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Executive Summary

At long last, a company's lease obligations – formerly buried in the back of the footnotes of the financial statements - are moving front and center onto the balance sheet, as a new leasing standard goes into effect for both US GAAP and IFRS companies at the beginning of this year. CFA Institute has long advocated for recognition of lease obligations on the balance sheet, and while the measurement methodology does not incorporate our preferred method of reflecting current market conditions, we generally view this change in accounting as a positive development.

The new standard for leases is effective 1 January 2019, or just around the corner as the first quarter and half yearly results are being published. Because the vast majority of the change resulting from the leasing standard is related to lessee accounting, which has a broader impact for investors, this report focuses only on lessee accounting.

What's changing? The short answer is that previously invisible leverage from leasing activities will now become visible, as all lease obligations will be presented as a liability on the balance sheet, offset by a "right-of-use asset," representing the right to use the leased asset.

The longer answer is that analysts will need to do much more than look at the new lease liability on the balance sheet. Investors must understand the various methods of transition to the new standard, the fact that most companies won't restate prior periods, and the differing treatment of leases under US GAAP and IFRS. They will also have to understand the key assumptions underlying the new accounting, such as the discount rate selected, and how the changes in various financial statement captions will impact financial statement ratios and common non-GAAP measures.

This paper is designed to help our members and other investors understand the changes that are coming your way. We have focused on top 10 considerations including understand the following:

I. Basics of new US GAAP and IFRS standard and their differences.

II. Methods and implications of transitioning to the new standard under US GAAP and IFRS.

III. Transition disclosures investors should expect and evaluate.

IV. The implication on financial statement captions.

V. The implication on non-GAAP measures.

VI. Impact on cash.

VII. Impacts on ratios.

VIII. New disclosures to be provided.

IX. Industries with biggest impacts.

X. Market expectations.

Each section has been created for investors to dip in and out of and consider the issues most important to them. The basic examples in **Section IV** provide a quick illustration for those analytically inclined to visualize the effects of the standard.

Where the new standard gets messy for investors is the differing treatment of leases between US GAAP and IFRS. While both standards require the recognition of a right-of-use asset and a lease liability on the balance sheet, and will therefore have a significant impact on the balance sheet of many companies (particularly those in the retail, airline, telecom, and transportation industries), the income statement treatment and cash flow presentation differ. Under US GAAP, many leases will be classified as "operating leases" and there will be little change to the income statement and cash flow statement. In contrast, all leases under IFRS will be classified as "finance leases"; the income statement treatment follows a pattern similar to that of the old model's capital leases, with interest expense recognized, and overall expense recognition higher in the earlier years of the lease. The bottom line is that in many situations, the exact same lease will be treated differently under US GAAP as compared to IFRS, thereby creating analytical challenges for investors.

And, while actual cash flows are not changing, the *presentation* of cash flows in the statement of cash flows will, in many instances, change. In addition, the recognition of interest expense for leases classified as finance leases will impact non-GAAP measures such as EBIT and EBITDA, as discussed in **Section V**, and will also impact profitability ratios such as net profit margin, operating profit margin, and pretax margin. Changes to balance sheet captions will significantly impact many other financial statement ratios, as discussed in **Section VII**. Because many companies are not expected to restate prior years, comparability and trend analysis in financial statement captions and ratios will be difficult. This paper will help investors unpack the impact to these ratios and adjust as necessary to ensure results are truly comparable.

This paper also reviews the recent disclosures of selected companies with an eye to emphasizing what investors should focus on. Disclosures will be critical to understanding the key assumptions underlying the calculation of the lease obligation, such as the discount rate used. Both standards have a "set it and forget it" approach to the discount rate, where the rate is not updated after the inception of the lease, so investors will need to be able to adjust this rate to reflect current market conditions. In addition, as discussed in **Section II**, under almost all of the various transition methods, the discount rate is tied to the date at transition rather than the discount rate in effect when the leases were negotiated. Thus, in many cases, the discount rate as of 1 January 2019 will have an outsized impact on the determination of the lease liability - and the resulting leverage - at transition, and will have a significant impact on the weighted average discount rate for years to come.

Investors have long been aware of the hidden leverage in many sectors such as the retailing industry that arises from lease obligations. The devil is in the details, and so it is critical that investors understand these details. This paper is designed to help investors get behind the headline numbers so they can properly analyze companies across differing accounting standards and over time.

Introduction

Culminating a fitful process that began several decades ago (**Figure 1**), in 2016 the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) finished updating their standards for accounting for leases. The new standards for accounting for leases are effective for public companies with calendar year ends starting 1 January 2019.[1] ***In the first quarter of 2019, previously invisible leverage from leasing activities will become visible, changing the complexion of balance sheets for many companies.***

When the two standard setters started on a path to convergence in 2006, they intended to issue a single statement that would satisfy the needs of their constituents. As the development continued, however, the two boards found a unified standard remained elusive.

The main difference between the two standards is in their treatment of lessee accounting. US Generally Accepted Accounting Principles (US GAAP) Accounting Standards Update (ASU) 2016-02, *Leases* (Topic 842), permits two different lease treatments: finance leases and operating leases. Under International Financial Reporting Standards (IFRS) IFRS 16, *Leases*, the lessee accounting model requires *all* leases to be handled as finance leases.

Because US GAAP allows for two different lessee treatments, consistent with existing requirements, we describe the US GAAP lease accounting first, then examine how US GAAP and IFRS differ. Investors will need to be mindful that they must adjust for the US GAAP and IFRS differences when comparing US companies to those registered in IFRS jurisdictions.

[1] Under US GAAP, nonpublic companies have an extra year to comply. IFRS has no such provision.

FIGURE 1. LEASE ACCOUNTING TIMELINE

1976 — FASB: LEASE STANDARD ISSUED

The Financial Accounting Standards Board (FASB) issues *Statement of Financial Accounting Standard No. 13, Accounting for Leases* (SFAS 13). Upon codification, this standard becomes *Accounting Standards Codification Topic 840*. SFAS 13 supersedes *Accounting Principles Board Opinion No. 5, Reporting of Leases in Financial Statements of Lessee* (1964), and *Accounting Principles Board Opinion No. 7, Accounting for Leases in Financial Statements of Lessors* (1966).

1982 — IASB: LEASE STANDARD ISSUED

The International Accounting Standards Committee (IASC; the forerunner of the International Accounting Standards Board [IASB]) issues *IAS 17, Leases*, which is reformatted in 1994 and reissued in 1997 as *IAS 17, Leases*. The IASB improves on and reissues *IAS 17, Leases*, in 2003.

1996 — G4+1: CONVERGED LESSEES STANDARD PROPOSED

Although not a standard-setting body per se, the "Group of Four Plus One" (G4+1), a collaboration of national accounting standard setters from Australia, Canada, New Zealand, the United Kingdom, and the United States, plus the IASB, publishes its discussion paper, *Accounting for Leases: A New Approach—Recognition by Lessees of Assets and Liabilities Arising Under Lease Contracts*. The paper calls for the elimination of the operating lease treatment.

2000 — G4+1: CONVERGED LESSOR STANDARD PROPOSED

The G4+1's issuance of *Leases: Implementation of a New Approach*, builds on its 1996 discussion paper and includes potential improvements in lessor accounting.

2006 — FASB & IASB: LEASE PROJECT ADDED TO CONVERGENCE MOU

In the spirit of convergence of accounting standards, the FASB and the IASB add to their agendas a joint project on lease accounting.

2009 — FASB & IASB: PRELIMINARY VIEW DOCUMENT

The FASB and IASB jointly release a "Preliminary Views" discussion paper.

2010 — FASB & IASB: EXPOSURE DOCUMENT

The FASB and IASB issue an exposure draft calling for elimination of operating lease treatment for lessees and proposing that lessors use a performance obligation methodology for recognizing revenue. The exposure draft is poorly received.

2013 — FASB & IASB: TRY AGAIN AS DIFFERENCES EMERGE

Following the poor reception to their 2010 exposure draft, the two boards try again. Their 2013 draft continues to call for the recognition of a right-of-use asset on the balance sheet and a lease liability but does not affect the income statement differently from the current operating lease treatment. Differences between the two boards' requirements emerge.

2016 — FASB & IASB: NEW, BUT DIFFERING, STANDARDS ISSUED

The FASB and IASB issue their final standards. The FASB issues *Accounting Standards Update No. 2016-02*, which preserves two possible treatments for lessees: operating leases (with recognition of a right-of-use asset) and finance leases. The IASB issues *IFRS 16*, which permits only the finance model to be used by lessees. The final standards contain additional differences.

2019 — FASB & IASB: NEW STANDARDS TAKE EFFECT

The FASB and IASB new lease accounting standards take effect 1 January 2019.

I. What Are the Basics of the New Standard?

The US GAAP Standard's Fundamentals

Operating vs. Finance Leases

The biggest difference between the former leasing model under US GAAP (FASB Statement No. 13) and the new leasing model (ASU 2016-02/ASC Topic 842) is the recognition of lease assets and liabilities by lessees for leases deemed operating leases under the old model. The new standard retains the classification between finance leases (previously called capital leases) and operating leases; however, ***both kinds of leases now result in recognized balance sheet liabilities, whereas operating leases previously did not recognize any lease obligations***.

Lessee Accounting

The basic tenet – and biggest change – under the new US GAAP model is that a lessee's balance sheet should show the assets and liabilities arising from all leases, regardless of whether they are classified as an operating lease or a finance lease. The model presumes that all leases create an asset and a liability for the lessee.

Operating Leases

Recognizing those lease assets and lease liabilities is an improvement in the balance sheet over previous accounting. Compared to the existing operating lease model, the new lease accounting model does not have a significant effect on the income statement and the statement of cash flows. The rent expense associated with an operating lease is still recognized on a straight-line basis over the lease's term in the income statement; in the cash flow statement, the rent expense is still reflected in the operating section.

An obligation to make lease payments implies a liability that should be recognized on the balance sheet, related to the right to use a certain asset over the lease term. The asset to be recognized is a "right-of-use" (ROU) asset, instead of the leased asset itself. In measuring assets and liabilities, lessees (and lessors) should include payments to be made in optional renewal periods only if the lessee will be

- reasonably certain to exercise an option to extend the lease, or
- reasonably certain not to exercise an option to terminate the lease.

Optional payments for the purchase of the underlying asset should be included in the measurement of lease assets and lease liabilities if the lessee is reasonably certain to exercise that purchase option. "Reasonable certainty" is a fairly high threshold. Also consistent with the Statement No. 13 model, both lessee and lessor will exclude most variable lease payments when they measure lease assets and liabilities, unless those payments are driven by an index or rate (such as CPI), or are in-substance fixed payments.

The new standard provides a concession to expedience in its application: firms need not recognize lease assets or liabilities for leases with terms of 12 months or less. Firms are not barred from recognizing lease assets and liabilities with shorter terms, but they can ignore them if they like. Those opting for this route will recognize lease expense for these leases on a straight-line basis over the term of the leases.

What will stop firms from employing clever assumptions and structuring all leases as 12-month leases with options to renew on similar terms for years afterwards? Only the measurement constraint above: "both lessee and lessor include payments to be made in optional renewal periods if the lessee will be reasonably certain to exercise an option to extend the lease." Auditors may have a tough road ahead in halting specious assertions about abandoning options to extend leases for say, assets with 10-year useful lives but a series of renewable 12-month terms. "Reasonable certainty" may prove elusive for some clients.

For operating leases, a lessee will:

- recognize a right-of-use asset and lease liability, measured as the present value of lease payments, in the balance sheet;
- recognize a single lease cost, calculated as a straight-line charge over the lease term; and
- classify all cash payments within operating activities in the statement of cash flows.

Finance Leases

For finance leases, a lessee will:

- recognize a right-of-use asset and lease liability, measured as the present value of lease payments, in the balance sheet;
- recharacterize rent expense and split it into two components, interest expense on the lease liability and amortization expense on the right-of-use asset; and
- classify repayments of the principal portion of the lease liability within financing activities; payments of interest on the lease liability and variable lease payments are included within operating activities in the statement of cash flows.

Discount Rate

For a lessee, the discount rate for the lease is the rate implicit in the lease unless that rate cannot be readily determined. In that case, the lessee is required to use its incremental borrowing rate. The discount rate is determined at the inception of the lease and, generally, not updated unless certain remeasurement events are triggered.

As we describe in **Section II** of this report, the transition method selected has a significant impact on the discount rate used to determine the present value of lease obligations for the first time at transition. Investors should carefully consider the discount rate at transition and its implications on the financial statement leverage and interest and lease expenses going forward.

As we describe in **Section VIII** of this report, investors must review disclosures to determine the discount rate used in the computation of the lease liability, as well as the relationship of that discount rate to current market rates, when they consider the degree to which lease liabilities need to be adjusted to current market conditions.

Classification Criteria

Driving the lessee's distinction between the two treatments is the passing or failing of any of five criteria. They drive lessor's distinctions between operating and direct financing leases, too. If any one of the following criteria is met at lease commencement, the lessee classifies the lease as a finance lease and the lessor classifies it as a sales-type lease:

1. **Ownership Transfer**: The lease transfers ownership of the underlying asset to the lessee by the end of the lease term.

2. **Purchase Option**: The lease grants the lessee an option to purchase the underlying asset that the lessee is reasonably certain to exercise.

3. **Lease Term**: The lease term is for the major part of the remaining economic life of the underlying asset. (If the start of the lease falls at, or near, the end of the economic life of the underlying asset, this classification criterion is ignored.)

4. **Present Value Lease Payments Relative to Fair Value**: The present value of the sum of the lease payments and any residual value guaranteed by the lessee not already reflected in the lease payments equals or exceeds substantially all of the fair value of the underlying asset.

5. **Specialized Asset**: The underlying asset is of such a specialized nature that it has no alternative use to the lessor at the end of the lease term.

Lessors Won't See Much Change

If none of the five classification criteria above are met, a lessor classifies the lease as either a direct financing lease or an operating lease. There are two additional criteria to be examined after "missing" the first five for a lessor to distinguish between a direct financing and an operating lease. If both criteria are not met, then the lease is classified as an operating lease. If both of the following criteria are met, the lease is a direct financing lease:

1. The present value of the sum of the lease payments and any residual value guaranteed by the lessee not reflected in the lease payments and/or guaranteed by any other unrelated third party equals or exceeds substantially all of the fair value of the underlying asset.

2. It is probable that the lessor will collect the lease payments plus any amount necessary to satisfy a residual value guarantee.

The income statement treatment for a finance lease follows a pattern similar to that of the old model's capital leases: it shows amortization of a right-of-use asset and an interest expense.

Lessor accounting has been in large part revised to conform to the FASB's new revenue recognition standard (ASU 2014-09/ASC Topic 606), which became effective at the beginning of 2018. For lessors, leasing is a revenue-generating activity, and lessor lease accounting had been synchronized with the previous guidance. The revisions to the lessor accounting model maintain harmony with the new revenue recognition standard.

Because the vast majority of the change resulting from the leasing standard is related to lessee accounting, which has a broader impact for investors, we focus on lessee accounting in this report.

Differences and Similarities Between the FASB and the IASB Standards

The main difference between the FASB and IASB standards is found in their treatment of lessee accounting. US GAAP permits two different lease treatments (finance leases and operating leases) while IFRS requires *all* leases to be handled as finance leases. Another significant difference in lessee accounting is IFRS's use of a $5,000 materiality threshold and a 12-month term criterion for excluding leases from recognition, the US GAAP standard uses only a 12-month term criterion.

Bottom Line**: **Leases treated as operating leases under US GAAP will not produce the same results if accounted for under IFRS. Leases accounted for under IFRS will affect the income statement and the statement of cash flows differently than if they are accounted for under US GAAP. The new IFRS treatment also differs from the treatment under the previous IFRS lease accounting standard.

Despite their differences, the similarity between the two sets of standards for lessees is also the biggest improvement in the lease accounting model. ***Both standards require the recognition of a right-of-use asset and a lease liability on the balance sheet for all leases.***

The two standards also differ on the following criteria:

- **Lessor Profit Recognition:** Lessor accounting under IFRS permits recognition of selling profit at the start of a lease; US GAAP does not. IFRS does not explicitly require consideration of lease receivables collectability, US GAAP does require such consideration.
- **Measurement of Right-of-Use Asset:** In measuring the right-of-use asset, US GAAP requires measurement to be calculated based on the present value of lease payments, whereas IFRS permits alternative measurement methods such as fair value (e.g., investment property).

- **Statement of Cash Flows:** In the statement of cash flows, IFRS permits interest payments to be classified within operating, investing, or financing activities. US GAAP only allows interest to be classified within operating activities.

- **Sale Leaseback Transaction:** Regarding sale and leaseback transactions, US GAAP provides application guidance as to whether an asset transfer is considered a sale; IFRS only states that if a seller-lessee has a repurchase option on the underlying asset, then a sale has not occurred. IFRS also limits the gain to be recognized by a seller-lessee in a sale and leaseback, whereas US GAAP does not.

- **Private Company Exemptions:** IFRS provides no specific guidance or exemptions for private companies. US GAAP allows private companies a policy election to use a risk-free rate to discount the lease liability for each lease. US GAAP also allows a different transition date.

Because all companies registered in IFRS jurisdictions will have finance leases, when discussing finance leases in this report, other than in a discussion of the statement of cash flows, we are discussing IFRS accounting treatment, and when discussing operating leases we are referring to US GAAP.

II. How Will Companies Transition to the New Standard?

Investors need to understand how the companies in which they invest will transition to the new leasing standard. The new standard will significantly impact the comparability of results between and within companies in both IFRS and US GAAP jurisdictions, not only at inception of the new standard, but over time as the assumptions and methods of transition unwind over the lease term.

Analysis of Transition Methods

Even to accountants, the IFRS and US GAAP transition provisions may be confusing.

Until a last-minute change by the FASB in August 2018, US GAAP and IFRS had significant differences in how they required companies to transition to the new guidance. IFRS allowed companies to recognize transition adjustments at the beginning of the year of adoption (1 January 2019) or to restate prior periods. US GAAP, until the August 2018 modification, required all companies to restate prior periods. The August 2018 modification changed US GAAP to allow two types of modified retrospective methods—one that adjusts comparative periods and one that does not.[2]

Of the two standards, the IFRS transition methods are easier to understand, as they are consistent with the traditional definition of accounting transition methods. The US GAAP transition provisions—and the comparison of IFRS and US GAAP—have the potential to create confusion. **Table 1** compares IFRS and US GAAP transition methods on the key dimension of transition, examining the restatement of prior periods and the assumptions used in determining the transition.

[2] Note that this is the overall or broad transition guidance. Because of practical expedients that differ between IFRS and US GAAP, other transition nuances may be more or less important depending on the various issuers, the nature of their prior leasing arrangements, and how they are transitioning to the new guidance.

TABLE 1. TRANSITION METHODS COMPARISON

TRANSITION METHOD	RESTATEMENT OF PRIOR PERIODS PRESENTED	ASSUMPTIONS	ANALYSIS
IFRS			
Retrospective Approach	Prior periods are restated	Lease cash flows and discount rates used in computing the lease liability and right-of-use asset reflect those in effect at the inception of the lease (i.e. inception of the lease not adoption of the leasing standard) for all leases in-force during the periods presented.	The IFRS transition guidance is the classic definition of the retrospective approach. This method allows companies to restate the prior periods, giving consideration to leases in effect in the periods presented and using estimates of lease cash flows since the inception of the lease and the discount rates at the inception of the lease. The method presents the most comparable results going forward. IFRS allows the use of hindsight in the determination of lease liabilities.
Modified Retrospective Approach	Prior periods are not restated	Lease cash flows and discount rates reflect those in effect at the adoption of the new leasing standard (i.e. 1 January 2019).	The IFRS modified retrospective approach does not require restatement of the prior periods. Lease cash flows and discount rates reflect those in effect at the adoption of the new leasing standard (i.e., 1 January 2019). Accordingly, all lease cash flows are discounted at borrowing rates as of 1 January 2019 rather than representing a blend of discount rates based upon the inception date of the leases. Interest expense over the remaining lease term will be driven by the rate in effect at adoption, not the rate implied in the lease obligation at its inception, and will be heavily dependent upon interest rates at 1 January 2019.
US GAAP			
Modified Retrospective Approach	Prior periods are restated	Lease cash flows and discount rates reflect those in effect at the beginning of the earliest period presented (i.e. 1 January 2017, if three years of income statement are presented).	The US GAAP modified retrospective approach is not equivalent to the IFRS modified retrospective approach, despite the similarity in their nomenclature. Under the US GAAP modified retrospective approach, prior periods are restated, but unlike the traditional or full retrospective approach, the assumptions used in determining the lease obligation are those at the date of the initial presentation period rather than at the inception of the leasing arrangement. For public companies presenting three income statements, this will be the discount rate at 1 January 2017. As with the IFRS modified retrospective approach, the interest expense is dependent on the interest rate on all leases at this initial presentation adoption date. Accordingly, though restated, these results are not equivalent to the true retrospective approach; the latter uses the borrowing rates implied by the leasing agreement at inception.
Additional Transition Approach	Prior periods are not restated	Lease cash flows and discount rates reflect those in effect at the adoption of the new leasing standard (i.e. 1 January 2019).	The US GAAP additional transition approach is substantively equivalent to the IFRS modified retrospective approach.

Investor Considerations in Analyzing Transition

Transitioning to the new method of accounting for leases presents an opportunity for investors to ask questions that may facilitate a better understanding of the company's previous, existing, and possible future leasing arrangements—an understanding that goes beyond simply comprehending the transition adjustments. As investors consider the effects of the transition, they should have a clear understanding of the following.

Mostly Likely Transition Method: Prior Periods Will Not Be Restated (IFRS Modified Retrospective and US GAAP Additional Transition)

Investors need to understand that the most likely transition approaches for IFRS (modified retrospective) and US GAAP (additional transition method) are those that are the most similar and don't require restatement. However, a few companies (e.g., Tesco, as we describe in **Section III**) are restating prior periods.

Understanding whether the previous periods are or are not restated is important, but by itself is insufficient. Even with identical transition methods, the difference in lease classification between IFRS and US GAAP will impact comparability going forward. Thus, investors need to be attuned to the different approaches and their implications for comparability between companies and within companies at inception and over time. Investors need to go deeper and understand the financial statement effects of the transition and the assumptions used in determining the lease liabilities being recognized.

Impact of Transition: Understanding Financial Statement Presentation Effects

We demonstrate the impact of the new leasing standard at transition and over time with an illustration at **Table 2** in **Section IV**. This illustration also highlights the analytical differences between operating (US GAAP) and finance (IFRS) lease arrangements at inception and transition. The impact to the financial statement captions—and the financial analysis—gets complicated for investors, who should consider the impact of:

- transition methods (i.e., restating prior periods or adopting at the beginning of the accounting period adopted without restatement);
- different types of leases (i.e., operating versus finance);

- accounting standards followed (i.e., IFRS [finance] versus US GAAP [operating versus finance]); and
- the effects of the lease types, accounting standards, and transition methods over time.

In simple terms, at inception (1 January 2019), if the modified retrospective method is used for IFRS and the (equivalent) additional transition approach is used for US GAAP, the impact on opening equity for 2019 should be similar and the impact to equity should be minimal. That said, some of the disclosures at year-end 2018 indicate that there will likely be an impact to equity to adjust for existing deferred lease assets or liabilities and impairments of residual assets. We describe this further in **Section IV**.

The impact to the balance sheet (assets and liabilities) should be significant for companies with a significant number of leases. What will not be comparable—under the most common transition approach where prior periods are not restated—are the assets and liabilities of the companies relative to their prior periods. Over time, the differences between IFRS (finance leases) and US GAAP (operating leases) will be more significant, as we describe in **Section IV**.

Impact of Transition: Understanding Measurement of Lease Liability

In **Section VII,** we highlight the impact of transition on key ratios.

Understanding the financial statement implications of the transition—mostly balance sheet oriented—is important, but investors must consider more than the mechanics of how the financial statements are impacted. Investors must also understand the nature of the leases being recognized on the balance sheet and the assumptions and judgements used in the measurement of the lease obligations. These measurement assumptions determine the magnitude of the adjustment and the impact on future income statements. As noted previously, the lease liability is measured as the present value of the future lease payments discounted at either the rate implicit in the lease or the company's incremental borrowing rate. Investors must understand the cash flows included in the measurement and the discount rate.

- **Lease Cash Flows:** Under the new lease standard, slight differences are present in the definition of a lease agreements. Such definitional changes may result in the inclusion of contracts, or components of contracts, that were not previously considered leases. Further, the new standard requires inclusion in lease cash flows renewals that are reasonably certain to occur, which may not have been included in the previous disclosures. Still further, although changes in rates and indexes affecting lease payments will be included (under IFRS but not US GAAP), variable lease payments will not be included in the initial measurement. Rather, they will be included in future operating results as they occur.

Additionally, the IASB and FASB standards allow different practical expedients both at inception (i.e., carry over classification of lease definition, lease classification, and treatment of initial direct costs) and over time (e.g., low-value leases and short-term leases).

Investors need to review the lease disclosures and understand the degree to which lease features, assumptions, judgements, and policy choices impact the cash flows being discounted. The inclusions (i.e., renewals) or exclusions (i.e., variable lease payments) will impact the amortization of this lease liability into the income statement in future periods, as we highlight in the illustration at **Table 2** at **Section IV**.

- **Discount Rate:** Companies are required to discount the lease payments using the rate implied in the lease, or the incremental borrowing rate if the implied rate is not known. This discount rate will be significantly impacted by the transition method selected.

  Under the IFRS retrospective method, the discount rate will be the rate implied in the lease or the incremental borrowing rate at inception of the lease—the most economically relevant rate as it relates to the determination of the lease payments (cash flows being discounted) at inception.

  Under the IFRS modified retrospective approach and the US GAAP additional transition approach, the discount rate will be the incremental borrowing rate at 1 January 2019. It will have a significant impact on the measurement of the liability, resulting leverage, and interest expense, despite it not being the rate implicit in the lease agreement or the company's incremental borrowing rate at the inception of the lease. Further, all leases in effect at 1 January 2019 will be discounted with reference to the company's incremental borrowing rate at that date. Accordingly, future interest expense will be dependent on the discount rate at the date of transition, not the rate in effect when the lease and its cash flows were entered into.

  Under the US GAAP modified retrospective method, the discount rate at the beginning of the earliest period presented (1 January 2017) will be used. Accordingly, interest expense will be dependent on the discount rate at the earliest presentation date.

  Under all of the transition methods other than the IFRS retrospective method, the discount rate will be tied to the date of transition rather than the discount rate in effect when the lease cash flows were negotiated. Additionally, the discount rate will not represent a true average discount rate weighted over time.

Because the new US GAAP and IFRS leasing standards have a "set it and forget" approach to the discount rate, the rate at transition will have a significant impact on the determination of the lease liability—and the resulting leverage—as well as on the amortization of the lease liability and the related interest expense for finance leases, and on the amortization of right-of-use assets for operating leases until the date the last lease existing at transition to the standard is completed. New leases will be capitalized at the rate in effect at the lease inception, but the rate at transition will have a significant impact on the weighted average discount rate for years to come. Over time, the lease obligation will include a mix of interest/discount rates that relate to the cash flows (lease payments) being discounted. Nevertheless, the weighted average discount rate will be heavily impacted by the transition discount rate until leases in effect at 1 January 2019 end.

Disclosures: Transition and Annual

Each transition method has different disclosure requirements, as we outline in **Appendix A**. The most useful transition disclosure for investors will be the IFRS disclosure described in **Section III**, and highlighted below. That disclosure requires explaining how the previous lease commitment disclosure equates to the lease liability transition adjustment. US GAAP does not have such a transition disclosure.

Investors, however, need more than the transition disclosures to assess the ongoing effects of the transition. They actually need the annual disclosures we describe in **Section VIII** to understand the nature of the leasing relationships and the magnitude of lease liability recognized under the new leasing standard. The question for investors is whether the required annual disclosures, as we describe in **Section VIII** and **Appendix C**, will be provided at transition or whether they will only be provided at year-end 2019. If leases are significant, investors should expect such annual disclosures in the first set of 2019 financials—and if they are not provided, investors should ask for these disclosures to facilitate their understanding of this significant adjustment.

Reconciliation of Lease Liability Measurement with Previous Estimates of Lease Liabilities

Many investors and other users of financial statements (e.g., rating agencies) have previously adjusted financial statements to estimate lease liability leverage. In fact, the CFA®

Program curriculum includes guidance on how to make such adjustments. At transition, these investors should consider the nature of the transition adjustment relative to their previous estimates of lease liabilities. The IFRS transition disclosures[3] require the following when the modified retrospective method (i.e., no restatement of prior years) is used:

a. *Disclose the weighted average lessee's incremental borrowing rate applied to lease liabilities recognized in the statement of financial position at the date of initial application.*

b. *Include an explanation of any difference between:*

   i. *Operating lease commitments reported immediately preceding the date of initial application, discounted using the incremental borrowing rate at the date of initial application; and*

   ii. *Lease liabilities recognized in the statement of financial position at the date of initial application.*

US GAAP does not have a similar disclosure requirement, though it does include provision for an annual reconciliation disclosure[4]:

> *A lessee shall provide a separate maturity analysis disclosure for operating and finance lease liabilities. The annual analysis must show undiscounted cash flows for a minimum of each of the first five years and a total of the amounts for the remaining years. A lessee shall disclose a reconciliation of the undiscounted cash flows to the operating and finance leases liabilities recognized in the statement of financial position.*

Although they are not identical, the disclosure provisions do facilitate comparison of the lease commitment to the lease liability—albeit not at transition for US GAAP and IFRS does not require this reconciliation disclosure on a periodic basis.

As we have observed companies discuss their transition to the new leasing standard, there are several matters that investors should consider as they attempt to reconcile a company's previous lease commitment disclosure to the new lease liability. They include the following:

- **Previously Omitted Leases:** Many issuers are discussing their revised approach to inventorying and identifying leases and their acquisition of lease systems. In

[3] See IFRS 16, Paragraph C12.
[4] ASC Topic 842, Paragraph 20-50-6.

this discussion, it appears that this inventorying process is identifying new leasing arrangements. These are not due to definitional or scope differences brought about by the new standard, but by poor controls over something that was previously just a disclosure. Investors will want to estimate whether the liability is significantly different from a discounted value of the 31 December 2018 lease commitment disclosure and whether new long-term commitments were identified through this transition. Some of this is likely to be present, albeit it is unlikely to be disclosed as such. The IFRS reconciliation will help flush some of this out, but investors need to do a "quick and dirty" estimate for US GAAP companies from prior year lease commitments disclosures to gauge whether the difference warrants further discussion with management.

- **Newly Defined Leasing Agreements:** Scoping changes in the new standard will lead to differences in the population of leasing arrangements. Examples include service agreements that are now leases, or contracts that include embedded leasing arrangements. If there are significant changes due to definitional differences, investors should expect companies to make disclosures explaining such changes.

- **Renewals:** The new standard requires companies to include renewal lease payments in the measurement of the lease liability if the companies are reasonably certain of those payments occurring. If a company is reasonably certain that a lease is to be renewed, it should consider the lease in the computation of the future lease payments. This was not the case previously in the disclosure. As such, lease commitments and lease liability will likely increase.

Overall, investors will want to undertake a reconciliation of the previous lease commitments disclosure to the lease liability, as doing so will facilitate an understanding of the expected leverage with the actual leverage. (See the expectation analysis at **Section IX**.)

Other Considerations

As investors evaluate the transition, they should also be mindful of these other considerations:

- **Deferred Taxes:** Unless the tax accounting for leases also changes, investors should see that companies have made an adjustment to recognize deferred tax assets and liabilities related to the lease liability and right-of-use asset at inception. It is important for investors to recognize that the deferred tax assets and liabilities will unwind at different rates consistent with the differing amortization/depreciation of the related lease obligations and right-of-use assets. In our illustration at **Section IV**, we exclude the effects of deferred taxes for simplicity, but it is something that investors should keep in mind.

- **Foreign Currency:** Investors should also recognize that right-of-use assets will be impacted at adoption by the effects of foreign currency; however, the right-of-use asset is generally considered a nonmonetary asset and the foreign currency exchange rate is not adjusted to the current rate each period. The lease obligation, on the other hand, will be impacted by foreign currency each period, thereby giving rise to foreign currency gains and losses in the income statement each period.

III. What Disclosures Are Companies Making in Advance of the Change?

Go Straight to the Source

Since the late 1980s, US public companies have been required to discuss the accounting standards they expect to implement. Public companies in most IFRS jurisdictions must make similar disclosures. When analyzing these disclosures upon adoption of the new revenue recognition standard, we found that US companies provided more detailed analysis than did companies outside of the United States.

Using Calcbench, we extracted lease disclosures from third-quarter 2018 filings for US companies, and noted the following trends:

- Most companies were still assessing the impact of the implementation.
- More companies talked about the acquisition of new leasing systems and their inventorying process than about the impact of the standard. Discussion of new leasing systems and the inventory process became a more common disclosure later into 2018.
- Many companies provided no assessment of the expected balance sheet impact.
- Some companies indicated the impact to the balance sheet would be material but did not provide an amount; a smaller number of companies provided the amount. Some of the same companies that indicated a material impact to the balance sheet indicated the impact to the income statement would not be material, suggesting they expect the leases to be operating leases. They also indicated that they had not assessed the impact on the statement of cash flows or that it would not be material.
- Companies disclosing their transition method – not a common disclosure until the third quarter 2018 after the FASB allowed the simplified transition approach – indicated they were going to use the transition method that allows for the effective date (1 January 2019) adoption date without presentation of comparative periods.
- Many companies indicated they would avail themselves of several practical expedients.

As this publication was being finalized, companies were providing their year-end 2018 filings. Among the changes we found were the following:

- More companies provided an expected balance sheet impact. However, they did not provide any discussion of the discount rate used.
- More companies communicated the transition approach they expected to follow.
- More companies were specific as to the practical expedients they expected to avail themselves of.
- Some companies expected an equity impact but did not clearly disclose that impact.

Access to a complete database of IFRS filers (e.g., European companies) with easily extractable information for a wide cross-section of companies is not as readily available unless purchased from a data provider, as the data are not yet tagged or compiled in a single electronic repository. With the requirement to adopt in-line XBRL in Europe and the United Kingdom in 2020 and the creation of the European Single Electronic Format, these data will be more easily obtained in the future. In general, we find that US SEC registrants' disclosures are more quantitative and descriptive than those in other jurisdictions. In the case of leases, however, additional discussion should be provided regarding the impact on the income statement for IFRS filers, as such filers must classify all leases as financing leases with interest and amortization expense. Investors should expect that the income statement impact of the amortization of the right-of-use asset and the effective interest on the lease obligation should result in higher lease expense in IFRS jurisdictions compared to prior periods and to US GAAP companies.

Below we highlight examples of US GAAP (Union Pacific, Chipotle) and IFRS (Cosco, Tesco, Vodafone) company disclosures in the transportation, logistics, telecom and retail sectors. We include examples of the disclosures over the year 2018, highlighting in blue what has changed and the most significant impacts disclosed.

Investors who expect a significant potential exposure to the new standard and instead find limited discussion in the financial statements may view the topic as worth pursuing with management after reviewing the year-end financials, determining what they disclose, and determining what the likely first-quarter and full-year 2019 effects might be. If investors have questions on the transition, they should feel comfortable discussing those concerns with management.

Transition Disclosure Examples

Union Pacific Corporation

Union Pacific Corporation provides an example of a transportation/logistics company and the impact of the new standard on it. Applying a multiple of six to its 2017 rent expense (as we do in the illustration of impact of the new standard on various S&P 500 companies in **Section IX)** produces a $2.88 billion potential asset and liability that might be added to the balance sheet when ASU 2016-02/ASC Topic 842 is effective. At that size of potential effect, the financial leverage would increase only from 2.33 to 2.44—an increase of only 5.0%.

The company's first-quarter 2018 Form 10-Q contained a discussion of how the new standard might affect its financial position and results of operations:

> In February 2016, the FASB issued Accounting Standards Update No. 2016-02 (ASU 2016-02), Leases (Subtopic 842). ASU 2016-02 will require companies to recognize lease assets and lease liabilities on the balance sheet and disclose key information about leasing arrangements. For public companies, this standard is effective for annual reporting periods beginning after December 15, 2018, and early adoption is permitted. Management is currently evaluating the impact of this standard on our consolidated financial position, results of operations, and cash flows, but expects that the adoption will result in **an increase in the Company's assets and liabilities of over $2 billion.**

The company's third-quarter 2018 Form 10-Q disclosure was updated, as highlighted below, to provide slightly more insight:

> In February 2016, the FASB issued Accounting Standards Update No. 2016-02 (ASU 2016-02), Leases (Subtopic 842). ASU 2016-02 will require companies to recognize lease assets and lease liabilities on the balance sheet and disclose key information about leasing arrangements. For public companies, this standard is effective for annual reporting periods beginning after December 15, 2018, and early adoption is permitted. **The Company continues to evaluate** the impact of this standard on our consolidated financial position, results of operations, and cash flows, and expects that the adoption will result in an increase in the Company's assets and liabilities of over $2 billion. **However, the ultimate impact of the standard will depend on our lease portfolio as of the adoption date. Additionally, we have implemented an enterprise-wide lease management system to support the new reporting requirements and are evaluating our processes and internal controls to ensure we meet the standard's reporting and disclosure requirements.**

With the additional language added in the third quarter, we also see discussion of a lease management system and reference to process changes for the purpose of identifying and quantifying the impact of the new standard. The disclosure notes the impact of the new standard will depend on leases in force at the time of its adoption. As we discussed above, investors need to be mindful of this in their reconciliation of previous disclosures to the current financial statement impact.

Review of the 2018 Form 10-K, issued in February 2019, provides additional information on the impacts investors will see in the first quarter of 2019. The company indicates the impact is $2 billion on the statement of financial position, the impact to the income statement will not be significant (i.e., operating leases), it will not restate prior periods, and it is making use of the practical expedients:

> In February 2016, the FASB issued Accounting Standards Update No. 2016-02 (ASU 2016-02), Leases (Subtopic 842). ASU 2016-02 will require companies to recognize lease assets and lease liabilities on the balance sheet and disclose key information about leasing arrangements. For public companies, this standard is effective for annual reporting periods beginning after December 15, 2018, and early adoption is permitted. **We have implemented an enterprise-wide lease management system to support the new reporting requirements, and effective January 1, 2019, the Company adopted ASU 2016-02. We elected an initial application date of January 1, 2019 and will not recast comparative periods in transition to the new standard. In addition, we elected certain practical expedients which permit us not to reassess whether existing contracts are or contain leases, to not reassess the lease classification of any existing leases, to not reassess initial direct costs for any existing leases, and to not separate lease components for all classes of underlying assets. We also made an accounting policy election to keep leases with an initial term of 12 months or less off of the balance sheet for all classes of underlying assets. Adoption of the new standard resulted in an increase in the Company's assets and liabilities of approximately $2 billion. The ASU did not have an impact on our consolidated results of operations or cash flows.**

Overall, Union Pacific will experience a not insignificant impact: an increase in total assets of 3.4%, an increase in total liabilities of 5.2%, and an increase in total debt of 14.7%. Equity does not appear to be impacted. Based on the disclosures highlighted above, Union Pacific has made reasonable disclosures during 2018 regarding the potential impact of the change investors will see in its first-quarter 2019 Form 10-Q in April 2019.

COSCO Shipping

In contrast to Union Pacific Corporation, COSCO Shipping—a logistics company listed in Hong Kong—has provided little information about how the lease standard (IFRS 16 or HKFRS 16) will impact its financial statements, despite undiscounted operating lease commitments amounting to almost 50% of total assets. The company's 2017 annual report contained the following discussion of how the new standard may impact the company:

> HKFRS 16 Leases was issued in May 2016. It will result in almost all leases being recognised on the balance sheet, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right to use the leased item) and a financial liability to pay rentals are recognised. The only exceptions are short-term and low-value leases. The accounting for lessors will not significantly change.
>
> The standard will affect primarily the accounting for the Group's operating leases. As at 31 December 2017, the Group has non-cancellable operating lease commitments of RMB83,406,301,000. Payments for short-term and low value leases will be recognised on a straight-line basis as an expense in profit or loss.
>
> However, the Group has not yet assessed what other adjustments, if any, are necessary, for example because of the change in the definition of the lease term and the different treatment of variable lease payments and of extension and termination options. **It is therefore not yet possible to estimate the amount of right-of-use assets and lease liabilities that will have to be recognised on adoption of the new standard and how this may affect the Group's profit or loss and classification of cash flows going forward.**
>
> HKFRS 16 is mandatory for financial years commencing on or after 1 January 2019. At this stage, the Group does not intend to adopt the standard before its effective date. The Group intends to apply the simplified transition approach and will not restate comparative amounts for the year prior to first adoption.

The undiscounted operating lease commitments represent 63% of total assets, 93% of total liabilities, and 152% of borrowings at 31 December 2017, yet the company provides no discussion of the potential impact despite having chosen the less burdensome route of not restating the prior period financials.

In its 30 June 2018 half-yearly interim report, the company noted the following:

> HKFRS 16 "Leases" was issued in May 2016. It will result in almost all leases being recognised on the balance sheet, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right to use the leased item) and a financial liability to pay rentals are recognised. The only exceptions are short-term and low value leases. The accounting for lessors will not significantly change. The standard will affect primarily the accounting for the Group's operating leases. As at 30 June 2018, the Group has non-cancellable operating lease commitments of RMB66,875,985,000. **However, the Group has not yet determined to what extent these commitments will result in the recognition of an asset and a liability for future payments and how this will affect the Group's profit and classification of cash flows. Some of the commitments may be covered by the exception for short-term and low value leases and some commitments may relate to arrangements that will not qualify as leases under HKFRS 16.** The standard is mandatory for first interim periods within annual reporting periods beginning on or after 1 January 2019. The Group does not intend to adopt the standard before its effective date.

The undiscounted operating lease commitments represent 45% of total assets, 64% of total liabilities, and 104% of borrowings at 30 June 2018. Although lower than year-end 2017, these amounts still comprise a significant proportion of total assets and total liabilities. Since the year-end disclosures, the company has noted that some of the commitments will not only be covered by the short-term lease or low-values lease expedients, but that some may not meet the definition of a lease. The company indicates it will not early adopt, but no longer comments that it will use the modified retrospective method of transition where prior periods are not restated.

For a company with significant lease commitments, the disclosure provides the non-cancellable lease commitments (lower at 30 June 2018 than at 31 December 2017) but does not provide the amount of the lease liability or right-of-use asset to be recognized, or the income statement impact. The company—though it uses IFRS and will be required to classify these leases as finance leases with a more significant impact than for a US GAAP company—has not provided an estimate of that impact for investors. Unlike the US companies (Union Pacific, above, and Chipotle, below) highlighted here, the company provides no discussion of implementing new processes or leasing systems.

Chipotle

Chipotle provides an interesting example of a retail company. At year-end 2017, Chipotle had operating lease commitments of $3.9 billion—two times the size of 2017 total assets of $2.1 billion, and nearly five times the total liabilities of $824 million—or ten times total liabilities of $404 million, excluding deferred rent of $320 million. However, the lease impact note at 31 December 2017 provides little quantitative information for users. In addition, the company has contingent rent arrangements based on a percentage of sales greater than certain specified target amounts. The company's 2017 Form 10-K contained a description of how the new leasing standard may affect the company's results:

> In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)." The pronouncement requires lessees to recognize a liability for lease obligations, which represent the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet. The guidance requires disclosure of key information about leasing arrangements which are intended to give financial statement users the ability to assess the amount, timing, and potential uncertainty of cash flows related to leases. We expect to adopt the requirements of the new lease standard effective January 1, 2019. We are currently evaluating the provisions of the new lease standard, including optional practical expedients, and assessing our existing lease portfolio in order to determine the impact to our accounting systems, processes and internal control over financial reporting. **The adoption of ASU 2016-02 will have a significant impact on our consolidated balance sheet because we will record material assets and obligations for current operating leases. We are still assessing the expected impact on our consolidated statements of income and cash flows.**

The company's 31 March 2018 Form 10-Q included an updated disclosure:

> In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, "Leases (Topic 842)." The pronouncement requires lessees to recognize a liability for lease obligations, which represent the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet. The guidance requires disclosure of key information about leasing arrangements which are intended to give financial statement users the ability to assess the amount, timing, and potential uncertainty of cash flows related to leases. We expect to adopt the requirements of the new lease standard effective January 1, 2019.

> **We are evaluating the provisions of the new lease standard, including optional practical expedients, and implementing necessary upgrades to our existing lease system. We are assessing the impact to our accounting policies, processes, disclosures, and internal control over financial reporting. The adoption of ASU 2016-02 will have a significant impact on our consolidated balance sheet because we will record material assets and obligations for current operating leases. We are still assessing the expected impact on our consolidated statements of income and cash flows.**

The company's 30 September 2018 Form10-Q also included an update disclosure:

> In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, "Leases (Topic 842)." The pronouncement requires lessees to recognize a liability for lease obligations, which represents the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet. The guidance requires disclosures of key information about leasing arrangements that is intended to give financial statement users the ability to assess the amount, timing, and potential uncertainty of cash flows related to leases. We will adopt the requirements of the new lease standard effective January 1, 2019. **We have elected the optional transition method to apply the standard as of the effective date and therefore, we will not apply the standard to the comparative periods presented in our financial statements. We also plan to elect the transition package of three practical expedients permitted within the standard, which among other things, allows the carryforward of historical lease classifications, and we are further evaluating other optional practical expedients and policy elections. We are assessing the impact of the standard to our accounting policies, processes, disclosures, and internal control over financial reporting and we are implementing necessary upgrades to our existing lease system.** The adoption of ASU 2016-02 **will have a significant impact on our consolidated balance sheet** as we will record material assets and obligations primarily related to restaurant operating leases. **We are completing our estimate of the increase of assets and liabilities that will result from the adoption**, which is dependent on a number of key assumptions including discount rates and other factors, as well as the number of leases commenced, renewed or expired as of December 31, 2018. **We do not expect a material impact on our consolidated statement of income and are still assessing the impact on our consolidated statement of cash flows.**

The company's year-end 2018 Form 10-K included the following description.

In February 2016, FASB issued ASU 2016-02, "Leases (Topic 842)," and issued additional clarifications and improvements throughout 2018. The pronouncement requires lessees to recognize a liability for lease obligations, which represents the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet. The guidance requires disclosure of key information about leasing arrangements that is intended to give financial statement users the ability to assess the amount, timing, and potential uncertainty of cash flows related to leases. We have adopted the requirements of the new lease standard effective January 1, 2019. We have elected the optional transition method to apply the standard as of the effective date and therefore, we will not apply the standard to the comparative periods presented in our financial statements. **At the beginning of the period of adoption, we will recognize a cumulative-effect adjustment in retained earnings due to impairment of certain right-of-use assets at the effective date. We will elect the transition package of three practical expedients permitted within the standard, which eliminates the requirements to reassess prior conclusions about lease identification, lease classification, and initial direct costs. We will not elect the hindsight practical expedient, which permits the use of hindsight when determining lease term and impairment of right-of-use assets. Further, we will elect a short-term lease exception policy, permitting us to not apply the recognition requirements of this standard to short-term leases (i.e. leases with terms of 12 months or less) and an accounting policy to account for lease and non-lease components as a single component for certain classes of assets. We are finalizing the impact of the standard to our accounting policies, processes, disclosures, and internal control over financial reporting and have implemented necessary upgrades to our existing lease system**.

The adoption of ASU 2016-02 will have a **significant impact on our consolidated balance sheet** as we will record material assets and obligations primarily related to approximately 2,500 restaurant operating leases and corporate office leases. **We expect to record operating lease liabilities of approximately $2.7 billion based on the present value of the remaining minimum rental payments using discount rates as of the effective date. We expect to record corresponding right-of-use assets of approximately $2.4 billion**, based upon the operating lease liabilities adjusted for prepaid and deferred rent, unamortized initial direct costs, liabilities associated with lease termination costs and impairment of right-of-use assets recognized in retained earnings as of January 1, 2019. **We do not expect a material impact on our consolidated statement of income or our consolidated statement of cash flows**.

Furthermore, we have evaluated our existing sales and leaseback transactions, which do not qualify for sale leaseback accounting under ASC 840, and determined that these transactions do not qualify for sale leaseback accounting under ASC 842 due to fixed price renewal options prohibiting sale accounting. These transactions will continue to be accounted for under the financing method upon transition to ASC 842.

Although the disclosure improved throughout the year with respect to the implementation process being followed, the transition method that would be followed, and the practical expedients that might be used, not until release of the 2018 Form 10-K did investors get a clue as to the potential impact—other than it would be big—of the new leasing standard. From the 2018 Form 10-K, investors will see a first-quarter balance sheet that will increase in total assets from $2.3 billion to approximately $4.7 billion (a doubling of total assets) and will increase in total liabilities by $2.7 billion from $800 million to $3.5 billion (a quadrupling of total liabilities). The disclosure implies a net decrease to equity of $300 million or a nearly 20% reduction. However, two elements of the disclosure are unclear. First, how was the deferred rent on the balance sheet at 31 December 2018 accounted for (i.e., netted against the ROU asset)? Second, the disclosure indicates an impairment of certain right-to-use assets, but does not disclose the impact. Because of these unclear elements, it is not evident what the impact to equity will be. We reached out to Chipotle Investor Relations for clarification, but never heard back. The impact to the income statement and statement of cash flows will be minimal. Despite the large increase in assets, the company will not be restating its financial statements.

Tesco

In contrast to Chipotle (a US retailer), UK retailer Tesco will be required to adopt IFRS 16 recognizing its leases as finance leases as compared to operating leases. The company's year-end 2018 annual report contained a discussion of how the new standard may affect its results. Recognizing that it will not be required to adopt IFRS 16 until fiscal year 2020, which commences in February 2019, Tesco made the following disclosures in its 2018 annual report:

> IFRS 16 'Leases' will be effective in the Group financial statements for the 53 weeks ending 29 February 2020. **The Group intends to adopt the standard retrospectively, with comparatives restated from a transition date of 25 February 2018.** IFRS 16 provides a single lessee accounting model, requiring lessees to recognise right-of-use assets and lease liabilities for all applicable leases. Under IFRS 16, lessees will be required to remeasure the lease liability upon the occurrence of certain events, such as a change in future lease payments resulting from a change in an index or rate used to determine those payments. The lessee will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. **IFRS 16 is expected to have a significant impact on reported assets, liabilities and income statement of**

> **the Group, as well as the classification of cash flows relating to lease contracts. The standard will impact a number of key measures such as operating profit and cash generated from operations, as well as a number of alternative performance measures used by the Group.** The Group's IFRS 16 Project is governed by a Steering Committee, which regularly reports progress to the Group Audit Committee. During the current reporting period, progress has been made in the collation of the additional lease data required to support IFRS 16 calculations, establishing systems and processes required for accounting and reporting under IFRS 16 and in determining the appropriate discount rates to apply to lease payments. During the next financial year, the Group will finalise this work and set out accounting policies and procedures for leases. The Group will also establish a process of parallel reporting for the comparative period. **Until the impact assessment is completed, it is not practical to provide a reasonable estimate of the financial effect of IFRS 16.**

The company's fiscal year 2019 half-year results, released in September 2018, contained a discussion of how the new standard might affect the company, indicating that the result will be material but that it has no impact on actual cash flows:

> IFRS 16 'Leases' will be effective in the Group financial statements for the accounting period commencing 24 February 2019. **The Group intends to retrospectively adopt the standard, with comparatives restated from a transition date of 25 February 2018. The standard has no impact on the Group's underlying cash flows. It is, however, expected to have a significant impact on reported assets, liabilities and the income statement of the Tesco Group, as well as the classification of cash flows relating to lease contracts.** The Group is in the process of finalising this work and setting out related accounting policies and procedures for leases. Until this work has been carried out, it is not practical to provide a reasonable estimate of the financial effect of IFRS 16.

Because of press and analyst discussion of the potentially significant impact of the IFRS 16 adoption, on 15 February 2019, Tesco released a presentation[5] and press release[6]—before completion of fiscal year 2019 and before the commencement of fiscal year 2020, the year of adoption. It provided a detailed analysis, excerpted below, of how IFRS 16 will impact its financial position and key performance metrics:

[5] https://www.tescoplc.com/media/754270/tesco-plc-introducing-ifrs-16-presentation.pdf

[6] https://www.tescoplc.com/media/754267/tesco_ifrs_16_briefing_release.pdf

Our 1H 2018/19 financial statements, restated for IFRS 16, will form the prior period comparative numbers for the first published IFRS 16 accounts in October 2019. The headline impacts of IFRS 16 on these statements can be summarized as follows:

- **Group sales and total cash flow are completely unaffected**.
- Group operating profit increases by £188m to £1,121m as rent is removed and only part-replaced by depreciation; Group operating margin increases by 59 basis points to 3.53%.
- Profit before tax and Diluted EPS both decrease, by £(101)m and (0.91)p respectively, due to the combination of depreciation and interest being higher than the rent they replace. This is due to the relative immaturity of the Group's lease portfolio, with leases being around one-third expired on average. The proportion of EPS dilution will reduce as the portfolio matures and, most notably, as underlying earnings increase.
- Net assets reduce by £(1.4)bn to £13.0bn, as a 'new' lease liability of £(10.6)bn and 'new' right of use asset of £7.8bn are recognized and onerous lease provisions and other working capital balances are derecognized.
- Total indebtedness increases by £(3.3)bn to £(15.8)bn due to lease extensions and contingent commitments being included and lease-specific discount rates being applied.

In advance of its year-end 2019 results, Tesco provided a separate investor release with fairly significant disclosures regarding the potential impact, as it believes the results will be significant to the income statement and not simply the balance sheet. It is choosing to restate the comparative financials and disclose the potential impact. Interestingly, the discussion in the investor presentation, and the highlights above, note at the outset that sales and total cash flow are completely unaffected and that the change is an accounting event. The disclosures above also show that alternative performance measures will be impacted (as we highlight in **Section V)**. That said, a closer look at the presentation reveals that total assets will increase by approximately 20%, total liabilities will increase by approximately 30%, total borrowings will increase by approximately 120%, and shareholders' equity will decrease by 12% (because of the restatement effect). Profit and loss will decline by 20%.

The adjusted financial statements included in the aforementioned presentation are instructive in understanding the comments we make about the financial statement effects in **Section IV**. Tesco's press release is reprinted in **Appendix D** as it illustrates the impact of the changes on financial statements.

Vodafone

Vodafone, a non-US telecom, provides good qualitative disclosures, but very little information on the quantitative impact of the adoption of IFRS 16.

Based on an analysis of Vodafone's 2018 Form 20-F annual report (31 March 2018), the new standard would significantly impact Vodafone's financial statements:

> IFRS 16 "Leases" was issued in January 2016 to replace IAS 17 "Leases" and has been endorsed by the EU. The standard is effective for accounting periods beginning on or after 1 January 2019 and will be adopted by the Group on 1 April 2019.
>
> IFRS 16 will primarily change lease accounting for lessees; lease agreements will give rise to the recognition of an asset representing the right to use the leased item and a loan obligation for future lease payables. Lease costs will be recognised in the form of depreciation of the right to use asset and interest on the lease liability. Lessee accounting under IFRS 16 will be similar in many respects to existing IAS 17 accounting for finance leases, but will be substantively different to existing accounting for operating leases where rental charges are currently recognised on a straight-line basis and no lease asset or related lease creditor is recognised.
>
> Lessor accounting under IFRS 16 is similar to existing IAS 17 accounting and is not expected to have a material impact for the Group.
>
> The Group is assessing the impact of the accounting changes that will arise under IFRS 16; however, the following changes to lessee accounting will have a material impact as follows:
>
> –Right-of-use assets will be recorded for assets that are leased by the Group; currently no lease assets are included on the Group's consolidated statement of financial position for operating leases.
>
> –Liabilities will be recorded for future lease payments in the Group's consolidated statement of financial position for the "reasonably certain" period of the lease, which may include future lease periods for which the Group has extension options. Currently liabilities are generally not recorded for future operating lease payments, which are disclosed as commitments. **The amount of lease liabilities will not equal the lease commitments reported on 31 March 2019, as they will be discounted to present value and the treatment of termination and extension options may differ, but may not be dissimilar.**

–Lease expenses will be for depreciation of right-of-use assets and interest on lease liabilities; interest will typically be higher in the early stages of a lease and reduce over the term. Currently operating lease rentals are expensed on a straight-line basis over the lease term within operating expenses.

–Operating lease cash flows are currently included within operating cash flows in the consolidated statement of cash flows; under IFRS 16 these will be recorded as cash flows from financing activities reflecting the repayment of lease liabilities (borrowings) and related interest.

A high volume of transactions will be impacted by IFRS 16 and material judgements are required in identifying and accounting for leases.

The most significant judgement is expected to be determination of the lease term; under IFRS 16 the lease term includes extension periods where it is reasonably certain that a lease extension option will be exercised or that a lease termination option will not be exercised. Significant judgement will be required when determining the lease term of leases with extension or termination options.

The Group is continuing to assess the impact of the accounting changes that will arise under IFRS 16 and cannot yet reasonably quantify the impact; however, the changes highlighted above will have a material impact on the consolidated income statement, consolidated statement of financial position and consolidated statement of cash flows after the Group's adoption on 1 April 2019.

The Group intends to adopt IFRS 16 with the **cumulative retrospective impact as an adjustment to equity on the date of adoption**. The Group currently intends to **apply the following practical expedients** allowed under IFRS 16:

– The right-of-use assets will, generally, be measured at an amount equal to the lease liability at adoption and initial direct costs incurred when obtaining leases will be excluded from this measurement;

– The Group will rely on its onerous lease assessments under IAS 37 to impair right-of-use assets recognised on adoption instead of performing a new impairment assessment for those assets on adoption; and

– Hindsight will be used in determining the lease term.

In its 30 September 2018 half-yearly results, Vodafone made the following disclosures:

IFRS 16 "Leases" ('IFRS 16') was issued in January 2016 to replace IAS 17 "Leases" and has been endorsed by the EU. The standard is effective for accounting periods beginning on or after 1 January 2019 and will be adopted by the Group on 1 April 2019.

IFRS 16 will have **a material impact on Group's consolidated financial statements**. The Group **will adopt IFRS 16 with the cumulative retrospective impact reflected as an adjustment to equity on the date of adoption**. Descriptions of the primary impacts on the Group's accounting and the Group's adoption approach are disclosed in the Group's annual report and accounts for the year ended 31 March 2018.

The impact of adopting IFRS 16 on the Group's consolidated statement of financial position on 1 April 2019 will depend on the portfolio of leases and macroeconomic factors such as interest and foreign exchange rates at that date. The Group's undiscounted operating lease commitments at 31 March 2018 were €9,694 million. **It is expected that had the Group applied IFRS 16 on 1 April 2018 that the incremental lease liabilities recognised by the Group could have been materially higher than the disclosed commitment as revisions to estimated lease terms, which will generally increase, are unlikely to be fully offset by the impact of discounting, however, it is expected that the increase would only have been modest. However, the lease liability to be recognised on 1 April 2019 will not be prepared on the basis of factors that existed on 31 March 2018 and changes to the following items over the current financial year will each impact the amount to be recognised as an incremental lease liability on 1 April 2019**:

- The Group's lease portfolio as a result of lease terminations and inceptions;
- Further estimated lease term changes as a result of events arising during the year;
- Interest rates; and
- Foreign exchange rates.

The Group expensed €3,788 million as operating lease costs under existing reporting requirements for the year to 31 March 2018.

The recognition by the Group of an additional lease liability at 1 April 2019 will have no impact on retained earnings as a right-of-use asset equal to the additional liability will be recognised, subject to adjustments to the right-of-use asset for the derecognition of lease related accruals and prepayments and for onerous lease provisions already held in the balance sheet.

Whilst net cash flow is not impacted by IFRS 16, both net cash inflows from operating activities and payments classified within cash flow from financing activities will increase, as payments made at lease inception or subsequently will be characterised as a repayment of lease liabilities."

The 30 September 2018 results note the IFRS 16 impacts will be significant to the Vodafone balance sheet, income statement, and statement of cash flows, and that Vodafone will adopt using the modified retrospective method; it does not disclose the impact of adoption. The results disclose lease expenses of €3,788 million for the year ended 31 March 2018 and undiscounted operating lease commitments at 31 March 2018 of €9,694 million. The disclosure also notes that the 31 March 2018 amounts aren't reflective of the amounts to be recognized at the date of adoption (1 April 2019). The undiscounted amounts do, however, amount to 7% of total assets, 13% of total liabilities, and 20% of total borrowings. Investors will want to review the 31 March 2019 disclosures to determine if any further disclosures are made regarding the impact to the balance sheet or the income statement as of the 1 April 2019 adoption date.

AirFrance and Ryanair

AIRFRANCE

RYANAIR

During the decade the leasing standard has been debated, the airline industry has been a poster child for the need to put leases on balance sheet. Investors and standard setters have long expected that IFRS 16 will have a significant impact on the airline industry. That impact, however, will depend upon how significant operating leases are to the overall business. Although we have not included examples here, investors interested in the effects on airlines can consider the disclosures of AirFrance, which early adopted and restated under IFRS 16 because of the significant impacts on its financial statements. Ryanair's disclosures, on the other hand, indicate the impact of adopting IFRS 16 will not be material because it does not have a significant number of operating leases.

Delta and American Airlines

As this document was going to print, Delta Airlines released its 2018 Form 10-K adopting ASC Topic 842 early. Delta adopted the leasing standard in the fourth quarter 2018 effective 1 January 2018, waiting until the FASB released their modification that allowed prior years not to be restated. Its prior 2018 quarters were restated. The results are included in Note 8 to the Delta 2018 Form 10-K[7] and highlight a $6 billion increase in assets (10%) and liabilities (15%) with a small adjustment to equity.

American Airlines followed suit releasing its 2018 Form 10-K[8], adopting the leasing standard early – in the fourth quarter 2018, after the FASB reprieve – effective 1 January 2018. The impact to the financials was an approximately $9 billion increase in assets (15%) and liabilities (15%) with a positive impact to equity of $200 million (100% increase in equity).

[7] http://d18rn0p25nwr6d.cloudfront.net/CIK-0000027904/5fcae838-aa00-4be0-95dd-1824e4f97799.pdf
[8] https://americanairlines.gcs-web.com/static-files/ceb67596-d59a-41e3-ad0c-b5556dd43b4a

IV. Which Financial Statement Captions Are Impacted the Most?

The leasing standard will change a variety of financial statement captions. As the discussion heretofore explains, the impact of the new standard will be significant to the balance sheet. The impact to the financial statement captions—and the financial analysis—gets complicated for investors as they consider the impact of:

- the different types of leases (i.e., operating vs. finance);
- the standards followed (i.e., IFRS [finance] vs. US GAAP [operating vs. finance]);
- the transition methods (i.e., restating prior periods or adopting at the beginning of the accounting period adopted); and
- the effects of the lease types, accounting standards, and transition methods, not just at inception but also over time.

The analytical considerations quickly become challenging.

Illustration of Operating vs. Finance Lease

The summarized description of the effects in **Sections I, II,** and **III** are best illustrated with examples. To facilitate a more meaningful consideration of the financial statement effects—and a consideration of the impact on ratios—**Table 2** provides a simple[9] lease (i.e. one with

[9] **Simplifying Assumptions**: We made several simplifying assumptions that should not impact the overall analytical observations being conveyed. They include the following:

a) We have ignored the impact of deferred taxes for simplicity. The impact would likely be a proportional impact on the balance sheet and income statement balances.

b) We have provided an illustration of non-level lease payments but have not added other complexities such as lease payments that vary over time, expected renewals, lease options, etc. Many of the variable lease payments will be expensed as operating expenses as they occur under both IFRS and US GAAP.

These examples highlight the key financial statement caption consequences at a high level.

TABLE 2. ILLUSTRATION OF FINANCIAL STATEMENT EFFECTS OF OPERATING AND FINANCE LEASES

EXAMPLE A: LEVEL LEASE PAYMENTS

	Operating & Finance Lease			Finance Lease							Operating Lease					Finance vs. Operating	
	Lease Payments	Present Value Lease Payments	Lease Liability	Interest Expense	ROU Asset	ROU Asset Amortization	Total Expense	ROU Asset - Lease Liability	Cash * Impact	Equity * Impact	ROU Asset	Operating Lease Expense	ROU Asset - Lease Liability	Cash * Impact	Equity * Impact	Expense Difference	Equity* Difference
		Discount Rate = 6%				Straight-Line											
T=0		-	736		736			-		-	736		-		-		
T=1	100	94	680	44	662	74	118	(18)	(100)	(118)	680	100	-	(100)	(100)	18	(18)
T=2	100	89	621	41	589	74	114	(32)	(200)	(232)	621	100	-	(200)	(200)	14	(32)
T=3	100	84	558	37	515	74	111	(43)	(300)	(343)	558	100	-	(300)	(300)	11	(43)
T=4	100	79	492	33	442	74	107	(50)	(400)	(450)	492	100	-	(400)	(400)	7	(50)
T=5	100	75	421	30	368	74	103	(53)	(500)	(553)	421	100	-	(500)	(500)	3	(53)
T=6	100	70	347	25	294	74	99	(52)	(600)	(652)	347	100	-	(600)	(600)	(1)	(52)
T=7	100	67	267	21	221	74	94	(46)	(700)	(746)	267	100	-	(700)	(700)	(6)	(46)
T=8	100	63	183	16	147	74	90	(36)	(800)	(836)	183	100	-	(800)	(800)	(10)	(36)
T=9	100	59	94	11	74	74	85	(21)	(900)	(921)	94	100	-	(900)	(900)	(15)	(21)
T=10	100	56	(0)	6	-	74	79	0	(1,000)	(1,000)	(0)	100	-	(1,000)	(1,000)	(21)	-
	1,00 0	736		264		736	1,000					1,000				(0)	

* - Amounts represented are cumulative.

Illustration of Cash Flow Impacts in T=1					Finance vs. Operating
Finance			Operating		Cash Flow Difference
Impact on Net Income	(118)		Impact on Net Income	(100)	
ROU Asset Amortization	74		Change in ROU Asset	56	
			Change in Lease Liability	(56)	
Impact on Operating Cash Flows		(44)	Impact on Operating Cash Flows	(100)	56
Impact on Investing Cash Flows		-	Impact on Investing Cash Flows	-	-
Portion of Lease Liability Representing Repayment	(56)				
Impact on Financing Cash Flows		(56)	Impact on Financing Cash Flows	-	(56)
Impact on Cash Flows		(100)	Impact on Cash Flows	(100)	0

TABLE 2. ILLUSTRATION OF FINANCIAL STATEMENT EFFECTS OF OPERATING AND FINANCE LEASES (Continued)

EXAMPLE B: NON-LEVEL LEASE PAYMENTS

	Operating & Finance Lease			Finance Lease							Operating Lease					Finance vs. Operating	
	Lease Payments	Present Value Lease Payments	Lease Liability	Interest Expense	ROU Asset	ROU Asset Amortization	Total Expense	ROU Asset - Lease Liability	Cash * Impact	Equity * Impact	ROU Asset	Operating Lease Expense	ROU Asset - Lease Liability	Cash * Impact	Equity * Impact	Expense Difference	Equity* Difference
	Discount Rate = 6%					Straight-Line											
T=0		-	796		796			-		-	796		-		-		
T=1	180	170	663	48	716	80	127	53	(180)	(127)	743	100	80	(180)	(100)	27	(27)
T=2	160	142	543	40	637	80	119	93	(340)	(247)	683	100	140	(340)	(200)	19	(47)
T=3	140	118	436	33	557	80	112	121	(480)	(359)	616	100	180	(480)	(300)	12	(59)
T=4	120	95	342	26	477	80	106	135	(600)	(465)	542	100	200	(600)	(400)	6	(65)
T=5	100	75	263	21	398	80	100	135	(700)	(565)	463	100	200	(700)	(500)	0	(65)
T=6	100	70	178	16	318	80	95	140	(800)	(660)	378	100	200	(800)	(600)	(5)	(60)
T=7	80	53	109	11	239	80	90	130	(880)	(750)	289	100	180	(880)	(700)	(10)	(50)
T=8	60	38	56	7	159	80	86	104	(940)	(836)	196	100	140	(940)	(800)	(14)	(36)
T=9	40	24	19	3	80	80	83	61	(980)	(919)	99	100	80	(980)	(900)	(17)	(19)
T=10	20	11	-	1	-	80	81	-	(1,000)	(1,000)	(0)	100	(0)	(1,000)	(1,000)	(19)	-
	1,000	796		204		796	1,000					1,000				(0)	

* - Amounts represented are cumulative.

Illustration of Cash Flow Impacts in T=1					Finance vs. Operating
Finance			Operating		Cash Flow Difference
Impact on Net Income	(127)		Impact on Net Income	(100)	
ROU Asset Amortization	80		Change in ROU Asset	52	
			Change in Lease Liability	(132)	
Impact on Operating Cash Flows		(48)	Impact on Operating Cash Flows	(180)	132
Impact on Investing Cash Flows		-	Impact on Investing Cash Flows	-	-
Portion of Lease Liability Representing Repayment	(132)				
Impact on Financing Cash Flows		(132)	Impact on Financing Cash Flows	-	(132)
	Impact on Cash Flows	(180)	Impact on Cash Flows	(180)	-

level payments and another with non-level payments) comparing the results of adopting the new standard under both an operating and a finance lease scenario over time[10]

The impacts of the operating lease and finance lease expense in the illustrations at **Table 2** are highlighted and compared graphically in **Figures 2A, 2B**, and **2C**.

FIGURE 2A. OPERATING LEASE EXPENSE

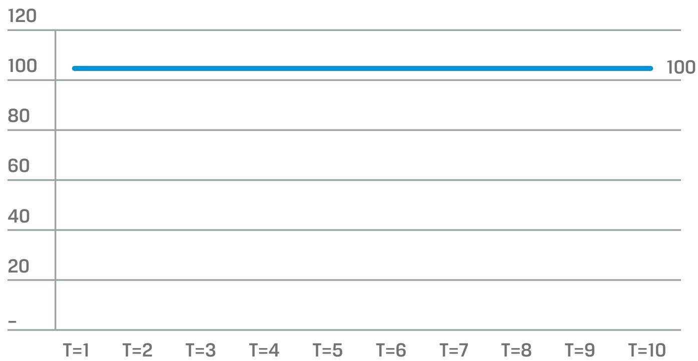
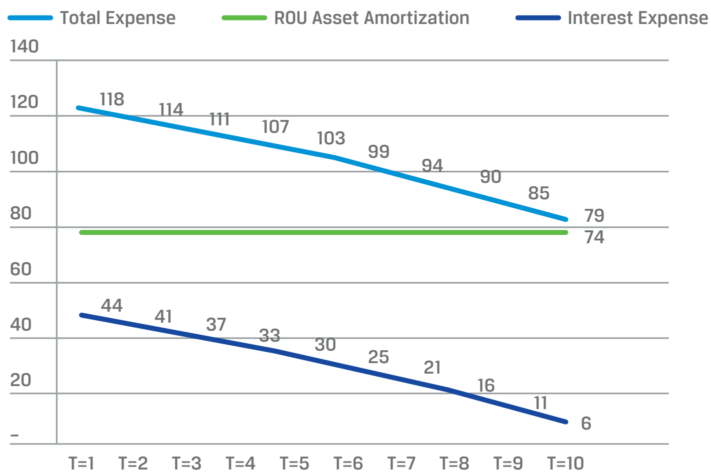


FIGURE 2B. FINANCE LEASE EXPENSE



[10] **US GAAP Operating Leases and IFRS Finance Leases**: For purposes of this discussion, we assumed that operating leases are per US GAAP and finance leases are per IFRS. Though slight differences may exist in finance leases for US GAAP and IFRS due to provisions of the respective standards treatment, the illustration depicts the key difference between US GAAP and IFRS and should be very similar other than the presentation of interest expense on the statement of cash flows.

FIGURE 2C. OPERATING VS. FINANCE LEASE EXPENSE

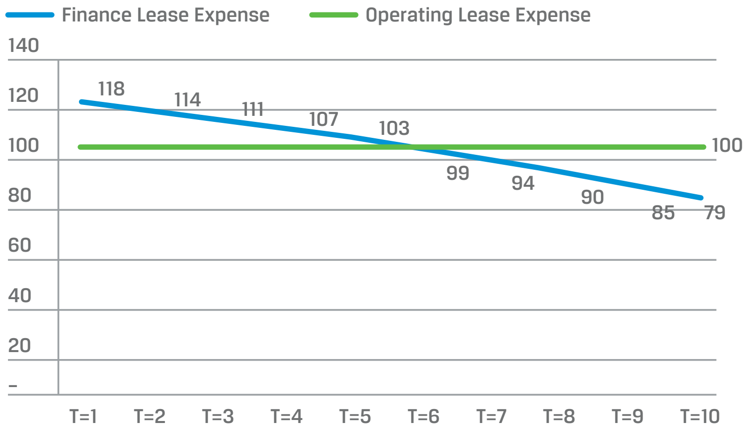


Table 3 summarizes the financial statement impact of the new standard on both the balance sheet (i.e., at inception) and the income statement (i.e., comparing the income statement impacts after transition to those created under historical lease accounting). The table includes an overview of the financial statement captions affected and the mostly likely impact comparing the impact for an operating versus (US GAAP) a finance lease (IFRS).[11]

Key Takeaways

Key takeaways from **Table 2**, **Figure 2**, and **Table 3** are summarized below. For purposes of the description of ratios, we summarized the impact on the related financial statement captions in **Appendix B** and excerpted several of the captions here.

Assets and Liabilities

The most significant impact of the adoption of the new standard is the creation of the new right-of-use asset and lease liability. **Table 4** summarizes the effects on assets and liabilities for operating and finance leases both at inception and over time, based on the examples provided in **Table 2**.

[11] Ibid.

TABLE 3. IMPACT OF LEASE ADOPTION ON FINANCIAL STATEMENT CAPTIONS

FINANCIAL STATEMENT CAPTION	US GAAP OPERATING		US GAAP FINANCE		IFRS FINANCE	
BALANCE SHEET (TRANSITION & INCEPTION)						
ASSETS Right-of-Use Asset	Equal to Lease Liability at Inception	↑	Equal to Lease Liability at Inception	↑	Equal to Lease Liability at Inception	↑
LIABILITIES Lease Liability (Current & Long-Term)	Present Value of Future Lease Payments	↑	Present Value of Future Lease Payments	↑	Present Value of Future Lease Payments	↑
EQUITY*	Retained Earnings	⟺	Retained Earnings	⟺	Retained Earnings	⟺
INCOME STATEMENT						
OPERATING EXPENSES Lease Expense	Straight-Line Lease Expense	⟺	—		—	
Right-of-Use Asset Amortization	—		Amortization of Right-of-Use Asset (Straight-Line)	↑	Amortization of Right-of-Use Asset (Straight-Line)	↑
Interest Expense			Effective Interest Method (Higher at Inception)	↑	Effective Interest Method (Higher at Inception)	↑
Total Expense	—		Total Expense	↑	Total Expense	↑
STATEMENT OF CASH FLOWS						
OPERATING CASH INFLOWS	The reconciliation of net income to operating cash flows will now include a change in the ROU asset and a change in the lease liability, but operating cash flows will not change.	⟺	The reconciliation of net income to operating cash flows will include an add back for the amortization of the right-of-use asset. The net result is that interest expense will be included as a reduction of operating cash flows. That said, cash flow from operations will likely rise as the portion of the lease payment attributable to principal repayments is now a finance cash outflow.	↑	The principal repayment portion of the lease payment must be included in financing cash flows, so financing cash outflows will rise. Interest expense may be classified as either operating, investing or financing under IFRS. Accordingly, the change in cash flow captions must be considered carefully. If interest expense is classified as an operating cash outflow, the result will be identical to US GAAP. If interest expense is classified as an investing cash flow then investing cash outflows will rise (inflows decrease). If interest expense is included in financing cash outflows, they will rise and operating cash inflows will be higher than under operating leases or US GAAP finance leases.	↑
INVESTING CASH OUTFLOWS	—		—			
FINANCING CASH OUTFLOWS	—		The lease payment attributable to reduction of the lease principal will be included as a financing cash outlow. Accordingly, financing cash outflows will rise.	↑	The lease payment attributable to reduction of the lease principal will be included as a financing cash outlow. Accordingly, financing cash outflows will rise.	↑

*— Generally, the increase in right-of-use assets will equal the lease liability at transition to the new leasing standard or inception of the lease. Factors such as onerous leases or impairments could result in a net effect to equity. Investors should investigate further the reason for the impact to equity, if material.

TABLE 4. IMPACT OF THE NEW STANDARD ON ASSETS AND LIABILITIES

OPERATING	FINANCE	DIFFERENCE
ASSETS		
Inception: Total assets will increase significantly by the creation of the right-of-use asset, which will equal the lease liability at inception and over the term of the lease.	**Inception**: Total assets will increase significantly by the creation of the right-of-use asset, which will equal the lease liability at inception but *not* over time.	**Inception**: There will be no difference at inception between the total assets recognized under an operating lease and a finance lease.
Over Time: The right-of-use asset will amortize as the difference between the level operating expense and the effective interest accrual on the liability. Effectively, the amortization is a plug of the right-of-use asset to get to level lease expense.	**Over Time**: The right-of-use asset will amortize over time independent of the lease liability, likely amortizing on a straight-line basis. Thus, the right-of-use asset (and total assets) is likely to be lower for companies with finance leases.	**Over Time**: The right-of-use asset will decline differently under an operating lease versus a finance lease. Finance lease right-of-use assets will decline more quickly than operating lease right-of-use assets for the reasons noted at left.
Relationship to Lease Liability: The right-of-use asset will generally be equal to the lease liability given the offset (to achieve level lease expense) of the accrual of interest on the lease liability using an effective interest method against the right-of-use asset.	**Relationship to Lease Liability**: The right-of-use asset will not equal the lease liability over time because of the difference in amortization of the assets and the liability. The right-of-use asset will likely be lower than the lease liability.	**Relationship to Lease Liability**: The right-of-use asset will not equal the lease liability for finance leases. The right-of-use asset will equal the lease liability for operating leases.
Level of Total Assets: Total assets will likely be higher for operating leases (US GAAP) than for finance leases (IFRS), given the higher right-of-use asset for operating leases.		
LIABILITIES		
Inception and Over Time: Total debt will increase at adoption of the new leasing standard by the amount of the present value of future lease payments at the discount rate implicit in the lease, or, if not available, at the incremental borrowing rate. The operating lease liability is identical, at inception and over time, to the finance lease liability.		None
Current vs. Noncurrent: The lease liability—unlike the right-of-use asset—must be separated between the current and long-term portions.		None
Relationship to Right-of-Use Asset: For operating leases, the lease liability will equal the right-of-use asset at inception of the lease and over time. For finance leases, the lease liability will equal the right-of use asset at inception but over time it will differ from the lease liability. This difference results from the straight-line amortization of the right-of-use asset for finance leases and the netting of the effective interest on the liability against the right-of-use asset for operating lease (i.e. to get straight-line lease expense).		As noted above, the right-of-use asset will not equal the lease liability for finance leases. The right-of-use asset will equal the lease liability for operating leases.

Equity

Table 5 summarizes the effects on equity for operating and finance leases both at inception and over time, based on the examples provided in **Table 2**.

TABLE 5. IMPACT OF THE NEW STANDARD ON EQUITY

OPERATING	FINANCE	DIFFERENCE
EQUITY		
Inception: At inception, total equity will not change much unless unrecognized impairments or practical expedients that impact the recognition of deferred costs and/or deferred rent create an equity impact.	**Inception**: At inception, total equity will not change much unless unrecognized impairments or practical expedients that impact the recognition of deferred costs and/or deferred rent create an equity impact	**Inception**: The difference should not be significant.
Over Time: Over time, equity (retained earnings) will be reduced by level operating lease expense.	**Over Time**: Over time, equity (retained earnings) will be reduced by interest expense and right-of-use amortization. In the early years of the lease term, these amounts will be higher than the level operating lease expense. This will reverse in the later years of the lease term.	**Over Time**: Equity will likely be lower for finance leases than for operating leases, given the higher interest expense and right-of-use amortization in a finance lease compared to the level lease expense of an operating lease. Ultimately, the amount of expense will be identical; however, equity will be lower for finance leases in the early years of the lease.

Note that the impact to equity at inception or transition is expected to be nil, but in some instances, such as when there is an impairment of the right-of-use asset, the impacts are not nil. Investors should fully explore any impact to equity at transition with company management.

Income Statement

Both the amounts and the classification of expenses will be different under operating leases versus finance leases. As illustrated by the graphs at **Figures 2A**, **2B**, and **2C**, which highlight the amounts in the illustration at **Table 2**, the operating lease expense will be level over the lease term and consistent with the prior accounting for US GAAP. The finance lease expense, comprising both interest expense and amortization of the right-of-use asset, will be higher at the inception of the lease (and transition to the new standard, if there is no restatement of prior periods) than the operating lease expense, then will be lower than the operating lease expense during the second half of the lease term. The total expense amount will be the same over time. There will simply be different timing of the expense. **Table 3** highlights the differences; the implications for the income statement subtotals are highlighted in **Appendix B**. We highlight the impact to income statement related non-GAAP measures in **Section V**.

Statement of Cash Flows

The impact to the statement of cash flows is demonstrated at the illustration in **Table 2** and highlighted in **Table 3**. The table at **Appendix B** also provides a description of the impact.

Other Considerations

When considering the financial statement effects above, it is important to recognize the additional considerations provided below.

Current vs. Long-Term

Note in the description of the impact on assets and liabilities above that the right-of-use asset will not be bifurcated into a current and long-term portion. The lease liability, however, must be split between the current and long-term portion. Accordingly, the impact to current assets and current liabilities will not be consistent.

Foreign Currency

As we describe in **Section II**, investors should recall the foreign currency impacts to the right-of-use asset and lease liability will not be consistent and will have an impact on the income statement. The right-of-use asset and lease liability are amortized through the income statement for both operating and finance leases.

Taxes

We have not included the tax effects of the movement to the new leasing standard in the examples or summary above, as the impacts will be proportional to the impacts on the other financial statement captions. As we highlight in **Section II** in the discussion of the transition effects, investor must be mindful of the likely impact on deferred taxes. For example, at a corporate tax rate of 21%, investors should expect to see a deferred tax liability for the right-of-use asset and a deferred tax asset for the lease liability, as both are being created for book purposes, but the tax accounting for leases is unlikely to change. At inception, the deferred items would offset and over time, will reverse at the same rate as the related right-of-use asset and lease liability. As it relates to the income statement, the current tax expense is unlikely to change, so any change in total expense will be offset by an increase in deferred tax expense.

Measurement vs. Financial Statement Effects

This section focuses on the financial statement effects, but investors must understand the measurement of lease obligations as changes in—or lack of changes in—such measurement over time will drive financial statement effects at and over the lease term. Specifically, investors should remember the following:

- **Discount Rate**: As we discuss under transition in **Section II**, discount rates will be an important analytical consideration not only at inception, when all leases will be recognized at interest rates in effect at 1 January 2019 (for companies with fiscal year ends), but over the lease term, as fluctuations in interest rates will change the economic value of the lease liability; however, this will not alter the liability recorded on the balance sheet. See further analysis at **Section VIII**.

- **Variable Lease Payments**: Variable lease payments (e.g. sales or usage-based lease payments) are generally not included in the measurements of the initial lease obligations. They will be adjusted subsequently and reflected as an operating expense for operating and finance leases in the period in which they occur. To the extent that companies have such lease features, the operating and finance lease effects described above will be altered.

- **Options and Renewals**: Lease options (e.g., renewals), are only included in initial measurements and the related financial statement effects if they are reasonably certain to occur. To the extent that such assumptions change over time, the financial statement effects will also change.

V. What Will Be the Impact on Non-GAAP Measures?

Financial statement effects are important to understand, but investors must also understand how non-GAAP measures will be impacted by the leasing standard for companies – especially those with finance leases.

Examples of Impact on Non-GAAP Measures

For operating leases, the non-GAAP measures will not change. Under IFRS, where all leases are finance leases, and in companies that follow US GAAP where leases are classified as finance leases, there will be comparability issues in non-GAAP measures. **Table 6** presents three scenarios to illustrate the impact of the different lease classifications on the most frequently used non-GAAP income statement measures (e.g., EBT, EBIT, EBITDA, and EBITDAR). The scenarios are as follows:

- **Operating Lease (Scenario #1)**: Non-GAAP measures are not likely to change for operating leases as the income statement impact (i.e., straight-line lease amortization) and the classification (i.e., lease expense) will not change in the income statement. That said, it is important to provide this scenario as a comparative scenario, as US GAAP companies will likely have operating leases and IFRS companies will have finance leases and be different.
- **Finance Leases (Scenarios #2 and #3)**: As highlighted in the illustration at **Table 2** and **Figure 2**, finance leases will generally result in higher overall expense in the early years of the leasing standard because of the use of the effective interest method. Given the transition to the new standard, a company's entire lease book will be in the early phases of amortization in the upcoming years. Companies that are growing will generally be adding rather than running off leases over time, resulting in higher lease expense for finance leases. We have provided an example of this in Scenario #3.

For illustrative purposes, we have also included a scenario (Scenario #2) where the total interest and right-of-use asset amortization is equivalent to the amount of the operating lease in Scenario #1. This scenario illustrates the impact of the different classification of amounts—even if total expense is identical—between operating and finance leases on the most common non-GAAP measures.

A comparison of Scenario #1 and #2—where the total lease expense is the same but the classification of the elements of expense are different—highlights that EBIT and EBITDA will be different between finance and operating leases simply because of the classification of elements of the finance leases. Companies with finance leases will have higher EBIT and EBITDA than companies with operating leases. Only EBT and EBITDAR will be comparable when the total expense is the same.

As Scenario #2 is included only for illustrative purposes, the more likely comparison investors will need to make is a comparison of Scenario #1 (i.e., the most likely US GAAP treatment) and Scenario #3 (i.e., the required IFRS treatment) because finance lease expense will likely be higher than operating lease expense. Such a comparison also highlights that for companies that do not restate prior years the period-to-period change will also be impacted. What the comparison illustrates is that while net income and EBT

TABLE 6. EXAMPLE OF IMPACT OF LEASE CLASSIFICATION ON COMMON NON-GAAP MEASURES

	SCENARIO #1	SCENARIO #2	SCENARIO #3
	OPERATING	FINANCE	FINANCE
Revenues	1,600	1,600	1,600
Expenses			
Salaries	750	750	750
Selling & Administrative	150	150	150
Operating Lease Expense	100		
Amortization of Right-of-Use Asset		65	74
Operating Expenses	1,000	965	974
Operating Income	600	635	626
Interest Expense	-	35	44
Income Before Tax	600	600	582
Income Taxes (20%)	120	120	116
Net Income	480	480	466
EBT	600	600	582
EBIT	600	635	626
EBITDA	600	700	700
EBITDAR	700	700	700

will be lower for finance leases, measures of EBIT and EBITDA will be higher for IFRS filers with finance leases than for US GAAP companies with operating leases. Only a comparison of EBITDAR will make the comparison of finance (IFRS) and operating leases (US GAAP) equivalent.

When using such non-GAAP measures as proxies for cash, investors and financial statement users must be cognizant of this difference as they compare different companies or prior periods of the same company.

Investors Should Keep their Eyes Open

Investors should also be mindful that companies may deploy other non-GAAP measures—particularly in the year of transition where results will not be comparable—to portray their results. This may include non-GAAP measures that alter key ratios as discussed in **Section VI**, especially those related to leverage or debt-to-equity ratios. Investors should watch for new or altered non-GAAP measures relating to the change to the leasing standard.

VI. Will Cash Flow Change?

In general, cash flow will not change. Although financial statement captions may change, cash or cash flows of the company do not change due to the adoption of or transition to the new lease standard. However, investors should be mindful of several considerations, including the following:

- **Actual Cash Flows vs. Presentation of Cash Flows on Statement of Cash Flows**: Investors should remember that despite finance leases resulting in changes to measures of operating and financing cash flows as presented on the statement of cash flows, these are simply *presentation changes* on the financial statement. Actual cash flows are not changing with the transition to the new standard.

  Further, US GAAP companies with operating leases and IFRS companies with finance leases will have the appearance of different cash flows despite having identical actual cash flows.

  Also, as we describe in **Section V** on non-GAAP measures, these lease classification differences result in cash flow proxies such as EBITDA that are different, despite the actual cash paid being identical.

- **Tax Accounting**: The tax accounting treatment for leases is generally different than the accounting treatment under US GAAP or IFRS. Accordingly, the change in accounting for IFRS and US GAAP may impact deferred taxes but will most likely not impact current taxes and the resulting cash flows. To the extent that there is any change in the tax accounting for leases—and therefore actual cash flows—there could be a change in cash flows. Though not likely, this is something investors may want to note.

- **Lease Modifications Resulting from New Lease Standard**: Because the leasing standard will increase lease liabilities and leverage, companies may have altered leasing arrangements in advance of adopting the new standard, or they may do so in the future to manage the perception of leverage. To the extent that some of these contractual changes alter the amount or timing of cash flows, investors should understand the nature of such changes and their impact on the company's future cash flows. **Section VIII** provides a disclosure of short-term leases to facilitate this analysis.

Because cash flows are not changing, fundamental investors using discounted cash flow approaches to valuation—in theory, at least—should not see a change. However, as we discuss in **Section X**, if investors are surprised by the degree of leverage communicated by these new lease liabilities, their perceptions of the risk associated with the company may change and the market may react.

VII. Will Financial Ratios Be Signficantly Impacted?

Financial ratios will be significantly impacted by the new leasing standard, a situation that will be analytically messy.

Comparability is a casualty of the new leasing standard. Because IFRS (finance leases) and US GAAP (operating and finance leases) allow different income statement treatment for the lease expense (which ultimately impacts the right-of-use asset over time), comparability between IFRS companies and US GAAP companies with identical leasing arrangements is lost. Further, differing methods of transitioning to the new standard (e.g., restating prior periods or the more likely method of adopting at the beginning of the transition accounting period) will make comparison to prior periods within companies difficult, and comparability issues brought about by the different lease classification and transition methods will extend beyond the initial adoption into future periods. As a result, comparability and trend analysis in financial statement captions and ratios will be difficult. Investors must understand these effects and adjust as necessary to ensure results are truly comparable.

We consider the key balance sheet (solvency and liquidity), income statement (profitability and earnings per share), return on equity, and cash flow (performance and coverage) ratios below. Because of the complicated impact of the US GAAP and IFRS lease classification differences on the inputs to the ratios, we consider the impact on the various numerators and denominators in **Appendix B**; the analysis below is focused on the impact to the ratio. To simplify the discussion, we have assumed that US GAAP is synonymous with the discussion of operating leases and IFRS is synonymous with the discussion of finance leases, other than when it comes to the impacts on the statement of cash flows.

Balance Sheet: Solvency and Liquidity Ratios

As is apparent from the transition discussion above, and as we demonstrate in **Section IX**, the impact on the balance sheet and the related solvency and liquidity ratios of the new leasing standard will likely be the most significant. As such, we consider these ratios first.

Solvency Ratios

Table 7 describes the key solvency ratios and the expected impact to the ratio of a transition to an operating or finance lease. A discussion of the ratios is provided as well.

TABLE 7. SOLVENCY RATIOS

SOLVENCY RATIOS			
DESCRIPTION	**RATIO**	**OPERATING LEASE**	**FINANCE LEASE**
Long-Term Debt-to-Equity	Total Long-term Debt / Total Equity	↑ / – = ↑	↑ / – = ↑
Debt-to-Equity	Total Debt / Total Equity	↑ / – = ↑	↑ / – = ↑
Total Debt	Total Debt / Total Assets	↑ / ↑ = ↑	↑ / ↑ = ↑
Financial Leverage	Total Assets / Total Equity	↑ / – = ↑	↑ / – = ↑

↑ (Increase), ↓ (Decrease), – (No Change)

- **Financial Leverage Ratio**: With only a minimal impact on equity and a significant increase in total assets from the recognition of the right-of-use asset, the leverage ratio is likely to increase significantly, as we illustrate in **Section IX**. Over time, given the difference in the income statement impact of finance leases (higher at inception) and operating leases (level), equity will be lower for finance leases and will result in a higher ratio than for operating leases. It is also important to note that finance lease assets will likely amortize more quickly than operating lease assets, resulting in a more significant reduction to total assets, and the financial leverage ratio, over time.

  If there are significant impacts to equity at transition, the ratio could be impacted more than noted above.

- **Total Debt Ratio**: Total debt and total assets will rise by an identical amount (i.e. generally) at inception of the lease. The finance lease and operating lease impact will be identical at inception, as the asset and liability will increase the same between operating and finance leases. Given that this ratio is generally less than one (as assets are generally higher than debt) and the impact to total debt and total assets are equal, the ratio will likely rise. Over time, finance lease and operating lease liability balances will remain identical; however, finance lease assets will likely amortize more quickly than operating lease assets, resulting in a more significant reduction to total assets (and higher total debt ratio) over time.

- **Long-Term Debt Ratio and Debt-to-Equity Ratio**: Given the large increase in debt and long-term debt with only minimal impact to equity at inception, these ratios will rise for both operating leases and finance leases. The extent of the rise will depend on the proportion of total debt represented by the lease liability. Although equity is not expected to change significantly, the transition adjustment may impact equity and therefore the ratio. Further, equity will be lower for finance leases than for operating leases over time, and will create lower equity and a higher ratio that will converge as the lease expires.

Liquidity Ratios

Appendix B considers the impact of the new lease standard on all of the numerators and denominators associated with liquidity ratios. The only element of the liquidity ratios that will be impacted by the leasing standard is the portion of the lease liability included within current liabilities—the denominator in each of the liquidity ratios. Because the denominator will rise in each of the ratios but none of the numerators will be impacted, all ratios will decrease (**Table 8**). Given that operating and finance lease liabilities (including current ratios) are identical, the impact on current liabilities will be the same.

TABLE 8. LIQUIDITY RATIOS

LIQUIDITY RATIOS			
DESCRIPTION	**RATIO**	**OPERATING LEASE**	**FINANCE LEASE**
Current	Current Assets / Current Liabilities	– / ↑ = ↓	– / ↑ = ↓
Quick (Acid Test)	(Cash + Marketable Securities + Receivables) / Current Liabilities	– / ↑ = ↓	– / ↑ = ↓
Cash	(Cash + Marketable Securities) / Current Liabilities	– / ↑ = ↓	– / ↑ = ↓

↑ (Increase), ↓ (Decrease), – (No Change)

Income Statement: Profitability Ratios and Earnings per Share

Profitability Ratios

Indicators of profitability, such as those listed in **Table 9**, are also impacted by the new leasing standard. **Appendix B** considers the impact to each of the financial statement captions comprising the numerators and denominators of the profitability ratios. As noted there, revenue and sales figures are unaffected by the new leasing standard. Thus, the denominator of all the profitability ratios remains unchanged. The numerator is where the effect will arise.

TABLE 9. PROFITABILITY RATIOS

PROFITABILITY			
DESCRIPTION	**RATIO**	**OPERATING LEASE**	**FINANCE LEASE**
Net Profit Margin (Profit Margin or Return on Sales)	Net Income / Revenue or Sales	– / – = –	↓ / – = ↓
Gross Profit Margin	Gross Profit / Revenue	– / – = –	↑ / – = ↑
Operating Profit Margin	Operating Income / Revenue	– / – = –	↑ / – = ↑
Pretax Margin	Earnings Before Taxes / Revenue	– / – = –	↓ / – = ↓

↑ (Increase), ↓ (Decrease), – (No Change)

Given that companies with finance leases (i.e., IFRS companies) will likely have higher total lease expense (interest expense plus ROU amortization) than companies with operating leases (i.e., US GAAP companies), profitability measures such as earnings before tax and net income will likely be lower for IFRS companies with finance leases. Accordingly, profitability ratios such as pretax margin and net profit margin and are likely to be lower for IFRS companies than for US GAAP companies.

Operating margin, while not a defined subtotal in IFRS, will likely rise with the transition to finance leases under IFRS 16. Because the previous operating margin included all lease expense as an operating expense and now a significant portion will likely be attributable to finance costs – which is generally not included in operating margin – operating margin for IFRS companies will generally be higher than for the same companies in prior periods and compared to US GAAP where most leases will be operating leases.

Gross profit represents revenue less cost of goods sold. It, and gross profit margin, will only be affected by the leasing standard to the extent that elements of the lease costs (operating or finance) are included in cost of goods sold. As gross profit generally won't include the finance cost – in a manner similar to operating margin – it too is likely to be higher for IFRS companies relative to prior periods and US GAAP companies.

A review of the Tesco example at **Appendix D**, illustrates the decrease in cost of goods sold and the increase in gross profit and operating margin from the reflection of the lease interest expense as a finance cost under IFRS 16.

Because most companies will not be restating their 2018 and 2017 results, investors must be cognizant of the impact the leasing standard has on the comparability of profitability measures and profitability ratios between periods and the comparability between companies following US GAAP (most likely to be operating leases) and IFRS (finance leases). US GAAP companies will appear more comparable to prior periods than will IFRS companies; the latter will now have all leases classified as finance leases (i.e., in the early years where interest expense will be higher) whereas they were classified as operating leases in prior years.

Although the higher total expense for finance leases may reverse over time (See **Figure 2B)**, particularly in a going concern that is continually adding new leases liabilities, there will be higher profitability metrics for gross profit and operating margin and lower profitability measures in pretax and net profit margins. These are important differences that investors will want to account for when comparing IFRS companies after transition to prior periods and when comparing IFRS and US GAAP companies.

We discuss the impact of the leasing standard on non-GAAP profitability measures in **Section V**.

Earnings per Share

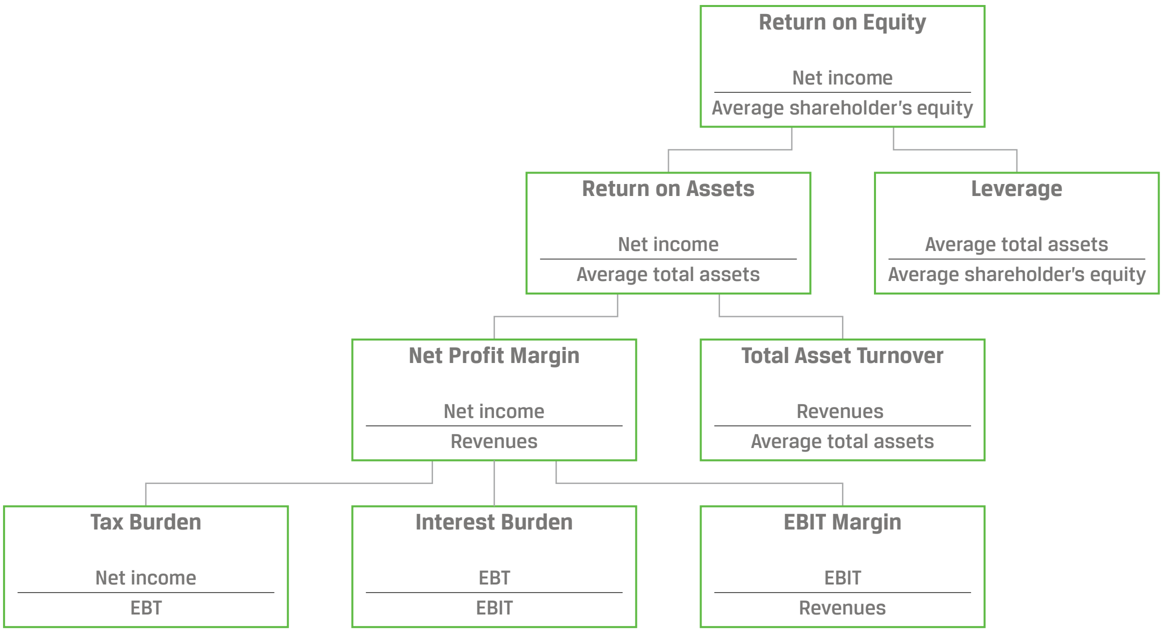
Although there is no change in the number of shares (e.g., denominator), there will likely be a reduction in the numerator and a lower earnings per share (EPS) for those with finance leases (e.g., IFRS companies.) EPS will appear lower than in the prior periods and as compared to US GAAP companies with operating leases.

Return on Equity

One of the most important ratios for investors is return on equity (ROE). **Figure 3** decomposes the DuPont ROE formula and **Table 10** illustrates the impact of the leasing standard on the ratios comprising the DuPont Formula. For US GAAP companies with simple operating leases that have no impact on equity at transition, ROE may not change, but elements of the equation (e.g., return on assets, leverage) will change. Though equity at inception of the new standard for IFRS companies with finance leases may not change, the decrease in profitability measures that include net income will reduce ROE and other elements of the DuPont formula.

Despite no difference in the underlying economics or cash between operating leases and finance leases, the different accounting classification could make the components of the return on equity look quite different for US GAAP and IFRS companies. Further, ROE

FIGURE 3. DUPONT (ROE) FORMULA



for IFRS companies will look different as compared to prior periods, given that those companies are moving from operating leases to finance leases.

Investors should also be mindful that most companies are likely to utilize a transition approach that does not require restating their prior year financials. Average balances such as average shareholder equity and average total assets may have prior year balances (though opening equity will be adjusted) that do not give effect to the new standard and distort the ratios.

We consider the impact of the new leasing standard on the elements of the DuPont formula.

- **Return on Assets (ROA)**: At inception, the impact of the new leasing standard on total assets will be similar for companies with operating and finance leases. However, ratios such as ROA that include average total assets may need to be adjusted to obtain a more comparable opening balance for companies not restating their prior period results. If not, the ratio may be distorted. In the case of ROA, the lack of restatement of the prior periods artificially reduces the denominator and increases the return on assets in prior periods.

  For finance leases or IFRS companies, despite a similar initial impact of the leasing standard on total assets (i.e., the denominator of ROA), net income will likely be lower upon adoption of the leasing standard as outlined in the discussion of profitability measures. Accordingly, the return on assets will likely be lower for finance leases (i.e., IFRS) than for operating leases (i.e., US GAAP).

  Over time, investors should remember that average total assets will be lower for companies with finance leases as compared to those with operating leases due to the faster amortization of the right-of-use asset. As such, the denominator in the ROA equation will be generally be lower, increasing the ratio. The degree to which net income is proportionally lower than the lower average total assets will determine the comparability of the ROA under a finance lease versus an operating lease over time.

- **Leverage**: See the discussion under leverage ratios above.

- **Net Profit Margin**: See the discussion under profitability ratios above.

- **Total Asset Turnover**: Asset turnover will decline—likely substantially—as revenues (i.e., the numerator) remain unchanged and average total assets (i.e., the denominator) rise substantially. The same caution applies to the determination of average total assets

TABLE 10. DUPONT (ROE) FORMULAS

DUPONT (ROE) FORMULAS			
DESCRIPTION	RATIO	OPERATING LEASE	FINANCE LEASE
Return on Equity	Net Income / Average Shareholders' Equity	– / – = –	↓ / – = ↓
Return on Assets	Net Income / Average Total Assets	– / ↑ = ↓	↓ / ↑↑ = ↓
Leverage	Average Total Assets / Average Shareholders' Equity	↑ / – = ↑	↑ / – = ↑
Net Profit Margin	Net Income / Revenue	– / – = –	↓ / – = ↓
Total Asset Turnover	Revenues / Average Total Assets	– / ↑ = ↓	– / ↑ = ↓
Tax Burden	Net Income / EBT	– / – = –	↓ / ↓ = –
Interest Burden	EBT / EBIT	– / – = –	↓ / ↑↑ = ↓
EBIT Margin	EBIT / Revenues	– / – = –	↑ / – = ↑

↑ (Increase), ↓ (Decrease), – (No Change), ↑↑ (Greater Increase) in the first year of adoption, as noted above under ROA, as the prior period may not have been restated.

Over time, average total assets for US GAAP companies (operating leases) will likely be higher than for IFRS companies (finance leases) because of the higher amortization of the ROU asset in a finance lease. As such, the total asset turnover ratio will—all else being equal—be better for IFRS companies (finance leases), as they will have lower assets from the leasing obligations.

- **Tax Burden**: Although EBT (denominator) and net income (numerator) will decrease for companies with finance leases (e.g., all IFRS filers), the tax burden ratio should remain unchanged as there will likely be no impact on the effective tax rate. For US GAAP companies (operating leases) neither the numerator nor the denominator will change, resulting in no change to the ratio.
- **Interest Burden**: **Section V** on non-GAAP measures provides an example of the impact of operating versus financing leases on non-GAAP measures such as EBT, EBIT, EBITDA, and EBITDAR. Overall, EBT and EBIT will be unaffected by operating leases, as there is no additional interest expense associated with operating leases. For finance leases, interest expense will result in an EBIT that is higher than EBT—all other things being equal. As we illustrate in **Section V**, EBIT and EBITDA will be higher for finance lease companies (IFRS) than for operating lease companies (US GAAP). As such, the interest burden ratio will decline.
- **EBIT Margin**: For operating leases, this ratio will not change, as EBIT is not likely to change and there is no interest expense. For IFRS companies with finance leases, EBIT will be higher because of the add-back of higher interest expense, making the ratio higher for finance leases than for operating leases, despite an overall lower net income.

Cash Flow Ratios

Cash flow ratios include performance and coverage ratios. Each ratio includes cash flow from operations (CFO) as its numerator. CFO is dependent upon its accounting definition under US GAAP or IFRS.

- If a lease is an operating lease (US GAAP), CFO from operations will remain unchanged from prior periods.

- If a lease is a finance lease (US GAAP), CFO will be higher than for an operating lease, as the portion of the lease payment representing a repayment of the lease liability will be reclassified to a financing cash outflow rather than an operating cash outflow. For the same reason, financing cash outflows will be higher under a finance lease than an operating lease. This will be true for IFRS as well.

- IFRS, however, gets tricky as it allows the interest portion of the finance lease to be classified as either an operating cash outflow (e.g., the same as US GAAP), a finance cash outflow (thereby further increasing finance cash outflows and operating cash inflows), or an investing cash flow (thereby increasing investing cash outflows and increasing operating cash inflows). Investors need to understand the classification of interest expense on the statement of cash flows under IFRS when making comparison with other IFRS companies and US GAAP companies.

Performance Ratios

In the aforementioned ratio discussions and in **Appendix B,** we describe the impact of the leasing standard on the denominators of each of the performance ratios. **Table 11** provides the impact on performance ratios.

- **Cash Flow to Revenue**: As revenue will not change, the impact to CFO will drive the impact to the ratio. Under an operating lease (US GAAP), the ratio will remain unchanged as CFO does not change.

  For a finance lease (US GAAP or IFRS), CFO and the ratio will rise because the portion of the lease payment will be reclassified to financing cash outflows and increase operating cash inflows. Should a company reclassify the interest expense under IFRS to investing or financing outflows, CFO will rise further.

- **Cash Return on Assets**: Under an operating lease (US GAAP), cash return on assets will decrease as CFO will not change and average total assets will rise significantly. For a finance lease under US GAAP or IFRS, CFO will rise as described in the preceding section, but average total assets will rise more significantly, resulting in a decrease in cash return on assets. Average total assets will differ over time between an operating lease (lower) and finance lease (higher), as **Section IV** illustrates. This will impact comparisons over time.

- **Cash Return on Equity**: As CFO and equity will not change significantly at inception for an operating lease, this ratio is not likely to change from prior periods under

TABLE 11. PERFORMANCE RATIOS

PERFORMANCE RATIOS			
DESCRIPTION	**RATIO**	**OPERATING LEASE**	**FINANCE LEASE**
Cash Flow to Revenue	CFO / Revenue	– / – = –	↑ / – = ↑
Cash Return on Assets	CFO / Average Total Assets	– / ↑ = ↓	↑ / ↑↑ = ↓
Cash Return on Equity	CFO / Average Shareholders' Equity	– / – = –	↑ / – = ↑
Cash to Income	CFO / Operating Income	– / – = –	↑↑ / ↑ = ↑
Cash Flow Per Share	CFO-Preferred Dividends / Number of Shares Outstanding	– / – = –	↑ / – = ↑

↑ (Increase), ↓ (Decrease), – (No Change), ↑↑ (Greater Increase)

an operating lease. Although equity will also not change significantly at inception for a finance lease, CFO will be higher, increasing this ratio. Over time, average shareholder's equity will differ between operating leases (higher) and finance leases (lower). Investors need to be careful in making comparisons between US GAAP (operating leases) and IFRS (finance leases) companies.

- **Cash to Income**: As CFO and operating income will not change for US GAAP (operating leases), the cash-to-income ratio will not change. For finance leases (IFRS or US GAAP), CFO will rise due to the reflection of lease principal payments in finance cash outflows and operating income will rise by the amount of the interest expense reclassed to finance cost. Given CFO will likely rise by more than operating income given principal payments should be higher than interest expense on leases, the overall ratio should rise for finance leases.

- **Cash Flow per Share**: As CFO, preferred dividends, and number of shares outstanding are unaffected by adoption of the leasing standard for US GAAP (operating leases), cash flow per share will not change. For finance leases (IFRS or US GAAP), CFO will rise, while the other ratio elements will remain unchanged, so cash flow per share will rise.

Coverage Ratios

An analysis of the impact on coverage ratios gets a bit complicated (**Table 12**). As with performance ratios, each coverage ratio will be affected by the resulting change in CFO based upon the lease's accounting classification, although analysis for some of the ratios is a bit more difficult than for others.

TABLE 12. COVERAGE RATIOS

COVERAGE RATIOS					
DESCRIPTION	**RATIO**	**OPERATING LEASE**		**FINANCE LEASE**	
Debt Coverage	CFO	–	= ↓	↑	= ↓
	Total Debt	↑		↑↑	
Interest Coverage	CFO + Interest Paid + Taxes Paid	–	= –	↑↑	= ↑
	Interest Paid	–		↑	
Reinvestment	CFO	–	= –	↑	= ↑
	Cash Paid for Long-Term Assets	–		–	
Debt Payment	CFO	–	= –	↑	= ↑
	Dividends Paid	–		–	
Interest and Financing	CFO	–	= –	↑	= ↓
	Cash Flows for Investing and Financing Activities	–		↑↑	

↑ (Increase), ↓ (Decrease), – (No Change) ↑↑ (Greater Increase)

- **Debt Coverage**: CFO will remain unchanged for an operating lease (US GAAP), but rise for a finance lease (IFRS). Total debt should be identical for an operating lease and a finance lease at inception and over the term of the lease. As such, the debt coverage ratio will decline but be better for companies with finance leases (IFRS) as compared to those with operating leases (US GAAP).

- **Interest Coverage**: This ratio will be unaffected for operating leases (US GAAP), as none of the elements of the equation change for an operating lease. For finance leases (IFRS), CFO will rise as will interest paid. Taxes paid will remain unchanged. Thus, this ratio will be higher for a finance lease (IFRS) as compared to an operating lease (US GAAP).

- **Reinvestment**: For the reinvestment ratio, the denominator is cash paid for long-term assets. The right-of-use asset is a long-term asset, but it is created by the recognition of the lease liability—both represent non-cash transactions at inception. The ratio will not be impacted for operating leases (US GAAP), as both the denominator and numerator (CFO) will remain unchanged. For finance leases (IFRS), the increase in CFO will increase the ratio.

- **Debt Payment**: Dividends paid will not change for either an operating lease or a finance lease. CFO will remain unchanged for an operating lease (US GAAP), and as a result, the debt payment ratio will remain unchanged. For a finance lease, CFO will rise, resulting in a higher ratio for a finance lease (IFRS) as compared to an operating lease (US GAAP).

- **Interest and Financing**: Cash outflows for investing and financing activities as well as CFO will be unchanged for operating leases (US GAAP); thus, this ratio will remain unchanged. For a finance lease under US GAAP, financing cash outflows will rise (investing cash flows will not change) by more than CFO will rise, as the repayment of principal should generally be larger than the related interest expense. Thus, the interest and financing ratio will be lower than for an operating lease. The impact for a finance lease under IFRS will be different if the interest expense is classified as an investing or a financing cash flow, as CFO will rise further but the denominator will also rise. The relative relationship between the two will determine the magnitude of the change in the interest and financing ratio.

VIII. What Disclosures Should Investors Expect to Help Explain the New Lease Accounting?

Lease Disclosures Remain Very Important

Until 2019, lease disclosures were the primary source of information from which investors made estimates of lease obligations. The recognition of lease obligations within the financial statements does not reduce the importance of lease disclosures. Rather, the recognition of lease obligations in the financial statements makes them equally, if not more, important, as the obligations are now within the basic financial statements.

In the preceding sections, we emphasize the financial statement (balance sheet, income statement, and statement of cash flow) impacts and ratio effects of the amounts recognized both initially and over time. We also highlight the analytical challenges for investors emanating from the difference in US GAAP (operating and finance) and IFRS (finance) lease classification. The footnote disclosures are an important supplement to these recognition effects. They will facilitate an understanding of the measurement of lease obligations and right-of-use assets at inception and over time. The level of disaggregation and the quality of the qualitative disclosures will determine the usefulness of the disclosures to investors. As we describe in **Section II**, investors should review the transition disclosures (**Appendix A**) as of 1 January 2019, but they may also need elements of the annual disclosures (**Appendix C**) to gain a complete understand of the leasing arrangements and the liabilities measurements.

Appendix C provides a side-by-side comparison, and analysis, of the IFRS and US GAAP lessee disclosure requirements under IFRS 16 and ASU 2016-02/ASC Topic 842. Although there are differences in the disclosures because US GAAP has operating and finance leases, there are also important differences that will impact the usefulness of the disclosures to investors.

Adjustments to Lease Liabilities Still Necessary

CFA Institute has supported the recognition of lease obligations on the balance sheet since the 1970s. However, we were not supportive of the measurement method for the lease obligations in the final US GAAP and IFRS standards because the measurement of lease obligations in these new standards does not give consideration to the impact of current market conditions (i.e., current market rents and current discount rates) on such obligations beyond the inception of the lease. Investors attempting to understand the current value of the lease obligations will still need to adjust the financial statements for measurement differences between the financial statement measurement of the lease liability and the fair value of the obligations over time, as the value of the leases will fluctuate based upon changes in lease cash flows and discount rates.

Disclosures of Particular Interest to Investors

Because leasing obligations are now reflected on the balance sheet and are at values not reflective of current market conditions, certain disclosures are of particular importance to investors.

Maturity Analysis, Weighted Average Remaining Lease Term, and Weighted Average Discount Rate

The "set it and forget it" element of the IFRS and US GAAP measurement is one that value investors will likely want to adjust over time. Disclosures that provide insight into the lease cash flows, lease term, and discount rates used in the determination of the lease liability are particularly important, as they will enable investors to adjust historical measurements to current conditions more accurately.

Further, the transition method that is mostly likely to be used by companies under both IFRS (modified retrospective approach) and US GAAP (additional transition approach) is such that the "set it and forget it" assumptions (most importantly, the discount rate) will represent interest rates at 1 January 2019 rather than a true weighted average. This may distort the level of interest expense over time and should be an analytical consideration for investors.

Although both IFRS and US GAAP require a maturity analysis disclosure, the guidance regarding the nature of this disclosure is more prescriptive for US GAAP, which requires that the maturity analysis provide an explanation regarding how it reconciles to the lease liability. Unfortunately, IFRS does not require a maturity analysis disclosure in the same way as US GAAP. Further, unlike US GAAP, IFRS does not require disclosure of the weighted average remaining lease term and weighted average discount rate used in the determination of the lease liability. Thus, the usefulness of the disclosure for IFRS will be much more limited than for US GAAP. Investors in IFRS companies with significant exposure to lease obligations/liabilities will want to discuss with management the lease term and discount rates. That will aid investors in making adjustments to IFRS companies similar to those they make for US GAAP companies. The side-by-side comparison in **Appendix C** highlights the differences in the maturity analysis disclosure.

Lease Features

As noted in **Appendix C**, US GAAP appears to have slightly more detailed requirements on the qualitative description of leases, the assumptions and judgements in determining leases, and the nature of executory contracts. IFRS, on the other hand, requires qualitative and quantitative disclosures regarding the future cash outflows to which the lessee is potentially exposed that are not reflected in the measurement of lease liabilities related to key attributes of leases, including variable lease payments, extension and termination options, residual value guarantees, and executory contracts. Accordingly, the IFRS disclosures will likely be more helpful to investors in estimating the committed future cash flows that have not been included in the measurement of the lease liability. Investors in US GAAP companies will want to recognize that such cash outflows will exist, but they will not be disclosed for investor analysis; they may want to discuss this issue with management if the company has significant leasing arrangements.

Cash Paid vs. Total Cash Outflows

Because the difference in lease classification between US GAAP and IFRS will distort the comparability of cash flow from operations and non-GAAP measures, and because both the operating and finance lease costs do not reflect actual cash outflows, the IFRS and US GAAP disclosures regarding actual cash should be considered by investors when they perform their valuations. **Appendix C** emphasizes that US GAAP requires disclosure of all cash flows included in the measurement of lease liabilities, while IFRS requires disclosure of total lease cash flows. As such, the IFRS disclosure will be more complete, as it will include cash flows related to low-value leases, short-term leases, and variable lease payments, even though they are not included in the measurement of lease liabilities.

Short-Term Lease Cost and Commitments

Both IFRS and US GAAP require disclosure of short-term lease costs – those not included in the liability measurement. They both also require, albeit with slightly different language, disclosure regarding whether their current short-term lease expense is reflective of their upcoming short-term lease commitments. This is a disclosure investors should take note of, as it could signal the degree to which the company is altering its leasing relationships (i.e., entering into short-term leases) to manage its balance sheet leverage.

Summary

The recognition of lease liabilities and right-of-use assets in the financial statements does not reduce the importance of the lease disclosures to investors; rather, it makes disclosures even more important. Investors need to understand the nature of the underlying lease arrangements, and how management's assumptions and judgements were incorporated—or not incorporated—into the lease liability measurement and the resulting right-of-use asset. Investors need to understand, for example, how lease liabilities may be impacted by variable lease payments, or how they will not fluctuate to reflect current economic conditions because of the impact of frozen assumptions. Investors also need to focus on the disclosures regarding actual cash flows and evaluate from those disclosures any meaningful alterations over time to leasing arrangements that will impact leasing leverage. Understanding the nature of the leasing arrangements, along with their cash flows and measurement, is essential to investors completing their analysis of the valuation of a business.

IX. Where Will Investors See the Greatest Impact of the Change?

Industries Bearing the Greatest Impact

Any significant change in financial reporting raises concerns for investors of all stripes, and the leasing change is no exception. ***The balance sheet impact of lessee recognition of lease-related assets and liabilities may be traumatic for some firms, and it may be a trifle for others.*** Regardless of the size of the impact, fixed income and equity investors alike will be concerned with the market reaction to the new information about indebtedness. Markets may have adjusted the securities prices of companies with operating lease burdens based on cash flow ratios and interest coverage, but they have not been consistently able to compare balance sheet ratios of indebtedness. Because of that inconsistent information, security prices may not effectively impound all the valuation impressions of all market participants.

Ratings agencies and fixed-income investors have long adjusted leverage ratios to incorporate the hidden leverage of operating leases. Those adjustments may be based on heuristics, like multiples applied to current-year rent expense to obtain single-point estimates of asset values and liabilities associated with operating leases. They might be more sophisticated—perhaps estimates of a present value amount concocted from the lease payment schedule contained in the footnotes. Although the theory of using a present value is sound, doing so can be an exercise in artificial precision: the footnoted payment schedule does not provide information other than a single amount for all years past five years, so breaking it down properly is a mere guess. The proper discount is also a mere guess.

Whatever method market participants choose to use to estimate leverage stemming from operating leases, it is more important that they are *directionally* correct in assessing the hidden leverage than it is that they are *precisely* correct in determining an amount. At minimum, the new standard provides a consistent methodology for all reporting companies to employ. ***While waiting to see the results of the consistent methodology, investors should try to understand which companies may be most likely to see a significant impact from the new accounting.*** The footnote-disclosed current operating lease expense provides a handle for investors to fabricate an estimate of the potential asset and lease liability; simple application of a multiple to that amount provides a "directionally" correct estimate that will at least provide evidence of which companies may see more of an effect than others. For investors trying to see where companies are most likely to see an effect from the new standard, it is more important to know the amount of operating lease expense than to determine a magic multiple that will yield the exact amount to be recorded.

For the 467 non-real estate firms in the S&P 500, a simple multiplier of six was applied to their 2017 rent expense to make a loose—but consistent—estimate of the incremental right-of-use assets and incremental debt that would be placed on their balance sheets at the end of 2017, as if ASU 2016-02/ASC Topic 842 was in effect at that time. For 68 firms (14.5% of the total examined), the financial leverage ratio (total assets divided by common equity) increased by more than 10% after giving effect to the estimated asset/liability amount (**Table 13**).

Retailers

Notice the 33 firms in the table with industries shaded red. Whether they sell jewelry, meals, computers, automotive goods, or general merchandise, their commonality is that they are all retailers. Retailers do not profit by owning real estate and maintaining it—they make money by selling merchandise from inside of real property. By leasing office space, they can enter and withdraw from markets quickly and put their people resources where they can earn the highest return on capital. Compared to owning real estate, operating leases allow them to be nimble. Few, if any, retailers sell through discrete single-store channels—they usually operate in malls or strip shopping centers and would likely not be able to buy discrete locations themselves (an activity that is the domain of real estate firms). At 7% of all firms in the sample, the retailing industry is the industry that will see the most impact, partly because they use operating lease accounting frequently and partly because there are so many of them. The New York Stock Exchange alone has well over 100 retailers, with even more listed with NASDAQ. Because of the plethora of retailers and the significant effects the new standard may have on them, the new lease accounting might be perceived as only affecting retailers. That would be incorrect.

Transportation Businesses

Notice the eight firms in the table with industries shaded blue. Whether they transport freight or people, they are all in the air transportation business, leasing airplanes on operating leases. Like the retailers, they cannot generate a return for their creditors and shareholders without such assets. Under historic operating lease accounting, the assets never appeared on the balance sheet, thus overstating any calculation of return on assets.

TABLE 13. IMPACT OF LEASE STANDARD CHANGE: PRO FORMA ASSETS AND LIABILITIES RECOGNIZED—GREATEST CHANGE

($ IN MILLIONS)	SECTOR	INDUSTRY	TOTAL ASSETS	COMMON EQUITY	ESTIMATED ROU ASSET & LIABILITY	% INCREASE IN TOTAL ASSETS	STATED FINANCIAL LEVERAGE	REVISED FINANCIAL LEVERAGE	CHANGE IN FINANCIAL LEVERAGE	% CHANGE FINANCIAL LEVERAGE
Foot Locker	Consumer Discret.	Apparel Retail	$3,961.0	$2,519.0	$4,410.0	111.3%	1.57	3.32	***1.75***	***111.3%***
Gap	Consumer Discret.	Apparel Retail	7,989.0	3,144.0	7,800.0	97.6%	2.54	5.02	***2.48***	***97.6%***
Michael Kors Holdings	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	2,409.6	1,592.6	1,995.0	82.8%	1.51	2.77	***1.25***	***82.8%***
Chipotle Mexican Grill	Consumer Discret.	Restaurants	2,045.7	1,364.4	1,672.9	81.8%	1.50	2.73	***1.23***	***81.8%***
TJX Companies	Consumer Discret.	Apparel Retail	14,058.0	5,148.3	9,548.4	67.9%	2.73	4.59	***1.85***	***67.9%***
Tractor Supply Co	Consumer Discret.	Specialty Stores	2,868.8	1,418.7	1,917.0	66.8%	2.02	3.37	***1.35***	***66.8%***
Ross Stores	Consumer Discret.	Apparel Retail	5,722.1	3,049.3	3,194.4	55.8%	1.88	2.92	***1.05***	***55.8%***
Starbucks	Consumer Discret.	Restaurants	14,365.6	5,457.0	7,975.2	55.5%	2.63	4.09	***1.46***	***55.5%***
Dollar General	Consumer Discret.	General Merchandise Stores	12,516.9	6,125.8	6,489.1	51.8%	2.04	3.10	***1.06***	***51.8%***
Ulta Beauty	Consumer Discret.	Specialty Stores	2,908.7	1,774.2	1,449.4	49.8%	1.64	2.46	***0.82***	***49.8%***
Dollar Tree	Consumer Discret.	General Merchandise Stores	16,332.8	7,182.3	8,061.0	49.4%	2.27	3.40	***1.12***	***49.4%***
Ralph Lauren	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	5,652.0	3,299.6	2,763.0	48.9%	1.71	2.55	***0.84***	***48.9%***
Tapestry	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	5,831.6	3,001.9	2,547.0	43.7%	1.94	2.79	***0.85***	***43.7%***
Advance Auto Parts	Consumer Discret.	Automotive Retail	8,482.3	3,415.2	3,200.9	37.7%	2.48	3.42	***0.94***	***37.7%***
Darden Restaurants	Consumer Discret.	Restaurants	5,292.3	2,101.7	1,992.0	37.6%	2.52	3.47	***0.95***	***37.6%***
FedEx	Industrials	Air Freight & Logistics	48,552.0	16,073.0	17,952.0	37.0%	3.02	4.14	***1.12***	***37.0%***

(Continued)

TABLE 13. IMPACT OF LEASE STANDARD CHANGE: PRO FORMA ASSETS AND LIABILITIES RECOGNIZED—GREATEST CHANGE (Continued)

($ IN MILLIONS)	SECTOR	INDUSTRY	TOTAL ASSETS	COMMON EQUITY	ESTIMATED ROU ASSET & LIABILITY	% INCREASE IN TOTAL ASSETS	STATED FINANCIAL LEVERAGE	REVISED FINANCIAL LEVERAGE	CHANGE IN FINANCIAL LEVERAGE	% CHANGE FINANCIAL LEVERAGE
Best Buy Co	Consumer Discret.	Computer & Electronics Retail	13,049.0	3,612.0	4,692.0	36.0%	3.61	4.91	*1.30*	*36.0%*
American Airlines Group	Industrials	Airlines	51,396.0	3,926.0	16,800.0	32.7%	13.09	17.37	*4.28*	*32.7%*
Fastenal	Industrials	Building Products	2,910.5	2,096.9	931.8	32.0%	1.39	1.83	*0.44*	*32.0%*
PVH	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	11,885.7	5,536.4	3,729.0	31.4%	2.15	2.82	*0.67*	*31.4%*
Alaska Air Group	Industrials	Airlines	10,740.0	3,721.0	3,312.0	30.8%	2.89	3.78	*0.89*	*30.8%*
Tiffany & Co	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	5,468.1	3,248.2	1,628.4	29.8%	1.68	2.18	*0.50*	*29.8%*
Walgreens Boots Alliance	Consumer Staples	Drug Retail	66,009.0	28,274.0	19,578.0	29.7%	2.33	3.03	*0.69*	*29.7%*
Half Robert Int'l	Industrials	HR & Employment Services	1,867.5	1,105.3	525.0	28.1%	1.69	2.16	*0.47*	*28.1%*
United Continental	Industrials	Airlines	42,326.0	8,806.0	11,526.0	27.2%	4.81	6.12	*1.31*	*27.2%*
Quanta Services	Industrials	Construction & Engineering	6,480.2	3,795.6	1,657.2	25.6%	1.71	2.14	*0.44*	*25.6%*
Estee Lauder Companies	Consumer Staples	Personal Products	11,568.0	4,384.0	2,742.0	23.7%	2.64	3.26	*0.63*	*23.7%*
O Reilly Automotive	Consumer Discret.	Specialty Stores	7,571.9	653.0	1,791.7	23.7%	11.59	14.34	*2.74*	*23.7%*
V F Corp	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	9,958.5	3,719.9	2,277.8	22.9%	2.68	3.29	*0.61*	*22.9%*
Southwest Airlines Co	Industrials	Airlines	25,110.0	10,430.0	5,634.0	22.4%	2.41	2.95	*0.54*	*22.4%*
Under Armour	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	4,006.4	2,018.6	847.2	21.1%	1.98	2.40	*0.42*	*21.1%*

TABLE 13. IMPACT OF LEASE STANDARD CHANGE: PRO FORMA ASSETS AND LIABILITIES RECOGNIZED—GREATEST CHANGE (Continued)

($ IN MILLIONS)	SECTOR	INDUSTRY	TOTAL ASSETS	COMMON EQUITY	ESTIMATED ROU ASSET & LIABILITY	% INCREASE IN TOTAL ASSETS	STATED FINANCIAL LEVERAGE	REVISED FINANCIAL LEVERAGE	CHANGE IN FINANCIAL LEVERAGE	% CHANGE FINANCIAL LEVERAGE
Nike	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	23,259.0	12,407.0	4,386.0	18.9%	1.87	2.23	*0.35*	*18.9%*
Nordstrom	Consumer Discret.	Department Stores	8,115.0	977.0	1,500.0	18.5%	8.31	9.84	*1.54*	*18.5%*
Interpublic Group Of Cos.	Consumer Discret.	Advertising	12,695.2	2,235.8	2,198.4	17.3%	5.68	6.66	*0.98*	*17.3%*
DaVita	Health Care	Health Care Facilities	18,948.2	4,886.1	3,184.5	16.8%	3.88	4.53	*0.65*	*16.8%*
Accenture plc	Information Tech	IT Consulting & Other Services	22,689.9	9,710.2	3,702.1	16.3%	2.34	2.72	*0.38*	*16.3%*
Hanesbrands	Consumer Discret.	Apparel, Accessors. & Luxury Gds.	6,894.8	686.2	1,107.6	16.1%	10.05	11.66	*1.61*	*16.1%*
Stericycle	Industrials	Environmental & Facilities Svcs.	6,988.3	2,908.6	1,117.2	16.0%	2.40	2.79	*0.38*	*16.0%*
LKQ Corp	Consumer Discret.	Distributors	9,366.9	4,198.2	1,482.0	15.8%	2.23	2.58	*0.35*	*15.8%*
CVS Health Corp	Consumer Staples	Drug Retail	95,131.0	37,695.0	14,760.0	15.5%	2.52	2.92	*0.39*	*15.5%*
Genuine Parts	Consumer Discret.	Specialty Stores	12,412.4	3,464.2	1,836.0	14.8%	3.58	4.11	*0.53*	*14.8%*
Kroger	Consumer Staples	Food Retail	37,197.0	6,905.0	5,466.0	14.7%	5.39	6.18	*0.79*	*14.7%*
Delta Air Lines	Industrials	Airlines	53,292.0	13,910.0	7,800.0	14.6%	3.83	4.39	*0.56*	*14.6%*
Home Depot	Consumer Discret.	Home Improvement Retail	44,529.0	1,454.0	6,318.0	14.2%	30.63	34.97	*4.35*	*14.2%*
Sherwin Williams	Materials	Specialty Chemicals	19,958.4	3,692.2	2,787.7	14.0%	5.41	6.16	*0.76*	*14.0%*
Halliburton	Energy	Oil & Gas Equipment & Services	25,085.0	8,349.0	3,444.0	13.7%	3.00	3.42	*0.41*	*13.7%*
Expeditors Int'l	Industrials	Air Freight & Logistics	3,117.0	1,994.4	413.5	13.3%	1.56	1.77	*0.21*	*13.3%*
Mattel	Consumer Discret.	Leisure Products	6,238.5	1,257.5	824.4	13.2%	4.96	5.62	*0.66*	*13.2%*
Kohl's	Consumer Discret.	General Merchandise Stores	13,340.0	5,426.0	1,758.0	13.2%	2.46	2.78	*0.32*	*13.2%*
Andeavor	Energy	Oil & Gas Refining & Marketing	28,573.0	13,415.0	3,678.0	12.9%	2.13	2.40	*0.27*	*12.9%*
Total System Services	Information Tech	Internet Software & Services	6,331.7	2,241.0	804.0	12.7%	2.83	3.18	*0.36*	*12.7%*
Quest Diagnostics	Health Care	Health Care Services	10,503.0	4,955.0	1,314.0	12.5%	2.12	2.38	*0.27*	*12.5%*

(Continued)

TABLE 13. IMPACT OF LEASE STANDARD CHANGE: PRO FORMA ASSETS AND LIABILITIES RECOGNIZED—GREATEST CHANGE (Continued)

($ IN MILLIONS)	SECTOR	INDUSTRY	TOTAL ASSETS	COMMON EQUITY	ESTIMATED ROU ASSET & LIABILITY	% INCREASE IN TOTAL ASSETS	STATED FINANCIAL LEVERAGE	REVISED FINANCIAL LEVERAGE	CHANGE IN FINANCIAL LEVERAGE	% CHANGE FINANCIAL LEVERAGE
Hilton Worldwide Holdings	Consumer Discret.	Hotels, Resorts & Cruise Lines	14,308.0	2,075.0	1,704.0	11.9%	6.90	7.72	***0.82***	***11.9%***
Jacobs Engineering Group	Industrials	Construction & Engineering	7,380.9	4,487.4	872.1	11.8%	1.64	1.84	***0.19***	***11.8%***
Laboratory Corp.	Health Care	Health Care Services	16,568.0	6,830.0	1,882.8	11.4%	2.43	2.70	***0.28***	***11.4%***
S&P Global	Financials	Financial Exchanges & Data	9,425.0	768.0	1,062.0	11.3%	12.27	13.65	***1.38***	***11.3%***
Kimberly Clark	Consumer Staples	Household Products	15,151.0	882.0	1,686.0	11.1%	17.18	19.09	***1.91***	***11.1%***
Goodyear Tire & Rubber	Consumer Discret.	Tires & Rubber	17,064.0	4,850.0	1,890.0	11.1%	3.52	3.91	***0.39***	***11.1%***
Clorox	Consumer Staples	Household Products	4,573.0	542.0	504.0	11.0%	8.44	9.37	***0.93***	***11.0%***
Lowes Companies	Consumer Discret.	Home Improvement Retail	35,291.0	5,873.0	3,756.0	10.6%	6.01	6.65	***0.64***	***10.6%***
United Parcel Service	Industrials	Air Freight & Logistics	45,403.0	1,030.0	4,824.0	10.6%	44.08	48.76	***4.68***	***10.6%***
PPG Industries	Materials	Specialty Chemicals	16,538.0	5,673.0	1,728.0	10.4%	2.92	3.22	***0.30***	***10.4%***
Cognizant Tech. Solutions	Information Tech	IT Consulting & Other Services	15,221.0	10,669.0	1,590.0	10.4%	1.43	1.58	***0.15***	***10.4%***
Marsh & McLennan Cos.	Financials	Insurance Brokers	20,429.0	7,442.0	2,124.0	10.4%	2.75	3.03	***0.29***	***10.4%***
DXC Technology Co	Information Tech	IT Consulting & Other Services	8,663.0	1,888.0	876.0	10.1%	4.59	5.05	***0.46***	***10.1%***
LyondellBasell	Materials	Specialty Chemicals	26,206.0	8,950.0	2,640.0	10.1%	2.93	3.22	***0.29***	***10.1%***
Macy's	Consumer Discret.	Department Stores	19,381.0	5,661.0	1,950.0	10.1%	3.42	3.77	***0.34***	***10.1%***
Amazon	Consumer Discret.	Internet & Direct Mktg. Retail	131,310.0	27,709.0	13,200.0	10.1%	4.74	5.22	***0.48***	***10.1%***
Colgate Palmolive	Consumer Staples	Household Products	12,676.0	243.0	1,266.0	10.0%	52.16	57.37	***5.21***	***10.0%***

Source of company information (including rent expense, not shown): Calcbench

Clearly, the changes will affect air transportation companies profoundly, although there are not as many of them in the investment universe as there are retailers. The balance sheet "nonexistence" of leased assets has long been known to the investors who follow the air transportation industry. As with retailers, the effect of the new lease accounting on air transportation companies may be widely anticipated by investors.

Firms with Negative Equity

The potential effect could not be evaluated for every company by comparing the before-and-after effects on financial leverage, because 16 companies in the S&P 500 sample showed negative equity. That rendered financial leverage meaningless, along with any other form of debt-to-equity ratio. These 16 firms can be assessed by examining the percentage change in total assets arising from capitalization of an estimated asset amount. The 9 companies showing a change in assets greater than 5% are presented in **Table 14** in descending order of change in total assets.

Notice in **Table 14** that four of the top five firms with the biggest change in total assets arising from potential capitalization of leases are shaded red, signifying that they are retailers. In the top five firms, H&R Block is the only affected company *not* in the retail business. Or is it?

Not Just Retailers: Sleeper Industries Will Show Impacts from the New Standard

Think about H&R Block, a company in the financial sector and more narrowly, in the consumer finance business. Its assets might increase by more than 52% once it adopts the US GAAP leasing standard, and that increase will have nothing to do with financial instruments. H&R Block employees meet with customers in 10,000 US storefronts, many in strip malls. Those storefronts—currently unrecognized assets—are mere containers for the H&R Block employees providing the services that will generate a return for H&R Block's investors. Although it might not be considered a classic retailer, H&R Block has the same "storefront exposure" to ASU 2016-02/Topic 842 as any retailer.

Now consider some of the other firms in **Table 13**.

- Ostensibly in the materials sector, and more narrowly in the specialty chemicals industry, Sherwin-Williams sells its paints in 4,620 retail stores. Although it makes a physical product, it also sells the product through physical facilities that will show a presence next year.

TABLE 14. IMPACT OF LEASE STANDARD CHANGE: PRO FORMA ASSET AND LIABILITIES RECOGNIZED - BUT NO EQUITY

($ IN MILLIONS)	SECTOR	INDUSTRY	TOTAL ASSETS	COMMON EQUITY	ESTIMATED ROU ASSET & LIABILITY	% INCREASE IN TOTAL ASSETS
L Brands	Consumer Discretionary	Apparel Retail	$8,149.0	($751.0)	$4,806.0	59.0%
H&R Block	Financials	Consumer Finance	2,694.1	(60.9)	1,417.2	52.6%
McDonald's	Consumer Discretionary	Restaurants	33,803.7	(3,268.0)	9,867.0	29.2%
Yum Brands	Consumer Discretionary	Restaurants	5,311.0	(6,334.0)	1,284.0	24.2%
AutoZone	Consumer Discretionary	Specialty Stores	9,259.8	(1,428.4)	1,817.4	19.6%
Autodesk	Information Technology	Application Software	4,113.6	(256.0)	335.4	8.2%
IDEXX Laboratories	Health Care	Health Care Equipment	1,713.4	(53.8)	138.0	8.1%
Motorola Solutions	Information Technology	Communications Equipment	8,208.0	(1,727.0)	564.0	6.9%
Moody's	Financials	Financial Exchanges & Data	8,594.2	(114.9)	582.0	6.8%

Source of company information (including rent expense, not shown): Calcbench

- Robert Half International, a service company, employs people to find employment for other people. The people have to work somewhere, though, which is why the company has more than 700 offices—and a great deal of lease expense that will convert to a right-of-use asset post-ASU 2016-02/ASC Topic 842.
- Interpublic Group of Companies, another service company, might at first glance not appear to be associated with a lot of leased property, but it leases offices near its clients, housing its creative staff so they can make advertising campaigns that will generate returns.

The key to whether US GAAP or IFRS affects a firm is not the firm's industry label—it is the degree to which a firm rents the assets that it uses to generate a return with other assets. An airline's employees schedule and run the airplanes and serve their paying customers. A retailer, whether it sells groceries, apparel, diamonds, or prescriptions, completes transactions inside of a building that it rents so it can facilitate transactions. A specialty chemical maker producing paints sells its product through rented stores in strip malls, just like the dollar-store merchandiser right next door to it. An advertiser puts its creative teams as close to its plum accounts as it can, and because that clientele comes and goes, it wants to rent space instead of owning real estate.

Consider Stress-Testing Portfolios for Lease Exposure

The sweep of the new US GAAP and IFRS requirements may be greater than market participants might think. Do not get comfortable with industry labels and linked effects. Instead, think about lease exposures.

Little work is needed to multiply the most recent year's rent expense by a fixed multiplier to estimate a potential asset and liability and calculate a change in financial leverage or total assets based on the potential amount. Doing so can tease out of a portfolio the companies that may see the most increased leverage when they adopt the new standard in the first quarter of 2019.

X. How Might Markets React?

Understanding Impact Matters Because Market Reaction is an Unknown

The impact of the new IFRS and US GAAP leasing standards will be greater than market participants might think. The complexities brought about by different IFRS and US GAAP treatments, different transition methods, increased leverage, and the potential that leverage might be higher or lower than previously estimated by investors, are issues that investors will need to digest. The question then becomes, "How might markets react?"

Of course, nobody can tell. Think of the impact first just in terms of what the most likely perception will be: something that affects only—or mostly—retailers. Brick-and-mortar retailers have been downtrodden for years as they face online competition from Amazon, and only recently have some of the players shown that there is resilience left in retailing from physical locations. (Ironically, the new standard will significantly increase Amazon's financial leverage, as shown in the preceding sections.) Does the new leasing standard put retailers, as a group, down because of their increased leverage? Will companies try soothing investors by making pro forma balance sheet presentations that neutralize the new standard's effects? Will investors see more non-GAAP measures seeking to neutralize the impact of the standard? Will investors accept such actions? Alternatively, do market participants have faith that firms were able to sustain profits and service their lease debt *before* the debt became visible? In effect, will investors brush off the new debt shown by the standard?

The result might be more of the latter, especially if investors understand that cash is not changing. Investors have long been aware of the hidden leverage in retailers, and have had since at least 1996 to get used to the idea that it might eventually become visible. Some retailers might see their securities prices shocked more than others, simply because they may show more of an effect than was ever expected; others might show less of an effect than expected. The devil is in the details, and if the details are not well-disclosed leading up to the implementation, shocks might be the norm when the standard is implemented as some companies may have very significant ratio changes. It is critical that firms make these disclosures well, and if they are not doing so, it is even more critical that investors consistently petition firms to make these disclosures.

Appendix A

Transition Disclosures

The transition methods each have different disclosure requirements,[12] as we outline in **Table A** and describe in **Section II**.

TABLE A: TRANSITION METHODS AND DISCLOSURES

US GAAP	IFRS
1. **Transition Method Elected**: Disclose the transition method elected by the entity.	1. **Transition Method Elected**: Disclose the transition method elected by the entity.
2. **Disclosures Required Based Upon Method Elected** a. **Modified Retrospective**: Adjust comparative periods and disclose transitional impact. b. **Additional Transition Method**: Comparative periods are not restated and cumulative transitional effect is adjusted in opening equity balance. Under this approach, the entity will comply with disclosure requirements of the previous lease standard for comparative periods.	2. **Disclosures Required Based Upon Method Elected** a. **Full Retrospective**: Adjust comparative periods. b. **Modified Retrospective**: Don't adjust comparative periods. The lessee shall: i. Disclose the weighted average lessee's incremental borrowing rate applied to lease liabilities recognized in the statement of financial position at the date of initial application. ii. Include an explanation of any difference between: 1. Operating lease commitments reported immediately preceding the date of initial application, discounted using the incremental borrowing rate at the date of initial application; and 2. Lease liabilities recognized in the statement of financial position at the date of initial application.

(Continued)

[12] See IFRS 16, Paragraphs C-12 to C-13 and ASC Topic 842, Paragraphs 842-10-65-1.

TABLE A. TRANSITION METHODS AND DISCLOSURES (Continued)

US GAAP	IFRS
3. **Disclosure of Practical Expedients**: The lessee's application of any practical expedients, such as those that follow, should be disclosed: a. **Existence of Leases**: Expedient that allows not assessing whether expired or existing contracts are or have leases; b. **Classification of Leases**: Expedient that allows not reassessing the classification of leases (operating or financing); c. **Short-Term Leases**: Application of the provisions of the short-term lease exclusion; d. **Low-Value Leases**—No similar expedient for US GAAP; e. **Impairment**: A practical expedient for assessing impairment of right-of-use assets—similar to onerous leases; f. **Initial Direct Costs**: Expedient that allows not reassessing initial direct costs for existing leases; g. **Single Discount Rate to Lease Portfolio**: Application of a single discount rate to a portfolio of leases with reasonably similar characteristics; h. **Use of Hindsight**: Use of hindsight in determining the lease term (early termination, extension or buyout option); and in assessing impairment of right-of-use assets; and i. **Land Easements**: Expedient that allows not reassessing whether land easements are leases.	3. **Disclosure of Practical Expedients**: The lessee's application of any practical expedients, such as those that follow, should be disclosed: a. **Existence of Leases**: Expedient that allows not assessing whether expired or existing contracts are or have leases; b. **Classification of Leases**: Reassessment of the classification of the lease depends upon transition method adopted; c. **Short-Term Leases**: Application of the provisions of the short-term lease exclusion; d. **Low-Value Leases**: Application of the provisions of the low-value lease exclusion. e. **Onerous Leases**: Application of an assessment regarding whether leases are onerous immediately before the date of initial application as an alternative to performing an impairment review. If this practical expedient is chosen, then right-of-use asset would be adjusted immediately before the date of initial application; f. **Initial Direct Costs**: Exclusion of initial direct costs from the measurement of the right-of-use asset at the date of initial application; g. **Single Discount Rate to Lease Portfolio**: Application of a single discount rate to a portfolio of leases with reasonably similar characteristics; h. **Use of Hindsight**: Use of hindsight in determining the lease term (early termination or extension option); and i. **Land Easements**: No similar requirement for IFRS.

(Continued)

TABLE A. TRANSITION METHODS AND DISCLOSURES (Continued)

US GAAP	IFRS
4. **Disclosures Related to Changes in Accounting Policies**: The following disclosures are required related to any new accounting standard: a. The nature of and reason for the change in accounting principle. b. The method of applying the change, including all of the following: i. A description of the prior-period information that has been retrospectively adjusted, if any. ii. The effect of the change on income from continuing operations, net income (or other appropriate captions of changes in the applicable net assets or performance indicator), any other affected financial statement line item, and any affected per-share amounts for the current period and any prior periods retrospectively adjusted. Presentation of the effect on financial statement subtotals and totals other than income from continuing operations and net income (or other appropriate captions of changes in the applicable net assets or performance indicator) is not required. iii. The cumulative effect of the change on retained earnings or other components of equity or net assets in the statement of financial position as of the beginning of the earliest period presented. iv. If retrospective application to all prior periods is impracticable, disclosure of the reasons therefore, and a description of the alternative method used to report the change. c. If indirect effects of a change in accounting principle are recognized both of the following shall be disclosed: i. A description of the indirect effects of a change in accounting principle, including the amounts that have been recognized in the current period, and the related per-share amounts, if applicable ii. Unless impracticable, the amount of the total recognized indirect effects of the accounting change and the related per-share amounts, if applicable, that are attributable to each prior period presented. Compliance with this disclosure requirement is practicable unless an entity cannot comply with it after making every reasonable effort to do so.	4. **Disclosures Related to Changes in Accounting Policies**: The following disclosures are required related to any new accounting standard: a. The title of the standard or interpretation causing the change; b. The nature of the change in accounting policy; c. A description of the transitional provisions, including those that might have an effect on future periods; d. For the current period and each prior period presented, to the extent practicable, the amount of the adjustment: i. For each financial statement line item affected, and ii. For basic and diluted earnings per share e. The amount of the adjustment relating to periods before those presented, to the extent practicable; and f. If retrospective application is impracticable, an explanation and description of how the change in accounting policy was applied.

Appendix B

Financial Statement Captions Impacted by Lease Standard

To facilitate the discussion of the ratios in **Section V**, we consider here (**Tables B.1** through **B.4**) the impact of the new leasing standard on the various numerators and denominators comprising the ratio. To simplify the analysis, we have assumed that US GAAP is synonymous with the discussion of operating leases and IFRS is synonymous with the discussion of finance leases—other than when it comes to the impacts on the statement of cash flows.

TABLE B.1. IMPACT ON ASSETS

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
ASSETS			
CASH	No change	No change	None
CURRENT ASSETS	No change. Right-of-use assets are generally not separated between current and long-term portion.	No change. Right-of-use assets are generally not separated between current and long-term portion.	None
MARKETABLE SECURITIES	No change	No change	None
RECEIVABLES	No change	No change	None

(Continued)

TABLE B.1. IMPACT ON ASSETS (Continued)

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
TOTAL ASSETS	**Inception**: Total assets will increase significantly by the creation of the right-of-use asset, which will equal the lease liability at inception and over the term of the lease. **Over Time**: The right-of-use asset will amortize as the difference between the level operating expense and the effective interest accrual on the liability. Effectively, the amortization is a plug of the right-of-use asset to get to level lease expense. **Relationship to Lease Liability**: The right-of-use asset will generally be equal to the lease liability given the offset (to achieve level lease expense) of the accrual of interest on the lease liability using an effective interest method against the right-of-use asset.	**Inception**: Total assets will increase significantly by the creation of the right-of-use asset, which will equal the lease liability at inception but *not* over time. **Over Time**: The right-of-use asset will amortize over time independent of the lease liability, likely amortizing on a straight-line basis. Thus, the right-of-use asset (and total assets) is likely to be lower for companies with finance leases. **Relationship to Lease Liability**: The right-of-use asset will not equal the lease liability over time because of the difference in amortization of the assets and the liability. The right-of-use asset will likely be lower than the lease liability.	**Inception** There will be no difference at inception between the total assets recognized under an operating lease and a finance lease. **Over Time**: The right-of-use asset will decline differently under an operating lease versus a finance lease. Finance lease right-of-use assets will decline more quickly than operating lease right-of-use assets for the reasons noted at left. **Relationship to Lease Liability**: The right-of-use asset will not equal the lease liability for finance leases. The right-of-use asset will equal the lease liability for operating leases.
	Level of Total Assets: Total assets will likely be higher for operating leases (US GAAP) than for finance leases (IFRS), given the higher right-of-use asset for operating leases.		
AVERAGE TOTAL ASSETS	If a company does not restate prior periods, the average total assets in the year of transition will be lower than in future periods, given that the opening total assets included in the average will exclude the increase for the recognition of right-of-use assets. As with total assets, average total assets will likely be higher than those with finance leases.	If a company does not restate prior periods, the average total assets in the year of transition will be lower than in future periods, given that the opening total assets included in the average will exclude the increase for the recognition of right-of-use assets. As with total assets, average total assets will likely be lower than those with operating leases.	Average total assets included in ratios will need to be adjusted for both finance and operating leases if prior periods are not restated, as opening total assets will not reflect the increase in total assets resulting from the recognition of right-of-use assets for the new US GAAP and IFRS leasing standard. Lower average total assets could be artificially low given the method of transition. Average total assets for operating lease companies will likely be higher than for finance lease companies for the reasons noted at left.

TABLE B.2. IMPACT ON LIABILITIES AND EQUITY

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
LIABILITIES AND EQUITY			
CURRENT LIABILITIES AND TOTAL LONG-TERM DEBT	Lease liabilities will need to be separated between current and noncurrent portions, so current liabilities will rise at adoption. As noted under total debt, the operating lease and finance lease liability amounts will be identical at inception and over the lease term.		None
TOTAL DEBT	**Inception and Over Time**: Total debt will increase at adoption of the new leasing standard by the amount of the present value of future leases payments at the discount rate implicit in the lease, or, if not available, at the incremental borrowing rate. The operating lease liability is identical, at inception and over time, to the finance lease liability. **Current vs. Noncurrent**: The lease liability—unlike the right-of-use asset—must be separated between the current and long-term portions. **Relationship to Right-of-Use Asset**: For operating leases, the lease liability will equal the right-of-use asset at inception of the lease and over time. For finance leases, the lease liability will equal the right-of-use asset at inception but over time it will differ from the lease liability. This difference results from the straight-line amortization of the right-of-use asset for finance leases and the netting of the effective interest on the liability against the right-of-use asset for operating lease (i.e. to get straight-line lease expense).		None None As noted above, the right-of-use asset will not equal the lease liability for finance leases. The right-of-use asset will equal the lease liability for operating leases.
TOTAL EQUITY	**Inception**: At inception, total equity will not change much unless unrecognized impairments or practical expedients that impact the recognition of deferred costs and/or deferred rent create an equity impact. **Over Time**: Over time, equity (retained earnings) will be reduced by level operating expense.	**Inception**: At inception, total equity will not change much unless unrecognized impairments or practical expedients that impact the recognition of deferred costs and/or deferred rent create an equity impact. **Over Time**: Over time, equity (retained earnings) will be reduced by interest expense and right-of-use amortization. In the early years of the lease term, these amounts will be higher than the level operating lease expense. This will reverse in the later years of the lease term.	**Inception**: The difference should not be significant. **Over Time**: Equity will likely be lower for finance leases than for operating leases, given the higher interest expense and right-of-use amortization in a finance lease compared to the level lease expense of an operating expense. Ultimately, the amount of expense will be identical; however, equity will be lower in the early years of the lease.

(Continued)

TABLE B.2. IMPACT ON LIABILITIES AND EQUITY (Continued)

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
AVERAGE SHAREHOLDER'S EQUITY	**Inception**: If the impact to equity at transition is nil, the average shareholder's equity will not be distorted in the same manner as average total assets will be distorted by the failure to restate prior periods. **Over Time**: The higher equity balances for operating lease companies, as noted above under total equity, will result in higher average shareholders' equity over time.	**Inception**: If the impact to equity at transition is nil, the average shareholder's equity will not be distorted in the same manner as average total assets will be distorted by the failure to restate prior periods. **Over Time**: The lower equity balances for finance lease companies, as noted above under total equity, will result in lower average shareholders' equity over time.	**Inception**: The difference will not be significant. **Over Time**: The average shareholder's equity will likely be lower for companies with finance leases as compared to those with operating leases. Ultimately, the shareholder's equity impacts will be identical.

TABLE B.3. IMPACT ON INCOME STATEMENT

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
INCOME STATEMENT			
REVENUE OR SALES	No impact	No impact	None
GROSS MARGIN	No impact. See discussion of operating income.	See discussion under operating income.	See discussion under operating income.

(Continued)

TABLE B.3. IMPACT ON INCOME STATEMENT (Continued)

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
OPERATING INCOME	Given the straight-line amortization of lease expense consistent with the prior accounting, a significant impact on operating income of the new lease standards is unlikely.	The combination of interest expense computed under the effective interest method and the amortization of the right-of-use asset will likely result in lower earnings before tax and net income because they will include the right-of-use asset amortization and interest expense. However, operating income will rise compared to prior periods, and compared to operating leases, as only the right-of-use asset amortization will be included as reduction of operating income rather than total lease expense as under an operating lease. Depending upon whether lease expense or amortization of ROU asset is included in cost of goods sold will gross margin be impacted.	Finance leases will result in higher operating income because they will only include the amortization of the right-of-use asset in the determination of operating income rather than the entire lease expense as with operating leases. Depending upon whether lease expense or amortization of right-of-use asset is included in costs of goods sold will determine impact on gross margin.
EARNINGS BEFORE TAXES	No impact. See discussion of operating income.	See discussion under operating income. Earnings before tax will decrease because of the inclusion of interest expense in EBT. While operating income will rise, earnings before tax will include both the right-of-use asset amortization as well as the interest expense and therefore will be lower for finance leases.	Earnings before tax will generally be lower for finance leases than operating leases because of the higher interest expense.
EARNINGS BEFORE INTEREST AND TAXES	No impact. See discussion of operating income.	EBIT will be higher for finance leases than for operating leases because of the add back of interest. The impact will be similar to the impact on operating income.	EBIT will be higher for finance leases than for operating leases given the add-back of interest expense. Over time, given the lower interest expense, the difference will be smaller.
NET INCOME	No impact. See discussion of operating income.	Same impact as earnings before tax, just tax effected.	Same impact as earnings before tax, just tax effected.

TABLE B.4. IMPACT ON STATEMENT OF CASH FLOWS

NUMERATOR/ DENOMINATOR	OPERATING LEASE	FINANCE LEASE	DIFFERENCE
STATEMENT OF CASH FLOWS			
CASH FLOW FROM OPERATIONS (CFO)	Cash flows from operations will remain unchanged for operating leases.	Only interest expense will be considered an operating cash outflow. The portion of lease payment characterized as a repayment of lease liability will be reclassified to a financing cash outflow. Accordingly, cash flows from operations will rise by this amount. **Note**: The ability to classify interest expense as an operating, investing, or financing cash flow for IFRS will result in differences between US GAAP and IFRS. In all cases, CFO rises. It will rise more if the interest expense paid is reclassified to investing or financing cash outflows.	Cash flows from operations will be higher for finance leases as compared to operating leases due to the reclass of the lease principal repayment to financing cash outflows. **Note**: See note at left.
CASH FLOWS FOR INVESTING AND FINANCING	Cash flows for investing and financing will remain unchanged for operating leases.	Cash flows for investing will remain unchanged. Cash outflows for financing will rise by the portion of lease payment characterized as a repayment of lease liability. **Note**: The optional presentation of interest expense for IFRS may increase cash outflows for investing and financing activities.	Cash flows from investing will remain unchanged. Cash outflows for financing will be higher for finance leases as compared to operating leases due to the reclassification of the portion of the lease payment attributable to principal repayment. **Note**: See note at left.
INTEREST PAID	As a lease does not create an interest expense, interest paid would not change.	A portion of the lease payment will be characterized as an interest expense and therefore interest paid.	Interest expense and interest paid will rise for companies with finance leases but not for those with operating leases.
TAXES PAID	Unless tax treatment of leases changes, the taxes paid should not change.		
CASH PAID FOR LONG-TERM ASSETS	Given that creation of the right-of-use asset is effected by establishing the lease liability, no cash is paid at inception for these long-term assets. The lease liability payments are to be classified as financing cash outflows. The question for investors is, "How will companies consider the right-of-use assets through payments over time in this computation?" This is likely to differ between companies.		
OTHER			
PREFERRED DIVIDENDS	No impact	No impact	None
NUMBER OF SHARES OUTSTANDING	No impact	No impact	None

Appendix C

New Disclosure Requirements

When it comes to lease disclosures, investors are most familiar with the schedule of future lease commitments that was included in financial statements under the previous guidance (ASU 2016-02/ASC Topic 840 and IAS 17). The new IFRS and US GAAP lease standards require a series of new qualitative and quantitative disclosures[13], as summarized in **Tables C.1** and **C.2**. To facilitate comparison between IFRS and US GAAP, we present the information as a side-by-side comparison, with differences are to be noted in blue. **Section VIII** analyzes the disclosures.

[13] See IFRS 16, Paragraphs 47-60 and ASC Topic 842, Paragraphs 842-20-45 and 842-20-50.

TABLE C.1. COMPARISON OF QUALITATIVE DISCLOSURES

US GAAP	IFRS
QUALITATIVE DISCLOSURES	**QUALITATIVE DISCLOSURES**
A lessee shall disclose the following:	A lessee shall disclose the following:
Location of Lease Disclosure: No similar disclosure requirement under US GAAP.	**Location of Lease Disclosure**: Information about its leases for which it is a lessee in a single note or separate section in its financial statements. However, a lessee need not duplicate information that is already presented elsewhere in the financial statements, provided that the information is incorporated by cross-reference in the single note or separate section about leases.
Description of the Nature of Leases: Information about the nature of its leases and subleases, including: 1. **General Description**: A general description of those leases. 2. **Level of Detail**: A lessee shall aggregate or disaggregate disclosures so that useful information is not obscured by including a large amount of insignificant detail or by aggregating items that have different characteristics. 3. **Variable Lease Payments**: The basis and terms and conditions on which variable lease payments are determined. 4. **Lease Options**: The existence and terms and conditions of options to extend or terminate the lease. A lessee should provide narrative disclosure about the options that are recognized as part of its right-of-use assets and lease liabilities and those that are not. 5. **Residual Value Guarantees**: The existence and terms and conditions of residual value guarantees provided by the lessee. 6. **Covenants**: The restrictions or covenants imposed by leases, for example, those relating to dividends or incurring additional financial obligations.	**Description of the Nature of Leases**: A lessee shall disclose qualitative information about the nature of the lessee's leasing activities necessary to meet the disclosure objective. This additional information may include, but is not limited to, information that helps users of financial statements to assess: 1. **Future Cash Outflows**: Future cash outflows to which the lessee is potentially exposed that are not reflected in the measurement of lease liabilities. This includes exposure arising from: a. **Variable Lease Payments**: variable lease payments; b. **Lease Options**: extension options and termination options; c. **Residual Value Guarantees**: residual value guarantees; and d. **Executory Contracts**: leases not yet commenced to which the lessee is committed. 2. **Covenants**: Restrictions or covenants imposed by leases. 3. **Sale Leaseback Transactions**: Sale and leaseback transactions.

(Continued)

TABLE C.1. COMPARISON OF QUALITATIVE DISCLOSURES (Continued)

US GAAP	IFRS
QUALITATIVE DISCLOSURES	**QUALITATIVE DISCLOSURES**
Accounting Policy Choices: A lessee shall disclose its accounting policy election for the following items: 1. **Short-Term Leases**: Choice not to apply recognition requirement for leases up to 12 months and recognize them in profit and loss account on a straight-line basis over the lease term. The policy choice is available by class of underlying assets. 2. **Discount Rate**: Choice to use incremental borrowing rate if implicit rate is not readily determinable. 3. **Discount Rate for Private Entities**: Choice to use risk-free incremental borrowing rate if implicit rate is not readily determinable. 4. **Non-Lease Component**: Choice not to split non-lease component from the contract and consider the whole amount as lease cost. The policy choice is available by class of underlying assets. 5. **Low-Value Items**: Not a practical expedient for US GAAP so no disclosure requirement under US GAAP.	**Accounting Policy Choices**: A lessee shall disclose its accounting policy election for the following items: 1. **Short-Term Leases**: Choice not to apply recognition requirement for leases up to 12 months and recognize them in profit and loss account on a straight-line basis over the lease term. The policy choice is available by class of underlying assets. 2. **Discount Rate**: Choice to use incremental borrowing rate if implicit rate is not readily determinable. 3. **Discount Rate for Private Entities**: No similar disclosure requirement under IFRS. 4. **Non-Lease Component**: Choice not to split non-lease component from the contract and consider the whole amount as lease cost. The policy choice is available by class of underlying assets. 5. **Low-Value Items**: Choice not to apply recognition requirements for low-values leases of US$5,000 or less. The policy choice is available on a lease-by-lease basis.
Executory Contracts: A lessee shall disclose information about leases that have not yet commenced but that create significant rights and obligations for the lessee, including the nature of any involvement with the construction or design of the underlying asset.	**Executory Contracts**: See requirement under disclosure of nature of lease agreements. Similar requirement.
Assumptions and Judgements: A lessee shall disclose information about significant assumptions and judgments made in applying the lessee requirements, which may include the following: 1. **Lease Identification**: The determination of whether a contract contains a lease. 2. **Allocation of Consideration**: The allocation of the consideration in a contract between lease and non-lease components. 3. **Determination of Discount Rate**: The determination of the discount rate for the lease.	**Assumptions and Judgements**: No similar disclosure requirement under IFRS; however, all of these assumptions and judgements must also be made for IFRS.
Sale and Lease Transactions: A lessee shall disclose the main terms and conditions of such transactions.	**Sale and Lease Transactions**: See requirement under disclosure of nature of lease agreements. Similar requirement.

TABLE C.2. COMPARISON OF QUANTITATIVE DISCLOSURES

US GAAP	IFRS
QUANTITATIVE DISCLOSURES	**QUANTITATIVE DISCLOSURES**
For each period presented in the financial statements, a lessee shall disclose the following:	For each period presented in the financial statements, a lessee shall disclose the following:
Balance Sheet: A lessee shall: 1. **Right-of-Use Assets** a. **Presentation vs. Disclosure**: A lessee shall either present the right-of-use assets separately in the statement of financial position or disclose in the notes. If finance and operating lease assets are not presented separately from other assets on the statement of financial position, the lessee shall disclose in which line items they are presented. Right-of-use assets are subject to the same considerations as other nonfinancial assets in including them in current and noncurrent classifications. b. **Separated by Finance and Operating Lease**: Finance lease right-of-use assets and operating lease right-of-use assets must be presented separately from each other on the statement of financial position. c. **Investment Property**: Not applicable for US GAAP.	**Balance Sheet**: A lessee shall: 1. **Right-of-Use Assets** a. **Presentation vs. Disclosure**: Present right-of-use assets on the statement of financial position or disclose in notes separately from other assets. If not presented separately in the statement of financial position, then a lessee is required to include in the same line as if the asset was owned, and disclose which line items in the statement of financial position include those right-of-use assets. b. **Separated by Finance and Operating Lease**: Not applicable for IFRS as no operating leases. c. **Investment Property**: The above requirement does not apply to right-of-use assets that meet the definition of investment property, which shall be presented in the statement of financial position as investment property. If a right-of-use asset meets the definition of investment property, other measurement and disclosure requirements also apply.
2. **Lease Liabilities** a. **Presentation vs. Disclosure**: A lessee shall either present the lease liabilities in the statement of financial position or disclose in the notes. If finance and operating lease assets are not presented separately from other liabilities on the statement of financial position, the lessee shall disclose in which line items they are presented. Lease liabilities are subject to the same considerations as other liabilities in including them in current and noncurrent classifications. b. **Separated by Finance and Operating Lease**: Finance lease liabilities and operating lease liabilities must be presented separately from each other on the statement of financial position.	2. **Lease Liabilities** a. **Presentation vs. Disclosure**: Present lease liabilities on the statement of financial position or disclose in the notes separately from other liabilities. If not presented separately in the statement of financial position, then a lessee is required to disclose which line items in the statement of financial position include those lease liabilities. b. **Separated by Finance and Operating Lease**: Not applicable for IFRS as no operating leases.

(Continued)

TABLE C.2. COMPARISON OF QUANTITATIVE DISCLOSURES (Continued)

US GAAP	IFRS
QUANTITATIVE DISCLOSURES	**QUANTITATIVE DISCLOSURES**
Statement of Comprehensive Income: Lease expense for operating leases shall be included in income from continuing operations. For finance leases, the interest expense on the lease liability and the amortization of the right-of-use asset are not required to be presented as separate line items and shall be presented in a manner consistent with how the entity presents interest expense and depreciation/amortization on similar assets. If not presented separately on the income statement, they must be disclosed separately in the notes.	**Statement of Comprehensive Income**: A lessee shall present interest expense on the lease liability separately from the depreciation (i.e., amortization) charge (by class of underlying assets) for the right-of-use asset. The standard requires "interest expense" to be separately presented, as this is a component of finance cost.
Statement of Cash Flows: A lessee shall: 1. **Principal Repayment Portion of Lease Liability**: Include repayment of the principal portion of lease liability arising from finance leases within financing activities. 2. **Interest on Lease Liability**: Reflect interest on lease liability arising from finance leases in interest paid (operating activities). 3. **Operating Lease Payments**: Payments arising from operating leases should be included within operating activities, unless capitalized where these will be included in investing activity within the capitalized asset. 4. **Other Lease Payments**: Include **variable lease payments** (other than those that depend on index or a rate) and **short-term lease payments** within operating activities. Unlike IFRS, there is no requirement to disclose leases of low-value items.	**Statement of Cash Flows**: A lessee shall: 1. **Principal Repayment Portion of Lease Liability**: Include repayment of the principal portion of lease liability arising from finance leases within financing activities. 2. **Interest on Lease Liability**: Reflect interest on lease liability arising from leases in interest paid (could be in operating, investing or financing activity). 3. **Operating Lease Payments**: Not applicable for IFRS as there are no operating leases. 4. **Other Lease Payments**: Include v**ariable lease payments** (other than those that depend on index or a rate); **short-term lease payments**; and **leases of low-value assets** not included in lease liability within operating activities.
Other Disclosures: Disclose the following with amounts segregated between those for finance and operating leases: 1. **Tabular Format**: No similar disclosure requirement under US GAAP. 2. **Future Cash Outflows**: No similar requirement under US GAAP. As noted above under qualitative disclosures, US GAAP requires more qualitative disclosures regarding the nature of the lease arrangements, assumption, and judgements, and the nature of executory contracts. IFRS requires quantitative disclosures regarding the future cash flows related to such items.	**Other Disclosures**: Disclose the following: 1. **Tabular Format**: Disclosures in a tabular format, unless another format is more appropriate. The amounts disclosed shall include those costs that a lessee has included in the carrying amount of another asset during the reporting period. 2. **Future Cash Outflows**: A lessee shall provide quantitative disclosures of future cash outflows to which the lessee is potentially exposed that are not reflected in the measurement of lease liabilities. This includes exposures arising from: a. Variable lease payments; b. Extension options and termination options; c. Residual value guarantees; and d. Leases not yet commenced to which the lessee is committed.

TABLE C.2. COMPARISON OF QUANTITATIVE DISCLOSURES (Continued)

US GAAP	IFRS
QUANTITATIVE DISCLOSURES	**QUANTITATIVE DISCLOSURES**
3. **Cash Paid**: Cash paid for amounts included in the measurement of lease liabilities, segregated between operating and financing leases.	3. **Cash Paid**: No similar disclosure requirement under IFRS. See, however, the Total Cash Outflows for Leases below.
4. **Total Cash Outflows for Leases**: No similar disclosure requirement under US GAAP. See disclosure of Cash Paid above.	4. **Total Cash Outflows for Leases**: A lessee shall disclose total cash outflow for leases.
5. **Non-Cash Information**: Supplemental non-cash information on lease liabilities arising from obtaining right-of-use assets segregated between operating and financing leases.	5. **Non-Cash Information**: No similar disclosure requirement under IFRS.
6. **Maturity Analysis**: A lessee shall provide a separate maturity analysis disclosure for operating and finance lease liabilities. The annual analysis must show undiscounted cash flows for a minimum of each of the first five years and a total of the amounts for the remaining years. A lessee shall disclose a reconciliation of the undiscounted cash flows to the operating and finance leases liabilities recognized in the statement of financial position.	6. **Maturity Analysis**: A lessee shall disclose a maturity analysis of lease liabilities separately from other financial liabilities. This is based upon the requirements in IFRS 7 that allow greater flexibility in the time periods disclosed. The requirement calls for remaining contractual maturities. It is not as explicit as US GAAP that they should be undiscounted cash flows. There is also not a requirement to reconcile this maturity analysis to the lease liability recognized in the financial statements.
7. **Lease Term**: Weighted-average remaining lease term segregated between operating and financing leases.	7. **Lease Term**: No similar disclosure requirement under IFRS.
8. **Discount Rate**: Weighted-average discount rate segregated between operating and financing leases.	8. **Discount Rate**: No similar disclosure requirement under IFRS.
9. **Short-Term Lease Cost**: A lessee shall disclose short-term lease cost, relating to leases with a term of more than 1 month and less than 12 months.	9. **Short-Term Lease Expense**: A lessee shall disclose short-term lease expense, relating to leases with a term of more than 1 month and less than 12 months.
10. **Short-Term Lease Commitments**: If the short-term lease expense for the period does not reasonably reflect the lessee's short-term lease commitments, a lessee shall disclose that fact and the amount of its short-term lease commitments.	10. **Short-Term Lease Commitments**: A lessee shall disclose the amount of its lease commitments for short-term leases if the portfolio of short-term leases to which it is committed at the end of the reporting period is dissimilar to the portfolio of short-term leases disclosed as expense.
11. **Low-Value Lease Expense**: Not a practical expedient for US GAAP so no disclosure requirement under US GAAP.	11. **Low-Value Lease Expense**: A lessee shall disclose the expense relating to low-value lease assets accounted for under the practical expedient (other than short-term lease expense).
12. **Variable Lease Cost**: A lessee shall disclose variable lease cost.	12. **Variable Lease Payments**: A lessee shall disclose the expense relating to variable lease payments not included in the measurement of lease liabilities.
13. **Sublease Income**: A lessee shall disclose sublease income, disclosed on a gross basis, separate from the finance or operating lease expense.	13. **Sublease Income**: A lessee shall disclose income from subleasing of right-of-use assets.
14. **Additional Information for Right-of-Use Assets**: No similar disclosure requirement under US GAAP.	14. **Additional Information for Right-of-Use Assets**: A lessee shall disclose, by class of underlying assets, additions to right-of-use assets, depreciation charge for right-of-use assets and the carrying amount of right-of-use assets at the end of the reporting period.
15. **Sale and Leaseback Transactions**: A lessee shall disclose net gain or loss recognized from sale and leaseback transactions.	15. **Sale and Leaseback Transactions**: A lessee shall disclose gain or loss arising from sale and leaseback transactions.
16. **Related party**: A lessee shall disclose lease transactions between related parties.	16. **Related Party**: No similar disclosure requirement under this IFRS.

Analysis of US GAAP vs. IFRS Lease Disclosures

Overall, lease disclosures between US GAAP and IFRS are very similar. Some of the most important differences, in order of priority, as highlighted above in blue are analyzed below.

- **Maturity Analysis**: Although both IFRS and US GAAP require a maturity analysis disclosure, the guidance regarding the nature of this disclosure is more prescriptive for US GAAP, requiring that the maturity analysis provide an explanation regarding how it reconciles to the lease liability. Unfortunately, IFRS does not require the maturity analysis disclosure in the same way as US GAAP.

- **Discount Rate and Lease Term**: US GAAP requires disclosure of the weighted average incremental borrowing rate and lease term. IFRS does not require such disclosures. Although some indicate other IFRS guidance has a principle that would suggest such disclosures should be made, we are skeptical these will be made without an explicit requirement to do so.

- **Lease Features**: Although US GAAP has more detailed requirements on the qualitative description of leases, IFRS requires qualitative and quantitative disclosures regarding the assumptions and judgements in determining future cash outflows to which the lessee is potentially exposed that are not reflected in the measurement of lease liabilities related to key attributes of leases, including variable lease payments, extension and termination options, residual value guarantees, and executory contracts.

- **Cash Paid vs. Total Cash Outflows**: IFRS requires a lessee to disclose total cash outflow for leases while US GAAP has a requirement to disclose cash paid for amounts included in the measurement of lease liabilities. Overall, the IFRS requirement will be more complete as it includes cash paid for leases that are not in lease liabilities, including short-term leases, low-value items, and variable lease payments.

- **Operating vs. Financing Leases**: The existence of operating and finance leases for US GAAP will lead to differences in disclosures.

- **Additional Information for Right-of-Use Assets**: IFRS requires that a lessee disclose additions to right-of-use assets and the carrying amount of right-of-use assets at the end of the reporting period by class of underlying assets. US GAAP does not provide insight into this fluctuation in right-of-use assets.

- **Short-Term Lease Commitments**: Both IFRS and US GAAP require disclosure of short-term lease cost. They both also require, albeit with slightly different language, disclosure regarding whether the current short-term lease expense is reflective of upcoming short-term lease commitments.

- **Location and Format**: IFRS provides guidance on the location and preference for a tabular format for disclosure. US GAAP does not. IFRS will facilitate easier analysis for investors.
- **Non-Cash Information**: IFRS does not include a requirement to disclose non-cash liabilities arising from ROU assets; US GAAP does. All lease liabilities and right-of-use assets amount to non-cash transactions at inception. Investors should recognize this when they analyze investing and financing activities.
- **Low-Value Items**: Because IFRS has a practical expedient for low-value items, it has disclosures to facilitate an understanding of the extent of the use of this practical expedient.

Appendix D

Tesco Transition Disclosures

TESCO

15 February 2019

TESCO PLC: INTRODUCING IFRS 16

Tesco PLC is hosting a briefing for analysts and investors at 9.00am UK time today relating to the introduction of IFRS 16, the new financial reporting standard on accounting for leases. Tesco will explain the nature of the standard and the associated changes to the presentation of the Tesco financial statements and performance measures using its most recently reported 1H 2018/19 results.

The standard has no economic impact on the Group. It has no effect on how the business is run, nor on cash flows for the Group. It does however have a significant impact on the way the assets, liabilities and the income statement of the Group are presented, as well as the classification of cash flows relating to lease contracts.

IFRS 16 is effective for all accounting periods beginning on or after 1 January 2019. As such, Tesco's first reported accounting period under IFRS 16 will be the 2019/20 financial year, which runs from 24 February 2019 to 29 February 2020. As previously indicated, the Group intends to adopt the standard fully retrospectively.

In summary, IFRS 16 seeks to align the presentation of leased assets more closely to owned assets. In doing so, a right of use asset and lease liability are brought on to the balance sheet, with the lease liability recognised at the present value of future lease payments. Whilst the right of use asset is matched in value to the lease liability at inception, it differs in value through the life of the lease.

From an income statement perspective, the pre-IFRS 16 rental charge is replaced by depreciation and interest. IFRS 16 therefore results in a boost to operating profit, which is reported prior to interest being deducted. Whilst depreciation reduces on a straight-line basis, interest is charged on outstanding lease liabilities and therefore for any given lease, interest is higher in the earlier years and decreases over time. As a result, the impact on the income statement below operating profit is highly dependent on average lease maturity. For an immature portfolio, depreciation and interest are higher than the rent they replace and therefore IFRS 16 is dilutive to EPS. For a mature portfolio, they are lower and therefore IFRS 16 is accretive.

Our 1H 2018/19 financial statements, restated for IFRS 16, will form the prior period comparative numbers for the first published IFRS 16 accounts in October 2019. The headline impacts of IFRS 16 on these statements can be summarised as follows:

- Group sales and total cash flow are completely unaffected.
- Group operating profit[1] increases by £188m to £1,121m as rent is removed and only part-replaced by depreciation; Group operating margin[2] increases by 59 basis points to 3.53%.
- Profit before tax and Diluted EPS[3] both decrease, by £(101)m and (0.91)p respectively, due to the combination of depreciation and interest being higher than the rent they replace. This is due to the relative immaturity of the Group's lease portfolio, with leases being around one-third expired on average. The proportion of EPS dilution will reduce as the portfolio matures and, most notably, as underlying earnings increase.
- Net assets reduce by £(1.4)bn to £13.0bn, as a 'new' lease liability of £(10.6)bn and 'new' right of use asset of £7.8bn are recognised and onerous lease provisions and other working capital balances are derecognised.
- Total indebtedness increases by £(3.3)bn to £(15.8)bn due to lease extensions and contingent commitments being included and lease-specific discount rates being applied.

Further detail on the impact of IFRS 16 on our 1H 2018/19 financial statements can be found in Note 1.

The introduction of IFRS 16 has no bearing on the plans or financial ambitions Tesco has shared with the market. We will continue to provide sufficient disclosure to translate progress against our 2019/20 ambitions back to a pre-IFRS 16 basis.

Our 2018/19 preliminary results will continue to be reported on a pre-IFRS 16 basis, accompanied by a headline summary of the impact of the new standard. The full 2018/19 financial statements prepared on an IFRS 16 basis will be shared shortly after the preliminary results.

Note 1

These condensed consolidated financial statements for the 26 weeks ended 25 August 2018 and as at 25 August 2018 and 24 February 2018 do not constitute statutory accounts as defined in sectio 434 of the Companies Act 2006. A copy of the statutory accounts for the 52 weeks ended 24 February 2018 has been filed with the Registrar of Companies. The auditor's report on those accounts wa not qualified, did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying the report and did not contain statements under section 498(2) c (3) of the Companies Act 2006.

Income Statement restatement for the 26 weeks ended 25 August 2018 (unaudited)

	26 weeks ended 25 August 2018 reported				26 weeks ended 25 August 2018 restated		
	Before exceptional items and amortisation of acquired intangibles £m	Exceptional items and amortisation of acquired intangibles £m	Total £m	IFRS 16 impact £m	Before exceptional items and amortisation of acquired intangibles £m	Exceptional items and amortisation of acquired intangibles £m	Total £m
Continuing operations							
Revenue	31,734	-	31,734	-	31,734	-	31,734
Cost of sales	(29,783)	(86)	(29,869)	185	(29,598)	(86)	(29,684)
Gross profit/(loss)	1,951	(86)	1,865	185	2,136	(86)	2,050
Administrative expenses	(1,010)	(41)	(1,051)	3	(1,007)	(41)	(1,048)
Profits/(losses) arising on property-related items	(8)	13	5	-	(8)	13	5
Operating profit/(loss)	933	(114)	819	188	1,121	(114)	1,007
Share of post-tax profits/(losses) of joint ventures and associates	20	11	31	(2)	18	11	29
Finance income	7	-	7	2	9	-	9
Finance costs	(293)	-	(293)	(289)	(582)	-	(582)
Profit/(loss) before tax	667	(103)	564	(101)[1]	566	(103)	463
Taxation	(160)	22	(138)	13	(147)	22	(125)
Profit/(loss) for the year from continuing operations	507	(81)	426	(88)	419	(81)	338
Discontinued operations							
Profit/(loss) for the year from discontinued operations	-	-	-	-	-	-	-
Profit/(loss) for the year	507	(81)	426	(88)	419	(81)	338
Earnings/(losses) per share from continuing and discontinued operations							
Basic			4.40p	(0.91)p			3.49p
Diluted			4.37p	(0.90)p			3.47p
Earnings/(losses) per share from continuing operations							
Basic			4.40p	(0.91)p			3.49p
Diluted			4.37p	(0.90)p			3.47p
KPIs and APMs							
Operating margin	2.94%			0.59%	3.53%		
Diluted adjusted EPS	6.36p			(0.91)p	5.45p		

1. £(101)m PBT impact comprises: £522m rental charge removal, £(340)m additional depreciation, £(287)m additional net interest charge and £4 million other net gains.

Balance Sheet restatement at 25 August 2018 (unaudited)

	25 August 2018 reported £m	IFRS 16 impact £m	25 August 2018 restated £m
Non-current assets			
Goodwill, software and other intangible assets	6,463	(10)	6,453
Property, plant and equipment	18,808	145	18,953
Right of use assets[1]	-	7,878	7,878
Investment property	92	-	92
Investments in joint ventures and associates	702	(37)	665
Other investments	648	-	648
Trade and other receivables	169	52	221
Loans and advances to customers	7,547	-	7,547
Derivative financial instruments	1,199	-	1,199
Deferred tax assets	137	59	196
	35,765	8,087	43,852
Current assets			
Other investments	42	-	42
Inventories	2,821	-	2,821
Trade and other receivables	1,608	(113)	1,495
Loans and advances to customers	4,846	-	4,846
Derivative financial instruments	194	-	194
Current tax assets	-	-	-
Short-term investments	760	-	760
Cash and cash equivalents	3,243	-	3,243
	13,514	(113)	13,401
Assets of the disposal group and non-current assets classified as held for sale	123	-	123
	13,637	(113)	13,524
Current liabilities			
Trade and other payables	(9,749)	240	(9,509)
Borrowings	(2,534)	14	(2,520)
Lease liability[2]	-	(712)	(712)
Derivative financial instruments	(117)	-	(117)
Customer deposits and deposits from banks	(8,842)	-	(8,842)
Current tax liabilities	(333)	-	(333)
Provisions	(465)	117	(348)
	(22,040)	(341)	(22,381)
Net current liabilities	(8,403)	(454)	(8,857)
Non-current liabilities			
Trade and other payables	(399)	19	(380)
Borrowings	(5,403)	111	(5,292)
Lease liability[2]	-	(9,975)	(9,975)
Derivative financial instruments	(822)	-	(822)
Customer deposits and deposits from banks	(3,041)	-	(3,041)
Post-employment benefit obligations	(2,574)	-	(2,574)
Deferred tax liabilities	(311)	253	(58)
Provisions	(739)	579	(160)
	(12,989)	(9,013)	(22,002)
Net assets	**14,373**	(1,380)	**12,993**
Equity			
Share capital	490	-	490
Share premium	5,163	-	5,163
Retained earnings and other reserves	8,741	(1,380)	7,361
Equity attributable to owners of the parent	14,394	(1,380)	13,014
Non-controlling interests	(21)	-	(21)
Total equity	14,373	(1,380)	**12,993**
KPIs and APMs			
Net debt[3]	(3,126)	(10,527)	(13,653)
Total indebtedness[4]	(12,472)	(3,325)	(15,797)

1. The right of use asset of £7,878m includes £109m assets held under finance leases, previously included in "PP&E".
2. Total lease liabilities of £10,687m include £125m finance lease liabilities previously included in borrowings.
3. Net debt comprises bank and other borrowings, lease liabilities, net derivative financial instruments, joint venture loans and other receivables/payables, offset by cash and cash equivalents and short-term investments. It excludes the net debt of Tesco Bank (which has lease liabilities of £35m).
4. Total indebtedness pre-IFRS 16 comprises Net debt plus the IAS 19 deficit in the pension schemes (net of associated deferred tax) plus the present value of future minimum lease payments under non-cancellable operating leases. Post-IFRS 16, lease liabilities are included in Net debt, replacing the present value of future minimum lease payments under non-cancellable operating leases.

Summary Retail Cash Flow Restatement for the 26 weeks ended 25 August 2018 (unaudited)

	26 weeks ended 25 August 2018 reported £m	IFRS 16 impact £m	26 weeks ended 25 August 2018 restated £m
Operating profit before exceptional items and amortisation of acquired intangibles	933	188	1,121
Less: Tesco Bank operating profit before exceptional items	(89)	(1)	(90)
Retail operating profit from continuing operations before exceptional items and amortisation of acquired intangibles	844	187	1,031
Add back: Depreciation and amortisation	596	339	935
Other reconciling items	1	(9)	(8)
Pension deficit contribution	(142)	-	(142)
Underlying (increase) / decrease in working capital	(29)	17	(12)
Retail cash generated from operations before exceptional items	1,270	534	1,804
Exceptional cash items:			
Relating to prior years:			
- Shareholder Compensation Scheme payments	(27)	-	(27)
- Utilisation of onerous lease provisions	(32)	32	-
- Restructuring payments	(58)	-	(58)
Relating to current year:			
- Restructuring Payments	(30)	-	(30)
Retail operating cash flow	1,123	566	1,689
Cash capex	(459)	-	(459)
Net interest & tax	(274)	(286)	(560)
Property proceeds	134	-	134
Property purchases – store buybacks	(35)	-	(35)
Market purchases of shares (net of proceeds)	(139)	-	(139)
Acquisitions and disposals and dividends received	(693)	-	(693)
Deduct: Booker acquisition	747	-	747
Repayments of obligations under leases	(7)	(280)	(287)
Retail free cash flow[1]	397	-	397

1. Retail cash flow has been redefined to include repayments of obligations under leases due to IFRS 16. This results in a minor adjustment of £7m, restating reported retail cash flow of £404m to a represented retail free cash flow of £397m. There is no overall impact to cash / cash equivalents at the end of the period.

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