	25%	58%	3%	---
Travel and leisure	4%	6%	13%	62%	9%	6%
Transport	6%	18%	35%	33%	6%	2%
Telecommunications	14%	34%	21%	29%	2%	---
Energy	35%	25%	16%	21%	---	3%
Media	9%	25%	27%	29%	8%	2%
Distributors	19%	69%	---	12%	---	---
Information technology	24%	43%	14%	16%	3%	---
Healthcare	42%	15%	9%	23%	9%	2%
Others	44%	26%	16%	13%	1%	---
Total	23%	22%	19%	32%	3%	1%

See Appendix A to this document for information about the assumptions used to estimate the amounts used to prepare this table. The columns highlighted in pink include the average increase in profit margin percentage before interest and tax for the industry sector (set out in the table on page 47).

Analysis for an industry sector in one region

To better assess the variation in effects on individual companies within an industry sector, the IASB analysed the effects of applying IFRS 16 for airlines from one region.

The analysis for these airlines shows that IFRS 16 is expected to have relatively little effect on the reported assets and liabilities for some airlines. In contrast, the reported assets and liabilities for some other airlines are expected to change significantly.

There are similar results in terms of the effect on the income statement. IFRS 16 is expected to have varying effects on each airline's profit margin before interest and tax, depending on the nature and significance of former off balance sheet leases.

The key findings are shown in the following table:

Company reference	Increase in profit margin % before interest and tax (percentage points)	Off balance sheet leases (discounted) / total assets
Airlines average	1.36 (see page 47)	22.7% (see page 16)
Airline 1	0.3 (=30 basis points)	5%
Airline 2	0.4	5%
Airline 3	0.4	9%
Airline 4	1.1	18%
Airline 5	1.3	27%
Airline 6	1.4	33%
Airline 7	1.5	36%
Airline 8	2.1	30%
Airline 9	2.8	64%
Airline 10	3.8	66%

Other effects

Effects on tax

Because differences between the accounting applying IFRS 16 and tax accounting are often expected to arise for a lease, there is likely to be an effect on the amount of tax recognised by a company. The effect will depend on the tax rates and the tax treatment for leases in each jurisdiction.

The IASB acknowledges that a change in IFRS may subsequently result in a change in tax regulations although the link to accounting varies substantially by jurisdiction. The ultimate effect of IFRS 16 on tax depends on the actions of tax authorities in each jurisdiction.

Other effects on the income statement

Applying IFRS 16, a company will account for all leases similarly to the accounting for finance leases applying IAS 17. Consequently, the IASB expects that other effects on the income statement that occurred applying IAS 17 for former finance leases will occur for all leases applying IFRS 16 (including former off balance sheet leases). For example, consistently with other financial liabilities, a company will measure lease liabilities denominated in a foreign currency using exchange rates at the end of each reporting period applying IAS 21 *The Effects of Changes in Foreign Exchange Rates*. Because leases denominated in a foreign currency expose a company to foreign currency risk, such leases may result in foreign currency exchange gains or losses being recognised in the income statement.

6.3—Effects on the cash flow statement

The IASB considered the effect that IFRS 16 will have on a company's cash flow statement.

Changes in accounting requirements do not cause a difference in the amount of cash transferred between the parties to a lease.

Consequently, the IASB does not expect IFRS 16 to have any effect on the total amount of cash flows reported. However, IFRS 16 is expected to have an effect on the presentation of cash flows related to former off balance sheet leases.

To retain the link between the balance sheet, income statement and cash flow statement, IFRS 16 requires a company to classify cash payments for:

- (a) the principal portion of lease liabilities within financing activities; and
- (b) the interest portion of lease liabilities in accordance with the requirements relating to other interest paid. This is consistent with the requirements in IAS 7 *Statement of Cash Flows*.⁴⁸

Effects on the cash flow statement

↑ **Cash from operating activities**

↓ **Cash from financing activities**

↔ **Total cash flow**

IFRS 16 is expected to reduce operating cash *outflows*, with a corresponding increase in financing cash *outflows*, compared to the amounts reported applying IAS 17. This is because, applying IAS 17, companies presented cash outflows on former off balance sheet leases as operating activities. In contrast, applying IFRS 16, principal repayments on all lease liabilities are included within financing activities. Interest can also be included within financing activities applying IFRS.

The examples in Appendix C illustrate this.

⁴⁸ Applying IFRS, interest payments can be presented within operating, investing or financing activities in the cash flow statement.

6.4—Effects on the notes

The IASB considered the effect that IFRS 16 will have on a company's notes to the financial statements.

The Airline example in Appendix C to this document illustrates this.

Disclosures about lease assets, expenses related to leases and cash flows

For material leases, like IAS 17, IFRS 16 requires a company to provide a breakdown of the expense related to leases in the notes to the financial statements. Unlike IAS 17, a company is also required to provide information about lease assets by class of asset being leased, and the total amount of lease cash outflows. This information is required to provide a complete picture of a company's leasing activities.

Maturity analysis of the lease liabilities

Unlike IAS 17, IFRS 16 relies on the requirements of IFRS 7 *Financial Instruments: Disclosure* for the disclosure of a maturity analysis of lease liabilities.

IFRS 7 requires a company to use judgement in determining which time bands should be disclosed to provide useful information to investors and analysts, whereas IAS 17 prescribed time bands of less than one year, between one and five years, and more than five years. In some cases, applying IFRS 7 may result in a less comprehensive maturity analysis than when applying IAS 17. However, the IASB expects that there are circumstances in which this approach will result in the disclosure of more detailed information than when applying IAS 17.

Additional disclosures

For leases that contain complex features (for example, variable lease payments, extension options and residual value guarantees) IFRS 16 requires a company to disclose material company-specific information that is not covered elsewhere in the financial statements (if any). This information is expected to differ between companies.

Unlike IAS 17,⁴⁹ IFRS 16 does not include a list of prescriptive qualitative disclosures but rather sets out objectives and requires companies to determine the information that would satisfy those objectives. This is because IFRS 16 aims to improve the effectiveness of lease disclosures by focusing on the information that is most useful to users of financial statements. For example, the IASB expects that a company will disclose information about (a) the nature of its leasing activities, and (b) information about the effect of significant extension and termination options, or variable lease payments, if this information helps users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of the company.

⁴⁹ IAS 17 required a general description of a company's leasing arrangements, including: (a) the basis on which contingent rental payments are determined; (b) the existence of renewal or purchase options and escalation clauses; and (c) restrictions imposed by leasing agreements (such as those concerning dividends, additional debt, and further leasing).

6.5—Effects on key financial metrics

The IASB also considered the effect that IFRS 16 might have on financial metrics for a company, including key financial ratios.

For leases previously classified as finance leases, there will be no significant change to the key financial metrics derived from a company's IFRS financial statements. In contrast, for leases previously classified as operating leases, the IASB expects significant changes in some financial metrics if those metrics were based on amounts recognised in IFRS financial statements. The expected changes include those summarised in this table.

Change		Effect
1	Recognition of an asset that was previously unrecognised	→ Higher asset base, which will affect ratios such as asset turnover. See Section 6.1— <i>Effects on the balance sheet</i>
2	Recognition of a liability that was previously unrecognised	→ Higher financial liabilities, which will affect financial leverage (gearing). See Section 6.1— <i>Effects on the balance sheet</i>
3	Recognition of depreciation and interest instead of operating lease expense	→ Higher operating profit (because interest is typically excluded from operating expenses). Similarly, profit measures that exclude interest and depreciation but include operating lease expense, such as EBITDA, will be higher than when applying IAS 17. See Section 6.2— <i>Effects on the income statement</i>

The following table sets out the expected effect of IFRS 16 on some frequently used metrics when analysing a company's financial statements with material off balance sheet leases.

There are no standardised methods for computing the metrics listed in the following table—the expected effects shown in the table assume that the metrics are determined using amounts reported applying IFRS, without any adjustments.

The table shows that the effects on key financial metrics are mixed—some metrics will improve applying IFRS 16, while others will not.

Metric	What it measures	Common method of calculation	Expected effect of IFRS 16	Explanation
Leverage (gearing)	Long-term solvency	Liabilities / Equity	↑ Increase	Increase because financial liabilities increase (and equity is expected to decrease).
Current ratio	Liquidity	Current assets / Current liabilities	↓ Decrease	Decrease because current lease liabilities increase while current assets do not.
Asset turnover	Profitability	Sales / Total assets	↓ Decrease	Decrease because lease assets will be recognised as part of total assets.
Interest cover	Long-term solvency	EBITDA / Interest expense	Depends	EBITDA will increase applying IFRS 16 as will interest expense. The change in the ratio will depend on the characteristics of the lease portfolio.
EBIT / Operating profit	Profitability	Various methods—Profit that does not consider earnings from investments and the effects of interest and taxes	↑ Increase	Increase because the depreciation charge added is lower than the expense for off balance sheet leases excluded.
EBITDA	Profitability	Profit before interest, tax, depreciation and amortisation	↑ Increase	Increase because expenses for off balance sheet leases are excluded.

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Metric	What it measures	Common method of calculation	Expected effect of IFRS 16	Explanation
EBITDAR	Profitability	Profit before interest, tax, depreciation, amortisation and rent	↔ No change	No change because all lease-related expenses are excluded.
Profit or loss	Profitability	As reported applying IFRS	Depends	Depends on the characteristics of the lease portfolio and the tax rate.
EPS	Profitability	Profit or loss / Number of shares in issue	Depends	Depends on the effect on profit or loss, which depends on the characteristics of the lease portfolio and the effects on tax.
ROCE	Profitability	EBIT / Equity plus financial liabilities	Depends	EBIT will increase applying IFRS 16 as will financial liabilities. The change in the ratio will depend on the characteristics of the lease portfolio.
ROE	Profitability	Profit or loss / Equity	Depends	Depends on the effect on profit or loss, which in turn depends on the lease portfolio—if there is no effect on profit or loss, then the ratio will be higher because reported equity will decrease.
Operating cash flow	Profitability	Various methods—Cash flow from operating activities does not include cash related to equity and borrowings	↑ Increase	Increase because at least part of the lease payments (those payments relating to the principal) will be moved to the financing section of the cash flow statement.
Net cash flow	Profitability and liquidity	Difference between cash inflows and cash outflows	↔ No change	No change because cash will not be affected.

7—Other effects

7.1—Effects on the cost of borrowing

The IASB considered the effect that IFRS 16 might have on the cost of borrowing because companies with material off balance sheet leases are expected to report higher financial liabilities (and higher assets) applying IFRS 16.

In considering those effects, the IASB noted the importance for the efficient functioning of the capital markets that those exposed to credit risk take on such risk on an informed basis.

The IASB observed that IFRS 16 represents a change only to accounting. IFRS 16 will provide more transparent information about a company's existing financial commitments, but it will not change those commitments—stated differently, the company is still the same company after the implementation of IFRS 16 as it was when it applied IAS 17. In addition, information received by the IASB indicates that most sophisticated users of financial statements (including credit rating agencies and lenders) already estimate the effect of off balance sheet leases on financial leverage, particularly when a company has a significant amount of off balance sheet leases.

Extracts from comment letters to the 2013 Leases Exposure Draft

For example, in comment letters responding to the 2013 ED a bank noted the following: *It is our understanding that most analysts and lenders (including our own lending officers) use the lease commitment disclosures that are currently required to estimate leverage and cost impacts.*

Another bank noted the following: *Our credit officers analyzes [sic] the credit of perspective [sic] borrowers by reviewing the notes to the financial statements to determine the amount of off balance sheet leases and the ability of the customer's current cash flow to pay for these and other items.*

The result of some academic research also provides evidence in this respect. One academic paper⁵⁰ suggests that banks set interest rates based in part on credit ratings when credit ratings are available. Because the credit rating agencies adjust for off balance sheet leases, the interest rates charged on loans granted to rated borrowers are not expected to change as a result of the implementation of IFRS 16. For borrowers that are not rated by credit rating agencies, that paper finds that adjusting financial ratios for off balance sheet leases better explains interest rates, although this finding is weaker for loans issued by smaller lenders.

The authors of the paper—which examines interest rates charged in 5,812 commercial loans over the period 2000-2009—summarise their findings as follows: *“These results support our hypothesis that sophisticated credit market participants incorporate information about off balance sheet operating leases into their credit assessments and that creditors do so either directly or indirectly via credit ratings”* (p. 553).

Consequently, the IASB thinks that any effect on the cost of borrowing is most likely to result from the availability of more accurate information about lease liabilities applying IFRS 16.

Lenders are expected to be better informed about a company's credit risk and thus will be equipped to better understand and price that risk.

The IASB is of the view that changes to the cost of borrowing (if any) will result from improved decision-making which will in turn be based on improved transparency about a company's financial leverage.

⁵⁰ “Operating Leases and Credit Assessments”, by J. Altamuro, R. Johnston, S. Pandit, and H. Zhang, Contemporary Accounting Research Vol. 31, No. 2 (Summer 2014) pp. 551-580.

It is however possible that the cost of borrowing for some companies may increase. Equally, the cost of borrowing may decrease, depending on how different the company's recognised lease liabilities are from those previously estimated.

For example, there is evidence to suggest that some common estimation techniques that are used to capitalise off balance sheet leases (such as annual lease expense multiplied by 8) over-estimate the lease liabilities of many companies.

For the IASB sample described earlier in this document⁵¹ the table on the next page compares, by industry sector, the effect on long-term financial liabilities of:

- (a) lease liabilities, estimated by discounting the future payments for off balance sheet leases at the average cost of borrowing (ie as if all leases are reported on balance sheet); and
- (b) lease liabilities, estimated by multiplying the annual expense for off balance sheet leases by 8 (a technique commonly used by investors and analysts).

On the basis of this information, the IASB noted the following:

- (a) the commonly-used estimation technique based on a multiple of 8 often over-estimates a company's lease liabilities. Within the figures summarised in the following table, there are individual companies with long-term leases for which the estimation technique under-estimates lease liabilities, and others with short to medium-term leases for which the estimation technique over-estimates lease liabilities.
- (b) the effect on reported financial leverage (ie the ratio of long-term financial liabilities to equity) is most significant for industry sectors with significant off balance sheet leases.

⁵¹ IASB sample described in Section 3—Companies affected by changes in lessee accounting.

Industry sector	Long-term financial liabilities (in millions of US\$)			Long-term financial liabilities to equity ratio		
	Reported on balance sheet (IAS 17)	If all leases on balance sheet (IFRS 16)	Common market practice (annual lease expense × 8)	Reported on balance sheet (IAS 17)	If all leases on balance sheet (IFRS 16)	Common market practice (annual lease expense × 8)
Airlines	114,818	234,202	292,617	123%	251%	314%
Retailers	378,698	810,171	997,201	48%	103%	126%
Travel and leisure	135,423	218,914	239,261	118%	191%	209%
Transport	124,107	192,282	255,331	54%	84%	111%
Telecommunications	808,574	981,218	1,089,562	79%	96%	106%
Energy	1,017,236	1,305,094	1,472,458	42%	54%	60%
Media	340,330	396,094	426,749	102%	119%	128%
Distributors	174,509	199,601	220,083	91%	104%	115%
Information technology	280,487	337,293	390,382	31%	37%	43%
Healthcare	437,284	491,649	521,808	58%	65%	69%
Others	2,629,476	2,936,211	3,158,519	64%	71%	76%
Total	6,440,942	8,102,729	9,063,971	59%	74%	82%

See Appendix A to this document for information about the assumptions used to estimate the amounts shown in this table.

The long-term financial liabilities to equity ratio in this table has been calculated using reported equity without taking into account any possible change in equity as a result of applying IFRS 16.

7.2—Effects on debt covenants

The IASB considered the effects that IFRS 16 might have on debt covenants.

The IASB noted that the changes to lease accounting could affect some debt covenants. They could also result in some companies no longer complying with debt covenants when IFRS 16 is applied if those covenants are linked to a company's IFRS financial statements (without adjustments for off balance sheet leases).

The IASB is aware from meetings with a number of banks that many debt covenants in existing financing facilities are not directly affected by a change in accounting requirements. For example, IFRS does not define terms such as 'debt' and 'EBITDA' that are commonly used in debt covenants—accordingly, those terms are defined independently of IFRS requirements. In addition the IASB has been told that when covenants are based on amounts in financial statements, they are often based on the accounting requirements in place at the time of signing the financing facilities (ie based on 'frozen GAAP').

That information is supported by a study conducted by one of the major credit rating agencies on a sample of corporate credit agreements that were executed in 2011 in the US.⁵² The results of the study show that virtually all credit agreements analysed included clauses that protect companies from changes in accounting.

The study discusses a typical clause in credit agreements that allows a company to continue using the accounting standards in effect when the loan was executed, even when it adopts new accounting standards. The company can use those standards until it and its lenders can amend the credit agreement through a good-faith negotiation. Any amendment would then adjust the covenant ratios to retain the agreement's original intent.

The study also notes that credit agreements sometimes include wording that specifically exempts particular accounting requirements from change. These carve-outs, as they are commonly known, are similar to a 'frozen GAAP' clause. This means that an amendment to the credit agreement is not required to retain its original intent—the accounting used for covenant ratios is not subject to change. The use of operating lease accounting (instead of finance lease accounting) is an example of this type of carve-out.

There is also evidence that debt covenants already take into account off balance sheet leases for a number of companies with significant amounts of those leases.

Extracts from financial statements

For example a retailer notes the following in its financial statements: *'Debt covenants The revolver requires that we maintain a leverage ratio, defined as Adjusted Debt [adjusted to capitalise off balance sheet leases estimated as the annual rent expense multiplied by 8] to Earnings before Interest, Income Taxes, Depreciation, Amortisation and Rent ("EBITDAR"), of less than four times'.*

An airline notes the following: *'...revolving credit facility... subject to the following financial covenants... EBITDAR must not be lower than two and a half times the net interest charges increased by one third of operating lease payments' [one third is the estimated implicit interest in off balance sheet lease payments].*

⁵² Moody's August 24, 2011 Special Comment: "Loan-Covenant Clauses Protect Companies From Default When Accounting Changes".

Because IFRS 16 is expected to provide a more faithful representation of lease commitments, the IASB expects debt covenants negotiated after IFRS 16 is effective to reflect the change to accounting. Although the terms and conditions of future debt covenants may change, the IASB expects that those changes should be undertaken in a manner that differentiates true economic changes from accounting changes.

The change to lease accounting does not affect a company's economic position or commitments to pay cash, which are often already considered by lenders.

The three-year implementation period between the issuance of IFRS 16 and its effective date is expected to be adequate for companies to consider the effects, if any, of IFRS 16 on their debt covenants.

Debt covenants survey in Europe⁵³

The IASB has analysed information obtained from a public survey conducted in 2015 by the European Financial Reporting Advisory Group (EFRAG) and the national standard-setters of France, Germany, Italy, Lithuania and the UK, in which the IASB participated. The objective of the survey was to obtain information about how covenants are determined in Europe.

Lenders that responded to the survey noted mixed practice in terms of how debt covenants are structured for different customers (for example, different terms and conditions might exist depending on the size of the customer, its industry sector or the type of credit facility provided). Nonetheless, most lender respondents stated that debt covenants (a) often include 'frozen GAAP' clauses or adjustments for off balance sheet lease commitments, or (b) are renegotiated if accounting requirements change. In addition, the vast majority of lender respondents expect to reconsider the terms and conditions of debt covenants when IFRS 16 is effective. Lenders that responded to the survey represented approximately 11 per cent of the European banking market.⁵⁴

Preparers that responded to the survey also noted mixed practice. Most preparer respondents noted that debt covenants are typically based on financial reporting data. Some of those preparer respondents also noted that debt covenants do not include 'frozen GAAP' clauses and do not include adjustments for off balance sheet leases. Other preparer respondents noted that debt covenants include 'frozen GAAP' clauses, already consider off balance sheet leases or are subject to renegotiations if accounting requirements change.

Some of the preparer respondents do not disclose information about off balance sheet leases in their financial statements or disclose minimal amounts of off balance sheet leases compared to the size of the company. The IASB expects that companies with immaterial or minimal off balance sheet leases applying IAS 17 will not be significantly affected by IFRS 16, regardless of the terms and conditions of their debt covenants.

⁵³ See report on EFRAG website [here](#).

⁵⁴ Based on total assets as of 30 June 2014 of banks in the 28 countries of the European Union.

7.3—Effects on regulatory capital requirements

The IASB considered the effects that IFRS 16 might have on regulatory capital requirements.

The IASB expects companies that have material off balance sheet leases to report higher assets and lower equity when applying IFRS 16. This could affect the regulatory capital of lessees that are financial institutions.

The effect of any new accounting requirements on regulatory capital depends on the actions of prudential regulators. The IASB continues to maintain an ongoing dialogue with prudential regulators and other interested parties to raise awareness of the likely effects of IFRS 16.

Importantly, however, IFRS 16 requires a company to present lease assets arising from leases of property, plant and equipment as tangible assets, if they are not presented within their own line item on the balance sheet.

The IASB has estimated the effect of IFRS 16 on reported equity by considering a sample of 20 European banks. The estimated decrease in reported equity is less than 0.5 per cent of reported equity for all banks included in the sample, and less than 0.2 per cent of reported equity for almost half of the sample. On the basis of this testing, the IASB does not expect the changes to lessee accounting to have a significant effect on the regulatory capital of most financial institutions.

Sample of European banks

The sample of banks represents the top 20 listed European banks with the highest ratio of undiscounted commitments for off balance sheet leases to total assets, on the basis of their financial statements as at 31 December 2012. For all banks in the sample, undiscounted commitments for off balance sheet leases represent less than 1 per cent of the total assets during the annual periods 2012-2014.

The main assumptions made when preparing the estimated effect on reported equity are the following:

- (a) a discount rate of 5 per cent applies to all off balance sheet leases applying IAS 17;*
- (b) the off balance sheet lease portfolio is an evenly distributed 15-year lease portfolio; and*
- (c) deferred tax assets are estimated on the basis of the disclosed tax rate by each bank.*

7.4—Effects on the leasing market and access to finance for smaller companies

Effects on the leasing market

The IASB considered whether IFRS 16 might give rise to behavioural changes that would affect the leasing market. For example, because the lessee accounting requirements in IFRS 16 provide greater comparability between those who lease assets and those who borrow to buy assets, a company might decide to buy assets rather than to lease them.

The IASB also considered whether IFRS 16 might provide incentives to structure transactions to achieve desired accounting outcomes. Examples include reducing the length of lease terms and making lease payments variable, all in an attempt to recognise smaller lease liabilities.

In considering these possible effects, the IASB observed that as long as the economy does not decline or change dramatically, companies will continue to require assets to generate revenue and operate their businesses.

A company has two options in how to obtain those assets—to buy them or to lease them. Consequently, a change in accounting should not affect the overall demand for assets.

Nonetheless, the IASB acknowledges that the change in accounting might have an effect on the leasing market, if companies decide to buy more assets and, as a consequence, lease fewer assets.

The IASB does not expect significant behavioural changes after IFRS 16 is effective (ie a company is not expected to systematically borrow to buy assets, rather than to lease them as a result of the change in accounting). However, it is possible that, for individual lessors, the effect may be more or less significant than for the leasing industry as a whole.

Buy versus lease

The IASB expects that some companies may decide to buy some assets rather than lease them, particularly if those companies were willing to pay more for leases because those leases were not reported on the balance sheet. However, the IASB does not think that the only reason that a company enters into off balance sheet leases is to achieve off balance sheet accounting. The IASB observed that there are numerous, substantive business reasons why companies lease that will continue to exist after IFRS 16 is effective. Accordingly, the IASB expects companies to continue to enter into a large number of leases after the effective date of IFRS 16 in the light of the considerable benefits associated with leasing.

In particular, the IASB observed that a lease typically provides finance in circumstances when traditional bank facilities might not be granted on the grounds that a lessor often has greater security because of its ownership of the asset.

On the basis of information provided by the leasing industry, examples of the benefits of leasing assets are reported in the following table.

The IASB also expects that, even if some companies decide to enter into fewer leases, companies will still need asset financing—asset financing is often provided by suppliers who also lease assets. Accordingly, some lessors may lease fewer assets but provide asset financing for a greater number of assets.

Benefits of leases for lessees—Examples

- Financing of assets without any supplementary guarantees
- Regular lease payments usually for a fixed amount
- Ongoing renewal of assets based on latest available technologies
- Source of finance independent of bank loans or credit lines
- Ability to use assets without legal ownership (for example, no responsibility for obsolescence or the disposal of assets when they are no longer used)
- Services provided with leases (for example, maintenance of assets)
- Specific tax treatment
- A way of sharing risks and profits between a lessee and a lessor (for example, via variable lease payments linked to sales)
- Ability to use an asset for only the needed portion of the asset's total economic life
- Enhanced operational flexibility

Terms and conditions of a lease

The IASB expects that many leases will not change after IFRS 16 is effective because terms and conditions are typically negotiated to suit a company's business needs. Consequently, changes typically arise for business reasons, and not for accounting reasons.

Nonetheless, the IASB expects that some companies will re-examine their leasing activity as a result of applying IFRS 16. This may result in changes to the length of leases or changes in payment terms.

Any changes are expected to result from the greater transparency of information applying IFRS 16. Although lessees, as parties to leases, might already be expected to have all relevant information about their leases, it is possible that some lessees do not pay as much attention to the efficiency of their leases, especially if lease decisions are decentralised. Because IFRS 16 requires the recognition of lease assets and lease liabilities on a discounted basis, companies need, for example, to determine the discount rate charged in a lease and may identify improvements in how they finance and operate their business. Consequently, these changes (if any) are expected to be the result of genuine business decisions, rather than changes motivated solely by accounting outcomes.

According to academic research on lease accounting,⁵⁵ the determination of a direct correlation between (a) the changes in average lease terms and in lease payments and (b) the adoption of different accounting requirements (for example, transition from local GAAP to IFRS) has proved to be extremely difficult. This is mainly due to: (a) the lack of information in the notes to the financial statements, (b) the lack of significant changes before and after the adoption of different accounting requirements and (c) differing trends for different industry sectors that use leasing intensively (ie an increase in one sector and a decrease in another sector).

Access to finance for smaller companies

The IASB is aware that leasing is an important source of financing for smaller companies.⁵⁶ In the light of the benefits of leases for lessees discussed on the previous page, the IASB expects that smaller companies will continue to use leases to obtain access to the assets they need to operate their businesses.

The IASB does not expect any changes in the pricing for leases following the implementation of IFRS 16. This is because the IASB decided to substantially carry forward the lessor accounting requirements from IAS 17 to IFRS 16 (see Section 9—*Effects analysis for lessor accounting*) and, thus, IFRS 16 is not expected to involve any significant additional costs for lessors.

Indeed, the IASB expects that smaller companies will benefit from the more transparent information about the cost of leases. As mentioned earlier regarding potential changes in the terms and conditions of a lease, IFRS 16 requires the recognition of lease assets and lease liabilities on a discounted basis. This means that companies (including those with less sophisticated financing departments) need to determine the discount rate charged in a lease and may identify improvements in how they finance and operate their business.

For additional considerations about the effects of IFRS 16 on smaller companies, refer to Section 3—*Companies affected by changes in lessee accounting*.

55 “The Standard-setters’ Toolkit: Can Principles Prevail over Bright Lines?”, by Darren Henderson, University of Western Ontario - Richard Ivey School of Business, and Patricia C. O’Brien, University of Waterloo, November 2014.
56 For example, (a) 42.5 per cent of the 3,000 SMEs in eight European countries surveyed by Oxford Economics for Leaseurope used leasing in 2013 (according to the research report “The Use of Leasing Amongst European SMEs” released by Leaseurope in July 2015); and (b) in Taiwan SMEs accounted for more than 90 per cent of total lease contract amounts in 2011 (according to information prepared by The Taipei Leasing Association, R. O. C.).

8—Effects of differences between IFRS and US GAAP

8—Effects of differences between IFRS and US GAAP

IFRS 16, together with the new US *Leases* Standard which the FASB expects to issue in early 2016, completes the joint project by the IASB and the FASB to improve the accounting for leases.

The IASB and the FASB have reached the same conclusions in many areas, including requiring leases to be reported on the balance sheet, how to define a lease and how lease liabilities are measured.⁵⁷ However, there are some differences between IFRS 16 and the FASB model⁵⁸ and this section provides an overview of the likely practical effects of these differences.

A summary of similarities and differences for lessee accounting between IFRS 16 and the FASB model is reported in the table on the next page.

The examples in Appendix C to this document illustrate the estimated effects of the changes to lessee accounting by comparing the reporting of financial information applying IAS 17 to the information that is expected to result from applying IFRS 16 and the FASB model.

Balance sheet

The IASB expects a company to report virtually the same leases on its balance sheet applying IFRS 16 and the FASB model. Although IFRS 16 allows companies to exclude leases of low-value assets from the amounts reported on the balance sheet, the IASB expects leases of low-value assets to be immaterial for most companies (see Section 5.3—*Key cost reliefs* for further information). Consequently, the IASB expects the most significant effect of applying IFRS 16 and the FASB model—ie the increase in financial liabilities and the measurement of those liabilities—to be very similar for most IFRS and US GAAP companies.

Regarding former off balance sheet leases, differences are expected to arise between IFRS and US GAAP with respect to the measurement of lease assets and, consequently, equity. Applying the FASB model, a company generally depreciates lease assets arising from those leases more slowly in the earlier years of a lease than when applying IFRS 16 (for which, typically, the depreciation of lease assets is on a straight-line basis).

Accordingly, the IASB expects the carrying amount of lease assets, as well as reported equity, to be higher applying the FASB model than when applying IFRS 16, although those effects are not expected to be significant for most companies (Distributor example in Appendix C to this document illustrates this). Airline and Retailer examples in Appendix C to this document illustrate the expected effects for companies with significant former off balance sheet leases.

Regarding the presentation of lease liabilities—which meet the respective definitions of financial liabilities both in IFRS and US GAAP—IFRS 16 and the FASB model do not prescribe any particular presentation, except that the FASB model requires a company to present lease liabilities relating to former on and off balance sheet leases in different line items. In contrast, the IASB expects that a company applying IFRS 16 will make this distinction (or a more relevant one) only if that is relevant to an understanding of its financial position.

⁵⁷ Lease liabilities are measured in the same way applying IFRS 16 and the FASB model, except that inflation-linked payments are reassessed when those payments change applying IFRS 16, but are not when applying the FASB model.

⁵⁸ In this document 'FASB model' refers to the decisions of the FASB as at 31 December 2015.

		IFRS 16	US GAAP (FASB model)	
			Former ON balance sheet leases	Former OFF balance sheet leases
Balance sheet				
<i>Recognition</i>	All leases on balance sheet	✓	✓	✓
	Exemption for short-term leases	✓	✓	✓
	Exemption for leases of low-value assets	✓	---	---
<i>Measurement</i>	Lease liabilities on a discounted basis	✓ ⁵⁹	✓ ⁵⁹	✓ ⁵⁹
	Initial lease asset = lease liability	✓	✓	✓
	Depreciation of lease assets	Typically straight-line	Typically straight-line	Typically increasing ⁶⁰
<i>Presentation</i>	Lease liabilities	IAS 1 ⁶¹	Separate presentation (from former off balance sheet leases)	Separate presentation (from former on balance sheet leases)
	Lease assets	PPE <i>or</i> own line item ⁶²		
Income statement				
	Operating costs	Depreciation	Depreciation	Single expense
	Finance costs	Interest	Interest	---
Cash flow statement				
	Operating activities	Interest ⁶³	Interest	Interest and principal
	Financing activities	Principal	Principal	---

59 Lease liabilities are measured in the same way applying IFRS 16 and the FASB model, except that inflation-linked payments are reassessed when those payments change applying IFRS 16, but are not when applying the FASB model.

60 Lease assets are measured at an amount that achieves the recognition of a single lease expense typically on a straight-line basis.

61 IAS 1 requires a company to present financial liabilities separately from other liabilities. In addition, IAS 1 requires a company to present additional line items (for example, lease liabilities) when such presentation is relevant to understand the company's financial position.

62 Lease assets are presented on the balance sheet either (a) together with owned property, plant and equipment (PPE) or (b) as their own line item(s) if that presentation is relevant to understand the company's financial position.

63 Applying IFRS, interest payments can be presented within operating, investing or financing activities.

Income statement

For companies that have material off balance sheet leases, the IASB expects IFRS 16 to result in higher profit before interest (for example, operating profit) compared to the amount reported applying the FASB model.

This is because, applying IFRS 16, a company presents the implicit interest in former off balance sheet lease payments as part of finance costs whereas, applying the FASB model, the entire expense for former off balance sheet leases is included as part of operating costs.

The difference in operating profit, and finance costs, depends on the significance of leasing to the company, the length of its leases and the discount rates applied.

The examples in Appendix C to this document illustrate this.

Similarities and differences: IFRS vs US GAAP

	IFRS 16	US GAAP (FASB model)
Revenue	x	x
Operating costs (excluding depreciation and amortisation)	---	Single expense ⁶⁴
EBITDA	↑↑	↔
Depreciation and amortisation	Depreciation	Depreciation ⁶⁵
Operating profit	↑	↔
Finance costs	Interest	Interest ⁶⁵
Profit before tax	↔ ⁶⁶	↔

Cash flow statement

Differences in lease accounting between IFRS and US GAAP do not cause differences in total cash flows because there is no economic difference.

However, the IASB expects IFRS 16 to reduce reported *operating cash* outflows, with a corresponding increase in reported *financing cash* outflows, compared to the amounts reported applying the FASB model. This is because, applying the FASB model, companies present cash outflows on former off balance sheet leases as operating activities, whereas, applying IFRS 16, principal repayments on all lease liabilities are included within financing activities. Interest can also be included within financing activities applying IFRS.

The examples in Appendix C to this document illustrate this.

Notes

The IASB does not expect significant differences in disclosure to be provided by IFRS and US GAAP companies because the disclosure requirements are similar. Nonetheless, there are some differences in disclosure requirements mainly because of differences in the respective lessee accounting models. For example, the FASB model requires separate disclosure of expenses related to former on and off balance sheet leases, which is not applicable applying IFRS 16 because IFRS 16 requires a company to account for all leases reported on the balance sheet in the same way.

Airline example in Appendix C to this document illustrates this.

⁶⁴ For former off balance sheet leases.

⁶⁵ For former on balance sheet leases.

⁶⁶ Little change expected for many companies because of the effect of holding a portfolio of leases—see sub-section on ‘recognition—portfolio of leases’ within Section 6.2—*Effects on the income statement*.

As discussed in Section 6.4—*Effects on the notes*, IFRS 16 does not include prescriptive qualitative disclosure requirements but rather sets out objectives and requires companies to determine the information that would satisfy those objectives. In contrast, the FASB model requires a company to disclose specific qualitative items (for example, the terms and conditions of extension and termination options in leases). Consequently, the IASB expects that the information disclosed about features in leases, such as extension and termination options, will be different for IFRS and US GAAP companies.

Key financial metrics

As illustrated in Section 6.5—*Effects on key financial metrics*, the IASB expects that the new lease requirements will have an effect on some financial metrics if those metrics are based on amounts reported in the financial statements.

The following paragraphs include a comparison between IFRS and US GAAP for some common ratios used by investors and analysts in assessing financial leverage and performance. Debt to EBITDA and interest cover are also the most common ratios used in debt covenants according to an academic study published in 2014—based on a sample of 8,313 transactions in the US.⁶⁷

Financial leverage

Debt (defined as borrowings plus lease liabilities in the illustrative examples in Appendix C to this document⁶⁸) to EBITDA—the ratio of debt to EBITDA applying IFRS 16 is expected to be lower than when applying the FASB model. This is because EBITDA applying the FASB model includes expenses related to former off balance sheet leases whereas EBITDA applying IFRS 16 does not.

Interest cover (EBITDA to net finance costs)—interest cover applying IFRS 16 is expected to be different from interest cover applying the FASB model because the increase in EBITDA is likely to be disproportionate to the increase in interest. In most cases, the interest cover applying IFRS 16 is expected to be lower than when applying the FASB model.

The examples in Appendix C to this document illustrate this.

Performance

Return On Capital Employed (ROCE)—ROCE applying IFRS 16 is expected to be higher than when applying the FASB model. This is because, applying the FASB model, operating profit is not expected to change compared to previous lease accounting requirements (whereas operating profit will increase applying IFRS 16), and yet reported capital employed is expected to be similar when applying IFRS 16 and the FASB model.

The examples in Appendix C to this document illustrate this.

Cost and complexity

As noted above, both IFRS 16 and the FASB model require virtually the same leases to be reported on the balance sheet (except that IFRS 16 allows companies to exclude leases of low-value assets from those amounts). Lease liabilities are measured on a discounted basis in a similar way applying both IFRS 16 and the FASB model.

However, differences arise between IFRS 16 and the FASB model in measuring lease assets, and presenting expenses and cash flows related to leases in the income statement and cash flow statement.

The IASB expects the costs of applying IFRS 16 to be broadly similar to those of applying the FASB model.

A company needs the same data to apply both IFRS 16 and the FASB model—ie (a) to identify leases (or lease components of contracts); and (b) to determine the lease payments to be capitalised, the lease term and the discount rate of each lease.

On an ongoing basis, the IASB expects the main costs to arise from gathering that data on a timely basis so that lease assets and liabilities are recognised and measured at each reporting date. The data required is similar to that needed to provide note disclosures for off balance sheet leases applying IAS 17, except that discount rates are needed to apply IFRS 16 and the FASB model.

Consequently, the IASB expects the most significant costs of applying the new lease accounting requirements to be similar for IFRS and US GAAP companies.

⁶⁷ “The Effect of Capitalizing Operating Leases on the Immediacy to Debt Covenant Violations”, by Byunghwan Lee, Gyung Paik Daniel, Sung Wook Yoon, *Journal of Accounting and Finance*, 2014, vol. 14, issue 6.

⁶⁸ IFRS does not define the term ‘debt’—accordingly, this term is defined independently of IFRS requirements.

Some companies anticipate that it will be less costly to transition to the FASB model because only the balance sheet will change, not the income statement and cash flow statement. In addition, for former off balance sheet leases, lease assets are expected to be measured at the same amount as lease liabilities (adjusted for initial direct costs, accrued or prepaid rent and lease incentives).⁶⁹ Even though the FASB model (because it is a dual model) requires companies to classify leases, the classification requirements are essentially the same as in previous lease accounting requirements.

Other companies, however, have the opposite view. This is because IFRS 16 is expected to reduce cost and complexity in the following respects:

- (a) a company is not required to classify leases, nor is it required to account for lease assets in two different ways.
- (b) lease assets are measured similarly to other assets. Consequently, a company could use existing fixed asset information systems to account for lease assets.
- (c) a company is not required to capitalise leases of low-value assets, or to prove that those leases are not material to the company. This is expected to reduce costs, particularly for smaller companies and because companies often have high volumes of leases of low-value assets.

Cost of borrowing

In response to questions raised by some stakeholders, the IASB assessed whether the differences between IFRS 16 and the FASB model might affect the cost of borrowing.

The IASB does not expect the differences between IFRS 16 and the FASB model to affect the cost of borrowing for companies. This is because the recognition and measurement of lease liabilities is almost identical applying IFRS 16 and the FASB model.⁷⁰ Consequently, the IASB expects investors, analysts, lenders and others to assess the lease liabilities of a company applying IFRS in the same way as they will the lease liabilities of a company applying US GAAP.

Some have suggested that the presentation of lease liabilities might influence how some investors or lenders view those liabilities. For example, if a company were to present lease liabilities in more than one line item on the balance sheet (as is required applying the FASB model based on the former on and off balance sheet lease distinction), some think that this might influence whether lease liabilities are considered to be financial liabilities in assessing financial leverage.

Information obtained by the IASB in developing IFRS 16 indicates that this is unlikely to be the case. Most investors and analysts consulted noted that they view all leases (including off balance sheet leases) as creating assets and ‘debt-like’ liabilities. This includes the credit rating agencies and other credit analysts that were consulted.

Accordingly, those investors and analysts sought to adjust a company’s reported information applying IAS 17 to include off balance sheet leases when assessing financial leverage and the capital employed in a business (see Section 4.1—*Improved quality of financial reporting* for further information about adjustments made by investors and analysts when companies applied IAS 17). The IASB also received a similar message from lenders. Refer to Section 7.1—*Effects on the cost of borrowing* for additional information.

Credit rating methodology sample

For example, the following is an extract from Standard and Poor’s corporate ratings criteria:

‘We view the accounting distinction between operating and capital leases as substantially artificial. In both cases, the lessee contracts for the use of an asset, entering into a debt-like obligation to make periodic rental payments. Our lease adjustments seek to enhance comparability of reported results (both operating and financial) and financial obligations among companies whether they lease assets under leases accounted for as operating or financing leases, or use debt to finance asset acquisition. The operating-lease-adjustment model is intended to bring companies’ financial ratios closer to the underlying economics and more comparable, by taking into consideration all financial obligations incurred, whether on or off the balance sheet.’

⁶⁹ Applying the FASB model, differences arise between the measurement of lease assets and lease liabilities for former off balance sheet leases if, for example, the lease asset is impaired.

⁷⁰ This is because IFRS 16 and the FASB model include the same requirements about (a) the recognition of leases on the balance sheet (with the exception of the exemption for leases of low-value assets), (b) the definition of a lease and (c) the measurement of lease liabilities (with the exception of the reassessment of inflation-linked payments).

9—Effects analysis for lessor accounting

9—Effects analysis for lessor accounting

The IASB considered the effects of the lessor accounting requirements included in IFRS 16.

As discussed in Section 2—*Changes to the accounting requirements* the changes to the guidance on the definition of a lease apply to both parties to a contract, ie the lessee and the lessor.

The changes to the guidance on the definition in IFRS 16 are not expected to affect conclusions about whether contracts contain a lease for the vast majority of contracts (ie a lease applying IAS 17 is generally expected to be a lease applying IFRS 16).

Consequently, the IASB does not expect lessors to be significantly affected by the changes to the guidance on the definition of a lease in IFRS 16.

IFRS 16 does not substantially change how a lessor accounts for leases as compared to IAS 17. This is because the IASB decided to carry forward the lessor accounting model in IAS 17. Nonetheless, IFRS 16 requires a lessor to provide some additional disclosures to enable users of financial statements to better evaluate the uncertainty of cash flows associated with the lessor's leasing activities.

Consequently, the IASB expects the implementation of the lessor accounting requirements in IFRS 16 to result in:

- (a) better information about leasing activities, and in particular about a lessor's exposure to asset risk; this in turn is expected to reduce the cost of analysis for users of a lessor's financial statements; and
- (b) little additional costs for many lessors than would be incurred in complying with IAS 17.

The IASB's considerations regarding the likely costs and benefits for the key enhanced lessor disclosure requirements of IFRS 16 are discussed in the following table.

Enhanced lessor disclosure requirements	Benefits	Costs
<p>1—Table of lease income</p> <p>IFRS 16 requires a lessor to disclose the components of lease income recognised in the reporting period.</p>	<p>Leasing is generally part of the revenue-generating activities of a lessor. The IASB expects that this information will help users of financial statements understand the composition of a lessor’s income in a similar manner to the information that will be provided about revenue from contracts with customers (see IFRS 15).</p>	<p>The IASB expects that lessors will not incur significant ongoing costs in providing this information. This is because a lessor should be able to extract this information from its accounting general ledger system. The IASB also expects that other companies will incur similar costs to provide similar information applying IFRS 15.</p>
<p>2—Information about exposure to residual asset risk</p> <p>IFRS 16 requires a lessor to disclose information about how it manages its risk associated with any rights that it retains in leased assets.</p>	<p>The IASB expects that this disclosure will address the main concern associated with lessor disclosure in IAS 17—the lack of transparency about a lessor’s exposure to asset risk (associated with the lessor’s residual interest in the leased asset).</p> <p>This disclosure is expected to help users of financial statements assess the risk retained by a lessor, particularly for equipment and vehicles subject to operating leases—for which the lessor retains more of the residual asset risk than for finance leases and for which the second hand market values might be volatile.</p>	<p>The IASB expects that lessors will exercise judgement in determining which information is most useful. This is likely to largely depend on the strategy applied by the lessor and, thus, on the information that the lessor uses internally to manage its exposure to residual asset risk. For leased land or buildings that meet the definition of ‘investment property’ in IFRS, the IASB expects that a lessor will rely on the information already required either to measure the investment property at fair value or to disclose information about fair value in its financial statements.</p>
<p>3—Information about assets subject to operating leases</p> <p>IFRS 16 requires a lessor to provide the disclosures required by IAS 16 <i>Property, Plant and Equipment</i> separately for assets subject to operating leases—further distinguished by significant classes of underlying assets (for example, leased cars, leased buildings or leased IT equipment)—from owned assets that are held and used by the lessor for other purposes.</p>	<p>The IASB expects that users of financial statements will benefit from obtaining separate information because:</p> <ul style="list-style-type: none"> (a) leased assets used by a lessor’s customers might be subject to different risks than would apply to owned assets that are held and used by a lessor for other purposes; and (b) leased assets generate rental income rather than contributing towards any other revenue-generating activity of the lessor. <p>In applying this requirement the IASB expects, for example, that a lessor will disclose information about the estimated residual value of assets subject to operating leases at the end of their useful lives.</p>	<p>The IASB expects that lessors will not incur significant costs in providing this information because doing so involves disaggregating existing disclosures required by IAS 16 (rather than the creation of new disclosures). In addition, the IASB noted that, applying IAS 17, some lessors had already provided a disclosure for assets subject to operating leases separately from owned assets that were held and used by the lessor for other purposes.</p>

Appendix A—Assumptions used to estimate quantitative effects

Assumptions used to estimate quantitative effects

The IASB used financial data aggregators to gather information about (a) off balance sheet leases applying previous lease accounting requirements and (b) the size of listed companies using IFRS and US GAAP (such as information about total assets, long-term financial liabilities,⁷¹ equity, revenue, profit before tax).

Financial data aggregators refer to databases that compile financial information available in the financial statements of listed companies.

The IASB relied upon the information as contained in those databases and did not independently verify the accuracy of such information for each company.

Because of limitations on the availability of relevant information, the IASB estimated the quantitative effects of the changes to lease accounting using various assumptions. Consequently, the information included in this document should be viewed considering the following.

- Information by geographical region and industry sector is based on company-specific classifications available in financial data aggregators.
- All data is based on information in the latest annual reports available in financial data aggregators at the date of assessing the effects of IFRS 16—ie 2014 annual reports for the majority of companies.
- All amounts are shown in US\$—the functional currency of the majority of companies in the IASB sample. Amounts related to companies that report in currencies other than US\$ are translated to US\$ using the exchange rate at the date of the latest annual report.
- The present value of future lease payments for off balance sheet leases is estimated using (a) a discount rate of 5 per cent—the estimated average cost of debt for the companies within the IASB sample and (b) average lease terms estimated based on the maturity of obligations for off balance sheet leases available in financial data aggregators.
- The annual lease expense for off balance sheet leases is estimated equal to the lease payments due within one year from the reporting date as reported in financial data aggregators.
- EBITDA is based on information available in financial data aggregators. EBITDA is a non-GAAP measure that is independent of IFRS requirements. There are no standardised methods for computing this measure.

⁷¹ The financial data aggregators refer to long-term financial liabilities as long-term debt.

Appendix B—Costs: case studies

Case study A: mixed portfolio of off balance sheet leases

The case studies in this appendix illustrate the information that a company is required to have, and the drivers of the costs that a company is expected to incur, in applying IFRS 16, on the basis of the limited facts presented. These case studies portray hypothetical situations. Although some aspects of the case studies may be present in actual scenarios, all relevant facts and circumstances of a particular scenario would need to be evaluated in applying IFRS 16.

Case study A

Company A is a lessee that operates in a number of countries.

Company A has:

- (a) approximately 20,000 leases of vehicles (ie cars and trucks) throughout the group, with non-cancellable lease terms of between three and five years. Many of these contracts include purchase or extension options priced at market rates.*
- (b) a relatively small number of property leases (approximately 60) used for corporate purposes, with non-cancellable lease terms of between five and 12 years. Many of these leases include inflation-linked payments.*
- (c) a large number of leases of low-value office equipment such as personal computers, desktops, phones and desktop printers.*

Company A has systems in place to manage its vehicle leases, for example to monitor when and whether to return a vehicle or extend a lease, or when lease payments should be stopped on return of a vehicle. In contrast, Company A does not have central systems to manage its property leases and its leases of low-value office equipment. The management of those leases is decentralised within subsidiaries, each of which has only a few property leases and a number of leases of low-value office equipment.

Company A classifies all of its leases as operating leases applying IAS 17.

Company A's reporting year ends on 31 December. Company A applies IFRS 16 from 1 January 2019 and chooses to apply the cumulative catch-up transition method in IFRS 16 when first applying the Standard.

Facts

Case study A

Implementation

Steps

1—Company A prepares an inventory of leases with a remaining lease term beyond 1 January 2019, split into those with a lease term ending during 2019 and those with a longer lease term. In doing so, Company A does not reassess whether contracts contain a lease applying IFRS 16 and does not determine initial direct costs on its leases.

2—Company A chooses not to recognise lease assets and lease liabilities for leases with a lease term ending during 2019. Company A elects to apply the low-value asset lease exemption to its leases of low-value office equipment.

3—For leases of vehicles with a lease term ending after 1 January 2020, Company A chooses to measure lease assets equal to lease liabilities on 1 January 2019 (there are no prepaid or accrued lease payments, nor onerous lease provisions, immediately before transition). Consequently, Company A is not required to obtain information about the original lease term and the original lease payments for those leases. Company A obtains the following information for those leases as at 1 January 2019: (a) the remaining lease term and (b) the remaining lease payments.

4—For property leases with a lease term ending after 1 January 2020, Company A chooses to measure lease assets retrospectively. Company A obtains the following information for those leases as at 1 January 2019: (a) the original and remaining lease term and (b) the original and remaining lease payments, including inflation-linked payments.

5—For property leases and leases of vehicles with a lease term ending after 1 January 2020, Company A also determines a discount rate for each portfolio of leases with similar characteristics.

Costs

Company A incurs costs in preparing to apply IFRS 16 from 1 January 2019. However, those costs are mitigated by the fact that Company A already has a centrally maintained inventory of all of its vehicle leases, including information about the remaining lease term and the remaining lease payments. This information was previously used to prepare disclosures about operating leases required by IAS 17 (ie the disclosure of future minimum payments arising from non-cancellable operating leases).

Company A continues to monitor and disclose information about leases with a lease term ending during 2019 using the existing operating lease systems (ie systems used in applying IAS 17). Company A creates a new general ledger code to monitor expenses related to leases of low-value office equipment.

Company A incurs costs in capturing information about its property leases from its subsidiaries, some of which was previously used to prepare disclosures about operating leases applying IAS 17.

Because Company A does not have any finance lease systems in place, Company A also incurs costs in setting up systems to (a) account for its leases and (b) provide the disclosures required applying IFRS 16.

Company A incurs costs in determining the appropriate discount rates to apply to its leases, training its employees and updating its group accounting policies.

Case study A

Ongoing

Steps

Company A remeasures lease liabilities arising from property leases that include inflation-linked payments when contractual payments change.

Company A is not expected to change the measurement of lease assets and lease liabilities to reflect changes in the lease term of its vehicle leases. This is because it is unlikely that there will be a significant event or a significant change in circumstances, that (a) is within the control of Company A and (b) directly affects the lease term, when options are priced at market rates at the commencement date and lease terms are for less than five years.

Costs

There is a cost associated with remeasuring lease liabilities when contractual payments change.

No significant ongoing costs are incurred beyond those that had been incurred in complying with IAS 17. Having set up its systems to account for leases applying IFRS 16 and to provide the required disclosures, Company A inputs any new leases into that system.

Case study B: significant off balance sheet property leases

Case study B

Company B is a retailer that operates in a number of countries.

Apart from 10 stores that it owns in key locations, Company B leases all of the retail outlets from which it operates.

It has approximately 6,000 leases of retail outlets throughout the group, with non-cancellable lease terms of between three and 15 years, with most being for less than 10 years. Many of these contracts include:

- (a) extension options priced at market rates;*
- (b) variable lease payments that are either linked to inflation or to sales; and*
- (c) maintenance services.*

Company B also renegotiates and modifies the terms and conditions of many property leases before the end of the non-cancellable period. Company B has systems in place to manage its property leases, for example to determine:

- (a) whether and when to extend or renegotiate a lease; and*
- (b) the amounts payable when those amounts are variable.*

Company B classifies all of its property leases as operating leases in accordance with IAS 17.

Company B's reporting year ends on 31 December. Company B applies IFRS 16 from 1 January 2019 and chooses to apply the cumulative catch-up transition method in IFRS 16 when first applying the Standard.

Facts

Case study B

Implementation

Steps

- 1**—Company B prepares an inventory of leases with a remaining lease term beyond 1 January 2019, split into those with a lease term ending during 2019 and those with a longer lease term. In doing so Company B does not reassess whether contracts contain a lease applying IFRS 16 and does not determine initial direct costs on its leases.
- 2**—Company B chooses not to recognise lease assets and lease liabilities for leases with a lease term ending during 2019.
- 3**—For property leases with a lease term ending after 1 January 2020, Company B chooses to measure lease assets retrospectively. Company B obtains the following information as at 1 January 2019:
 - (a) the original and remaining lease terms.
 - (b) the original and remaining lease payments, including inflation-linked payments as at 1 January 2019. Company B does not need to estimate amounts expected to be payable when those amounts are linked to sales.
 - (c) the stand-alone prices for any maintenance services included in its lease contracts—those stand-alone prices are generally available in the contracts.
- 4**—For property leases with a lease term ending after 1 January 2020, Company B also determines discount rates for those leases.

Costs

Company B incurs costs in preparing to apply IFRS 16 from 1 January 2019. However, those costs are mitigated by the fact that property leases are significant to Company B's business operations and are subject to central oversight. Consequently, Company B maintains a detailed inventory of property leases and their associated contractual terms and conditions. Company B is able to use some information available within its existing property lease management systems when first applying IFRS 16.

Company B continues to monitor and disclose information about property leases with a lease term ending during 2019 using the existing operating lease systems (ie systems used in applying IAS 17).

Because Company B does not have any finance lease systems in place, Company B also incurs costs in setting up systems to (a) account for its property leases applying IFRS 16 and (b) gather disclosure information, including information about extension options and variable lease payments linked to sales.

Company B incurs costs in determining the appropriate discount rates to apply to its leases, training its employees and updating its group accounting policies.

Case study B

Ongoing

Steps

Company B remeasures lease liabilities arising from property leases that include inflation-linked payments when contractual payments change. Company B revises the lease term when Company B elects to exercise an extension option that was not included in the measurement of lease assets and lease liabilities (ie options previously assessed as not reasonably certain to be exercised).

Company B is not expected to change the measurement of lease assets and lease liabilities to reflect other changes in the lease term. This is because other changes to the lease term are expected to be relatively rare—it is unlikely that there will be a significant event or a significant change in circumstances, that (a) is within the control of Company B and (b) directly affects the lease term, when options are priced at market rates at the commencement date and there are many lease modifications.

Depending on the characteristics of lease modifications, Company B accounts for modifications to leases either as separate leases or as remeasurements of the lease liability (and the lease asset).

Costs

There is a cost associated with remeasuring the lease liability when contractual payments change. Because variable lease payments linked to sales are not included in the measurement of lease assets and lease liabilities, there are no additional costs associated with accounting for those variable lease payments—those payments are recognised as an expense as incurred, consistently with IAS 17.

Company B incurs costs to provide disclosures about future cash outflows to which Company B is potentially exposed such as those arising from extension options and variable lease payments linked to sales. However, costs associated with gathering information for disclosures are mitigated by the fact that this data is already available because it is used for internal management reporting purposes.

No significant ongoing costs are incurred beyond those that had been incurred in complying with IAS 17. Having set up its systems to account for leases applying IFRS 16 and to provide the required disclosures, Company B inputs any new leases (and modifications to leases) into that system.

Case study C: mixed portfolio, including on and off balance sheet leases

Case study C

Company C is a lessee that uses large and small items of equipment in its operations. In general, it has a policy of using equipment that is less than 12 years old, ie if purchased, Company C will sell equipment that is 12 years old to a third party. In order to be able to adopt new technology faster and to provide financial flexibility, Company C has a policy of purchasing 60 per cent of the equipment used in its operations and leasing the remaining 40 per cent. Company C has approximately 800 leases of equipment throughout the group, with non-cancellable lease terms of between six and eight years. For some of these contracts, Company C provides a residual value guarantee to the lessor.

In addition, Company C has:

- (a) a relatively small number of property leases (approximately 30) used for corporate purposes, with non-cancellable lease terms of between five and 10 years. Company C also has three property leases with non-cancellable lease terms of 30 years.
- (b) a number of leases of office devices, of which some are of low value (such as phones and personal computers) and others are not (such as high-capacity multifunction photocopier devices).

Company C classifies its leases as follows applying IAS 17:

- (a) 70 per cent (approximately 560) of its equipment leases are operating leases; the remaining 30 per cent (approximately 240) are finance leases;
- (b) three of its property leases are finance leases; the remainder are operating leases; and
- (c) all of the leases of office devices are operating leases.

Company C has a system in place to account for its finance leases but does not have such a system in place for its operating leases.

Company C's reporting year ends on 31 December. Company C applies IFRS 16 from 1 January 2019 and chooses to apply the cumulative catch-up transition method in IFRS 16 when first applying the Standard.

Facts

Case study C

Implementation

Steps

- 1**—Company C prepares an inventory of leases with a remaining lease term beyond 1 January 2019, split into those with a lease term ending during 2019 and those with a longer lease term. In doing so, Company C chooses to analyse its contracts applying the lease definition guidance in IFRS 16, and determines that there are no changes in its inventory of leases applying IFRS 16 compared to when applying IAS 17. Company C does not determine initial direct costs on its leases.
- 2**—Company C chooses not to recognise lease assets and lease liabilities for leases with a lease term ending during 2019. Company C elects to apply the low-value asset lease exemption to its leases of low-value office devices.
- 3**—For leases of high value office devices with a lease term ending after 1 January 2020, Company C chooses to measure lease assets equal to lease liabilities on initial application of IFRS 16 (there are no prepaid or accrued lease payments, nor onerous lease provisions, immediately before transition). Consequently, Company C is not required to obtain information about the original lease term and the original lease payments for those leases. Company C obtains the following information for those leases as at 1 January 2019: (a) the remaining lease term and (b) the remaining lease payments.
- 4**—For property leases and leases of equipment with a lease term ending after 1 January 2020 (other than leases of office devices), Company C chooses to measure lease assets retrospectively. Company C obtains the following information for those leases as at 1 January 2019: (a) the original and remaining lease term and (b) the original and remaining lease payments.
- 5**—For leases of equipment, higher value office devices and properties, with a lease term ending after 1 January 2020, Company C also determines discount rates for those leases.

Costs

- Although not required by IFRS 16, Company C chooses to incur costs in reassessing all contracts to determine whether those contracts contain a lease applying IFRS 16. Company C continues to monitor and disclose information about leases with a lease term ending during 2019 using the existing operating lease systems (ie systems used in applying IAS 17). Company C creates a new general ledger code to monitor expenses related to leases of low-value office devices.
- Company C incurs costs in preparing to apply IFRS 16 from 1 January 2019. However, costs are mitigated by the following:
- (a) Company C monitors all leases centrally and already prepares disclosures about operating leases required by IAS 17 (ie the disclosure of future minimum payments arising from non-cancellable operating leases). Consequently, Company C already has an inventory of all of its leases, including information about the remaining lease term and the remaining lease payments.
 - (b) Company C does not incur any costs relating to accounting for leases previously classified as finance leases because of the transition relief for such leases in IFRS 16.
 - (c) Company C has a system in place to account for its finance leases. This system is able to be used to account for leases previously classified as operating leases because the accounting applying IFRS 16 is largely consistent with former finance lease accounting.
- Company C also incurs costs in determining the appropriate discount rates to apply to its leases, training its employees and updating its group accounting policies.

Case study C

Ongoing

Steps

Company C remeasures lease liabilities arising from equipment leases that have residual value guarantees to reflect the change in amounts expected to be payable under those guarantees. Company C is not expected to change the measurement if the changes are not material.

Costs

There is a cost associated with remeasuring lease liabilities when estimated payments under residual value guarantees change materially.

Company C incurs costs to provide disclosures about future cash outflows to which Company C is potentially exposed, in particular those arising from residual value guarantees. However, those costs are not significant because this data is already captured for internal management reporting.

Further ongoing costs are not incurred beyond those that had been incurred in complying with IAS 17. Company C inputs any new leases into the system in place to account for leases previously classified as finance leases.

Appendix C—Effects on a company's financial statements: illustrative examples

Illustrative examples

This appendix illustrates the estimated effects of IFRS 16 by comparing the reported financial information applying previous accounting requirements in IAS 17 to the information that is expected to result from applying IFRS 16 and the FASB model. In the illustrations, 'IAS 17' refers to previous lease accounting requirements and 'US GAAP' refers to the FASB model.

The illustrations include some common ratios used by investors and analysts in assessing financial leverage and performance. Debt to EBITDA and interest cover are the most common ratios used in debt covenants according to an academic study published in 2014.⁷²

Airline and Retailer were selected because those are two of the industry sectors expected to be most affected by IFRS 16. Distributor was selected to illustrate the estimated effects on companies with material off balance sheet leases of less significance than those of Airline and Retailer.⁷³

Various assumptions needed to be made when preparing the estimated effects applying IFRS 16 and the FASB model illustrated in this appendix. The main assumptions made are the following:

- (a) a discount rate of 5 per cent applies to all former off balance sheet leases;
- (b) applying IFRS 16, lease assets are depreciated on a straight-line basis;
- (c) applying the FASB model, leases are classified in the same way as they were applying previous lease accounting requirements;
- (d) leases of low-value assets and short-term leases are not material; and
- (e) the examples do not include (i) any possible difference in lease liabilities recognised applying IFRS 16 and the FASB model relating to the reassessment of inflation-linked payments; and (ii) any effects on tax.

In addition, to provide more realistic information, estimates have been prepared on the basis that all companies hold a 'rolling' portfolio of leases. Average lease terms have been estimated based on information disclosed in the financial statements.

Background information

Airline reports approximately 80 per cent of its aircraft fleet on the balance sheet applying IAS 17 (ie around 80 per cent of Airline's aircraft fleet is owned or leased under finance leases). Airline leases (under former off balance sheet leases) approximately 20 per cent of its aircraft fleet as well as various buildings.

Retailer is a food retailer with thousands of stores, both large and small. Retailer leases a large proportion of its retail space using off balance sheet leases. Those leases are predominantly longer term leases for between 15 and 30 years.

Distributor is a supplier of construction and building materials. Distributor leases plant and machinery, as well as real estate. Those leases are predominantly for between two and 10 years.

⁷² "The Effect of Capitalizing Operating Leases on the Immediacy to Debt Covenant Violations", by Byunghwan Lee, Gyung Paik Daniel, Sung Wook Yoon, Journal of Accounting and Finance, 2014, vol. 14, issue 6.

⁷³ See Section 3—Companies affected by changes in lessee accounting.

Illustration 1: Airline

Balance sheet	IAS 17	IFRS 16	US GAAP
Property, plant and equipment	27,886	27,886	27,886
Lease assets	12,030	25,430	12,030
Other ⁷⁴	9,114	8,952	8,952
Total non-current assets	49,030	62,268	63,791
Total current assets	21,152	21,152	21,152
Total assets	70,182	83,420	84,943
Borrowings	9,430	9,430	9,430
Lease liabilities	10,516	25,277	10,516
Other liabilities	34,818	34,818	34,818
Total liabilities	54,764	69,525	69,525
Equity	15,418	13,895	15,418
Total liabilities and equity	70,182	83,420	84,943
Income statement	IAS 17	IFRS 16	US GAAP
Revenue and other income	67,272	67,272	67,272
Operating costs (excl depr and amort)	(60,893)	(58,340)	(60,893)
EBITDA	6,379	8,932	6,379
Depreciation and amortisation	(3,908)	(5,674)	(3,908)
Operating profit	2,471	3,258	2,471
Net finance costs	(865)	(1,656)	(865)
Profit before tax	1,606	1,602	1,606
Income tax	(285)	(285)	(285)
Profit for the year	1,321	1,317	1,321
Cash flow statement	IAS 17	IFRS 16	US GAAP
Operating activities	6,265	8,026	6,265
Investing activities	(5,190)	(5,190)	(5,190)
Financing activities	(851)	(2,612)	(851)
Total cash inflow	224	224	224

⁷⁴ Other non-current assets applying IAS 17 include advance off balance sheet lease payments that are no longer reflected in that way applying IFRS 16 and US GAAP.

The information in Illustration 1 has been prepared using reported information for a number of companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

Balance sheet

- *Compared to IAS 17:* increase in lease assets and lease liabilities as explained in Section 6.1—*Effects on the balance sheet*.
- *IFRS 16 vs US GAAP:* lease assets and equity higher applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.

Lease assets and liabilities relating to former on and off balance sheet leases required to be presented in separate line items applying US GAAP. [Neither IFRS 16 nor US GAAP require presentation of lease assets and liabilities on the face of the balance sheet—amounts shown here for illustrative purposes.]

Income statement

- *Compared to IAS 17:* no change to previous reported amounts applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.
- *IFRS 16 vs US GAAP:* EBITDA notably higher applying IFRS 16 because it does not include any expense related to leases; operating profit also higher applying IFRS 16 because it includes only a portion of expenses related to leases as explained in Section 8—*Effects of differences between IFRS and US GAAP*. Profit for the year only marginally different between IFRS 16 and US GAAP because Airline holds a portfolio of leases starting and ending in different years.

Cash flow statement

- *Compared to IAS 17:* no change to previous reported amounts applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.
- *IFRS 16 vs US GAAP:* total cash flow does not change. Net cash flows from operating activities higher applying IFRS 16 (with corresponding increase in cash outflows from financing activities) as explained in Section 8—*Effects of differences between IFRS and US GAAP*. [In this example, Airline reports interest within operating activities.]

Illustration 1: Airline *continued...*

Common ratios

(calculated based on reported information without adjustment)

	IAS 17	IFRS 16	US GAAP
Financial leverage			
[A] Debt (borrowings plus lease liabilities) to EBITDA	3.1	3.9	5.4
[B] Interest cover (EBITDA to net finance costs)	7.4	5.4	7.4
Performance			
[C] ROCE (Return On Capital Employed)	7.0%	6.7%	4.9%

[EBITDA = operating profit plus depreciation and amortisation]

[ROCE: Return = operating profit; Capital employed = equity plus borrowings plus lease liabilities]

Effects on common ratios:

Financial leverage

- **[A] Debt to EBITDA:** applying previous lease accounting requirements, credit analysts and others often calculated lease-adjusted leverage ratios by adjusting (a) debt (to capitalise off balance sheet leases) and also (b) earnings (to add back rental expense for off balance sheet leases (for example, EBITDAR)). This resulted in a leverage ratio calculated on a basis similar to that provided by IFRS 16 (for example, EBITDA applying IFRS 16 excludes all expenses related to leases so IFRS 16 EBITDA = IAS 17 EBITDAR and US GAAP EBITDAR). See Section 4.1—*Improved quality of financial reporting* for further information about adjustments made by investors and analysts when companies applied IAS 17.
- **[B] Interest cover:** the decrease in the interest cover ratio to 5.4 applying IFRS 16 is substantial for Airline because (a) expenses related to leases are large relative to the profitability of the company and (b) Airline has long-term off balance sheet leases. This effect is comparable to the effect of a debt financed asset purchase.

Performance

- **[C] Return On Capital Employed:** ROCE substantively lower applying US GAAP (4.9 per cent) because operating profit does not change but reported capital employed is significantly higher (reflecting that Airline uses both leased and owned assets to operate its business). Information from investors and analysts, and companies that prepared non-GAAP lease-adjusted information, indicates that adjustments were made to previous reported operating profit when off balance sheet leases were included as part of capital employed. Reported operating profit applying IAS 17 was often adjusted to add back estimated interest on off balance sheet leases (similar to the outcome applying IFRS 16). See Section 4.1—*Improved quality of financial reporting* for further information about adjustments made by investors and analysts and non-GAAP information provided by companies applying IAS 17.

The information in Illustration 1 has been prepared using reported information for a number companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

The next paragraphs illustrate the information that a company is expected to present in the notes to its financial statements applying previous lease accounting requirements and in applying IFRS 16 and the FASB model. The illustration does not include any additional relevant information required by paragraph 59 of IFRS 16, or any qualitative disclosures required by the FASB model.

IAS 17

Leased assets⁷⁵

Property, plant and equipment includes leased assets whose underlying contracts are structured as on balance sheet leases (finance leases). The following table shows leased assets for which Airline is a lessee:

	Aircraft	Real estate and other	Total
Costs⁷⁶			
Opening balance	13,527	825	14,352
Additions	2,483	–	2,483
Closing balance	16,010	825	16,835
Accumulated depreciation⁷⁶			
Opening balance	(3,340)	(560)	(3,900)
Depreciation for the year	(835)	(70)	(905)
Closing balance	(4,175)	(630)	(4,805)
Net carrying amount			
Opening balance	10,187	265	10,452
Closing balance	11,835	195	12,030

⁷⁵ This information may be presented in the notes section related to “property, plant and equipment”.

⁷⁶ Applying previous requirements, the disclosure requirements for owned property, plant and equipment also applied to lease assets arising from on balance sheet leases. Those requirements did not require separate disclosure for leased assets and owned assets included in the same asset class (for example, leased aircraft separately from owned aircraft) – information about leased assets is shown here for illustrative purposes.

⁷⁷ Breakdown by class of leased asset was not required by IAS 17. However, some companies with significant amounts of off balance sheet leases often provided disclosures of lease commitments by class of leased asset.

The information in Illustration 1 has been prepared using reported information for a number of companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

On balance sheet lease obligations

Future minimum lease payments arising from on balance sheet leases are as follows:

	Within 1 year	Between 2 and 5 years	After 5 years	Total
Lease payments	1,426	5,405	5,529	12,360
Discount	(269)	(948)	(627)	(1,844)
Present value	1,157	4,457	4,902	10,516

Off balance sheet lease commitments

Future minimum lease payments arising from off balance sheet leases are as follows:

	Aircraft ⁷⁷	Real estate and other ⁷⁷	Total	Subleases
Within 1 year	2,308	503	2,811	16
Between 2 and 5 years	6,324	1,633	7,957	31
After 5 years	4,239	4,748	8,987	28
	12,871	6,884	19,755	75

Expenses related to off balance sheet leases recognised in the income statement amount to 2,630 and include 77 of contingent rents. Income from sub-leases amounts to 59.

IFRS 16

The carrying amount of lease assets, split by major class of asset, and new lease assets during the reporting period, are presented in the table below.

Lease assets	
Carrying amount of lease assets	25,430
<i>Of which</i>	
- Aircraft	21,459
- Real estate and other	3,971
Additions to lease assets	5,486

A maturity analysis of lease liabilities based on undiscounted gross cash flows is reported in the table below:

Lease liabilities ⁷⁸	
Less than 1 year	4,238
2 years	3,786
3 years	3,466
4 years	3,166
5 years	2,943
6 years	2,452
7 years	2,402
8 years	2,382
9 years	2,362
10 years	1,545
Between 10 and 15 years	1,965
More than 15 years	1,408
Total lease liabilities (undiscounted)	32,115

⁷⁸ In accordance with IFRS 7 a company would apply judgement in determining which time bands to disclose.

Income statement

Depreciation of lease assets	(2,672)
<i>Of which</i>	
- Aircraft	(2,268)
- Real estate and other	(404)
Interest on lease liabilities	(1,728)
	(4,400)
Variable lease payments	(77)
Sublease income	59
Gains on sale and leaseback transactions	100

Cash flow statement

Total cash outflow for leases	(4,096)
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The information in Illustration 1 has been prepared using reported information for a number companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

US GAAP (FASB model)

The carrying amount of lease assets, split by finance and operating leases, and lease assets obtained in exchange for lease liabilities during the reporting period are presented in the table below.

Lease assets	
Carrying amount of lease assets	26,953
<i>Of which</i>	
- Finance leases	12,030
- Operating leases	14,923
Lease assets obtained in exchange for lease liabilities⁷⁹	5,324
<i>of which</i>	
- Finance leases	2,321
- Operating leases	3,003

A maturity analysis of lease liabilities is reported in the table below:

Lease liabilities	Finance leases	Operating leases
Less than 1 year	1,426	2,812
2 years	1,352	2,434
3 years	1,351	2,115
4 years	1,351	1,815
5 years	1,351	1,592
More than 5 years	5,529	8,987
Total lease liabilities (undiscounted)	12,360	19,755
Discount amount	(1,844)	(4,994)
Lease liabilities (discounted)	10,516	14,761

⁷⁹ In the illustration the amount of new lease assets during the reporting period applying the FASB model differs from the amount reported as 'Additions to lease assets' applying IFRS 16 due to advance lease payments (ie advance lease payments do not result in lease liabilities).

⁸⁰ In the illustration the amount of operating lease cash flows is assumed to be the same as the lease expense.

The information in Illustration 1 has been prepared using reported information for a number companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

Income statement

Finance leases	
Depreciation of lease assets	(905)
Interest on lease liabilities	(937)
	(1,842)
Operating leases	
Lease expense	(2,553)
Variable lease payments	
	(77)
Sublease income	
	59
Gains on sale and leaseback transactions	
	100

Cash flow statement

Cash paid for amounts included in leases liabilities	(4,019)
<i>Of which</i>	
- Financing cash flows	(1,217)
- Operating cash flows	(2,802)
<i>Of which</i>	
- Finance leases	(1,466)
- Operating leases ⁸⁰	(2,553)

Other information

Weighted average remaining lease term	
- Finance leases	4.2 years
- Operating leases	7.3 years
Weighted average discount rate	
- Finance leases	5.5%
- Operating leases	5.0%

Illustration 2: Retailer

Balance sheet	IAS 17	IFRS 16	US GAAP
Property, plant and equipment	44,521	44,521	44,521
Lease assets	958	18,757	958
Other	26,703	26,703	26,703
Total non-current assets	72,182	89,981	92,268
Total current assets	38,086	38,086	38,086
Total assets	110,268	128,067	130,354
Borrowings	22,533	22,533	22,533
Lease liabilities	697	21,233	697
Other liabilities ⁸¹	57,714	57,264	57,264
Total liabilities	80,944	101,030	101,030
Equity	29,324	27,037	29,324
Total liabilities and equity	110,268	128,067	130,354
Income statement	IAS 17	IFRS 16	US GAAP
Revenue and other income	164,181	164,181	164,181
Cost of sales	(141,937)	(140,764)	(141,937)
Gross profit	22,244	23,417	22,244
Operating costs	(16,222)	(16,222)	(16,222)
Operating profit	6,022	7,195	6,022
Net finance costs	(1,293)	(2,393)	(1,293)
Profit before tax	4,729	4,802	4,729
Income tax	(1,161)	(1,161)	(1,161)
Profit for the year	3,568	3,641	3,568
Cash flow statement	IAS 17	IFRS 16	US GAAP
Operating activities	5,312	7,117	5,312
Investing activities	(3,283)	(3,283)	(3,283)
Financing activities	(2,236)	(4,041)	(2,236)
Total cash outflow	(207)	(207)	(207)

81 Other liabilities applying IAS 17 include onerous lease provisions for off balance sheet leases that are no longer reflected in that way applying IFRS 16 and US GAAP.

The information in Illustration 2 has been prepared using reported information for a number of companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

Balance sheet

- *Compared to IAS 17:* increase in lease assets and lease liabilities as explained in Section 6.1—*Effects on the balance sheet*.
- *IFRS 16 vs US GAAP:* lease assets and equity higher applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.

Additional information about the presentation of lease assets and liabilities within Airline example on page 88 of this document.

Income statement

- *Compared to IAS 17:* no change to previous reported amounts applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.
- *IFRS 16 vs US GAAP:* operating profit, and other profit measures before finance costs (for example, gross profit), higher applying IFRS 16 because interest on all leases reported as finance costs (implicit interest on former off balance sheet leases reported within cost of sales applying US GAAP) as explained in Section 8—*Effects of differences between IFRS and US GAAP*.

Profit for the year different applying IFRS 16 (but only by a small amount) because Retailer holds a portfolio of leases starting and ending in different years.

Cash flow statement

- *Compared to IAS 17:* no change to previous reported amounts applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.
- *IFRS 16 vs US GAAP:* total cash flow does not change. Net cash flows from operating activities higher applying IFRS 16 (with corresponding increase in cash outflows from financing activities) as explained in Section 8—*Effects of differences between IFRS and US GAAP*. [In this example, Retailer reports interest within operating activities.]

Illustration 2: Retailer *continued...*

Common ratios

(calculated based on reported information without adjustment)

	IAS 17	IFRS 16	US GAAP
Financial leverage			
[A] Debt (borrowings plus lease liabilities) to EBITDA	2.4	3.5	4.5
[B] Interest cover (EBITDA to net finance costs)	7.4	5.2	7.4
Performance			
[C] ROCE (Return On Capital Employed)	11.5%	10.2%	8.2%

[EBITDA: operating profit plus depreciation and amortisation. Depreciation and amortisation is 3,601 (applying IAS 17 and US GAAP) and 5,334 (applying IFRS 16).]

[ROCE: Return = operating profit; Capital employed = equity plus borrowings plus lease liabilities]

Effects on common ratios:

Financial leverage

- **[A] Debt to EBITDA:** ratio of debt to EBITDA applying IFRS 16 (3.5 times) higher than when applying previous lease accounting requirements because debt (defined in this example as borrowings plus lease liabilities) increases by more than the increase in earnings. Ratio of debt to earnings applying US GAAP (4.5 times) higher than when applying IFRS 16 because the earnings measure (ie EBITDA) applying US GAAP includes expenses related to former off balance sheet leases whereas EBITDA applying IFRS 16 does not.
- **[B] Interest cover:** for Retailer, increase in the earnings measure (ie EBITDA) applying IFRS 16 is not proportionate to the increase in interest. As a result, interest cover ratio decreased to 5.2. The decrease in interest cover (and increase in interest) is substantial for Retailer because, like Airline in Illustration 1, expenses related to leases are large relative to profitability and Retailer has long-term leases.

See further explanation within Airline example on page 89 of this document.

Performance

- **[C] Return On Capital Employed:** ROCE applying IFRS 16 (10.2 per cent) lower than when applying previous lease accounting requirements (11.5 per cent) because the increase in operating profit is not proportionate to the increase in capital employed. The increase in capital employed applying IFRS 16 and US GAAP appropriately reflects that Retailer operates its business using leased assets as well as owned assets. Return on capital employed is even lower applying US GAAP (8.2 per cent) because operating profit does not change compared to previous lease accounting requirements, and yet reported capital employed is significantly higher than when applying previous lease accounting requirements.

See further explanation within Airline example on page 89 of this document.

The information in Illustration 2 has been prepared using reported information for a number of companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

Illustration 3: Distributor

Balance sheet	IAS 17	IFRS 16	US GAAP
Property, plant and equipment	13,745	13,745	13,745
Lease assets	116	3,167	116
Other	16,915	16,915	16,915
Total non-current assets	30,776	33,827	34,021
Total current assets	21,698	21,698	21,698
Total assets	52,474	55,525	55,719
Borrowings	12,003	12,003	12,003
Lease liabilities	106	3,351	106
Other liabilities	19,609	19,609	19,609
Total liabilities	31,718	34,963	34,963
Equity	20,756	20,562	20,756
Total liabilities and equity	52,474	55,525	55,719
Income statement	IAS 17	IFRS 16	US GAAP
Revenue and other income	55,155	55,155	55,155
Operating costs (excl depr and amort)	(50,973)	(49,958)	(50,973)
EBITDA	4,182	5,197	4,182
Depreciation and amortisation	(1,564)	(2,401)	(1,564)
Operating profit	2,618	2,796	2,618
Net finance costs	(824)	(1,005)	(824)
Profit before tax	1,794	1,791	1,794
Income tax	(670)	(670)	(670)
Profit for the year	1,124	1,121	1,124
Cash flow statement	IAS 17	IFRS 16	US GAAP
Operating activities	2,638	3,472	2,638
Investing activities	(1,555)	(1,555)	(1,555)
Financing activities	(915)	(1,749)	(915)
Total cash inflow	168	168	168

Balance sheet

- *Compared to IAS 17:* increase in lease assets and lease liabilities as explained in Section 6.1—*Effects on the balance sheet*.
- *IFRS 16 vs US GAAP:* lease assets and equity higher applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*. The effect of IFRS 16 on equity is relatively small because (a) leases are less significant to Distributor's operations than for Airline and Retailer and (b) Distributor has leases with an average lease term of approximately eight years (considerably shorter than Airline and Retailer).

Income statement

- *Compared to IAS 17:* no change to previous reported amounts applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.
- *IFRS 16 vs US GAAP:* EBITDA notably higher applying IFRS 16 because it does not include any expense related to leases; operating profit also higher applying IFRS 16 because it includes only a portion of expenses related to leases as explained in Section 8—*Effects of differences between IFRS and US GAAP*.

Profit for the year different applying IFRS 16 (but only by a small amount) because Distributor holds a portfolio of leases starting and ending in different years.

Cash flow statement

- *Compared to IAS 17:* no change to previous reported amounts applying US GAAP as explained in Section 8—*Effects of differences between IFRS and US GAAP*.
- *IFRS 16 vs US GAAP:* total cash flow does not change. Net cash flows from operating activities higher applying IFRS 16 (with corresponding increase in cash outflows from financing activities) as explained in Section 8—*Effects of differences between IFRS and US GAAP*. [In this example, Distributor reports interest within operating activities.]

The information in Illustration 3 has been prepared using reported information for a number of companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

Illustration 3: Distributor *continued...*

Common ratios

(calculated based on reported information without adjustment)

	IAS 17	IFRS 16	US GAAP
Financial leverage			
[A] Debt (borrowings plus lease liabilities) to EBITDA	2.9	3.0	3.7
[B] Interest cover (EBITDA to net finance costs)	5.1	5.2	5.1
Performance			
[C] ROCE (Return On Capital Employed)	8.0%	7.8%	7.3%

[EBITDA: operating profit plus depreciation and amortisation]

[ROCE: Return = operating profit; Capital employed = equity plus borrowings plus lease liabilities]

Effects on common ratios:

Financial leverage

- **[A] Debt to EBITDA:** see explanation similar to Airline and Retailer examples on pages 89 and 94 of this document.
- **[B] Interest cover:** interest cover ratio only marginally different applying IFRS 16 because Distributor has leases with a shorter average lease term of approximately eight years. This results in the implicit interest on former off balance sheet leases being a smaller proportion of the total expense related to those leases than for Airline and Retailer, which have long-term leases.

Performance

- **[C] Return On Capital Employed:** see explanation similar to Airline and Retailer examples on pages 89 and 94 of this document.

The information in Illustration 3 has been prepared using reported information for a number of companies. It includes estimates and assumptions that could contain errors, and should be used with a degree of caution. The information has been prepared for illustrative purposes only—the actual effect of IFRS 16 on specific companies and industries could differ materially from those presented herein.

Appendix D—Effects on a company's profit or loss for a portfolio of leases

Portfolio effect

This appendix considers the change in the expense pattern for a portfolio of leases classified as operating leases applying IAS 17.

As discussed in Section 6.2—*Effects on the income statement*, if a company's lease portfolio is evenly distributed,⁸² the overall effect on the company's income statement from adopting IFRS 16 is expected to be neutral. This is because no difference is expected between the sum of depreciation and interest for leases applying IFRS 16 compared to a straight-line expense for off balance sheet leases applying IAS 17. However, such an evenly distributed portfolio does not apply to all companies. Consequently, the following paragraphs consider some scenarios that are likely to occur in practice:

- 1 new leases have different lease terms to leases that they replace;
- 2 the size of the lease portfolio changes; and
- 3 the discount rate changes.

For simplicity and to illustrate the likely effects, in each of the examples below, the starting point is an evenly distributed lease portfolio whereby only one factor varies and all others remain the same. The examples also assume that the company recognises (a) depreciation of lease assets on a straight-line basis applying IFRS 16 and (b) the expense for off balance sheet leases on a straight-line basis applying IAS 17.

1 Change in the lease term

For example, consider a company that has an equally distributed portfolio of 10-year leases (with even cash payments during the lease term), to which a discount rate of 6 per cent per annum is applied. Consequently, the total expense (ie the sum of depreciation and interest) for those leases is equal to the expense for off balance sheet leases applying IAS 17.

Case 1A

At the beginning of Year 1, the company renews 10 per cent of the lease portfolio with the same conditions, except that the new leases are for only five years.

Leases that account for 10 per cent of the portfolio would have a Year 1 expense applying IFRS 16 that is higher than the expense for off balance sheet leases applying IAS 17—the difference is calculated to be 10 per cent. If those leases had been renewed for a 10-year term, the Year 1 expense for those leases would have been 18 per cent higher than the expense for off balance sheet leases applying IAS 17.

⁸² An evenly distributed portfolio is a portfolio with the same number of leases starting and ending in any one period, with the same terms and conditions.

Consequently, the total expense for that part of the lease portfolio is now 8 per cent (18 per cent less 10 per cent) lower than if the company had entered into 10-year leases. The effect on the overall lease portfolio would be an expense recognised applying IFRS 16 that is 0.8 per cent lower than the expense for off balance sheet leases applying IAS 17 (because new leases account for one tenth of the portfolio (ie 8 per cent × 10 per cent of the portfolio = 0.8 per cent)).

The effect increases if the new policy of replacing expired leases with shorter-term leases continues into Year 2, making the overall expense recognised applying IFRS 16 lower by 1.8 per cent than the expense for off balance sheet leases applying IAS 17 in Year 2.

If the company continues to apply its new policy and ultimately changes its entire portfolio of 10-year leases to five-year leases, the maximum difference between the total expense recognised applying IFRS 16 and the expense for off balance sheet leases applying IAS 17 would be 5.3 per cent, in Year 5. That difference would reduce over time to zero in the year that the company again has an evenly distributed portfolio of five-year leases.

Case 1B

The opposite conclusion would apply when a company replaces shorter-term leases with longer-term leases, in which case the total expense recognised applying IFRS 16 would be higher than the expense for off balance sheet leases applying IAS 17.

If the example above is reversed (ie if the company replaces five-year leases with 10-year leases), in Year 1 the total expense recognised applying IFRS 16 would be 1.6 per cent higher (8 per cent difference × 0.2, with 0.2 representing the proportion of the portfolio that consists of new leases. In an evenly distributed portfolio of five-year leases, one-fifth of those leases would be renewed in each year).

Case 1A	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Proportion of portfolio with 10-year leases	90%	80%	70%	60%	50%	40%	30%	20%	10%	---
Proportion of portfolio with five-year leases	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Difference in expense between IFRS 16 and IAS 17—off balance sheet leases	-0.8%	-1.8%	-2.8%	-4.0%	-5.3%	-4.3%	-3.2%	-2.1%	-1.1%	---

2 Change in the size of the lease portfolio

Suppose that, as in Case 1 above, a company has an evenly distributed portfolio of 10-year leases, to which a rate of 6 per cent per annum is applied.

Case 2A

The company increases the size of its lease portfolio by 10 per cent in Year 1. This means that in Year 1 the company would have 10 per cent more leases that have a total expense that is 18 per cent higher than the expense for off balance sheet leases applying IAS 17.

Consequently, the overall effect would be that the total expense applying IFRS 16 is 1.6 per cent higher than the expense for off balance sheet leases applying IAS 17 in Year 1.

The effect increases if the new policy of increasing the portfolio by 10 per cent continues into Year 2, resulting in a total expense applying IFRS 16 that is 2.7 per cent higher than the expense for off balance sheet leases applying IAS 17 in Year 2.

Case 2B

The opposite conclusion applies when a company reduces the size of its lease portfolio. Using the example above, if none of the leases that expired in Year 1 were replaced (ie if the lease portfolio were reduced by 10 per cent), the total expense applying IFRS 16 in Year 1 would be 2.0 per cent lower than the expense for off balance sheet leases applying IAS 17.

Case 2A	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Increase in portfolio with 10-year leases (compared to Year 0)	+10%	+20%	+30%	+40%	+50%	+60%	+70%	+80%	+90%	+100%
Difference in expense between IFRS 16 and IAS 17—off balance sheet leases	1.6%	2.7%	3.3%	3.6%	3.5%	3.2%	2.7%	2.0%	1.1%	---

3 Change in the discount rate

Using the same example as in Case 1 above, assume that the company has the same portfolio of 10-year leases, but that the discount rate applied to new leases changes.

Case 3A

Assume that the rate applied to new leases decreases from 6 per cent per annum to 4 per cent per annum. This would result in 10 per cent of leases having a total expense applying IFRS 16 that is 14 per cent higher than the expense for off balance sheet leases applying IAS 17, instead of 18 per cent higher if they had been renewed using a rate of 6 per cent per annum. Consequently, in Year 1 the company's total expense applying IFRS 16 would be 0.4 per cent lower than the expense for off balance sheet leases applying IAS 17 in the first year of change (the difference of 4 per cent \times 0.1).

The effect increases if the lower discount rate continues into Year 2, resulting in a total expense applying IFRS 16 that is 0.8 per cent lower than the expense for off balance sheet leases applying IAS 17.

Case 3B

The opposite conclusion applies when the discount rate increases. If the discount rate were increased from 4 per cent per annum to 6 per cent per annum, the total expense applying IFRS 16 would be 0.4 per cent higher in Year 1 than the expense for off balance sheet leases applying IAS 17.

Case 3A	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Proportion of portfolio with 6% discount rate	90%	80%	70%	60%	50%	40%	30%	20%	10%	---
Proportion of portfolio with 4% discount rate	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Difference in expense between IFRS 16 and IAS 17— off balance sheet leases	-0.4%	-0.8%	-1.1%	-1.3%	-1.4%	-1.4%	-1.2%	-1.0%	-0.6%	---

Glossary

This glossary contains short definitions of terms used in this document.

Term	Definition
CPI	Abbreviation for Consumer Price Index. Similar to a Retail Price Index (RPI), a CPI is an index of inflation. It is calculated by collecting and comparing the prices of a set basket of goods and services bought by a typical consumer at regular intervals over time.
Debt covenants	Agreements between a company and its creditors that the company should operate within specified limits. They are agreed as a condition of borrowing. The term 'debt' is defined independently of IFRS requirements.
EBIT	Earnings Before Interest and Tax. This term is defined independently of IFRS requirements.
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation. This term is defined independently of IFRS requirements.
EBITDAR	Earnings Before Interest, Tax, Depreciation, Amortisation and Rent (on former off balance sheet leases). This term is defined independently of IFRS requirements.
Interest cover	A measure of a company's interest payments relative to its profits. It is calculated by dividing a company's operating profit by its interest payments for a given period. This measure is defined independently of IFRS requirements.
Lessee	A company that leases an asset from another company (lessor).
Cumulative catch-up transition method	Method described in paragraph C5(b) of IFRS 16 that a company can use when first applying IFRS 16.
Non-GAAP measures	Calculations made not in accordance with Generally Accepted Accounting Principles. There are no standardised methods for computing these measures.
Off balance sheet leases	Applying previous lease accounting requirements, all leases other than 'on balance sheet leases'. Also called operating leases.
On balance sheet leases	Applying previous lease accounting requirements, leases that transfer substantially all the risks and rewards incidental to ownership of the leased asset to the lessee. Also called finance leases in IFRS and capital leases in US GAAP.
Operating profit	A measure of a company's earnings from continuing operations before the deduction of interest payments and income tax. Also called EBIT (Earnings Before Interest and Tax). This term is defined independently of IFRS requirements.
ROCE	Abbreviation for Return On Capital Employed. ROCE is the ratio of operating profit to capital employed, expressed as a percentage. Capital employed equals shareholders' funds plus long-term liabilities, in other words all the long-term funds used by a company. The ratio measures the return on all sources of finance used by a company (ie equity plus debt) and is very similar to return on assets (which includes current liabilities). Also known as Return on Investment (ROI) or Return on Invested Capital (ROIC).
SMEs	Small and Medium-sized Enterprises. There is no single definition of this term.

Important information

This Effects Analysis accompanies IFRS 16 *Leases* (issued January 2016; see separate booklet) and is published by the International Accounting Standards Board (IASB).

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