

Accounting Issues

Lease accounting: FASB and IASB issue proposals to bring all leases on to balance sheets

- On 17 August 2010 the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) published the joint exposure draft *Leases*. The boards propose to radically transform lease accounting from the model that has existed for over 30 years in the United States. If finalized as written, the proposal would result in a completely new model for lease accounting—that is, all of the assets and liabilities in substantially all lease contracts (both existing and new) would be capitalized on the balance sheet.
- While the boards' stated goal is to finalize its proposals on lease accounting by 30 June 2011, we do not expect that the final requirements will be effective before at least FY 2015.
- **What is the basic proposed model for lessee accounting?** The FASB and the IASB propose a right-of-use model for lessee accounting. The model requires the lessee to recognize an intangible asset for its "right to use" an underlying asset and a corresponding liability for the obligation to pay rentals. The capital lease and operating lease classifications currently in use would be eliminated. Further, lessees would be required to include some options (i.e., renewals and terminations) and forecasts of contingent amounts in the measurement of the right-to-use asset and lease liability. Current pro forma capitalizations of operating leases likely understate the amounts that would ultimately be presented on the balance sheet of lessees under the proposed model.
- **How would the proposed model change lessee financial statements?** Reported assets would be higher, resulting in lower asset turnover ratios and (usually) a lower return on equity. Liabilities (both current and non-current) would be higher, resulting in decreased working capital and an increase in the debt-to-equity ratio. Increased amortization (related to the right-of-use asset) and increased interest expense (related to the lease liability) are expected to reduce net income. That reduction in net income would result in a corresponding reduction in earnings per share (EPS).
- **What would be the effect on the price-to-earnings (P/E) ratios of lessees?** It depends. Holding all other variables constant and factoring in only the accounting effects of applying the proposed lessee accounting requirements, we would expect **trailing P/E to increase** and **trailing P/E from continuing operations (EBIT) to decrease**.
- **What is the basic proposed model for lessor accounting?** The boards have proposed a right-of-use model for lessor accounting. That model would require a lessor to choose between two approaches to account for assets and liabilities that arise in a lease contract: either the performance obligation approach or the derecognition approach. See **Appendix II** for more information on the proposed lessor accounting model.

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Links to the exposure drafts:

FASB version:

[Proposed Accounting Standards Update — Leases \(Topic 840\)](#)

IASB version:

[Leases](#)

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See page 45 for analyst certification and important disclosures.

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Executive Summary

On 17 August 2010 the United States Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) issued separate exposure drafts for their joint project on lease accounting. In the exposure drafts, the boards propose to dramatically overhaul lease accounting requirements for both lessors and lessees.¹ If the boards' proposals are ultimately finalized as currently written, principally all leases would appear on the face of the balance sheet of both lessors and lessees. That change is a dramatic departure from current accounting requirements that allow some types of leases (specifically, operating leases) to be kept off a lessee's balance sheet.

The comment period for the boards' respective exposure drafts is open until 15 December 2010; the boards expect to finalize their proposals by 30 June 2011. No effective date has been proposed for the final standard; however, we expect fiscal 2015 to be the earliest potential effective period.

This research report focuses primarily on the proposed changes to lessee accounting as they are described in the FASB's version of the exposure draft.

While the FASB and the IASB exposure drafts each reflect common leasing models, it is important to emphasize that the two exposure drafts are not identical. The differences between the two exposure drafts are meaningful. If finalized as currently written, a number of differences would remain in lease accounting between U.S. Generally Accepted Accounting Principles (U.S. GAAP) and International Financial Reporting Standards (IFRS).

In the paragraph below, we provide a brief summary of the proposed lessor accounting model. Additional detail on the proposed lessor accounting model is provided in Appendix II. We then move on to focus on the proposed lessee accounting model.

At a glance—the proposed lessor accounting model

The boards have jointly agreed on a **right-of-use model for lessor accounting** with two approaches to the treatment of the underlying asset in the lease arrangement: the *performance obligation approach* and the *derecognition approach*. In the proposed model, a lessor would recognize an asset that represents its right to receive consideration (i.e., cash) from a lessee. Depending on the lessor's exposure to risks or benefits associated with the underlying asset, it would either:

- Recognize a lease liability while continuing to recognize the underlying asset on its balance sheet (the performance obligation approach); or

¹ A lessor and a lessee represent opposite sides (or perspectives) in a lease contract. The lessor owns an asset that a lessee would like to use. Lessor accounting focuses on accounting for the underlying asset; the lessor's right to receive payments from the lessee; and the lessor's obligation to keep making the underlying asset available to the lessee for the contract term (a.k.a. "quiet enjoyment"). Lessee accounting focuses on accounting for the lessee's right to use a borrowed asset for the contract term and the lessee's obligation to make payments to the lessor for that right.

- Derecognize the rights in the underlying asset that it transfers to the lessee and continue to recognize a residual asset representing its rights to the underlying asset at the end of the lease term (a derecognition approach).

The proposed approach to lessor accounting differs significantly from existing U.S. GAAP. In particular, there is no separate approach proposed for leveraged leases.

For more information on the proposed lessor accounting model, please see **Appendix II** in this note.

At a glance—the proposed lessee accounting model

Say goodbye to operating leases

The boards have jointly agreed on a **right-of-use model for lessee accounting**. In accordance with that model, a lessee recognizes an intangible asset representing the right to use the leased asset (a.k.a. the underlying asset) for the lease term on its balance sheet. The lessee also recognizes a corresponding liability for the present value of all expected lease payments that are more likely than not to occur.² **As a result, substantially all leases will be recorded on the face of a lessee's balance sheet. If the proposals are ultimately finalized as written, the effect would be the elimination of the operating lease notion from U.S. GAAP and IFRS.**

The initial measurement of the right-of-use asset and the lease liability is derived by calculating the present value of expected lease payments. That proposal differs from existing U.S. GAAP requirements to disclose minimum lease payments in the notes to financial statements. To make the expected lease payment calculation, a lessee would be required:

- To **use the longest possible lease term that is more likely than not to occur**—that is, the lease term will include optional lease periods (i.e., options to renew and options to terminate) that a lessee expects to exercise; and
- To **include forecasts of contingent rental payments, residual value guarantees, and termination payments in its expected lease payment estimates.**

Once a lessee has calculated (“measured”) the amount of its expected lease payments and determined the present value of that amount, the resulting value becomes the starting cost basis presented on the lessee's balance sheet for **both** the right-of-use asset and the lease liability. The boards propose to require a lessee to reassess the assumptions used to estimate expected lease payments each reporting period. Consequently, a lessee could record adjusting entries each accounting period to reflect material changes in assumptions that underpin the amounts shown on the balance sheet.

It is worth noting that the boards propose to require a lessee to use a “frozen” discount rate to calculate its revised expected lease payments. Said differently, a lessee would not be allowed to use a current market rate to discount its lease

² The phrase “more likely than not” is commonly used in U.S. GAAP and is often interpreted to mean a probability of occurrence that is greater than 50 percent. Determining whether an event is “more likely than not” to occur requires management to exercise significant judgment.

payments each reporting period—that is, there is no reassessment of the discount rate. Instead, a lessee would be required **to use the discount rate originally used in its initial expected lease payment calculation—either the lessee’s incremental borrowing rate at inception of the lease or, if it can be readily determined, the rate the lessor charges the lessee in the lease contract.**

An implication of the requirement to continually reassess assumptions is greater financial statement volatility. If the lease term changes, the lessee would be required to adjust both the right-of-use asset and the lease liability to eliminate (if the lease term is shortened) or incorporate (if the lease term is extended) the incremental lease activity over the period of the change in lease term. Changes to assumptions made about contingent rents, residual value guarantees, and termination payments would flow to the income statement (and affect net income) if the change arises from current or prior reporting periods. Changes that relate to future reporting periods would be recorded as an adjustment to the right-of-use asset and the lease liability.

The introduction of significant subjectivity into the measurement basis for both the right-of-use asset and the lease liability means that the associated disclosures explaining management’s judgments will be particularly important to investors and analysts in understanding the amounts presented on the face of the financial statements.

Scope

Question 1: What’s in and what’s out?

The scope of the FASB’s version of the exposure draft states that a company would apply the finalized lease accounting standard to all leases, including leases of right-of-use assets in a sublease. However, the following leases are outside the scope of the proposed Accounting Standards Update (ASU):

- Leases of intangible assets (Accounting Standards Codification (ASC) Topic 350 *Intangibles—goodwill and other*);
- Leases to explore for or use minerals, oil, natural gas, and similar non-regenerative resources (ASC Topic 930 *Extractive activities—mining* and ASC Topic 932 *Extractive activities—oil and gas*); and
- Leases of biological assets (ASC Topic 905 *Agriculture*).

The implication of the scope exemptions listed above is that the proposed lease accounting model applies **only** to leases of tangible assets—property, plant, and equipment. Leases of intangible assets—for example, leases of software, leases of timber-cutting rights, leases to access a pipeline—are outside the scope of the proposed leasing standard.

Leases of investment property

An important difference between the IASB and FASB versions of the exposure draft is the treatment of investment property that a company holds under a lease. In the IASB’s version of the exposure draft, a right-of-use asset for investment property is

within the scope of IAS 40 *Investment Property*.³ Any right-of-use asset that meets the definition of investment property would be accounted for at initial recognition in accordance with the proposed lessee accounting model. After initial recognition, a lessee would elect to account for the right-of-use asset using a cost or fair value model.

The option to fair value investment property does not exist in U.S. GAAP. However, the FASB is considering in a separate project a proposal that would **require** the fair value measurement of investment property.

In-substance purchase (or sale) of an underlying asset

A lease arrangement that is structured to be a purchase or sale of the asset underlying the right-of-use intangible (i.e., the underlying asset) is also **not** within the scope of the proposed ASU. That type of contract would be accounted for as either a purchase or sale if:

1. The lease contract results in a company transferring control of the underlying asset and all but a trivial amount of the risks and benefits associated with the underlying asset to another company; and
2. The lessee has exercised a purchase option specified in the lease. A contract ceases to be a lease when a purchase option is exercised and becomes a purchase (by the lessee) or a sale (by the lessor).

Transfer of the title of the underlying asset—as the sole determining criterion—would not be enough for a company to conclude that the transaction should be considered a purchase or sale. All but a trivial amount of the risks and benefits must also be transferred to the lessee. However, the exposure draft leaves the determination of “trivial” to management’s judgment. Such a low threshold suggests that if a lessor provides a warranty or guarantee to the lessee, or has a profit-sharing relationship with the lessee on the future sale of the asset, the transaction could be considered a lease rather than a purchase or sale (even though title has transferred).

³ Investment property is defined in IAS 40 *Investment Property* and is property (land or a building—or part of a building—or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both, rather than for:

- (a) Use in the production or supply of goods or services or for administrative purposes; or
- (b) Sale in the ordinary course of business.

Question 2: Does the proposed scope provide companies with a structuring opportunity?

The proposed lease accounting model specifies that contracts with both a lease component and another distinct component such as a service component or an intangible asset component must be bifurcated with only the lease component being accounted for within the scope of the proposed lease accounting standard.⁴ For example, if the service component is distinct, a lessor would be required to separately account for the service component in accordance with the boards' proposals on revenue from contracts with customers (please see our 29 June 2010 *Accounting Issues* for more on the proposed revenue recognition model). In situations where the service component of the lease contract is **not** distinct, the boards propose to require a lessee to account for the entire arrangement in accordance with the proposed lessee accounting requirements.

Bifurcating lease contracts into components (i.e., a lease and a service) and then pointing each component of the contract to a different set of accounting requirements could have interesting implications. First, the "distinct" criterion requires management to exercise significant judgment. We would expect management judgment to vary from company to company both within and between industries. We also think that it is likely that auditors may come to different conclusions about the meaning of that criterion. Consequently, market participants may interpret the bifurcation criteria as a structuring opportunity. The implication is that variation in interpretation of the criterion will likely result in financial statement information that is neither consistent nor uniform in its preparation, thereby making it increasingly difficult for analysts and investors to draw meaningful comparisons between companies.

The bifurcation criterion also raises a more serious issue: splitting lease contracts into components on the balance sheet but allowing aggregated presentation of revenue on the income statement could make it quite difficult for analysts to model revenue that is recognized in accordance with more than one accounting model. Said differently, disaggregation on the balance sheet without corresponding disaggregation on the income statement increases financial statement users' modeling risk. While the proposed model provides some transparency on the balance sheet, it does not provide the same transparency on the income statement or the cash flow statement.

⁴ From paragraph 25 of the boards' joint exposure draft *Revenue from Contracts with Customers* (issued 24 June 2010), a good or service, or a bundle of goods or services, is distinct if either:

- (a) The entity, or another entity, sells an identical or similar good or service separately; or
- (b) The entity could sell the good or service separately because the good or service meets both of the following conditions:
 - (i) It has a distinct function—a good or service has a distinct function if it has utility either on its own or together with other goods or services that the customer has acquired from the entity or are sold separately by the entity or by another entity; and
 - (ii) It has a distinct profit margin—a good or service has a distinct profit margin if it is subject to distinct risks and the entity can separately identify the resources needed to provide the good or service.

Details: Understanding the lessee accounting model

Question 3: What is a lease?

A lease is a contract between the owner of an asset (the lessor) and another party that wants to use the asset (the lessee). **A lease is a form of financing extended to the lessee directly from the lessor that enables the lessee to purchase the use of the leased asset for a specified period of time.**

While the underlying asset might be *tangible* (e.g., property, plant, or equipment), a right of use is an *intangible* asset. In a lease contract, a lessor grants a lessee the right to use the asset. The right to use an asset could be for a long period of time (e.g., 999 years) or for a much shorter period of time (e.g., a month). In exchange for the right to use an asset, a lessee makes periodic lease payments to the lessor.

Question 4: What are the current accounting requirements for lessees?

Existing accounting requirements in U.S. GAAP and IFRS have two categories for lease arrangements: *capital (finance) leases* and *operating leases*. In Table 1, we explain the capital lease criteria as specified in ASC Topic 840 *Leases* (formerly SFAS 13) and contrast those requirements to existing criteria in IAS 17 *Leases*.

Table 1: Existing capitalization criteria in U.S. GAAP and IFRS

U.S. GAAP	IFRS
Situations that <u>require</u> classification as a capital lease if any one (or more) is met are:	Situations (individually or in combination) that <u>normally would lead to</u> classification as a finance lease are:
The agreement specifies that ownership of the asset transfers to the lessee.	Same as U.S. GAAP.
The agreement contains a bargain purchase option.	Same as U.S. GAAP.
The non-cancelable lease term is for 75% or more of the expected economic life of the asset.	The non-cancelable lease term is for a "major portion" of the expected economic life of the asset.
The present value of the minimum lease payments is equal to or greater than 90% of the fair value of the assets.	The present value of the minimum lease payments is equal to or greater than "substantially all" of the fair value of the asset.
No similar criterion specified in U.S. GAAP.	The leased asset is of a specialized nature such that only the lessee can use it without major modifications being made.
Other situations (individually or in combination) that <u>might lead to</u> classification as a finance lease are:	
No similar criterion specified in U.S. GAAP.	The lessor's losses are borne by the lessee upon cancellation.
No similar criterion specified in U.S. GAAP.	Gains or losses from changes in the fair value of the residual value of the leased asset go to the lessee (e.g., by means of a rebate of lease payments).
No similar criterion specified in U.S. GAAP.	The lease contains a bargain renewal option that allows the lessee to continue the lease for substantially less than market rent.

Source: Accounting Standards Codification Topic 840 (FASB); IAS 17 *Leases* (IASB).

In accordance with existing criteria, when a lease arrangement is classified as a capital lease in accordance with existing requirements, two items are recognized on the face of a company's balance sheet: a leased asset and a lease liability (the present value of minimum lease payments). The lessee normally depreciates a leased asset over the term of the lease, which leads to the recognition of depreciation expense in the company's income statement. The lease liability is reduced over time as lease payments are made, which leads to the recognition of interest expense in the lessee's income statement.

Operating lease requirements

If a lease contract does not meet the criteria to be classified as a capital lease, it is accounted for as an operating lease. By definition, an operating lease assumes that the fundamental rights and responsibilities of ownership are retained by the lessor and that the lessee merely is using the asset temporarily. In keeping with that presumption, a sale is not recorded by the lessor and a purchase is not recorded by the lessee. Said differently, the lessee does **not** record an asset or a liability on its balance sheet for a lease arrangement classified as an operating lease. Instead, the periodic payments made by the lessee to the lessor are accounted for as rent by both parties to the transaction—*rent expense* for the lessee and *rent revenue* by the lessor.

Question 5: What have the boards proposed for lessees?

The boards have proposed a single right-of-use lease accounting model that would eliminate the existing operating lease/capital lease distinction in U.S. GAAP and IFRS. This means that all leases for *tangible* assets will be accounted for in accordance with one common accounting model (as we mentioned earlier, leases of intangible assets are scoped out of this standard). In Figure 1, we present a diagram of the mechanics of the proposal.

The boards propose to require a lessee to recognize all of the assets and liabilities that arise from lease contracts in its balance sheet. Assets and liabilities arise when a lease contract is signed. Consequently, a lessee would recognize the following in its balance sheet:

- **An intangible asset for its right to use the underlying asset (also known as a *right-of-use asset*); and**
- **A liability to make rental payments.**

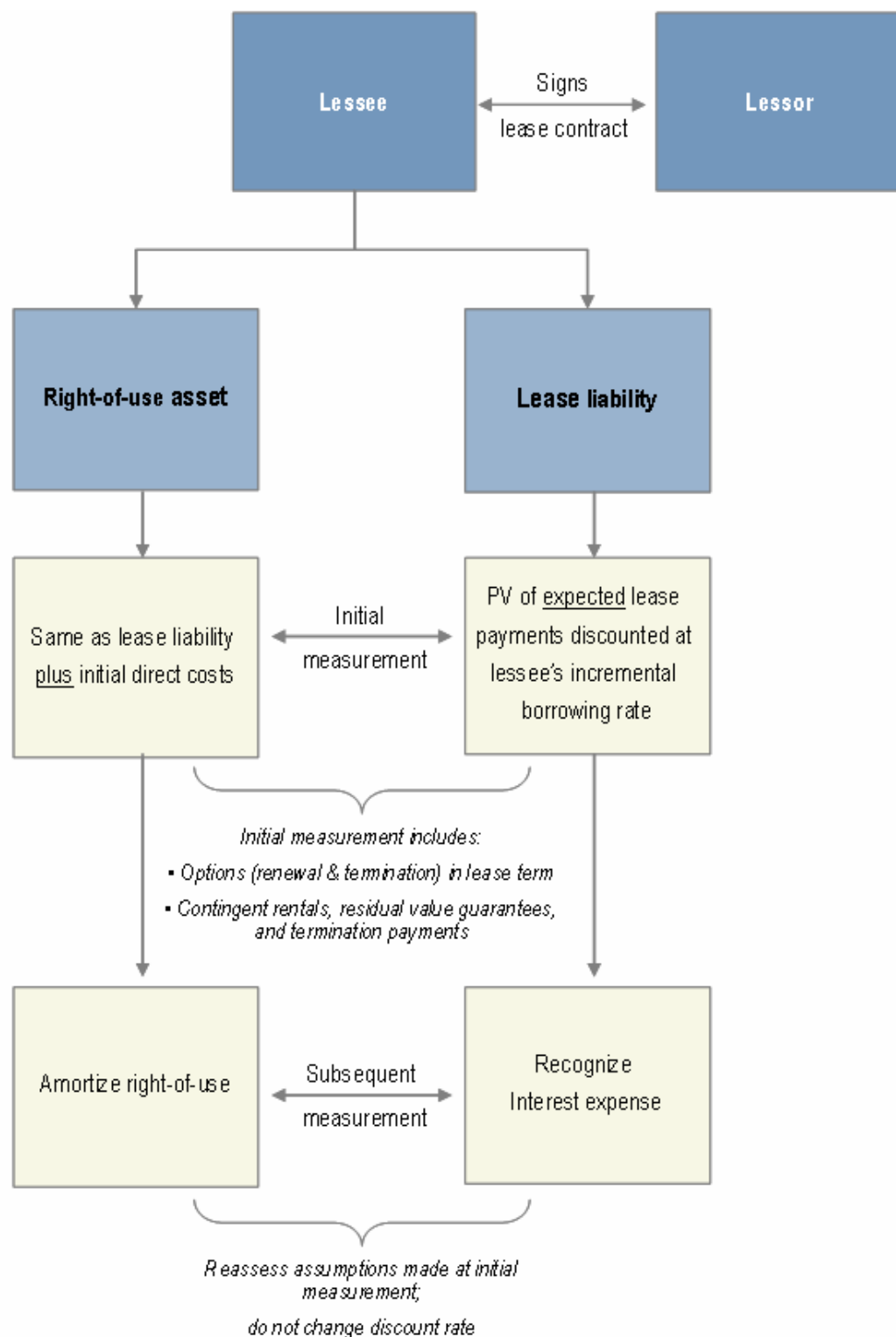
In the proposed model, the boards take the position that a leased asset is defined not as an item of property itself, but rather as a resource or right from which future economic benefits are expected to be obtained. Consequently, the amount that would be recognized as an asset by a lessee would reflect the period for which the lessee has the right to use the property. For many leases, the proposals in the exposure draft would not result in the full value of the leased item being reflected in the lessee's financial statements; instead, those financial statements would reflect the economic resources the lessee controls (for example, the right to use a leased item for only part of its useful economic life) and the related financing obligations. **In many respects, the proposed accounting approach reflects the purchase by the lessee of an interest in the leased item, with the consideration being payable in installments to the lessor.**

This new approach recognizes that leasing is different from and generally more flexible than other forms of asset financing—leases can be drawn up with terms that share asset risks and economic benefits between parties in any number of different ways to meet their commercial objectives. The new approach does not rely on seeking to define (or re-define) dividing lines, such as the economic ownership analogy that underlies the capitalization criteria in current standards, which may require subjective judgments to be made to determine whether a lease falls on one side or the other. Instead it focuses on identifying the assets and liabilities that arise under a lease contract by applying principles that can be applied consistently to all types of leases without the need for artificial thresholds.

Impairment of the right of use

An important implication of the proposed approach is that all assets recognized in respect of leases would fall within the scope of accounting standards dealing with impairment of intangible assets. As a result, any impairment losses would be recognized in the income statement as soon as the carrying amount is identified as being no longer recoverable, irrespective of any decisions taken by management to continue or dispose of an unprofitable lease. Under current lease accounting standards where operating leases are not recognized as assets and liabilities, a decline in the economic usefulness of a leased property relative to the contractual obligation under the lease may not result in the recognition of any loss in respect to such an event.

Figure 1: Overview of the proposed lessee accounting model



Source: FASB exposure draft Leases; J.P. Morgan.

Initial measurement of the right-of-use asset

The right-of-use asset would initially be recognized at the present value of the expected lease payments, plus any recoverable initial direct costs incurred by the lessee (e.g., commissions and legal fees). Absent any initial direct costs incurred by the lessee, the right-of-use asset and the lease liability recognized at inception of the lease would be equal. **It is important to understand that the amount recorded for the right-of-use asset is not a proxy for the economic value of the underlying asset.**

Over time, the right-of-use asset would be amortized on a straight-line basis over the life of the lease and tested for impairment. An important difference between the FASB's and the IASB's proposals is that, in accordance with U.S. GAAP, a lessee would not be permitted to revalue its right-of-use asset. A lessee preparing its financial statements in accordance with IFRS could revalue its right-of-use asset.

The intangible right-of-use asset would be presented within the property, plant, and equipment category on the balance sheet. However, the right-of-use asset would be presented separately from assets that the lessee owns.

Initial measurement of the liability to make lease payments

The liability to make lease payments is initially measured at the present value of the expected lease payments. The discount rate to be used in the present value calculation is either:

1. The lessee's incremental borrowing rate, or
2. The rate the lessor charges the lessee (if it can be readily determined).

A lessee is free to choose either discount rate described above—that is, one discount rate does not have priority over the other. However, the proposed transition requirements to this lessee accounting model would require a lessee to use its incremental borrowing rate upon adoption of the finalized standard. See **Question 21** for more information on the proposed transition requirements.

The liability to make lease payments would be presented as a financial liability in the balance sheet. However, the lease liability would be presented separately from all other financial liabilities.

Other material assumptions in the present value calculation

Calculating the lease term—options to renew and options to terminate

The initial measurement of both the right-of-use asset and the lease liability are determined by calculating the present value of the obligation to make lease payments. Said differently, the **expected** lease payments—rather than minimum lease payments as is currently required in U.S. GAAP—form the basis of initial measurement.

The lease term includes options to extend or terminate the lease that are more likely than not to occur.

The present value calculation requires a lessee to determine the lease term in the contract. **The boards propose to require a lessee to include the effect of any options to extend or terminate the lease. Said differently, the lease term used in the calculation is the longest possible term that is more likely than not to occur.** That requirement is a significant departure from current accounting which requires companies to recognize rent expense on a straight-line basis over the non-cancelable

lease term. Existing U.S. GAAP requires renewal options to be included in the accounting lease term only if those options are reasonably assured of being exercised by the lessee because of a penalty—that is, the lessee cannot avoid the renewal.

The exposure draft lists factors that a lessee would consider in determining whether an option is more likely than not to occur, such as:

1. The existence of termination penalties or bargain renewal rates in a lease contract;
2. The existence of leasehold improvements;
3. Whether the underlying asset is customized for the lessee;
4. Whether the underlying asset is critical to the lessee's operations;
5. Past renewal/termination experience or management's intentions.

Lessees will need to carefully consider all renewal options, including month-to-month renewals that give a lessee the right to continue using the underlying asset on a month-to-month basis at the end of the lease contract.

We interpret the “more likely than not” criterion to be a much lower threshold for recognition than the “reasonably assured” threshold that currently exists in U.S. GAAP. **As a result, we expect that the accounting lease term determined in accordance with the proposed model will be substantially longer than the accounting lease term determined in accordance with existing U.S. GAAP.** In particular, we expect that companies with lease contracts where the underlying asset is real estate (either land or buildings) could be the most severely affected by this aspect of the proposed model. **Table 2** is a simple example that illustrates how a lessee would determine the lease term in accordance with the proposed model.

Table 2: Determining the lease term

A company enters into a non-cancelable ten-year lease with the following options to renew:

- *Option 1: Renew for five years at the end of ten years*
- *Option 2: Renew for an additional five years at the end of 15 years*
- *Option 3: Renew for an additional five years at the end of 20 years*
- *Option 4: Renew for an additional five years at the end of 25 years*

The company assigns the following probabilities to each of the potential lease terms:

Potential lease terms	Coverage period	Probability that the period is part of the expected lease term	Probability that this is the terminal lease period
Initial non-cancelable lease term	Years 1-10	100%	30%
Renewal option #1	Years 11-15	70% (100% - 30%)	25%
Renewal option #2	Years 16-20	45% (70% - 25%)	20%
Renewal option #3	Years 16-20	25% (45% - 20%)	15%
Renewal option #4	Years 16-20	10% (25% - 20%)	10%

Analysis: *There is a 100% probability that the initial ten-year lease term will be executed because it is non-cancelable. Based on the company's best estimates, the probability of exercise of renewal option 1 is more likely than not to occur. Therefore, the longest possible lease term that is more likely than not to occur is 15 years. The present value calculation for expected lease payments would incorporate a 15-year lease term.*

Source: J.P. Morgan estimates.

Contingent rental payments, residual value guarantees, and termination payments would be factored in to the calculation of expected lease payments.

Calculating the expected lease payments—contingent rental, residual value guarantees, and termination payments

The boards propose to require a lessee to use an expected-outcome approach to determine the lease payments to be made during the term of the lease. The expected-outcome approach is the present value of the probability-weighted average of cash flows for a reasonable number of outcomes. While the exposure draft states that every possible outcome need not be considered, the determination of what is “reasonable” is left to management’s judgment.

When determining the present value of the lease payments, a lessee would be required to factor in contingent rental payments, residual value guarantees, and termination payments that are more likely than not to occur. That requirement is a significant departure from current accounting which generally excludes contingent rentals from minimum lease payments regardless of their probability of occurring.

It is our sense that the consideration of contingent payments has the potential to add a significant amount of volatility to financial statements. Many lease contracts link the contingent payments to metrics like sales (which are dependent on a number of micro- and macro-economic factors). For example, if the more-likely-than-not lease term was 30 years and contingent payments were linked to sales, the lessee would have to forecast sales through year 30. Each reporting period, the company would need to reassess those forecasts and make adjustments.

Changes to assumptions about contingent rents, residual value guarantees, and termination penalties may result in income statement volatility.

Subsequent measurement

The boards propose to require a lessee to reassess the carrying amount of the obligation to make lease payments each reporting period if facts or circumstances indicate that there has been a significant change in the liability since the previous reporting period.

If the lease term changes, the lessee would be required to adjust both the lease asset and obligation to eliminate (if the lease term is shortened) or incorporate (if the lease term is extended) the lease activity related to the change in lease term. Changes to assumptions made about contingent rents, residual value guarantees, and termination penalties would be recorded in the income statement if the change arises from current or prior reporting periods. Changes that relate to future reporting periods would be recorded as an adjustment to the right-of-use asset and the obligation to make rental payments.

It is worth noting that the boards decided that a lessee would not be required to remeasure its lease liability each reporting period to reflect changes in the lessee’s incremental borrowing rate. In other words, the discount rate is frozen (a.k.a. locked in) at initial measurement. This is particularly noteworthy given that many of these contracts have very long durations, and interest rates are likely to move away from those initial rates over the contract lives.

Disclosures

The exposure draft contains a number of proposed disclosures that are meant to provide quantitative and qualitative information about the amounts recognized in the financial statements that arise from lease arrangements. The disclosures are also designed to describe how leases may affect the amount, timing, and uncertainty of a lessee’s future cash flows.

The proposed disclosures will be particularly important to financial statement users that want transparency into the amounts presented on the face of the balance sheet for the right-of-use asset and the lease liability. Specifically, a lessee will be required to disclose:

1. The nature of its lease arrangements; and
2. Information about the principal terms of any lease that has not yet commenced if the lease creates significant rights and obligations for the company.

The proposed disclosures are extensive and, if implemented, have the potential to provide investors with insight into a lessee's lease contracts that is not currently available. In particular, we think the proposed requirement to reconcile the opening and closing balances of right-of-use assets and liabilities to make lease payments (disaggregated by class of underlying asset) each reporting period will be useful to investors and analysts. **As part of that reconciliation, a lessee would be required to show the total cash lease payments paid during the reporting period.**

Question 6: Illustrating the proposals—how would the proposed model change current accounting?

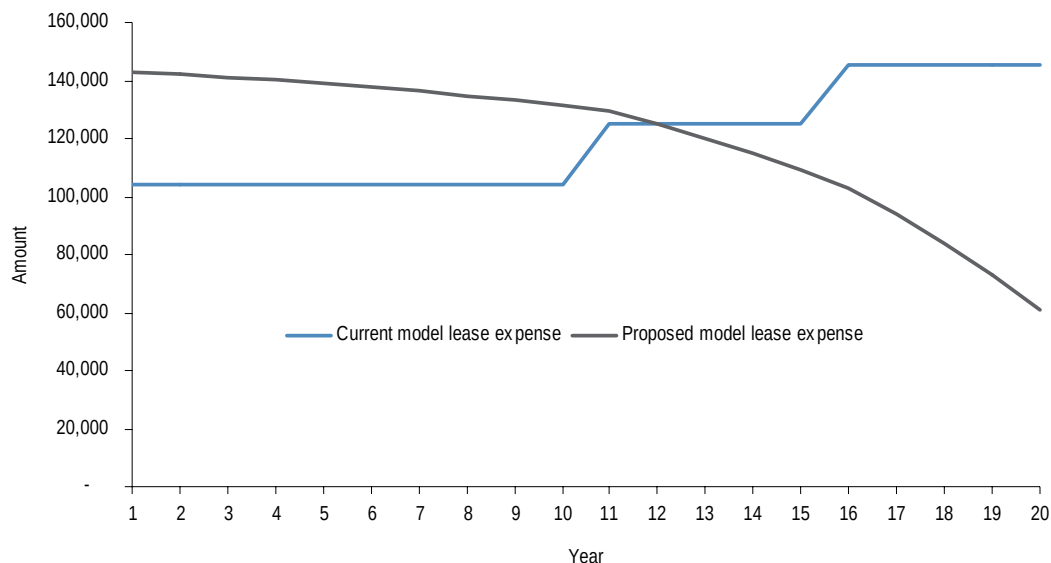
In Table 3, we illustrate the current accounting and the proposed accounting for a lessee that enters into a ten-year lease with two renewal options (five years each). At inception of the lease, the present value of expected future lease payments is \$953,561. That amount becomes the cost basis for the initial measurement of the right-of-use asset and the lease liability. Figure 2 contrasts the income statement effect of the proposed accounting model against the income statement effect of the current accounting model.

Table 3: Compare and contrast: current accounting vs. proposed accounting (basic example)

		Current Model (Operating Leases)			Proposed Model					
		Balance sheet	Income statement	Cash flow statement	Balance sheet		Income statement		Cash flow statement	
		None	Rent expense	Payments	ROU Asset	Lease Liability	Amortization	Interest expense	Total	Payments
	Inception				953,561	953,561				
Minimum lease term	Year 1	-	104,000	104,000	905,883	944,918	47,678	95,356	143,034	104,000
	Year 2	-	104,000	104,000	858,205	935,409	47,678	94,492	142,170	104,000
	Year 3	-	104,000	104,000	810,527	924,950	47,678	93,541	141,219	104,000
	Year 4	-	104,000	104,000	762,849	913,445	47,678	92,495	140,173	104,000
	Year 5	-	104,000	104,000	715,171	900,790	47,678	91,345	139,023	104,000
	Year 6	-	104,000	104,000	667,493	886,869	47,678	90,079	137,757	104,000
	Year 7	-	104,000	104,000	619,815	871,556	47,678	88,687	136,365	104,000
	Year 8	-	104,000	104,000	572,137	854,711	47,678	87,156	134,834	104,000
	Year 9	-	104,000	104,000	524,459	836,182	47,678	85,471	133,149	104,000
	Year 10	-	104,000	104,000	476,781	815,801	47,678	83,618	131,296	104,000
Renewal Option #1	Year 11	-	124,800	124,800	429,103	772,581	47,678	81,580	129,258	124,800
	Year 12	-	124,800	124,800	381,425	725,039	47,678	77,258	124,936	124,800
	Year 13	-	124,800	124,800	333,746	672,743	47,678	72,504	120,182	124,800
	Year 14	-	124,800	124,800	286,068	615,217	47,678	67,274	114,952	124,800
	Year 15	-	124,800	124,800	238,390	551,939	47,678	61,522	109,200	124,800
Renewal Option #2	Year 16	-	145,600	145,600	190,712	461,532	47,678	55,194	102,872	145,600
	Year 17	-	145,600	145,600	143,034	362,086	47,678	46,153	93,831	145,600
	Year 18	-	145,600	145,600	95,356	252,694	47,678	36,209	83,887	145,600
	Year 19	-	145,600	145,600	47,678	132,364	47,678	25,269	72,947	145,600
	Year 20	-	145,600	145,600	-	-	47,678	13,236	60,914	145,600

Source: J.P. Morgan estimates.

Figure 2: Income statement effects: current accounting vs. proposed accounting (basic example)



Source: J.P. Morgan estimates.

In Figure 2, we see that if we follow the lease contract through its full term, the proposed model would result in amortization and interest expense that is higher than the rent expense recorded in accordance with existing U.S. GAAP (at inception of the lease and for a number of years after). Further, while existing U.S. GAAP accounting was used as a proxy for the cash flow effect of the lease contract, the relationship between earnings effects and cash flows actually deteriorates under the proposed model.

Question 7: Does the proposed discount rate provide decision-useful information for investors?

The boards propose to allow a lessee to discount its expected lease payments by the rate that is implicit in the lease contract. We are concerned that allowing a lessee to use the rate the lessor charges the lessee has more to do with the lessor's required return on the lease arrangement and less to do with the lessee's actual borrowing rate. In particular, many leases are priced to reflect the characteristics of the typical customer, rather than that of the individual lessee. Consequently, the rate implicit in the contract does not necessarily reflect precisely the lessee's financial strength or weakness. For many other leases, even if the rate implicit in the lease is known, it might not be a good approximation for the rate the lessee would pay to enter into a similar borrowing arrangement. Specifically, if the lessor bears significant residual value risk, the return it will require from the lease will cover not just the lessee's credit risk but also the residual value risk.

As an alternative, the exposure draft proposes that a lessee can choose to use its incremental borrowing rate to discount its expected lease payments. While the lessee's incremental borrowing rate is a step closer to a market rate, we are concerned that the boards do not propose to require a lessee to reassess that rate each reporting period and adjust the amounts presented in the financial statements accordingly. The boards propose to define a lessee's incremental borrowing rate as:

The rate of interest that, at the date of inception of the lease, the lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to purchase a similar underlying asset.

First, it seems odd to us that the incremental borrowing rate is determined by reference to the purchase of the underlying asset. The boards take great pains in their respective exposure drafts to explain that the assets and liabilities that arise in a lease contract **are not the same** as the assets and liabilities that arise in a purchase transaction.

Second, we expect a lessee's incremental borrowing rate to change over time (i.e., it can improve or it can deteriorate). Changes in the lessee's borrowing rate provide critical information to users of financial statements about the credit quality of the lessee. Consequently, we think that changes in a lessee's incremental borrowing rate should be reflected in a lessee's subsequent measurement of its lease liability. The reset of the discount rate is also important for the determination of WACC. See **Question 14** for additional discussion on possible effects of the proposed model on a lessee's cost of debt and WACC.

Third, we are concerned that the lessee's incremental borrowing rate is not risk-adjusted to account for the uncertainty inherent in contingent lease payments to which the lessee might be exposed. When rental payments are dependent on factors other than price changes, the uncertainty associated with the cash flows (i.e., the "riskiness" of the cash flows) should be reflected in the measurement of the present value of the lessee's expected lease payments, in our view.

Question 8: What is the history behind the boards' proposals?

In 1993, the standards-setters from the United States, United Kingdom, Australia, and Canada began to form a group that held informal meetings to discuss solutions to contemporary accounting issues. Members of the group quickly found that their common conceptual outlook made their cooperation very effective. The participating standards-setters issued a series of jointly published documents on important accounting issues that tended to advocate a shift towards a balance sheet-oriented fair value model of financial accounting.

The group became known as the G4; later, that name changed to the G4+1 when the International Accounting Standards Committee (the IASC, which is the predecessor organization of the IASB) was allowed to attend the meetings as an observer. In June 1996, the G4+1 published the discussion paper *Accounting for Leases: A New Approach—Recognition by Lessees of Assets and Liabilities Arising under Lease Contracts*, which was written by Warren McGregor (a current IASB member). The new approach to lease accounting in the discussion paper advocated the abolishment of the distinction between operating and finance leases that exists in the accounting requirements of most national standards-setters. Instead, the rights and obligations of all leases that met the asset and liability definitions would be recognized on the balance sheet, and differences between types of leases would be reflected in measurement. A second G4+1 discussion paper *Leases: Implementation of a New Approach* was published in February 2000. That paper set out proposals for how the approach described in the 1996 paper might be made to work and included proposals on lessor accounting.

At its meeting on 30 January to 1 February 2001, the G4+1 decided to disband and cancel all of its planned activities. That decision was taken in response to the IASC's restructuring and ultimate reconstitution as the IASB. Upon the reconstitution, Sir David Tweedie and Jim Leisenring, two former G4+1 chairmen, as well as Warren McGregor, another long-serving G4+1 member, were appointed to the "new" IASB.

As part of the Memorandum of Understanding (MoU) signed in 2006 (updated in 2008 and 2010), the FASB and IASB added a joint project on lease accounting to their respective agendas. The goal of the project is to produce a significantly improved common standard on lease accounting. To that end, the boards published a joint discussion paper *Leases: Preliminary Views* in March 2009.

The discussion paper sets out the boards' preliminary views on lessee accounting; it also draws heavily from the work completed by the G4+1. The boards developed the recent exposure draft *Leases* after considering the 302 comment letters received on the discussion paper and input from a wide range of constituents interested in the financial reporting of leases. As we mentioned earlier in this note, the boards expect to finalize their proposals on lease accounting by 30 June 2011.

Valuation

Question 9: Why are these proposals so important to investors?

At first blush, the boards' proposals to bring all leases onto the balance sheet may not seem like a particularly revolutionary idea to credit rating agencies, investors, and analysts. After all, constructive capitalization of operating leases (i.e., calculating the assets and liabilities implicit in the terms of such leases) by credit rating agencies, investors, and analysts is thought to be commonplace. The constructive capitalization of operating leases is typically done to improve comparability between companies with different financing and asset ownership structures. As a result, many might dismiss this proposed accounting change as a "non-event" since some market participants already make pro forma adjustments to capitalize operating leases.

We think that the view that dismisses this proposal as a non-event for market participants is fundamentally flawed. In particular:

1. **Constructive capitalization of operating leases among market participants is inconsistent.** The proposed model, if implemented as written, is a non-event for market participants **only if** the lease liability measurements produced by the new model are closely aligned to the pro forma measurements that market participants currently calculate using information disclosed in the notes to financial statements. While some investors and analysts make pro forma adjustments to capitalize operating leases, our experience reveals that many do not. An example of the diversity that exists in practice is the variety of approaches used by credit rating agencies to capitalize operating leases.

The adjustments that credit rating agencies make are broad estimates that would undoubtedly differ from the measurement produced by the proposed model. Ratings could change for some companies in response to:

- Increased information on existing risk not previously disclosed; and
- Associated changes in risk, such as any related to covenants, regulation, market reaction, and changes in business practice.

2. **The proposed disclosures could decrease modeling risk.** Existing U.S. GAAP requires lessees to disclose information about minimum future lease payments. Investors use that information to capitalize operating leases. The estimates currently being made are broad estimates that can contain high levels of modeling error. The disclosures provided in accordance with existing U.S. GAAP do not contain enough information to allow an investor to estimate (with any degree of precision) the expected future lease payments that would be presented on a lessee's balance sheet in accordance with the proposed model.

Existing disclosures about operating leases often do not include critical information. Today, a company is not required to disclose:

- a. Information about renewal options in lease contracts (and probability estimates of option exercise);
- b. The service component embedded in its lease contracts;
- c. The duration of its lease portfolio; and
- d. Its cost of debt (though it can be observed from some companies in market-traded instruments).

Further, the disclosed information is often aggregated to such a level that its usefulness is significantly reduced. See **Question 16** for more information about enhancements that could be made to the proposed disclosures.

Question 10: How could the proposals affect amounts presented in the financial statements?

Bringing operating leases onto the balance sheet **and** changing the measurement basis of all lease contracts (**both** operating and capital leases in today's terms) will affect a number of financial statement measures and ratios. However, determining the effect (i.e., whether a measure will be higher or lower than is currently reported or whether a ratio will increase or decrease) means we have to make some assumptions.

The conclusions that we come to in Table 4 and Table 5 are premised on holding all other variables that could change in a company's financial statements constant—that is, we factor in **only** the accounting effects of applying the proposed lessee accounting requirements. We have also chosen to limit the adjustments to increases in assets and liabilities on the balance sheet and the substitution of amortization expense and interest expense for rental expense on the income statement. In practice, many other financial statement line items will be affected by the proposals, too (for example, deferred tax assets and deferred tax liabilities will change for most companies). The exposure draft is silent on the impact of lease incentives (i.e., payments and/or concessions that a lessor makes to a lessee as an incentive for the lessee to enter into the lease) on the initial measurement of the right-of-use asset and the lease liability. Therefore, we do not know how amounts recorded currently as

deferred rent liabilities or deferred rent assets on a lessee's balance sheet will change.⁵

Question 11: How could the changes in amounts affect commonly used financial measures and ratios?

The initial affect of capitalizing all leases increases two financial statement elements: assets and liabilities. Ignoring the effect of initial incremental direct costs, the right-of-use asset and the lease liability would usually net to zero (at initial measurement).⁶ However, the substantial increase in two financial statement elements has a ripple effect through the financial statements, changing important totals, ratios, and related quantities along the way.

Table 4 summarizes the potential effect of the proposed lessee accounting requirements on important measures commonly used in financial statement analysis.

Table 4: Effect of lessee accounting proposals

Measure	(Potential) effect of lessee accounting proposals
Assets	Increase (right-of-use asset on balance sheet)
Liabilities	Increase (present value of <u>all</u> expected lease payments on balance sheet)
Working capital	Decrease (higher current liabilities)
EBITDA	Increase (amortization expense and interest expense <u>not</u> included in EBITDA)
EBIT	Increase (higher amortization expense included in EBIT; however, no rent expense in EBIT) <i>*This conclusion assumes that the amortization related to the right-of-use asset calculated in accordance with the proposed model is <u>less</u> than the rental expense recorded under current US GAAP or IFRS.</i>
Net income (earnings)	Decrease (higher amortization expense and interest expense included in net income)
Retained earnings	Decrease (lower net income [earnings])
Operating cash flow	Improve (all cash flows associated with leases classified as financing activities)

Source: J.P. Morgan estimates.

Table 5 summarizes the potential effect of the proposed lessee accounting requirements on some important ratios and related quantities commonly used in financial statement analysis and valuation. Discussion of the potential effects of the proposed model on a lessee's cost of debt, cost of equity, and weighted-average cost of capital is presented in **Question 14**.

⁵ The exposure draft does not explicitly state whether lease incentives should be included in the initial measurement of the right-of-use asset and the lease liability. However, we would expect that items currently recorded as deferred rent liabilities (i.e., rent holidays and tenant improvement allowances) and items recorded as deferred rent assets (i.e., lease premiums paid upfront to enter a lease agreement) would be factored in to the measurement of the lease liability and the right-of-use asset (respectively) upon initial measurement of the expected lease payments.

⁶ After initial measurement, the subsequent measurement of the intangible lease asset and the lease liability are not likely to net to zero because they will each be adjusted over time by different amounts. The right-of-use asset will be amortized on a straight-line basis over the lease term. The lease liability will employ accounting similar to that used in mortgage accounting. When a lease payment is made, it is assumed that part of the payment is interest expense and the remainder is a reduction in principal (i.e., the lease liability).

Table 5: Effect of lessee accounting proposals on select financial statement ratios and related quantities

Ratio & related quantities	Type	(Potential) effect of lessee accounting proposals
Working capital turnover	Productivity	Higher—decrease in working capital (<i>revenue / average working capital</i>)
Asset turnover	Productivity	Lower—increase in total assets (<i>revenue / average total assets</i>)
Current ratio	Liquidity	Lower—increase in current liabilities (<i>current assets / current liabilities</i>)
Quick ratio	Liquidity	Lower—increase in current liabilities (<i>cash + short-term investments + receivables / current liabilities</i>)
Debt-to-capital	Solvency (debt)	Higher—increase in total debt (<i>total debt / total debt + total equity</i>)
Debt-to-equity	Solvency (debt)	Higher—increase in total debt (<i>total debt / total equity</i>)
Financial leverage ratio	Solvency (debt)	Higher—increase in total assets (<i>average total assets / average total equity</i>)
Interest coverage	Solvency (coverage)	Lower—increase in EBIT because of decrease in rental expense that is partially offset by increased amortization expense; significantly increased interest payments (<i>EBIT / interest payments</i>)
Operating profit margin	Profitability	Higher—increase in EBIT because of decrease in rental expense that is partially offset by increased amortization expense (<i>EBIT / revenue</i>)
Net profit margin	Profitability	Lower—decrease in net income because of increase in amortization expense and interest expense (<i>net income / revenue</i>) <i>*This conclusion assumes that the sum of the amortization and the interest expense calculated in accordance with the proposed model is greater than the rent expense recorded under current US GAAP or IFRS.</i>
Return on assets	Profitability	Lower—increase in total assets (<i>revenue / average total assets</i>)
Return on total capital	Profitability	Lower—increase in EBIT; however, much larger increase in total debt (<i>EBIT / short- and long-term debt and equity</i>)
Return on equity	Profitability	Lower—decrease in net income (<i>net income / average total equity</i>)
Earnings-per-share	Valuation (per share quantity)	Usually lower at transition for all affected companies because of decrease in net income; growth companies that are expanding their use of leases will have permanently reduced net income. (<i>net income – preferred dividends / # of shares outstanding</i>)
Trailing price-to-earnings	Valuation	Usually higher—decrease in earnings per share when the earnings per share calculation is based on net income. (<i>price per share / earnings per share</i>)
Trailing price-to-earnings from continuing operations (EBIT)	Valuation	Usually lower—higher earnings per share when the earnings per share calculation is based on EBIT. (<i>price per share / earnings per share based on EBIT</i>)
Dividend payout ratio	Valuation	Usually higher—decrease in net income attributable to common shares (<i>common share dividends / net income attributable to common shares</i>)
Retention rate (b)	Valuation	Usually lower—decrease in net income attributable to common shares (<i>net income attributable to common shares – common share dividends / net income attributable to common shares</i>)

Source: J.P. Morgan estimates.

As can be seen from the conclusions we reach in Table 4 and Table 5, bringing operating leases onto the balance sheet and changing the measurement basis of all leases has the potential to affect significantly the ratios and related quantities commonly used in investment decision-making. The magnitude of the effect will depend on the measurement assumptions and duration assumptions made to value **expected** lease payments (rather than **minimum** lease payments, as is current practice) and what market participants ultimately think about those valuations.

Question 12: What are some of the common methods currently used to capitalize operating leases?

Market participants that capitalize operating lease information typically choose between one of two methods: a multiples approach or a present value approach.

Multiples approach

The multiples approach is simple in that a multiple is applied to current year rent expense. It is common practice among investors and analysts that use this approach to adjust the multiple they apply to rent expense to an industry convention. In practice, rent expense is typically capitalized using a multiple between 3x and 9x. The appropriate multiple hinges on the discount rate and the lease term. A higher multiple would be appropriate for a lower discount rate and/or a longer lease. A lower multiple would be appropriate for a higher discount rate and/or a shorter lease. Given that interest rates can vary substantially over time, we would expect that the multiple used for a particular industry would also adjust over time.

Applying a multiple to rent expense implies that a) the multiple approximates the aggregate lease term of the lessee's lease portfolio and b) the amounts captured in current rent expense reflect future business activities that have not yet been captured in a company's disclosure of its future minimum lease commitments (i.e., contingent payments, termination payments, etc.).

Present value approach

The present value approach discounts the minimum operating lease commitments disclosed in the financial statements using a pre-tax cost of debt for the lessee. The pre-tax cost of debt reflects the market rate at which a lessee can borrow money today. A company is not required to disclose its pre-tax cost of debt; however, even if that rate was disclosed, it would fluctuate between reporting periods in response to changes in macro and micro factors. Consequently, one has to estimate it.

There are at least two principal estimation issues that must be dealt with in determining a company's cost of debt:

- 1. Determine an appropriate risk-free rate.** The risk-free rate that is used should reflect the lessee's lease term. Said differently, an effort should be made to match leases with short-term durations to risk-free rates of similar duration; conversely, leases with long-term durations should be matched to risk-free rates of similar duration. In an example where the lease term extends for ten years, the ten-year U.S. Treasury bond rate would be a better choice than the three-month U.S. Treasury bill rate. However, it is likely that many analysts will take a single rate such as the ten-year U.S. Treasury bond rate and use it as the base risk-free rate for lease contracts of all durations.

2. **Determine the default spread to add to the risk-free rate.** If a company has a bond rating, that rating can be used to estimate a default spread. However, given that many companies do not have debt ratings, analysts often are required to approximate a debt rating. For example, some analysts look at interest coverage ratio profiles of companies and impute a debt rating from that ratio.

Using the estimated pre-tax cost of debt, an investor would then discount the disclosed future minimum lease commitments back to the present day. An important input to that calculation is the lease term. Existing U.S. GAAP does not require a lessee to disclose the lease term of its lease contracts. Therefore, one has to estimate it. The minimum operating lease disclosure in existing U.S. GAAP complicates the estimation of the lease term because the lease commitments after year five are disclosed as a lump sum rather than as year-specific amounts. Several approaches can be taken to estimate the lease term that is impounded in the disclosed future minimum lease commitments, for example:

1. Divide the lump sum by the disclosed year-five minimum lease commitment. (Alternatively, the lump sum could be divided by an average of the disclosed minimum lease payments for years one through five.) The resulting value is an estimate of the number of years embedded in the lump sum amount. That amount is added to 5 and the resulting value is an estimated lease term.
2. Determine a run-off rate for the lump sum amount that is based on the percentage change (year-over-year) in the first five years of disclosed future minimum lease commitments. The number of “years” it takes to run off the lump sum amount is then added to 5 and the resulting value is an estimated lease term.

Question 13: How might current financial statement information be used to “ballpark” a company’s exposure to the FASB/IASB proposal?

To help investors understand the proposed lessee accounting requirements and begin thinking about how the proposals may impact investment decision-making, we’ve developed a case study. In **Appendix I**, we present a simple case study that applies the proposed lease accounting requirements to a fictional company. The case study is meant to be used only as a tool for understanding the potential effect of the new lessee accounting requirements. Significant estimates and simplifying judgments have been made in the development of the case study.

From our perspective, there is not sufficient publicly available information for market participants to make accurate estimates of the effects of this proposal. **The analysis we perform in this report is an attempt to give analysts and investors a general sense of the directional impact of the proposed model on lessees.** Unfortunately, financial statement users are largely dependent on companies to quantify the ultimate effects. Most of the data points that are necessary to estimate the effects of this proposal are currently non-public information.

Issues that inhibit market participants’ ability to make accurate estimates include lack of information and transparency about:

- Options embedded in lease contracts and the likelihood of option exercise (i.e., are the options in the money, at the money, or out of the money?);

- Forecasts of contingent payments and the potential variability of those contingent payments (i.e., a sensitivity analysis);
- Portfolio effects (i.e., aggregation of lease contracts with dissimilar terms);
- Changing interest rates;
- Potential changes in company behavior as a result of the proposed lease accounting model;
- Macro factors such as inflation and future market prices for rents (e.g., office rent, retail space rent, etc.);
- Opportunities for alternatives to leasing; and
- Company growth requirements.

Question 14: What are the potential repercussions of the proposed model on a lessee's weighted-average cost of capital?

If finalized as written, we would expect that the implementation of the boards' exposure draft proposals would have an effect on the fundamental inputs used to value a lessee and, through those inputs, on the lessee's weighted-average cost of capital (WACC). When computing the cost of capital for a company, we estimate the costs of debt and equity for the company and then weight them, based on market value.

Cost of debt

All things being equal, we would expect that an increase in debt on a lessee's balance sheet would increase its cost of debt. The increase in debt would also increase the weighting of debt (i.e., the percentage of financing that is debt) in a lessee's calculation of its WACC.

Given that many derive the cost of debt from debt ratings and the debt rating agencies already consider leases in their analysis, the initial expectation might be that the proposal should not have an effect on credit ratings. The ratings agencies consider the magnitude of fixed charges when assigning ratings to a company. What we do not know is how the market (in general) and rating agencies (in particular) will respond to the "grossing up" of the lease liability in accordance with the proposed model. Again, the operating lease commitments currently contemplated by both the market and rating agencies are non-cancelable amounts—that is, the obligations cannot be avoided and the obligation amounts are certain. In contrast, the proposed measurement model includes obligations that can be avoided (by factoring in renewal options that are more likely than not to occur) and obligation amounts that are uncertain (by factoring in estimates of contingent payments, termination payments, and residual value guarantees).

As we demonstrate in our example in Appendix I, our expectation is that the size of the lease obligations that many lessees likely would be required to bring on to the face of their balance sheets could be larger than analysts and investors currently estimate under either the multiples approach or the present value approach. This has implications for WACC—in particular, that the debt allocation to WACC should be larger. All things being equal, a higher debt allocation should imply a lower WACC.

As we mentioned earlier in the report, the proposal would bring operating leases on to a lessee's balance sheet at a frozen interest rate that will not adjust over the life of the lease. The initial measurement of the lease contracts would essentially establish a cost basis that would be amortized over time. The boards' decision to use amortized cost accounting for the lease obligation creates a couple of potential problems:

1. Since analysts typically weight debt and equity components of WACC based on market values, the balance sheet value of the lease liability will not be helpful to analysts and may actually distort WACC when analysts weight the leases based on the amortized cost rather than a present value proxy for market value. Good footnote disclosures will be necessary so analysts have the ability to re-measure the lease liability at the company's current cost of debt.
2. We are currently in a period of historically low interest rates. If this period of historically low interest rates were to continue through the period of adoption of this standard, the low interest rate would result in the lease obligation coming onto the balance sheet as a larger liability than it would with higher normalized interest rates.

Cost of equity

Factoring in an estimate of an impact on the cost of equity is less straightforward. It is common to estimate the cost of equity through the use of a regression beta. The regression beta is determined by stock returns. At a minimum, we can imply that these changes will significantly alter GAAP financial performance for many companies and these accounting changes could be disruptive to P/E multiples and discounted cash flow valuations. In particular, we would expect the provision to continually reassess renewals, contingencies, and other more complicated features to be a source of earnings volatility and (potentially) surprise.

Question 15: Are there other ways to measure the assets and liabilities that arise in a lease contract?

The exposure draft proposes that a lessee should measure both the liability to make lease payments and the right-to-use asset at amortized cost. (Reminder: "Cost" is derived from the obligation to make expected lease payments.) In the Basis for Conclusions to the exposure draft (paragraphs BC65, BC72, and BC74), the boards argue that fair valuing the right of use asset and lease liability:

1. Would be inconsistent with the initial and subsequent measurement of many other non-financial assets (the right-of-use asset) and non-derivative financial liabilities (the lease liability), thus decreasing comparability for users of financial statements; and
2. Would be more complex and costly for lessees to apply than a cost-based approach.

Fair value and expected lease payments

The right-of-use asset and lease liability discussed in the exposure draft are derived from a lessee's measurement of its expected lease payments. The expected lease payments in a lease contract are the aggregation of lease contract components—those components can be thought of as distinct performance obligations. Common performance obligations in a lease contract are:

- The base amount of the contract;
- Contingent payments; and
- Residual value guarantees.

The measurement of lease contracts is complicated by the presence of optionality in a contract, in particular options to renew or terminate a lease contract. The amortized cost model was not designed (or intended) to be a measurement basis for complex financial liabilities exhibiting optionality. Embedded complexity in an instrument is typically an indication that fair value is the appropriate measurement approach because that measurement takes into account the specific characteristics of the financial instrument. We would expect that a fair value measurement of a lease would likely be a level 3 measurement (i.e., mark to model). The fair value measurement of the performance obligations in the whole lease contract would include the lessee's expectations about the exercise of options in the lease contract and the possibility of additional payments being made if options are exercised.

An alternate approach to amortization

If the boards decide to proceed with the measurement approach proposed in the exposure draft, we hope that they seriously consider amortizing the right-of-use asset and the lease liability in accordance with the same amortization schedule, rather than retaining the straight-line amortization approach for the right-of-use asset proposed in the exposure draft. In accordance with the proposed model, the intangible asset will decline on a much faster basis than the lease liability, and we are concerned that this relationship between these balances could cause confusion among investors.

Tying the amortization of the right-of-use asset to the periodic reduction of the lease liability would result in the asset and liability balance remaining equal over the lease term. This means that the amount recorded as amortization expense would be the equivalent of the period-over-period reduction in the lease liability. When added to the interest expense on the liability, the amortization amount would be an income statement effect that would be a better proxy for cash rental payments than the proposed accounting, in our view.

The accounting proposed in the exposure draft results in the recognition of a higher expense in the early periods of the lease but reduced expense in the later periods of the lease. The approach described above would result in a lessee recognizing assets and liabilities in its balance sheet; however, the income statement impact would be less extreme than what is proposed in the exposure draft, particularly with regard to the boards' tentative decisions on transition requirements.

Impairment of the right-of-use asset

The boards' respective exposure drafts are markedly light on details on the impairment of the right-of-use asset. In particular, the FASB exposure draft sends a lessee to ASC 350 *Intangibles—Goodwill and Other* for guidance on impairing the right-to-use asset. However, that guidance then re-directs a lessee to ASC 360-10 (paragraphs 35-17 through 35-35) *Impairment or Disposal of Long-Lived Assets*. ASC 360-10 requires a company to recognize an impairment loss if the carrying amount of an intangible asset (i.e., a lessee's right-of-use asset) is not recoverable and its carrying amount exceeds its fair value.

The FASB did not include proposed consequential amendments to ASC 360-10 in its version of the exposure draft. As currently drafted, a lessee would have to determine a fair value for its right-of-use asset in order to apply the existing impairment model. Further, it is not clear how an assessment of recoverability would be made for a right-to-use asset, unless recoverability (for a lessee) is a reference to whether the lessee's right-of-use asset reflects an above-market lease rate.

Question 16: Do the proposed disclosures go far enough?

Setting aside our concerns about the measurement model proposed in the exposure draft, we think that the proposed disclosures are a good starting place. However, we expect that the measurement model proposed in the exposure draft (and the lack of required disaggregation of amounts proposed to be presented on the face of the financial statements) could encourage investors and analysts to unwind the amounts presented in the financial statements and replace them with amounts that are more economically relevant. At the very least, we think that investors and analysts would benefit most from required disclosures similar to what we include below in Table 6 and Table 7.

Table 6 is an example of a disclosure that would be helpful if the lessee has only one lease. Given that many lessees have literally thousands of separate lease contracts, Table 7 is an example of how the information in Table 6 for a single lease contract could be translated into meaningful and helpful lease portfolio disclosures. Table 7 is a stratification table where companies would traunche all of their expected lease payments into a single schedule. Similar schedules could be built to show contingent and residual value guarantees.

In Table 6, a fictional company has assumed that it will exercise two of its four renewal options. In management's judgment, renewal option 2 has a 51% probability of exercise and renewal option 3 has a 49% probability of exercise. While these are fairly similar probabilities of exercise, the "more likely than not" criteria in the proposed model essentially creates a bright line at 50%. The consequence of **not** including the third option in the calculation of the expected lease payments is a reduction in the lease liability from \$1,047,324 to \$953,561.

From our perspective, it would seem that the "more likely than not" criteria will be the most obvious area where managements may exercise significant discretion. If a company has thousands of separate lease contracts, we would expect that auditors likely would not scrutinize every lease assumption—instead, they likely will sample the lease contract portfolio, testing a relatively small percentage of contracts.

With this reality in mind, a schedule like Table 7 could provide investors and analysts with a snapshot of management's overall judgment about several aspects of their lease portfolio. Analysts could monitor such tables over time, and the information in this schedule would allow the analyst to make alternative assumptions. The schedule would also allow the analyst to estimate the value of the leases based on a present value measure rather than an amortized cost measure. Providing an analyst with the information to do a current present value (or expected value) calculation would give him or her the ability to back out the proposed lease accounting effects and replace them with more decision-useful measures, we believe.

Table 6: Other potential disclosures for a company with a single lease (not part of the FASB/IASB proposal)

	Year	Probability of exercise	Base lease payment	Expected amounts		Total	10% discount rate	
				Contingent payments	Residual value guarantees		NPV of payment	NPV of total payments
Minimum lease term	1	100%	100,000	3,000	1,000	104,000	94,545	94,545
	2	100%	100,000	3,000	1,000	104,000	85,950	180,496
	3	100%	100,000	3,000	1,000	104,000	78,137	258,633
	4	100%	100,000	3,000	1,000	104,000	71,033	329,666
	5	100%	100,000	3,000	1,000	104,000	64,576	394,242
	6	100%	100,000	3,000	1,000	104,000	58,705	452,947
	7	100%	100,000	3,000	1,000	104,000	53,368	506,316
	8	100%	100,000	3,000	1,000	104,000	48,517	554,832
	9	100%	100,000	3,000	1,000	104,000	44,106	598,938
	10	100%	100,000	3,000	1,000	104,000	40,097	639,035
Renewal Option #1	11	80%	120,000	3,600	1,200	124,800	43,742	682,777
	12	80%	120,000	3,600	1,200	124,800	39,765	722,542
	13	80%	120,000	3,600	1,200	124,800	36,150	758,692
	14	80%	120,000	3,600	1,200	124,800	32,864	791,556
	15	80%	120,000	3,600	1,200	124,800	29,876	821,432
Renewal Option #2	16	51%	140,000	4,200	1,400	145,600	31,687	853,119
	17	51%	140,000	4,200	1,400	145,600	28,806	881,925
	18	51%	140,000	4,200	1,400	145,600	26,187	908,112
	19	51%	140,000	4,200	1,400	145,600	23,807	931,919
	20	51%	140,000	4,200	1,400	145,600	21,643	953,561
Renewal Option #3	21	49%	160,000	4,800	1,600	166,400	22,486	976,047
	22	49%	160,000	4,800	1,600	166,400	20,442	996,489
	23	49%	160,000	4,800	1,600	166,400	18,583	1,015,072
	24	49%	160,000	4,800	1,600	166,400	16,894	1,031,966
	25	49%	160,000	4,800	1,600	166,400	15,358	1,047,324
Renewal Option #4	26	20%	180,000	5,400	1,800	187,200	15,707	1,063,031
	27	20%	180,000	5,400	1,800	187,200	14,279	1,077,310
	28	20%	180,000	5,400	1,800	187,200	12,981	1,090,291
	29	20%	180,000	5,400	1,800	187,200	11,801	1,102,092
	30	20%	180,000	5,400	1,800	187,200	10,728	1,112,820
			4,000,000	120,000	40,000	4,160,000		

Initial amount of lease liability and right of use asset recognized on balance sheet

Source: J.P. Morgan estimates.

Table 7: Other potential disclosures for a company with a large lease portfolio (not part of the FASB/IASB proposal)

Lease Year	Lessee Aggregate Lease Portfolio - Base Lease Payments											>50%	All
	100%	99% — 90%	89% — 80%	79% — 70%	69% — 60%	59% — 50%	49% — 40%	39% — 30%	29% — 20%	19% — 10%	9% — 0%	Probability Total	Probabilities Total
	More likely than not to occur						Not Expected to Occur						
Year 1	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 2	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 3	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 4	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 5	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 6	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 7	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 8	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 9	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 10	100,000	-	-	-	-	-	-	-	-	-	-	100,000	100,000
Year 11	-	-	120,000	-	-	-	-	-	-	-	-	120,000	120,000
Year 12	-	-	120,000	-	-	-	-	-	-	-	-	120,000	120,000
Year 13	-	-	120,000	-	-	-	-	-	-	-	-	120,000	120,000
Year 14	-	-	120,000	-	-	-	-	-	-	-	-	120,000	120,000
Year 15	-	-	120,000	-	-	-	-	-	-	-	-	120,000	120,000
Year 16	-	-	-	-	-	140,000	-	-	-	-	-	140,000	140,000
Year 17	-	-	-	-	-	140,000	-	-	-	-	-	140,000	140,000
Year 18	-	-	-	-	-	140,000	-	-	-	-	-	140,000	140,000
Year 19	-	-	-	-	-	140,000	-	-	-	-	-	140,000	140,000
Year 20	-	-	-	-	-	140,000	-	-	-	-	-	140,000	140,000
Year 21	-	-	-	-	-	-	160,000	-	-	-	-	-	160,000
Year 22	-	-	-	-	-	-	160,000	-	-	-	-	-	160,000
Year 23	-	-	-	-	-	-	160,000	-	-	-	-	-	160,000
Year 24	-	-	-	-	-	-	160,000	-	-	-	-	-	160,000
Year 25	-	-	-	-	-	-	160,000	-	-	-	-	-	160,000
Year 26	-	-	-	-	-	-	-	-	180,000	-	-	-	180,000
Year 27	-	-	-	-	-	-	-	-	180,000	-	-	-	180,000
Year 28	-	-	-	-	-	-	-	-	180,000	-	-	-	180,000
Year 29	-	-	-	-	-	-	-	-	180,000	-	-	-	180,000
Year 30	-	-	-	-	-	-	-	-	180,000	-	-	-	180,000
Total	1,000,000	-	600,000	-	-	700,000	800,000	-	900,000	-	-	2,300,000	4,000,000

Sensitivity Analysis: The present value of the lease obligations above is as follows under the following discount rate assumptions.													
10%	614,457	-	175,381	-	-	127,048	90,156	-	62,977	-	-	916,886	1,070,020
9%	641,766	-	197,164	-	-	149,500	111,045	-	81,193	-	-	988,429	1,180,668
8%	671,008	-	221,928	-	-	176,214	137,061	-	104,941	-	-	1,069,149	1,311,151
7%	702,358	-	250,120	-	-	208,054	169,531	-	135,982	-	-	1,160,532	1,466,046
6%	736,009	-	282,259	-	-	246,074	210,150	-	176,665	-	-	1,264,342	1,651,157
5%	772,173	-	318,951	-	-	291,557	261,077	-	230,131	-	-	1,382,682	1,873,890

Source: J.P. Morgan estimates.

Corporate Behavior

Question 17: Why do companies enter into operating leases?

Leasing is an important and often used source of financing that enables companies to acquire the right to use assets without making large initial cash outlays. Further, lease contracts with features such as options and contingent rentals are an important part of the financial flexibility that has been negotiated between a lessee and a lessor.

Companies currently account for leases as operating leases or capital leases. Though operating leases often provide similar risks and benefits as outright ownership, neither the leased asset nor the obligation to pay for the use of the asset is recorded on the balance sheet. Instead, rent expense is recorded in the income statement on a straight-line basis throughout the lease term. The result is that operating leases are sometimes used as a means of off-balance-sheet financing. When funds are borrowed to purchase an asset, the resulting liability has a negative effect on a company's debt-to-equity ratio and other measures of a company's riskiness. Similarly, a purchased asset increases total assets and correspondingly lowers calculations of the rate of return on assets. Many companies avoid reporting assets and liabilities by leasing rather than buying and by constructing lease agreements in such a way that capitalizing the assets and liabilities is not required (see **Question 18** for more information).

Lease contracts that qualify for operating lease classification result in rent expense (an operating expense) that is tax-deductible. Even though rent expense reduces net income, those payments also provide a tax benefit. The tax benefit is proportional to a company's marginal tax rate. The effect of a capital lease on operating income and net income is different than that of an operating lease because capital leases are treated similarly to assets that are bought by a company—that is, the company is allowed to claim both depreciation on the asset and an imputed interest payment on the lease as tax deductions.

A company's decision to enter into either an operating lease or a capital lease may be motivated by operational incentives—for example, tax and market considerations may motivate a company to enter into lease arrangements. A company with little or no taxable income (e.g., a start-up or a company experiencing an economic downturn) will get little benefit from depreciation deductions. However, a company can benefit indirectly by leasing assets rather than buying. By allowing the lessor to retain ownership of the leased asset (and therefore benefit from depreciation deductions), the lessee can often negotiate lower lease payments.

A lessee with sufficient taxable income to take advantage of the depreciation deductions can also achieve similar tax benefits by constructing a synthetic lease. Financial reporting rules differ from tax regulations in the United States. As a result, in some cases a company may own an asset for tax purposes (and therefore obtain the deductions for depreciation expense for tax purposes) while not reflecting the ownership in its financial statements (meaning no asset is recorded on the balance sheet). A lease that is structured to provide a company with the tax benefits of ownership while not requiring the asset to be reflected on the company's balance sheet is referred to as a synthetic lease.

Companies in some sectors—for example, restaurants and retailers—may be viewed as “captive lessees.” These companies generally do not have a lease-versus-buy decision to make because the resource the lessee needs is simply not for sale as a separable asset (for example, a particular location in a shopping mall). Said differently, leasing space through a renter/landlord relationship is a fundamental input to executing a captive lessee’s particular business model. The option to lease can provide a growing company with business model flexibility, for example:

- It provides a company with the ability to quickly increase the scale of its operations during period of high growth;
- It fulfills a temporary need for an asset without requiring the commitment of an outright purchase;
- It is a lower-risk option for testing new markets; and
- It is a commitment that it is more liquid in nature (e.g., rather than participate in the difficult process of selling a potentially illiquid commercial property, a lessee can often choose to sublease a space or break the lease and make a termination payment).

Question 18: What accounting problem is the lease proposal attempting to address?

In recent years, the FASB and IASB have made substantial efforts to develop accounting standards that are based on principles rather than prescriptive rules. A calling card of a rules-based accounting standard is the presence of quantitative thresholds (a.k.a. bright lines) that result in one accounting treatment if a transaction is below a particular threshold and another accounting treatment if the transaction is above the threshold. The capital lease criterion in U.S. GAAP is often held out as the poster child for rules-based accounting requirements.

Some might argue that current lease accounting requirements make sense when dealing with extremes. For example, operating lease classification (and the recognition of rent expense) seems appropriate for some types of lease contracts—in particular, very short-term leases. On the other hand, capital lease classification (and the recognition of assets and liabilities) seems appropriate for other types of lease contracts—in particular, lease contracts that are similar to an asset purchase. However, the existing framework to account for lease contracts in U.S. GAAP and IFRS breaks down in the middle due—in part—to the existence of quantitative thresholds.

Quantitative thresholds in accounting standards can create structuring opportunities; they can also result in different accounting for economically similar transactions. For example, if a lessee negotiates a lease term that is for 75 percent or more of the expected economic life of the asset, the lessee would be required to account for the contract as a capital lease. However, if the lease term is 74 percent of the expected economic life of the asset, the lessee would be required to account for the contract as an operating lease. The dramatically different accounting that results from narrowly being on either side of the quantitative threshold does not help investors to make comparisons between companies that engage in similar leasing activities. Accounting that is determined on the basis of quantitative thresholds provides an incentive for market participants to structure transactions in order to obtain a preferred accounting

result (in this case, operating lease classification). In the context of lease accounting, market participants are generally aware of the quantitative thresholds and many structure lease contracts so that capital lease classification is not triggered.

A move to principles-based standards means eliminating the quantitative thresholds present in existing accounting requirements and replacing them with robust principles. In the context of lease accounting, that means developing requirements that are not based on binary decisions (i.e., on whether features of a contract are above or below a quantitative threshold). Instead, lease accounting requirements must reflect a standard approach that holds across the continuum of possible lease contracts.

Question 19: Including renewal options and contingent payments in the measurement of expected lease payments—what problem does that solve?

In the Basis for Conclusions to the exposure draft, the boards acknowledge that using the most likely lease term is a practical solution to problems associated with the accounting for leases with options. If optional periods are not included in the lease term, the boards think that significant structuring opportunities would be created. The boards make a parallel argument for including contingent amounts in the lease liability. The reasoning: a lessee could structure lease payments as contingent to avoid recognizing a liability.

Indeed, without the inclusion of the renewals, we would expect companies to drastically reduce their non-cancelable lease period and include more renewal options. Further, without contingencies embedded in the measurement of the lease liability, we would expect to see more of the rental payments shift from the base payment amount to the contingent amount.

The boards' proposed approach requires a lessee to determine the expected cash flows for a lease liability under a variety of scenarios. For all of the cash flow scenarios that fall above a more-likely-than-not threshold, the lessee aggregates those amounts and discounts them back to the present day, using either the lessee's incremental borrowing rate or the interest rate implicit in the lease. The important point here is that the approach described in the exposure draft is **not** a traditional probability-weighted expected cash flow calculation that investors and analysts are familiar with since it does not weight the cash flows prior to their discounting and it ignores scenarios with probabilities under 50%.

Question 20: How might the proposed changes affect a company's financing decisions?

We think that the proposed accounting model for leases will be a catalyst for companies to reassess and (potentially) rationalize their leasing decisions. The original reasons a company decided to lease a particular asset versus buying it may no longer be relevant. For example, lease transactions previously structured for off-balance-sheet benefit at a higher cost compared to straight borrowing may no longer be optimal. Further, some lessees may decide that the complexity of the proposed model and the potential cost to comply with its requirements may make leasing an unattractive option.

We already have some anecdotal evidence that suggests companies are going through the process of taking a fresh look at their leasing decisions. Northrup Grumman Corp. (NOC) recently announced plans to move from Los Angeles, California to Falls Church, Virginia. In particular, NOC decided to buy property rather than lease it, citing the proposed new accounting standards as a motivating factor in making the change. The deal is something of an about-face in terms of the company's approach to corporate real estate. For roughly 20 years, NOC's corporate headquarters have been leased office space.

While we do not expect that the proposed leasing model will be the single motivating factor in the lease-versus-buy decision, we do think that the proposed change could be one of the factors that tip some companies over the edge. We expect that companies will also consider the following additional factors:

- Availability of alternate financing arrangements;
- Economic outlook;
- Tax consequences;
- Regulatory outlook; and
- Current and planned physical requirements (i.e., operational outlook).

What is uncertain is how regulatory agencies will view this change. In particular, it is not clear how the proposed model will impact risk-based capital requirements and other key regulatory metrics. In the light of the balance sheet gross-up and acceleration of expenses relative to straight-line rent expense typical of an operating lease today, the effect of the change could be very significant to banks and other regulated entities whose capital ratios and/or other metrics are closely monitored.

We expect that capital ratios could be adversely affected if computed in accordance with the proposed model (without adjustment). In particular, the boards' decision to move forward with a right-of-use model—an intangible asset model—for lessees would require a bank to bring all of its branch operating lease arrangements onto its balance sheet. However, because the asset is an intangible asset, it is not clear that a bank would receive any credit (from a regulatory capital perspective) for those assets. The basis for this conclusion is that—at least in the United States—intangible assets are not deemed to have permanence of capital. Said differently, intangible assets are not thought of as having any loss-absorption capacity.

As we have mentioned earlier, companies in some sectors—for example, restaurants and retailers—may be viewed as captive lessees. These companies generally do not have a lease-versus-buy decision to make. Said differently, leasing space is a fundamental input to executing their respective business models. The requirement to include all renewal options in the calculation of expected lease payments could hit companies in these sectors particularly hard. A retailer (a going concern) that wants continued access to a “prime” location from which to execute its business has no choice but to exercise the renewal options in its lease contract. Consequently, it could be difficult for a captive lessee to overcome (to the satisfaction of its auditors) the rebuttable presumption that it must include all renewal periods in its lease contracts as part of the expected lease payment calculation. To mitigate the effect of including all renewal options in the calculation, we would expect to see lease contracting

practices evolve in the near term. In other words, we expect that in the current economic environment a lessee would be motivated to reduce its exposure to some aspects of the proposed lease accounting model.

One approach that a lessee might take to minimize the effect of the proposals would be to reduce the amount of time between renewal periods for long-term contracts. For example, if a company had an initial non-cancelable lease term of ten years followed by one ten-year renewal period, it might make sense to change from one ten-year renewal period to another contract that has five two-year renewal options between years ten and 20. If only two of the five renewal options are deemed to be more likely than not to occur, the company could argue that 14 years of lease obligations should be on the balance sheet rather than the 20 years of lease obligations that would result from the original contract.

Question 21: What are the proposed transition requirements for lessees?

Another important point is that the proposed leasing standard would be applied by a lessee by recognizing a right-of-use asset and a lease liability for all outstanding leases at the transition date—that is, there is **no** grandfathering for existing leases. That means companies will be required to inventory all lease contracts and—**for each**—determine the lease term and the effect of contingent payments, residual value guarantees, and termination payments. The expected lease payment would then be discounted using the **lessee's incremental borrowing rate on the transition date**.

A consequence of the proposed transition approach is that all of a company's lease contracts are effectively reset to year one on adoption of the final standard. The effect on net income could be significantly adverse for lessees on transition because the model produces higher aggregate expense in early periods of a lease term. While the effect will lessen over time, **we expect that the proposed transition would have material negative consequences for the P/Es of most lessees**.

Question 22: If the proposals are watered down during redeliberations, would company behavior still be affected?

The comment period on the boards' exposure draft ends 15 December 2010. The boards have also committed to holding four separate public round-table meetings in December 2010 and January 2011 to gain additional feedback on the proposed leasing model.

Given the boards' stated goal of publishing a final ASU/IFRS by 30 June 2011, the number of other major projects that are also scheduled to complete in the same time frame, and the number of questions to be resolved about the proposed leasing model, we expect that:

- The boards may find it necessary to strip out the proposed changes to lessor accounting and, instead, focus their efforts on finalizing the new lessee accounting model;
- The decision to bring substantially all leases onto the face of the balance sheet will not change; and

- Redeliberations will focus on the proposed measurement of expected lease payments. In particular, we expect that significant time will be spent revisiting the proposals on renewal options, contingent payments, termination payments, and residual value guarantees.

Even if the measurement approach proposed in the exposure draft is toned down, we still expect corporate behavior to change, particularly as the boards signal through their deliberations the direction of the measurement approach to be included in the final ASU/IFRS. Most importantly, we think that the proposed increase in reported liabilities at a time of significant financial uncertainty will be sufficient impetus for shifts in lessee decision-making.

Dane Mott is a member of the FASB's Investor Technical Advisory Committee and several IASB advisory committees: the IFRS Advisory Council; the Analyst Representative Group; and the Employee Benefit Working Group.

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Appendix I: Case study

Disclosure and valuation in accordance with existing U.S. GAAP

It is January 2011, and Retail Lessee Company (RLC) is preparing its 2010 10-K.

RLC was founded in 2001. Between 2001 and 2010, RLC has grown from one store to ten stores by opening one store each year. It is not disclosed in RLC disclosures, but all of these retail locations are secured under ten-year non-cancelable leases, and each lease has a renewal option attached to it that will extend the original ten-year term ten more years to a 20-year term.

All of RLC's leased properties are homogeneous. In 2001, Lease Contract 1 was executed at \$100. Each successive contract was entered into at a price that was 3% higher than the previous year (in recognition of inflation). As a result of inflation, by 2010 Lease Contract 10 was entered into for \$130 per year, a 30% premium to the non-cancelable portion of Lease Contract 1 from 2001.

The store secured under Lease Contract 1 recently finished its tenth year, and RLC exercised its renewal option on December 15, 2010. Under the terms of the renewal, the rent will escalate from the \$100 per year level in the first ten years to \$134 per year in the next ten years.

In **Table 8**, we illustrate RLC's 2010 10-K lease footnote disclosure of its minimum non-cancelable lease commitments (prepared in accordance with existing U.S. GAAP). Based on the non-cancelable criteria, 2020 is the final period that the company has exposure to a non-cancelable lease obligation. The exercised renewal option on Lease Contract 1 is the contract that gives rise to the lease obligation in 2020.

Investors only see the minimum lease commitment disclosure in the 10-K footnotes. In this situation, analysts would see a lump sum payment of \$1,939 for 2016 and after. A difficult exercise for analysts is attempting to assign the residual lease payments across years. As we see with RLC's internal schedule, 2011 minimum lease commitments range from \$1,181 in 2011 to \$134 in 2020.

Table 8: RTL lease contract schedule used to populate its future lease commitment schedule for 2010 10-K (existing U.S. GAAP applied)

Minimum Lease Commitments (Disclosed in Notes)		% of Total	% Δ YoY
2011	1,181	17%	
2012	1,078	16%	-9%
2013	972	14%	-10%
2014	862	13%	-11%
2015	750	11%	-13%
2016+	1,939	29%	-11%
Total	6,782	100%	

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Lease contract 1	100	100	100	100	100	100	100	100	100	100	134	134	134	134	134	134	134	134	134	134
Lease contract 2		103	103	103	103	103	103	103	103	103	103									
Lease contract 3			106	106	106	106	106	106	106	106	106	106								
Lease contract 4				109	109	109	109	109	109	109	109	109	109							
Lease contract 5					113	113	113	113	113	113	113	113	113	113						
Lease contract 6						116	116	116	116	116	116	116	116	116	116					
Lease contract 7							119	119	119	119	119	119	119	119	119	119				
Lease contract 8								123	123	123	123	123	123	123	123	123	123			
Lease contract 9									127	127	127	127	127	127	127	127	127	127		
Lease contract 10										130	130	130	130	130	130	130	130	130	130	
Minimum Lease Commitments:											1,181	1,078	972	862	750	634	515	392	265	134
Discounted @ 5%:											1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55	1.63
Present Value:											1,125	978	839	710	588	473	366	265	171	83

Source: J.P. Morgan estimates.

Net present value calculations using existing U.S. GAAP disclosures

For analysts attempting to perform a net present value calculation of the liability, the duration and amount of the lease contracts will play an important role in the valuation. Below we present three alternative methods for allocating the year-six lump sum payment.

- In Approach 1, we assign the year 5 (2015) payment to 2016 and after until the entire \$1,939 is allocated.
- In Approach 2, we apply the average payment in years 1-5 to 2016 and beyond until the \$1,939 lump sum is allocated.
- In Approach 3, we calculate the average decline in lease payments in years 1-5. We then reduce the year 5 commitment by that percentage to calculate the year 6 payment, continuing the process for each consecutive year by that amount until the balance is zero.

Given the relative short duration of RLC's lease exposure, the three net present value calculations are fairly consistent with the discounted cash flow approach. The three net present value approaches averaged to lease liability of \$5,631 whereas the actual net present value using the actual schedule to prepare the 10-Ks was \$5,596.

Multiples of rent

An alternative to a net present valuation calculation is a multiples approach. Given that this company is assumed to be in the retail industry, the commonly used multiple is 8x current rent expense. We estimate rent expense to be the equivalent of the 2010 minimum lease payments of \$1,146. In this situation, the result is a \$9,160 estimated lease liability that is 64% higher than the calculation using the actual lease schedule.

Table 9 illustrates the three NPV approaches and the "multiples of rent" approach described above.

Table 9: Different approaches to valuations of lease commitments using existing U.S. GAAP disclosures

Net Present Value Calculations of Lease Liabilities Using U.S. GAAP Disclosures									
Approach 1: Divide lump sum by year 5 lease commitment									
	2011	2012	2013	2014	2015	Estimates			
	2016	2017	2018	2019					
Minimum Lease Commitments:	1,181	1,078	972	862	750	750	750	440	0
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55
Present Value:	1,125	978	839	710	588	560	533	298	-
									6,782
									5,629
Approach 2: Divide lump sum by average of year 1 through 5 lease commitments									
	2011	2012	2013	2014	2015	Estimates			
	2016	2017	2018	2019					
Minimum Lease Commitments:	1,181	1,078	972	862	750	969	969	2	0
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55
Present Value:	1,125	978	839	710	588	723	688	1	-
									6,782
									5,651
Approach 3: Determine run-off rate									
	2011	2012	2013	2014	2015	Estimates			
	2016	2017	2018	2019					
Minimum Lease Commitments:	1,181	1,078	972	862	750	670	598	534	138
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55
Present Value:	1,125	978	839	710	588	500	425	361	89
									6,782
									5,613

Multiples of Rent Expense

2010 Rent Expense	Multiples of Rent Expense					
	5x	6x	7x	8x	9x	10x
	1,146	1,146	1,146	1,146	1,146	1,146
	5,725	6,870	8,015	9,160	10,305	11,450

* 2010 rent expense inflated by a multiple that approximates the average lease term of the lease contract portfolio
* The larger the multiple (lease term) used, the larger the liability.

Disclosure and valuation in accordance with proposed model

In **Table 10**, we assume the same fact pattern for RLC that was applied to the example that explored existing U.S. GAAP requirements. The only change is the application of the proposed model in place of existing U.S. GAAP. As a consequence of making that change, RLC determines that it has ten renewal options that need to be factored into the valuation of the liability (i.e., the renewals are more likely than not to occur).

When the renewal options are factored into the calculation, the expected undiscounted lease commitments increase from \$6,782 to \$20,844. The net present value of the lease obligations increases to \$14,089 (from \$5,595 using the original U.S. GAAP disclosures).

Once again, the net present value calculations are fairly close to the actual value calculated with the full schedule. The average of our three net present value approaches is \$14,089.

The takeaway

When we included the renewal options into the calculation, the expected lease payments represent a substantial increase over the minimum lease commitments currently disclosed in accordance with U.S. GAAP. Further, the calculated obligation is substantially higher than the amount of liability an investor would get from either the multiples approach or the net present value approach calculated in accordance with existing U.S. GAAP.

While this is only an example, it illustrates how the inclusion of the renewal options in the measurement of expected lease payments has the ability to make the balance sheet effect of this proposed change more severe than many may anticipate.

Table 10: RTL lease contract schedule used to populate its future lease commitment schedule for 2010 10-K (proposed model applied)

Minimum Lease Commitments (Disclosed in Notes)		% of Total	% Δ YoY
2011	1,181	6%	0.03
2012	1,216	6%	3%
2013	1,253	6%	3%
2014	1,290	6%	3%
2015	1,329	6%	3%
2016+	14,575	70%	997%
Total	20,844	100%	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	134	134	134	134	134	134	134	134	134	134									
	103	138	138	138	138	138	138	138	138	138	138								
	106	106	143	143	143	143	143	143	143	143	143	143							
	109	109	109	147	147	147	147	147	147	147	147	147	147						
	113	113	113	113	151	151	151	151	151	151	151	151	151	151					
	116	116	116	116	116	156	156	156	156	156	156	156	156	156	156				
	119	119	119	119	119	119	160	160	160	160	160	160	160	160	160	160			
	123	123	123	123	123	123	123	165	165	165	165	165	165	165	165	165	165	165	
	127	127	127	127	127	127	127	127	170	170	170	170	170	170	170	170	170	170	170
	130	130	130	130	130	130	130	130	130	175	175	175	175	175	175	175	175	175	175
Minimum Lease Commitments:	1,181	1,216	1,253	1,290	1,329	1,369	1,410	1,452	1,496	1,541	1,406	1,268	1,125	978	827	671	511	346	175
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.18	2.29	2.41	2.53
Present Value:	1,125	1,103	1,082	1,062	1,041	1,021	1,002	983	964	946	822	706	597	494	398	308	223	144	69

Net Present Value Calculations of Lease Liabilities

Approach 1: Divide lump sum by year 5 lease commitment

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
											Estimates							
Minimum Lease Commitments:	1,181	1,216	1,253	1,290	1,329	1,329	1,329	1,329	1,329	1,329	1,329	1,329	1,329	1,329	1,329	1,285	-	20,844
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.18	2.29	
Present Value:	1,125	1,103	1,082	1,062	1,041	992	944	900	857	816	777	740	705	671	639	589	-	14,042

Approach 2: Divide lump sum by average of year 1 through 5 lease commitments

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
											Estimates							
Minimum Lease Commitments:	1,181	1,216	1,253	1,290	1,329	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	784	20,844
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.18	2.29	
Present Value:	1,125	1,103	1,082	1,062	1,041	936	891	849	808	770	733	698	665	633	603	574	342	13,915

Approach 3: Determine run-off rate

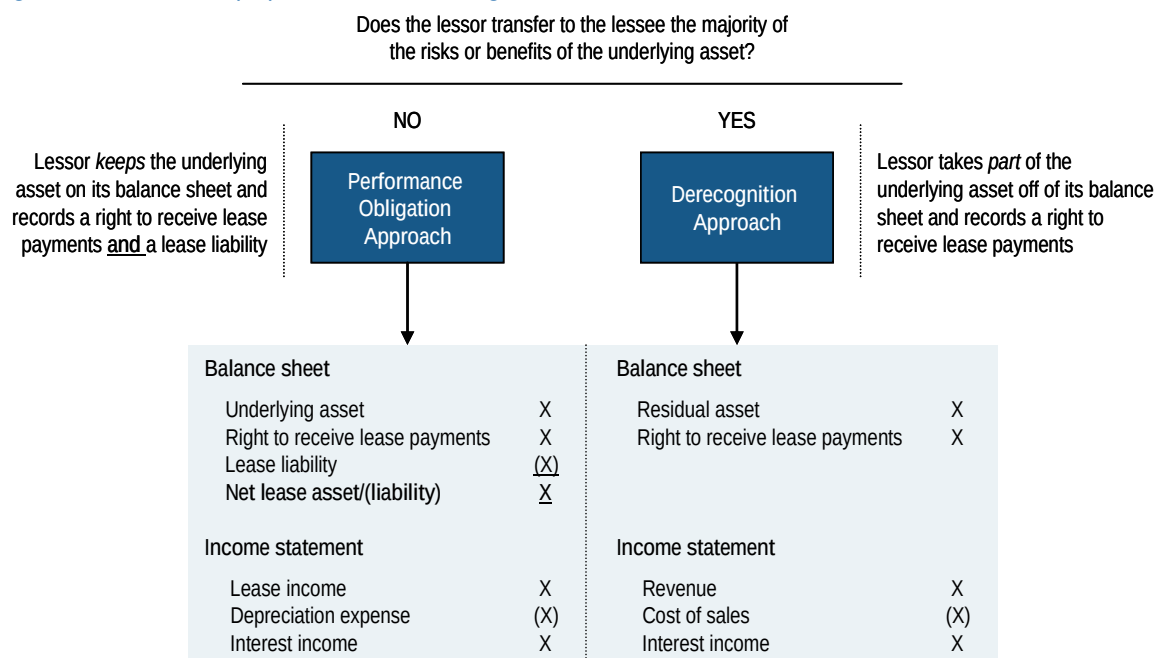
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
											Estimates							
Minimum Lease Commitments:	1,181	1,216	1,253	1,290	1,329	1,369	1,410	1,452	1,496	1,541	1,587	1,634	1,684	1,734	1,669	669	-	20,844
Discounted @ 5%:	1.05	1.10	1.16	1.22	1.28	1.34	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.18	1.55	
Present Value:	1,125	1,103	1,082	1,062	1,041	1,021	1,002	983	964	946	928	910	893	876	322	-	-	14,257

Source: J.P. Morgan estimates.

Appendix II: Proposed lessor accounting model

In the exposure draft, the boards also propose a right-of-use model for lessor accounting. The lessor model contains two approaches to account for the assets and liabilities that arise in a lease contract (from the lessor's perspective): the *performance obligation approach* and the *derecognition* approach. At the date of inception of a lease contract, a lessor would determine the approach to use on the basis of whether it retains exposure to significant risks or benefits associated with the underlying asset both **during and after** the expected lease term. **Figure 3** provides an overview of the proposed lessor accounting model.

Figure 3: Overview of the proposed lessor accounting model



Source: J.P. Morgan estimates.

Both proposed approaches would require a lessor to determine the assets and liabilities on the basis of the longest possible lease term that is more likely than not to occur. That means a lessor would be required to make judgments about the lessee's behavior—that is, a lessor would have to determine whether the lessee is more likely than not to exercise the options built into the lease. A lessor would also be required to make estimates of cash receipts for contingent rentals, residual value guarantees, and terminations.

Neither proposed approach is a great answer for lessors

The bulk of the boards' efforts have been focused on the development of the lessee accounting proposals. It is worth noting that the boards' joint discussion paper *Leases: Preliminary Views* (issued 19 March 2009) proposes only a lessee accounting model. At the time, the boards had decided to defer consideration of lessor accounting and concentrate on developing an improved lessee accounting

model. While the discussion paper contains some information about how a right-of-use model might be applied to lessors, the boards had not discussed the accounting for lessors in detail. Consequently, the discussion paper did not represent the boards' preliminary views for lessor accounting.

Many respondents to the discussion paper requested that the boards develop a consistent and symmetric accounting model for both lessees and lessors. Further, the boards decided that the accounting for leases by lessors should be consistent with the proposals in their project on revenue recognition. Consequently, it was decided to develop an exposure draft that addresses both lessee and lessor accounting.

The proposed lessor accounting model raises many questions that have not yet been sufficiently answered. Given the conceptual fragility of the proposed lessor accounting model and the fact that the boards:

1. Have limited time available for redeliberations (six months) and a number of complex projects competing for time during that period; and
2. Have a significant number of issues to reconsider on the proposed lessee accounting model;

We think that the final accounting standard for leases will focus on lessee accounting only and that lessor accounting will be reconsidered at a later date.

Areas to be explored further—the performance obligation approach

- The performance obligation approach in the proposed lessor accounting model is inconsistent with the proposed lessee accounting model. The proposed lessee accounting model views a lessee as having an unconditional obligation to pay rentals. The obligation is viewed as unconditional because the lessor has performed under the lease contract at lease commencement (i.e., the lessor has delivered the underlying asset). However, if the lessor has performed, it is unclear why the lessor recognizes a performance obligation on its balance sheet.
- The performance obligation grosses up a lessor's balance sheet in a big way—assets are essentially “double counted.” In accordance with the performance obligation approach, the lessor recognizes a receivable for the expected amounts due under the lease contract; the lessor also recognizes the whole amount of the underlying asset. Consequently, for leases of newly acquired assets, the assets recognized by the lessor will exceed the cash inflows expected from those assets.
- The performance obligation approach would require land leased out under long-term leases to remain on the lessor's balance sheet. The boards have tentatively decided that even very long term leases of land (e.g., 99 years or 999 years) are not sales of the underlying land. Consequently, the lessor continues to recognize the land and a performance obligation that is released to revenue over the term of the lease (e.g., 99 years or 999 years).
- The performance obligation approach results in lessors such as banks and finance organizations recognizing the underlying asset on their respective balance sheets. This will be the case even if the main risk exposure is to the credit risk associated with the receivable.

Areas to be explored further—the derecognition approach

- When a lease is accounted for in accordance with the derecognition approach, no one party has the underlying asset on its books. For example, in a lease of an airplane, the lessee recognizes a right-of-use asset and the lessor recognizes a residual asset. No one party recognizes the entire airplane.
- The derecognition approach places significant importance on the precision with which a lessor splits payments between lease payments and payments for services. Depending on the split that is made, a lessor may recognize revenue and/or gains at the start of the lease for services not yet provided to the lessee.
- The derecognition approach gives rise to gains if the carrying amount of the underlying asset is less than its fair value. The gains recognized reflect the difference between the historical cost carrying amount of the portion of the asset derecognized and the fair value of the right-of-use granted. We expect that some might argue that this is a disadvantage of carrying the underlying asset at historical cost rather than a disadvantage of the proposed derecognition approach.
- The derecognition approach is more complex to apply than the performance obligation approach because the lessor is required to calculate how much of the underlying asset to derecognize not only at the start of the lease but whenever there is a reassessment of whether an option in the lease contract will be exercised. The reassessment requires information about the fair value of the underlying asset.

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