The Future of Lease Accounting and its Impact on Corporate Real Estate Decisions
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#### Abstract

This thesis explores the likely impacts the proposed changes to lease accounting would have on corporate real estate decisions. The Financial Accounting Standards Board (SFASB) and the International Accounting Standards Board (IASB) plan to establish a unified set of principle-based accounting systems into a unified set of principle-based standards in an effort to improve financial transparency and comparability across world markets. One component of this plan, centered on reform of current lease accounting standards, would eliminate the distinction between capital and operating leases and require almost all leases to be recognized as an asset and liability on the balance sheet. This represents a significant departure from the current accounting guidance under Generally Accepted Accounting Principles (GAAP), which requires American companies are only required to disclose only limited information about future operating lease requirements in the footnotes of financial statements. What's more, empirical evidence suggests that many companies structure leases to obtain this type of off-balance-sheet financing that operating leases afford.

For companies with relatively large operating lease portfolios, the new accounting standards would have a significant impact on their balance sheets. If these companies consider accounting treatment in their real estate decisions, they may be inclined to pursue alternative real estate strategies to mitigate this impact. That being said, the corporate real estate decision-making process is complex; therefore any strategy aimed at achieving a specific accounting treatment must consider other relevant and potentially more important factors.

This study analyzes the proposed changes to lease accounting and explores how corporate real estate managers consider the effects of accounting in their real estate decisions. Specific hypotheses are tested through targeted interviews with a diverse group of public and private tenants and landlords to identify the variables that would determine a particular company's incentive to change its real estate strategy in response to new accounting guidelines. Results of interviews are discussed and predictions are made regarding the future of real estate leasing strategies.


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## CHAPTER 1: INTRODUCTION

Chapter Summary<br>This chapter initially describes the content of the thesis and the authors' purpose in pursuing the topic. Next, the chapter provides a historical context of lease accounting and the motivation behind the Boards' decision to dramatically change the current standard. Finally, iterative examples are used to provide perspective for the proposed changes.

## 1.0: Introduction \& Overview:

Chapter 1 introduces the reader to lease accounting and describes the motivation behind the decision to overhaul current standards. In addition, Chapter 1 describes the changes to lease accounting as they are currently proposed through iterative examples to give the reader a detailed overview of the proposed new guidelines. Chapter 2 provides a conceptual literature review that, describes how corporate real estate strategies are formulated, details current methodologies used by financial statement users to account for operating leases, and demonstrates that significant changes to lease accounting may alter perceptions of corporate valuations and credit ratings. Chapter 3 provides the reader with a macro-level description of the magnitude of the proposed changes by capitalizing the future operating lease obligations of the S\&P 500 companies and illustrating how certain financial ratios would change as a result of the changes. Chapter 4 formulates specific hypotheses based on current approaches to corporate real estate strategy to provide a framework for measuring the role accounting plays in decision-making. In Chapter 5, these hypotheses are tested using data gathered from targeted interviews with knowledgeable industry participants from a wide range of companies, representing both tenants and landlords. Lastly, Chapter 6 concludes our findings.

## 1.1: Purpose of Proposed Changes:

Since 2002, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) (together, the "Boards") have been working on a joint project known as the International Convergence of Accounting Standards in order to achieve a common set of accounting standards that is applicable worldwide. The FASB, the organization responsible for setting accounting standards for United States public companies, issues standards as United States Generally Accepted Accounting Principles (U.S. GAAP) and the IASB, an independent accounting standard-setter, issues accounting standards as International Financial Reporting Standards (IFRS). The Boards jointly issued
two preliminary documents to describe the goals of the convergence project, the "Norwalk Agreement" in 2002 and the "Memorandum of Understanding" in 2006 (updated in 2008). The Norwalk Agreement described the Boards' intention to create a unified set of accounting standards and the Memorandum of Understanding identified eleven separate areas of financial reporting between the two sets of standards that were in need of improvement. One such area is lease accounting, which has been a much-debated issue for many years. This thesis focuses on lease accounting (principally from a real estate user's perspective) and explores whether the proposed changes to accounting would likely influence real estate decisions.

## 1.2: Background:

Since the 1940 's, accounting boards have debated how to accurately report for lease obligations. Having many characteristics of ownership, but without the transfer of equity, leasehold interests have long represented a grey area in financial reporting; this has caused standard-setters to debate whether leases should be recorded on the balance sheet. Most of the debate has revolved around the characterization of lease obligations and whether they represented a transfer of the benefits and costs associated with ownership that was sufficient enough to be considered assets and liabilities. In 1976, the FASB attempted to provide guidance on how leases should be reported on financial statements through its issuance of the Statement of Financial Accounting Standard No. 13 (SFAS 13).

SFAS 13 (and IAS $17^{1}$ ) is a set of rules used to determine how a lease should be recognized and presented on financial statements. ${ }^{2}$ In June 2005, after the passing of the Sarbanes-Oxley Act, the SEC performed a study to measure the prevalence of off-balance sheet transactions to determine whether SFAS 13 was still appropriate given the business operations of the modern economy. The study found off-balance sheet financing ${ }^{3}$, such as the kind achieved through operating leases, was a major impediment to the desired transparency and efficiency for our accounting system. Partially in response to these findings, the Boards set out to develop a global financial reporting system, which would include a new method for lease reporting, in an effort to provide greater transparency to the capital markets.

[^0]SFAS 13 established a sharp distinction between capital and operating leases that has been a continued source of disagreement over the past thirty-five years. Critics argue that SFAS 13 fails to provide financial statement users with the necessary information since operating lease information is only summarized in the notes to the financial statements, diminishing the importance of the information conveyed relative to what is actually recognized on financial statements. This issue is complicated by the fact that capital lease classification can be easily avoided using creative transaction structuring. Even if this avoidance is not the goal of a party in a lease transaction, two different accounting models for leases allows for similar transactions to be accounted for very differently. This reduces comparability of financial statements across companies. Many users believe operating leases are similar to debt obligations that result in assets to lessors and liabilities to liabilities and should be recognized on the balance sheet. Consequently, analysts, investors and other users of the financial statements make manual adjustments to effectively capitalize operating leases into measurable liabilities in an effort to create comparability among financial statements. However, the summary lease information that is currently required to be disclosed in the footnotes to the financial statements is often insufficient to make accurate estimates of present value liability.

This criticism has led to proposed changes to SFAS 13 that would require companies (both lessees and lessors) to recognize leases on their balance sheet. For the lessee, balance sheet recognition would include an asset representing the right to use the underlying property over the lease term and a liability for the obligation to make rental payments over the same period. Following the issuance of a discussion paper in March 2009, in August 2010 the Boards simultaneously issued separate, but largely similar, Exposure Drafts ${ }^{4}$ to provide a detailed account for how financial reporting would change to achieve the desired balance sheet recognition.

## 1.3: Process for Proposed Changes:

On March 19, 2009, the Boards issued a joint discussion paper entitled "Leases: Preliminary Views". In the paper, the Boards provided an overview of the lease accounting issue, detailed approaches for addressing deficiencies, and invited comments from constituents. Following the issuance of the discussion paper, the Boards used the feedback and additional analysis to develop and issue the Exposure

[^1]Drafts on August 17, 2010. The Exposure Drafts presented specific accounting methods that, if implemented, would change the way in which financial information is reported.

Upon issuance of the Exposure Draft, industry participants affected by the change were given the opportunity to comment on the proposed changes to help the Boards understand any practical issues that could result from the changes. During this time, hundreds of letters were submitted in response to the Exposure Drafts, voicing concerns from a variety of perspectives, including lessees and lessors, and across a breadth of industries.

The Boards are currently in the next stage of the standard setting process; they continue to review the comment letters and hold meetings to present tentative decisions. Since the Exposure Draft was issued, the Boards have modified the proposals following multiple re-deliberations in response to the feedback received from constituents. The Boards have reviewed approximately 785 comment letters, held seven roundtable discussions, many international workshops and meetings, and engaged in targeted outreach with over 70 organizations to solicit feedback.

The next step is for the Boards to draft an Accounting Standards Update in which the amendments to the Accounting Standard Codification would be explained. However, due to the significant level of feedback and reaction to the initial Exposure Drafts, the Boards recently announced that they would issue another Exposure Draft by year-end 2011. It is expected that additional comments will be received in early 2012 with possible further deliberations. Finalization of the standards is not expected until mid- 2012. Please refer to Appendix C for a brief summary that outlines the standards as originally proposed versus where the Boards currently stand.

Since the proposed standards are still preliminary in nature, the research and analysis presented in this paper necessarily assumes that the currently proposed standards for lease accounting will ultimately be adopted. It should be noted that there are still several outstanding issues to be resolved, and even the guidelines for which the Boards have reached a tentative decision could be substantially modified before the final Accounting Standards Update is ultimately issued.

## 1.4: Proposed Guidance - What is Changing:

As mentioned previously, the primary criticism of the current lease accounting standards relates to the distinction between operating and capital leases. Opponents suggest that many operating leases transfer
risks and benefits related to ownership to the lessee yet there is no requirement for the obligation to be recognized on the balance sheet. That being said, there is general consensus among the Boards and other industry participants that short-term leases lack sufficient ownership characteristics to justify their inclusion on the balance sheet and therefore should have separate guidelines for their reporting. During their March 14, 2011 meeting, the Boards tentatively decided to allow lessees and lessors to apply current accounting treatment to leases with terms of 12 months or less, including any option periods. Therefore, lessees and lessors may elect: (i) not to capitalize such leases on the balance sheet, and (ii) to continue to recognize these leases on the income statement on a straight-line basis.

Figure 1 provides a hypothetical example of a short-term lease that would qualify for exemption under the proposed lease accounting standard.

| Lease Assumptions - Short-Term Lease |  |
| :--- | :---: |
| Initial Lease Term: | 6 months |
| Rentable Square Feet: | 25,000 square feet |
| Annual Rent Per Square Foot: | $\$ 30.00$ |
| Annual Net Rent: | $\$ 750,000$ |
| Monthly Rental Rate: | $\$ 62,500$ |
| Lease Type: | $\mathrm{NNN}^{5}$ |
|  |  |
| Total NNN Rent Over Term: | $\$ 375,000$ |

Figure 1

For the lease described above, income statement recognition would be the total NNN rent expense for the term ( 6 months), amortized on a straight-line basis over the term. The total NNN rent of $\$ 375,000$ divided by the lease term of 6 months results in straight-line NNN rent expense recognition of $\$ 62,500$ per month. In addition, annual executory costs such as insurance, maintenance, and taxes associated with the lease would be recognized as incurred.

## Income Statement Recognition

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Straight-Line Method |  |  |  |  |  |  |
| Rent Expense | $\$ 62,500$ | $\$ 62,500$ | $\$ 62,500$ | $\$ 62,500$ | $\$ 62,500$ | $\$ 62,500$ |

Figure 2

[^2]
## Definition of a Lease:

The Boards have developed specific parameters to define what would be considered a lease and therefore, subject to the proposed accounting standard. The Boards used targeted outreach meetings during March 2011, feedback through comment letters, and other outreach to revise the definition of a lease as it had been originally presented in the Exposure Draft. ${ }^{6}$ a contract to contain, or be considered a lease, the following criteria must be met:

- Fulfillment of the contract requires use of a specified asset; ${ }^{7}$
- The contract conveys the right to control the use of the specified asset for a defined period of time;
- The lessee must have the ability to control and receive benefit from the use of such asset throughout the lease term.


## Scope:

The Exposure Draft states that a company would apply the finalized lease accounting standard to all leases, including leases of right-of-use assets in a sublease. However, the following leases are outside the scope of the proposed accounting standard:

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


## Proposed Recognition Method

[^3]
## Lessee Accounting:

All contracts that meet the Boards' definition of a lease and are within the scope of the proposed accounting changes would be recognized as a liability and an asset on the balance sheet. Specifically, lessees would be required to:

1. Initially recognize a right-of-use asset and a liability to make lease payments, both measured at the present value of the lease payments.
2. Amortize the right-of-use asset on a systematic basis that reflects the pattern of consumption of the expected future economic benefits.
3. Subsequently measure the liability to make lease payments using the effective interest method.

Figure 3 below details terms of a typical lease. Using these assumptions, we will walk through the process of recognition by the lessee:

| Lease Assumptions - Lessee Base Case |  |
| :--- | :---: |
| Initial Lease Term: | 5 years |
| Rentable Square Feet: | 25,000 |
| Annual Rent Per Square Foot: | $\$ 30.00$ |
| Annual Net Rent: | $\$ 750,000$ |
| Increases per Annum: | $3 \%$ |
| Lease Type: | NNN |
| Discount Rate ${ }^{8}:$ | $10 \%$ |
|  |  |
| Total NNN Rent Over Term: | $\$ 3,981,852$ |
| Present Value (discounted at 10\%): | $\$ 3,105,171$ |

Figure 3
Figures 4 and 5 present the initial and subsequent balance sheet recognition under the proposed accounting methods.

[^4]| Initial Balance Sheet Recognition |  |
| :--- | :---: |
| Initial Right-of-Use Asset: | $\$ 3,105,171$ |
| Record Present Value Liability for Lease Payments: | $\$ 3,105,171$ |
| Subsequent Balance Sheet Recognition | $\$ 621,034$ per year |
| Amortization of Right-of-Use Asset (Straight-line Method): | Net Rent Cost - <br> Reduce Liability using Effective Interest Method ${ }^{9}:$ <br> [Remaining Liability x Discount Rate] |
| Figure 4 |  |

## Balance Sheet Recognition - Lease Term

| Year | Initial | 1 | 2 | 3 | 4 | 5 |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Cash Expense | $\$-$ | $\$ 796,370$ | $\$ 796,370$ | $\$ 796,370$ | $\$ 796,370$ | $\$ 796,370$ |
| Proposed Recognition |  |  |  |  |  |  |
| Right-of-Use Asset | $3,105,171$ | $2,484,137$ | $1,863,103$ | $1,242,068$ | 621,034 |  |
| Lease Liability | $3,105,171$ | $2,644,975$ | $2,113,030$ | $1,501,116$ | 800,132 | - |
| Figure 5 |  |  |  |  | - |  |

As illustrated in Figure 5, the initial impact of the asset and liability offset one another, however, during the subsequent measurement periods, the right-of-use asset amortizes at a faster rate than the lease liability because it is amortized using the straight-line method while the lease obligation is amortized using the effective interest method (similar to a that used in bond amortization).

## Income Statement Recognition

Under existing SFAS 13 guidance, lessees are required to recognize operating leases by including rental expense on the income statement using a straight-line method. ${ }^{10}$ The proposed lease accounting standards would substitute this straight-line recognition with a two-component expense recognition method. The two components are i) amortization of the right-of-use asset and ii) interest expense on the lease liability.

Continuing with the hypothetical lease terms presented in the base case scenario, Figure 6 illustrates how the lease obligation is reported on the income statement.

[^5][^6]| Month 1 Income Statement Recognition |  |
| :--- | :--- |
| Amortization of Right-of-Use Asset: | $\$ 51,753$ |
| + | 25,876 |
| Interest Expense on Lease Obligation: |  |
| $=$ | 77,629 |

In order to illustrate how the new lease accounting standards differ from existing accounting standards, Figure 7 shows a side-by-side comparison of current versus proposed accounting:

Income Statement Recognition - Current versus Proposed

| Year | 1 | 2 | 3 | 4 | 5 | Totals |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Current Recognition | $\$ 796,370$ | $\$ 796,370$ | $\$ 796,370$ | $\$ 796,370$ | $\$ 796,370$ | $\$ 3,981,850$ |  |
| Current - Straight-Line |  |  |  |  |  |  |  |
| Proposed Recognition |  |  |  |  |  |  |  |
| Proposed-Amort. Right-of-Use Asset | 621,034 | 621,034 | 621,034 | 621,034 | 621,034 | $3,105,170$ |  |
| Proposed - Interest Expense on Lease | 289,804 | 240,555 | 183,761 | 118,561 | 44,000 | $\$ 876,681$ |  |
| Proposed - Total Expense | 910,838 | 861,589 | 804,795 | 739,595 | 665,034 | $3,981,851$ |  |
| Difference |  |  |  |  |  |  |  |
| Difference | 114,468 | 65,219 | 8,425 | $(56,775)$ | $(131,336)$ |  |  |
| Difference - Cumulative | 114,468 | 179,687 | 188,112 | 131,337 |  | - |  |

Figure 7

The straight-line amortization of the right-of-use asset coupled with imputed interest expense creates a total rent expense that is front-loaded. The total expense trends downwards throughout the term of the lease and eventually (approximately shortly after the term midpoint) declines to an amount below what it would be under the current expense recognition method. The magnitude of this initial difference increases directly with the length of the lease term. It should be noted that the total expense recorded over the entire lease term equals that which is recorded under existing SFAS 13 rules (refer to Figure 7 which shows that the cumulative difference nets to zero by the end of the term). Figure 8 illustrates of the difference between (i) the actual cash rent expense that increases over time (per the hypothetical lease contract terms), (ii) the current straight-line method under existing SFAS 13 which stays the same over the lease term, and (iii) the proposed right-of-use method rent expense which decreases over time.


Figure 8

## Lessor Accounting:

Similar to the proposed standards for lessee accounting, the guidance for lessor accounting is not yet finalized, and subject to future analysis and deliberations. As of July 2011, the Boards tentatively decided to use a single approach methodology for all leases. The Boards had previously debated using a dual approach consisting of the performance obligation approach and the derecognition approach. ${ }^{11}$ However, the Boards ultimately decided a dual model approach was not consistent with the lessee model that had been developed. While consistency between the lessee and lessor accounting methods was not considered by the Boards to be mandatory, the Boards felt that the degree of difference between the lessee and lessor

[^7]methods suggested greater variance than actually exists. As a result, during the July 2011 joint meeting, the Boards tentatively agreed that a "receivable and residual" approach.

## Lessor Accounting - Single Approach:

The following steps are involved in the proposed method for lessor accounting. The same baseline assumptions are utilized with additional, lessor-specific assumptions related to the underlying value of the leased asset.

| Lease Assumptions - Lessor Accounting Example: |  |
| :--- | :---: |
| Initial Lease Term: | 5 years |
| Rentable Square Feet: | 25,000 square feet |
| Annual Rent Per Square Foot: | $\$ 30.00$ |
| Annual Net Rent: | $\$ 750,000$ |
| Percentage Rent: | $\$ 0$ |
| Increases per Annum: | $3 \%$ |
| Lease Type: | NNN |
| Operating Expenses \& Real Estate Taxes: | $\$ 15.00$ |
| Annual Expenses: | $\$ 375,000$ |
| Total Annual Gross Rent: | $\$ 1,125,000$ |
| Lease 1 Discount Rate: | $10 \%$ |
| Total Net Rent Over Term: |  |
| Present Value - Net Rent: | $\$ 3,981,852$ |


| Lessor Specific Assumptions |  |
| :--- | :---: |
| Asset Fair Value: | $\$ 10,000,000$ |
| Asset Carrying Cost: | $\$ 8,750,000$ |
| Estimated Residual Value: | $\$ 6,032,975$ |

Figure 9

1. The lessor would first measure the present value of the future minimum lease payments using the discount rate implicit in the lease along with the amortized cost of the lease receivable using the effective interest method. For congruity, the same discount rate of $10 \%$ is applied to the future lease payments to calculate the present value of $\$ 3,105,171$ at initial recognition.
2. Next, the lessor would measure the residual asset by determining the excess value of the underlying asset beyond the present value of the entire lease receivable (referred to as "allocated cost basis" method). The lessor would then accrete the residual using the implicit discount rate ${ }^{12}$ in the lease. Measured as:

[^8]
3. The lessor must then determine any difference between the carrying amount of the underlying asset and the sum of the lease receivable plus the residual asset. Any realized profit (or loss) would be a result of the right-of-use transferred to the lessee, not the residual asset. At commencement, gain or loss is recognized for the difference between the lease receivable recognized $(\$ 3,105,171)$ and the portion of the carrying amount of the underlying asset that is derecognized (underlying asset of $\$ 8,750,000$ less the residual asset of $\$ 6,032,975$ ). Profit recognized over the term of the lease is comprised of interest income from the lease receivable and accretion of the residual asset.

Initial Gain / Loss:

| Carrying Cost: <br> Initial Residual Value: | $\begin{array}{r} \$ 8,750,000 \\ -6,032,975 \end{array}$ | PV of Anticipated Lease Revenue: Cost of Goods Sold: | $\begin{array}{r} \$ 3,105,171 \\ -2,717,025 \end{array}$ |
| :---: | :---: | :---: | :---: |
| $\rightarrow$ |  |  |  |
| Cost of Goods Sold: | 2,717,025 | Day 1 Gain: | 388,146 |

4. During the course of the lease term, the lessor would recognize interest income on the lease receivable and the residual asset.

## Balance Sheet Recognition

| Year | Initial Recognition | 1 | 2 | 3 | 4 | 5 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Right-to-Receive Payments | $\$ 3,105,171$ | $\$ 2,644,975$ | $\$ 2,113,030$ | $\$ 1,501,116$ | $\$ 800,132$ | $\$ 0$ |
| Right to Return of Asset | $6,032,975$ | $6,664,707$ | $7,362,588$ | $8,133,548$ | $8,985,236$ | $9,926,108$ |

Income Statement Recognition

| Year | 1 | 2 | 3 | 4 | 5 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Day 1 Gain | $\$ 388,146$ | $\$-$ | $\$-$ | $\$-$ | $\$-$ |
| Interest Income | 289,804 | 240,555 | 183,761 | 118,561 | 44,000 |
| Residual Accretion | 631,731 | 697,882 | 770,959 | 851,689 | 940,872 |
| Total Net Income | $1,309,682$ | 938,437 | 954,720 | 970,250 | 984,871 |

Figure 11

## Exemption for Investment Properties:

The Boards agreed to include an exemption to the lessor accounting model for investment property measured at fair value. ${ }^{13}$ The IASB already provides a scope exemption through IAS 40, Investment Property. The FASB has decided to issue a separate exposure draft on accounting for investment properties but it is expected to provide a similar exemption to what is provided under IAS 40. To qualify for exempted status, an entity would have to satisfy a number of requirements, namely:

- The entity's primary business activities relate to real estate investments.
- The entity's stated purpose must include the investment in real estate properties to realize capital appreciation (not just rental income or sale within the ordinary course of business).

Under the anticipated requirement, companies would need to measure right-of-use assets at fair value with all changes in fair value recognized in net income and rental income measured on a straight-line basis. ${ }^{14}$

## Factors in Measurement

## Measurement and Recognition:

Initially, the Exposure Draft proposed that lessees would measure the right-of-use asset and lease liability on the date of lease inception, and recognize those entries at lease commencement. ${ }^{15}$ Some constituents responded by citing potential problems, caused by the different measurement recognition dates.

[^9]Specifically, if external factors were to change between lease inception and lease commencement, respondents noted concerns in terms of how to account for a change in the fair value of the underlying asset (and, in particular, any corresponding gain or loss realization). During the July 2011 meeting, the Boards agreed that a lessee and a lessor should recognize and initially measure lease assets and lease liabilities (and derecognize any corresponding assets and liabilities) at the date of lease commencement. In addition to external factors, if any changes were to occur in the lease contract itself between inception and commencement, such changes would need to be reflected or accounted for at the commencement date. ${ }^{16}$

## Discount Rate:

The discount rate is used to determine the present value of the lease payments (i.e. the initial lease liability to be recognized on the balance sheet). This present value determines the right-of-use asset that is recognized and amortized on a straight-line basis on the balance sheet. This yearly amortization also serves as the first rent expense component on the income statement. The other component is the imputed interest expense, which is calculated by multiplying the discount rate by the remaining lease liability.

During the March 2011 meetings, the Boards tentatively decided to reaffirm the proposals in the Exposure Draft as it relates to the discount rate.

- The lessee would use the rate the lessor charges the lessee when that rate is available; otherwise the lessee would use its incremental borrowing rate. ${ }^{17}$
- The lessor would use the rate the lessor charges the lessee. ${ }^{18}$
- When more than one indicator of the rate that the lessor charges the lessee is available, the rate implicit in the lease should be used.

In addition to the above complexities, under certain situations, the lessee would need to reassess the discount rate due to material changes in circumstances relevant to the lease contract. For example, this would be required when there is a change in lease payments due to a change in the assessment of whether

[^10]the lessee has a significant economic incentive to exercise an option to extend a lease or to purchase the underlying asset. However, absent any change in lease payments no reassessment would be required.

Continuing with the terms from the previous example and adjusting the discount rate as shown in Figure 11 , it is clear evident that the selection of the appropriate discount rate becomes an important component in the recognition of any lease with regard to both the balance sheet and the income statement.

| Lease Assumptions - Discount Rate Effect: |  |  |  |
| :--- | :---: | :---: | :---: |
|  | $\underline{L}$ |  |  |
| Initial Lease Term: | 5 years | $\underline{\text { Lease 2 }}$ |  |
| Rentable Square Feet: | 25,000 square feet | 5 years |  |
| Annual Rent Per Square Foot: | $\$ 30.00$ | 25,000 square feet |  |
| Annual Net Rent: | $\$ 750,000$ | $\$ 30.00$ |  |
| Increases per Annum: | $3 \%$ | $\$ 750,000$ |  |
| Lease Type: | NNN | $3 \%$ |  |
| Lease 1 Discount Rate: | $\mathbf{1 0 \%}$ | NNN |  |
|  |  | $\mathbf{7 \%}$ |  |
| Total Rent Over Term: | $\$ 3,981,852$ |  |  |
| Present Value: | $\mathbf{\$ 3 , 1 0 5 , 1 7 1}$ | $\$ 3,981,852$ |  |

Figure 11

The aggregate effect of the difference using different discount rates is summarized in Figure 12 below.

Balance Sheet Effect

| Year | Initial |  | 1 | 2 | 3 | 4 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $10 \%$ Discount Rate |  |  |  |  |  | 5 |
| Lease Liability | $\$ 3,105,171$ | $\$ 2,644,975$ | $\$ 2,113,030$ | $\$ 1,501,116$ | $\$ 800,132$ | $\$-$ |
| Right of Use Asset | $3,105,171$ | $2,484,137$ | $1,863,103$ | $1,242,068$ | 621,034 | - |
| Liability / Asset | 1.0 | 1.06 | 1.13 | 1.21 | 1.29 | N/A |
| $7 \%$ Discount Rate |  |  |  |  |  |  |
| Lease Liability | $3,337,739$ | $2,804,488$ | $2,209,452$ | $1,547,468$ | 812,978 | - |
| Right of Use Asset | $3,337,739$ | $2,670,192$ | $2,002,644$ | $1,335,096$ | 667,548 | - |
| Liability / Asset | 1.0 | 1.05 | 1.10 | 1.16 | 1.22 | N/A |

Figure 12
The right-of-use asset for the lease discounted at 7 percent is larger at initial recognition than for the lease discounted at 10 percent. However, due to the accelerated straight-line amortization of the right-of-use asset relative to the lease liability (which would be amortized at a slower rate with imputed interest) the ratio of liabilities to assets subsequent to initial recognition is larger for the lease that is discounted with a

10 percent discount rate. This dynamic has a different effect on various capital ratios depending on the point in the term of the lease.

## Income Statement Effect

| Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 10\% Discount Rate |  |  |  | $\mathbf{5}$ |  |
| R.O.U. Amort. | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ |
| Interest Expense | 289,804 | 240,555 | 183,761 | 118,561 | 44,000 |
| Total | 910,838 | 861,589 | 804,795 | 739,595 | 665,034 |
| $7 \%$ Discount Rate |  |  |  |  |  |
| R.O.U. Amort. | 667,548 | 667,548 | 667,548 | 667,548 | 667,548 |
| Interest Expense | 216,749 | 177,464 | 133,691 | 85,055 | 31,154 |
| Total | 884,297 | 845,012 | 801,239 | 752,603 | 698,702 |
| Difference (\$) | 26,541 | 16,577 | 3,557 | $(13,008)$ | $(33,668)$ |
| Difference (\%) | $3.0 \%$ | $2.0 \%$ | $0.4 \%$ | $-1.7 \%$ | $-4.8 \%$ |

Figure 13
On the income statement, the impact of a significant difference in discount rate can be material. A higher discount rate results in a lower right-of-use asset but with higher interest expense. The lower initial right-of-use asset is a result of the larger discount of the future lease payment liability. The aggregate result is a higher total rent expense in the initial years and a lower expense during the later years, in comparison to the rent expense for a lease discounted at a lower rate.


Figure 14

## What would be Capitalized on the Balance Sheet?

Lease versus Non-Lease Components:

During the March 2011 meeting, the Boards tentatively decided that any lease contract should be divided into lease and non-lease components. Non-lease components would be recognized on the income statement during the period in which each expense is incurred. In the Exposure Draft, it was unclear what constituted a non-lease expense and there was speculation that expense items such as insurance and real estate taxes would have to be included as part of the lease component. However, following the March meetings, the Boards decided to categorize expense items such as insurance and real estate taxes as nonlease components.

In the example below, the income statement recognition for two different lease structures is shown. The two have the same total annual rental payments (base rent plus operating expenses) of $\$ 45.00$ per square foot per year. However, the first lease rate includes separate operating and real estate taxes expenses of $\$ 15$ per square foot (resulting in net rental rate of $\$ 30.00$ per square foot per year) while the second
includes operating and real estate tax expenses of $\$ 7.50$ per square foot per year (resulting in a net rental rate of $\$ 37.50$ per square foot per year).

| Lease Assumptions - Non-Lease Component Effect: |  |  |
| :---: | :---: | :---: |
|  | Lease 1 | Lease 2 |
| Initial Lease Term: | 5 years | 5 years |
| Rentable Square Feet: | 25,000 square feet | 25,000 square feet |
| Annual Rent Per Square Foot: | \$30.00 | \$37.50 |
| Annual Net Rent: | \$750,000 | \$937,500 |
| Increases per Annum: | 3\% | 3\% |
| Lease Type: | NNN | NNN |
| Operating Expenses \& Real Estate Taxes: | \$15.00 | \$7.50 |
| Annual Expenses: | \$375,000 | \$187,500 |
| Total Annual Gross Rent: | \$1,125,000 | \$1,125,000 |
| Lease 1 Discount Rate: | 10\% | 10\% |
| Total Net Rent Over Term: | \$3,981,852 | \$4,977,315 |
| Total Gross Rent Over Term: | \$5,972,778 | \$5,972,778 |
| Present Value - Net Rent: | \$3,105,171 | \$3,881,464 |
| Present Value - Gross Rent: | \$4,657,757 | \$4,657,757 |
| Figure 15 |  |  |

As the assumptions in table above indicate, the total cash payment is identical under both leases. However, because Lease 1 has a lower NNN rent of $\$ 30.00$ per square foot per year, the corresponding right-of-use asset is lower. On the balance sheet, this means the initial recognition will be lower for Lease 1 than Lease 2. For Lease 1, the result on the income statement is relatively lower aggregate rent expense during the initial years and higher aggregate rent expense during the latter part of the lease term.

Balance Sheet Effect of a Difference in Base Rent

| Year | Initial | 1 | 2 | 3 | 4 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- |
| $\$ 30.00$ psf NNN Rent |  |  |  |  |  |  |
| Lease Liability | $\$ 3,105,171$ | $\$ 2,644,975$ | $\$ 2,113,030$ | $\$ 1,501,116$ | $\$ 800,132$ |  |
| Right of Use Asset | $3,105,171$ | $2,484,137$ | $1,863,103$ | $1,242,068$ | 621,034 | $\$-$ |
| Liability - Asset | - | 160,838 | 249,927 | 259,048 | 179,098 | $\$-$ |
| $\$ 37.50$ psf Net Rent |  |  |  |  |  | $\$-$ |
| Lease Liability | $3,881,464$ | $3,306,219$ | $2,641,288$ | $1,876,395$ | $1,000,165$ |  |
| Right of Use Asset | $3,881,464$ | $3,105,171$ | $2,328,878$ | $1,552,586$ | 776,293 | $\$-$ |
| Liability - Asset | - | 201,048 | 312,409 | 323,810 | 223,872 | $\$-$ |
| Figure 16 |  |  |  |  |  | $\$-$ |

Figure 16

Income Statement Effect of a Difference in Base Rent

| Year | 1 | 2 | 3 | 4 | 5 | Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 30.00$ psf NNN Rent |  |  |  |  |  |  |
| R.O.U. Amort | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ |  |
| Interest Expense | 289,804 | 240,555 | 183,761 | 118,561 | 44,000 |  |
| \% Rent | 375,000 | 386,250 | 397,838 | 409,773 | 422,066 |  |
| Total | $\mathbf{1 , 2 8 5 , 8 3 8}$ | $\mathbf{1 , 2 4 7 , 8 3 9}$ | $\mathbf{1 , 2 0 2 , 6 3 3}$ | $\mathbf{1 , 1 4 9 , 3 6 8}$ | $\mathbf{1 , 0 8 7 , 1 0 0}$ | $\mathbf{5 , 9 7 2 , 7 7 8}$ |
| \$37.50 psf Net Rent |  |  |  |  |  |  |
| R.O.U. Amort | 776,293 | 776,293 | 776,293 | 776,293 | 776,293 |  |
| Interest Expense | 362,255 | 300,694 | 229,701 | 148,201 | 55,000 |  |
| \% Rent | 187,500 | 193,125 | 198,919 | 204,886 | 211,033 |  |
| Total | $\mathbf{1 , 3 2 6 , 0 4 8}$ | $\mathbf{1 , 2 7 0 , 1 1 2}$ | $\mathbf{1 , 2 0 4 , 9 1 3}$ | $\mathbf{1 , 1 2 9 , 3 8 0}$ | $\mathbf{1 , 0 4 2 , 3 2 5}$ | $\mathbf{5 , 9 7 2 , 7 7 8}$ |
| Difference (\$) | $(40,210)$ | $(22,272)$ | $(2,280)$ | 19,988 | 44,774 |  |
| Difference $(\%)$ | $-3.00 \%$ | $-1.80 \%$ | $-0.20 \%$ | $1.80 \%$ | $4.30 \%$ | - |



Figure 18

The Exposure Draft provided for the inclusion of both fixed and variable future lease obligations to be capitalized, and lessees and lessors were to use a probability-weighted outcome to calculate variable lease payments and receivables to determine the total amount to be capitalized. Variable payments include contingent rent, percentage rent ${ }^{19}$, lease penalties, and rent payments tied to specific indices. For the lessor, the Exposure Draft suggested only variable lease payments that could be "reliably measured" should be included in calculation of the lease receivable. For the lessee, no threshold based on reliability or probability was provided.

This provision received significant adverse reaction from constituents, particularly within the retail sector as those lessees are often affected by percentage rent obligations. Retailers were concerned with the costs and difficulty they would incur in deriving reliable predictions of future lease payments based on a percentage of sales. In addition, respondents expressed concern about the volatility in the income statement and balance sheet that would result from the required reassessment of the forecasted contingent rental payments. From the lessor's perspective, there would have been significant difficulty in predicting future rent receivables based on a lessee's projected sales volume, creating the potential for inconsistent accounting between lessee and lessor. ${ }^{20}$

In response, at the February 16, 2011 joint meetings, the Boards relaxed their requirement to include variable rent obligations and tentatively elected to require only those variable lease payments that are tied to a specific rate or index, or are "in substance fixed-rate payments." The guidelines for inclusion were meant to deter lessees from structuring leases with insignificant or unattainable variable lease payment criteria in order to exclude a portion of what would otherwise be minimum lease payments from balance sheet recognition.

The Boards' retreat on this topic eliminated much of the subjectivity and difficulty in measuring variable lease payments. However, while the Boards attempted to limit lessees' ability to structure what are essentially fixed rate lease payments as variable (through the required inclusion of what are in-substance fixed rate payments), the new proposed provision creates a well-defined distinction around which lessees can attempt to structure leases. Specifically, the Boards tentatively decided variable lease payments or receivables should be capitalized if those payments or receivables: i) Depend on an index or rate; ii) Contain variability that lacks commercial substance; iii) Meet a high recognition threshold. For example,

[^11]if a lease included a provision that called for the greater of: i) a rent payment based on a percentage of sales, or ii) a specific per square foot rental payment, and the sales volume threshold that would trigger such percentage rent payment was effectively unattainable, then that component of the lease would be capitalized based on the realistic, defined per square foot rental payment.

For variable lease payments that depend on a specific rate or index, the Boards tentatively agreed that the initial measurement of the variable lease payments should be based on the available spot rate. Similar to the effect of the previous example in Figure 17 where we illustrated that lower net rent leads to a lower initial right-of-use asset, the effect of including percentage rent results in a lower initial balance sheet recognition. Figure 18 shows two lease examples to illustrate the effects of percentage rent. Lease 1 has a NNN lease rate of $\$ 30.00$ per square foot per year with no percentage rent obligation while Lease 2 has a lower NNN lease rate of $\$ 22.50$ per square foot per year but has a percentage rent obligation of $5 \%$ of annual sales.

| Lease Assumptions - Variable Rent: |  |  |
| :---: | :---: | :---: |
|  | Lease 1 | Lease 2 |
| Initial Lease Term: | 5 years | 5 years |
| Rentable Square Feet: | 25,000 square feet | 25,000 square feet |
| Annual Rent Per Square Foot: | \$30.00 | \$22.50 |
| Annual Net Rent: | \$750,000 | \$750,000 |
| Percentage Rent: | \$0 | 5\% of \$3.75M |
| Increases per Annum: | 3\% | 3\% |
| Lease Type: | NNN | NNN |
| Operating Expenses \& Real Estate Taxes: | \$15.00 | \$15.00 |
| Annual Expenses: | \$375,000 | \$375,000 |
| Total Annual Gross Rent: | \$1,125,000 | \$1,125,000 |
| Lease 1 Discount Rate: | 10\% | 10\% |
| Total Net Rent Over Term: | \$3,981,852 | \$2,986,389 |
| Total Gross Rent Over Term: | \$5,972,778 | \$5,972,778 |
| Present Value - Net Rent: | \$3,105,171 | \$2,328,878 |
| Present Value - Gross Rent: | \$4,657,757 | \$4,657,757 |

Figure 19

## Balance Sheet Effect

| Year | Initial | 1 | 2 | 3 | 4 | 5 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| No $\%$ Rent |  |  |  |  |  |  |
| Right of Use Asset | $\$ 3,105,171$ | $\$ 2,484,137$ | $\$ 1,863,103$ | $\$ 1,242,068$ | $\$ 621,034$ | $\$ 0$ |
| Lease Liability | $3,105,171$ | $2,644,975$ | $2,113,030$ | $1,501,116$ | 800,132 | 0 |
| Liability - Asset | - | 160,838 | 249,927 | 259,048 | 179,098 | - |
| $\%$ Rent |  |  |  |  |  |  |
| Right of Use Asset | $2,328,878$ | $\$ 1,863,103$ | $1,397,327$ | 931,551 | 465,776 | - |
| Lease Liability | $2,328,878$ | $1,983,731$ | $1,584,773$ | $1,125,837$ | 600,099 | - |
| Liability - Asset | - | 120,629 | 187,446 | 194,286 | 134,323 | - |

Figure 20

Income Statement Effect

| Year | 1 | 2 | 3 | 4 | 5 | Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| No \% Rent |  |  |  |  |  |  |
| R.O.U. Amort | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ | $\$ 621,034$ |  |
| Interest Expense | 289,804 | 240,555 | 183,761 | 118,561 | 44,000 |  |
| \% Rent | - | - | - | - | - |  |
| Total | 910,838 | 861,589 | 804,795 | 739,595 | 665,034 | $3,981,851$ |
| \% Rent |  |  |  |  |  |  |
| R.O.U. Amort | 465,776 | 465,776 | 465,776 | 465,776 | 465,776 |  |
| Interest Expense | 217,353 | 180,416 | 137,821 | 88,921 | 33,000 |  |
| \% Rent | 187,500 | 193,125 | 198,919 | 204,886 | 211,033 |  |
| Total | 870,629 | 839,317 | 802,515 | 759,583 | 709,808 | $3,981,851$ |
| Difference (\$) | 40,210 | 22,272 | 2,280 | $(19,988)$ | $(44,774)$ | $\$$ - |
| Difference (\%) | $4.60 \%$ | $2.70 \%$ | $0.30 \%$ | $-2.60 \%$ | $-6,30 \%$ |  |

Figure 21


Figure 22

## Assessment of Termination and Renewal Options

In determining the lease term, lessors and lessees must take into account the non-cancellable base term plus any options to renew or terminate the lease, to the extent there exists a "significant economic incentive" to exercise such options. The four factors used to determine significant economic incentive are: (i) market-based, (ii) entity-based, (iii) asset-based, and (iii) contract-based factors. These criteria create a level of subjectivity when evaluating whether an option should be recognized, and may create opportunities for creative lease structuring. As an example, a lease contract requires a lessee to pay a restoration fee upon lease expiration if a renewal option is not exercised would be considered a contractbased factor that could be interpreted as a significant economic incentive to renew. Other examples of factors that may be interpreted as incentive to exercise a renewal is how specified the asset is to the lessee and how difficult it is to relocate to a comparable property.

| Lease Assumptions - Renewal Options: |  |  |
| :--- | :---: | :---: |
|  | $\underline{\text { Lease 1 }}$ | Lease 2 |
| Initial Lease Term: | 5 years | 5 years |
| Renewal Options | No | 1 3-year Renewal Option |
| Rentable Square Feet: | 25,000 square feet | 25,000 square feet |
| Annual Rent Per Square Foot: | $\$ 30.00$ | $\$ 30.00$ |
| Annual Net Rent: | $\$ 750,000$ | $\$ 750,000$ |
| Increases per Annum: | $3 \%$ | $3 \%$ |
| Lease Type: | NNN | NNN |
| Operating Expenses \& Real Estate Taxes: | $\$ 15.00$ | $\$ 15.00$ |
| Annual Expenses: | $\$ 375,000$ | $\$ 375,000$ |
| Total Annual Gross Rent: | $\$ 1,125,000$ | $\$ 1,125,000$ |
| Lease 1 Discount Rate: | $10 \%$ | $10 \%$ |
|  |  |  |
| Total Net Rent Over Term: | $\mathbf{\$ 3 , 9 8 1 , 8 5 2}$ | $\mathbf{\$ 9 , 6 0 5 , 8 4 7}$ |
| Total Gross Rent Over $\boldsymbol{T e r m}:$ | $\mathbf{\$ 5 , 9 7 2 , 7 7 8}$ | $\mathbf{\$ 1 4 , 4 0 8 , 7 7 0}$ |
|  |  |  |
| Present Value $\boldsymbol{-}$ Net Rent: | $\mathbf{\$ 3 , 1 0 5 , 1 7 1}$ | $\mathbf{\$ 5 , 6 4 5 , 9 8 6}$ |
| Present Value - Gross Rent: | $\mathbf{\$ 4 , 6 5 7 , 7 5 7}$ | $\mathbf{\$ 8 , 4 6 8 , 9 7 9}$ |

Figure 23

Balance Sheet Effect

| Year | Initial | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Renewals |  |  |  |  |  |  |  |  |  |
| Right of Use Asset | \$3,105,171 | \$2,484,137 | \$1,863,103 | \$1,242,068 | \$621,034 | \$- |  |  |  |
| Lease Liability | 3,105,171 | 2,644,975 | 2,113,030 | 1,501,116 | 800,132 | - |  |  |  |
| Liability - Asset | - | 160,838 | 249,927 | 259,048 | 179,098 | - |  |  |  |
| 2 Renewals |  |  |  |  |  |  |  |  |  |
| Right of Use Asset | 5,645,986 | 5,132,714 | 4,619,443 | 4,106,172 | 3,592,900 | 3,079,629 | 2,566,357 | 2,053,086 | 1,539,814 |
| Lease Liability | 5,645,986 | 5,451,846 | 5,213,817 | 4,926,597 | 4,584,305 | 4,180,425 | 3,707,737 | 3,158,239 | 2,523,069 |
| Liability - Asset | - | 319,132 | 594,374 | 820,425 | 991,405 | 1,100,797 | 1,141,380 | 1,105,153 | 983,254 |



Figure 25

## Subleases:

The Boards tentatively decided that that an underlying, or "head" lease and any sublease should be accounted for as separate transactions and that the intermediate lessor (lessee in the head lease and lessor in the sublease) would follow the lease standard inclusive of all decisions made to date. This means the intermediate lessor, as sub-lessor, would apply the current lessor standards in addition to the lessee standards it would have applied at commencement of the head lease. When determining the residual value to record as lessor, the intermediate lessor should consider the right-of-use asset and not the underlying asset.

| Lease Assumptions - Sublease: |  |  |
| :--- | :---: | :---: |
|  | Head Lease (Lessee) | Intermediate Lease (Sub-lessor) |
| Initial Lease Term: | 5 years | 3 years |
| Rentable Square Feet: | 25,000 square feet | 25,000 square feet |
| Annual Rent Per Square Foot: | $\$ 30.00$ | $\$ 25.00$ |
| Annual Net Rent: | $\mathbf{\$ 7 5 0 , 0 0 0}$ | $\mathbf{\$ 6 2 5 , 0 0 0}$ |
| Increases per Annum: | $3 \%$ | $3 \%$ |
| Lease Type: | NNN | NNN |
| Operating Expenses \& Real Estate Taxes: | $\$ 15.00$ | $\$ 15.91$ |
| Annual Expenses: | $\$ 375,000$ | $\$ 397,838$ |
| Total Annual Gross Rent: | $\$ 1,125,000$ | $\$ 1,022,838$ |
| Lease Discount Rate: | $10 \%$ | $10 \%$ |
|  |  |  |
| Total Net Rent Over Term: | $\$ 3,981,852$ | $\$ 1,989,188$ |
| Total Gross Rent Over Term: | $\$ 5,972,778$ | $\$ 3,218,863$ |
|  |  |  |
| Present Value - Net Rent: | $\$ 3,105,171$ | $\$ 2,328,878$ |
| Present Value - Gross Rent: | $\mathbf{\$ 4 , 6 5 7 , 7 5 7}$ | $\$ 1,712,427$ |


| Lessor Specific Assumptions |  |  |
| :--- | :---: | :---: |
| Asset Fair Value: | NA | $\$ 1,712,427$ |
| Asset Carrying Cost: | NA | $\$ 2,064,332$ |
| Estimated Residual Value: | NA | $\$ 0$ |

Figure 26
Using assumptions from the table above, we are able to present an example of a head lease coupled with an intermediate, or sublease. In this example, it is assumed, the original lessee subleases the asset at the beginning of the third year of a five-year term. At the beginning of the third year, the intermediate lessor would need to perform the following steps:

1. The intermediate lessor would presumably use the remaining right-of-use asset at the beginning of the third year $(\$ 2,064,332)$ as a carrying cost. In this example, we assume the intermediate lessor must take a discount to its current rent payment from the sublessee ( $\$ 25.00$ per square foot per year).
2. Next, using this rent estimation, we can estimate the fair value based on the present value of the lease payments over the three-year term (In this step, we make an assumption that there is no excess residual value and that the present value of the sublease rent payments would equal the entire fair value for the asset).
3. Lastly, because there was no initial realization of residual value, the proposed guidance suggests the residual value accretes at a constant rate, from zero to carrying cost of the asset assuming depreciation over the useful life of the underlying asset (in this case assumed to be 20 years).

Balance Sheet Impact of Sublease

|  | Initial | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Assets <br> Lessee <br> Right-of-Use Asset |  |  |  |  |  |  |
| Sub-lessor |  |  |  |  |  |  |
| Right-to-Receive Pmts. |  |  |  |  |  |  |
| Right-to-Return of Asset |  |  |  |  |  |  |

Figure 27

Notice on the income statement, the intermediate lessor must recognize an initial loss. This is due to the fact the assumed carrying value for the sublease is assumed to be the remaining, unamortized portion of the right-of-use asset from the original lease while the revenue, which is essentially the right-to-receive rent from the sublessee is less than this amount since we assume the intermediate lessor would only be able to secure rents at a discount to what it had been paying as a lessee.

Income Statement Impact of Sublease

|  | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue |  |  |  |  |  |
| Sub-Lessor |  |  |  |  |  |
| Initial Gain / Loss |  |  | $(\$ 351,905)$ | \$ - | \$ - |
| Residual Accretion |  |  | 741,059 | 608,764 | 464,781 |
| Interest Income |  |  | 148,063 | 94,136 | 34,562 |
| Operating Expenses |  |  | 397,838 | 409,773 | 422,066 |
| Total Revenue | - | - | 935,054 | 1,112,672 | 921,409 |
| Expenses |  |  |  |  |  |
| Lessee |  |  |  |  |  |
| Amortization of Right to Use Asset | 621,034 | 621,034 | 621,034 | 621,034 | 621,034 |
| Interest Expense on Lease Obligation | 289,804 | 240,555 | 183,761 | 118,561 | 44,000 |
| Operating Expenses | 375,000 | 386,250 | 397,838 | 409,773 | 422,066 |
| Total Expenses | 1,285,838 | 1,247,839 | 1,202,633 | 1,149,368 | 1,087,100 |
| Net Income | $(1,285,838)$ | $(1,247,839)$ | $(267,579)$ | $(36,696)$ | $(165,691)$ |

Figure 28

## Sale Leaseback Accounting:

Boards tentatively decided that sale-leaseback transactions would be accounted for as two separate transactions, a sale and subsequent leaseback of the sold asset. If the criteria to qualify for a sale, pursuant to the revenue recognition guidance, were not met, then the transaction would be accounted for as a financing.

- Unlike current guidance for sale-leaseback transactions Gains or losses arising from a sale and leaseback transaction would not be deferred over the ensuing lease term.
- When the asset is not transferred at fair value, any gains and losses recognized would be adjusted to reflect current market rentals,
- The seller/lessee would derecognize the entire asset and record a right-of-use asset for the lease and,
- The seller/lessee would apply the leases guidance to determine how to account for lease.


## Changes to specific leverage and capital ratios:

Bringing all operating lease obligations onto the balance sheet would dramatically alter the current composition and appearance of financial statements. Further, due to the addition of imputed interest expense and amortization of the right-of-use asset on the income statement, net income measurements would change as well. Since these balance sheet and income statement components are the underlying metrics used to quantify common ratios that analysts and investors use to measure firms' financial strength and operating performance, the proposed accounting standard would result in significant changes to these key ratios, the impact of which would be meaningful. Many lenders impose loan covenants that require borrowers to maintain certain thresholds, which are calculated using these key metrics. Further, analysts, rating agencies, investors and lenders have developed methodologies to assess company performance. The proposed rules would force financial statement users to recalibrate ratios or altogether alter their preferred methods of lease capitalization to account for the additional information.

The charts below illustrate how some of these key metrics would change if the new accounting rules were applied. The same lease assumptions from previous examples are used but additional assumptions are added to show the various impacts to a hypothetical balance sheet and income statement. By changing the lease accounting standards, we illustrate how some of these key ratios would change going forward.

As can be seen in Figures 24 through 28 below, the new accounting standards have the potential to significantly alter certain ratios and metrics that analysts and investors use when analyzing a company's financial performance. The magnitude of the effects would change depending on the size of the company's operating lease portfolio in relation to other financial metrics. Figure 29 below provides a summary of some of these potential changes.

| Ratio | Calculation | Potential Effect of New Accounting |
| :--- | :--- | :--- |
| Debt-to-Equity | Total debt / Total equity | Ratio will increase due to increase in total debt (liabilities) |
| EBITDA/Expense | Total Revenue - Total <br> Expenses | Metric will increase due to the elimination of rent expense |
| Interest Coverage | EBITDA / Total Interest | Ratio will decrease due to the imputed interest expense on <br> lease obligations, which will offset the increase in <br> EBITDA |
| Return on Assets | Net Income / Total Assets | Ratio will decrease due to an increase in total assets caused <br> by the lease obligation |

## Debt-to-Equity Ratio:

Because the proposed accounting standards would impose additional liabilities on the balance sheet, this would cause total liabilities to increase, and therefore the total debt divided by total equity would increase. Further, equity would decrease in conjunction with the increase in liabilities on the balance sheet. Because the accounting rules require the lease obligation to be reported as a right-of-use asset and corresponding liability, one might ask why the asset and liability do not offset one another. As a reminder, at the initial measurement date, the right-of-use asset and lease liability would effectively offset one another (net to zero) because the PV of the future minimum lease payments would be the same for the asset and liability at commencement of the lease. However, over the course of the lease term, the asset would amortize on a straight-line basis, while the corresponding liability would amortize using the effective interest amortization. Therefore, the asset and liability, while initially measured equally would be adjusted by different amounts over the lease term, causing the liability to be higher than the asset. Figure 30 below, shows a hypothetical balance sheet by including the same lease assumptions that have been used throughout the paper and making additional assumptions for 'other assets' and 'long term debt.' 'Other assets' and long term debt' line items are held constant over the 5-year lease term for illustration purposes in order to isolate the effects that the change in accounting would have on the debt-to-equity ratio.

Balance Sheet Entries - Current

| Year | Initial | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |  |  |
| Right-of-Use Asset |  | \$- | \$- | \$- | \$- | \$- |
| Other Assets | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Total Assets | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Liabilities |  |  |  |  |  |  |
| Lease Obligation | - | - | - | - | - | - |
| Other Loan Term Debt | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ |
| Total Liabilities | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ |
| Shareholders' Equity | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Debt to Equity Ratio | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |

Balance Sheet Entries - Proposed

| Year | Initial | 1 | 2 | 3 | 4 | 5 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Assets |  |  |  |  |  |  |
| Right to Use Asset | $\$ 3,105$ | $\$ 2,484$ | $\$ 1,863$ | $\$ 1,242$ | $\$ 621$ | $\$-$ |
| Other Assets | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Total Assets | 8,105 | 7,484 | 6,863 | 6,242 | 5,621 | 5,000 |
| Liabilities |  |  |  |  |  |  |
| Lease Obligation | $(3,105)$ | $(2,645)$ | $(2,113)$ | $(1,501)$ | $(800)$ |  |
| Other LT Debt | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ | $(3,000)$ |
| Total Liabilities | $(6,105)$ | $(5,645)$ | $(5,113)$ | $(4,501)$ | $(3,800)$ | $(3,000)$ |
| Shareholders' Equity | 2,000 | 1,839 | 1,750 | 1,741 | 1,821 | 2,000 |
| Debt to Equity Ratio | $\mathbf{3 . 0 5}$ | $\mathbf{3 . 0 7}$ | $\mathbf{2 . 9 2}$ | $\mathbf{2 . 5 9}$ | $\mathbf{2 . 0 9}$ | $\mathbf{1 . 5 0}$ |

Earnings before Interest Taxes Depreciation and Amortization (EBITDA):

Current accounting guidance requires rent expense to be incurred on the income statement using a straight-line method, which results in a steady rent expense over the term. The expense is deducted as an operating expense, which reduces EBITDA. The new accounting rules would eliminate rent from operating expenses and replace it with a two-component expense obligation, imputed interest and amortization of the right-to-use asset, which would not affect EBITDA. Said differently, currently rent expense appears "above the line" in an EBITDA analysis, but under proposed accounting guidance, both amortization expense and interest expense would be classified "below the line," not affecting EBITDA. Therefore, every company's EBITDA would increase under the proposed rules. Again, it is important to note here that the effect of the new accounting on net income would be substantially different than the effect on EBITDA. Under proposed accounting methods, net income would actually be lower in early periods and higher in later periods compared to current accounting methods because of the front-loaded nature of the imputed interest and amortization of the lease obligation. In Figure 32 and 33 below, the same lease assumptions are used along with additional assumptions to create a hypothetical income statement. We hold all line items equal over the lease term to isolate the different effects that the lease accounting changes would have on EBITDA and net income.

Income Statement Entries - Current

| Year | 1 | 2 | 3 | 4 | 5 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Total Revenue | $\$ 5,000$ | $\$ 5,000$ | $\$ 5,000$ | $\$ 5,000$ | $\$ 5,000$ |
| Expenses |  |  |  |  |  |
| Straight Line Rent | 796 | 796 | 796 | 796 | 796 |
| Operating Expenses | 500 | 500 | 500 | 500 | 500 |
| Total Expenses | 1,296 | 1,296 | 1,296 | 1,296 | 1,296 |
|  |  |  |  | $\mathbf{3 , 7 0 4}$ | $\mathbf{3 , 7 0 4}$ |
| EBITDA | $\mathbf{3 , 7 0 4}$ | $\mathbf{3 , 7 0 4}$ | $\mathbf{3 , 7 0 4}$ | 210 | 210 |
| Interest on Long Term Debt | 210 | 210 | 210 | $\mathbf{3 , 4 9 4}$ | $\mathbf{3 , 4 9 4}$ |
| Net Income | $\mathbf{3 , 4 9 4}$ | $\mathbf{3 , 4 9 4}$ | $\mathbf{3 , 4 9 4}$ |  |  |

Figure 32

Income Statement Entries - Proposed

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total Revenue | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| Expenses |  |  |  |  |  |
| Straight Line Rent (N/A) | 0 | 0 | 0 | 0 | 0 |
| Operating Expenses | 500 | 500 | 500 | 500 | 500 |
| Total Expenses | 500 | 500 | 500 | 500 | 500 |
| EBITDA | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 |
| Amortization of Right-ofUse Asset | 621 | 621 | 621 | 621 | 621 |
| Interest Expense on Lease Obligation | 290 | 241 | 184 | 119 | 44 |
| Interest on Long Term Debt | 210 | 210 | 210 | 210 | 210 |
| Net Income | 3,379 | 3,428 | 3,485 | 3,550 | 3,625 |

Figure 30

## Interest Coverage:

Banks are especially cognizant of a company's interest coverage ratio because it is generally used to determine debt capacity and the company's ability to repay debts as they become due. Since the new accounting methods would require recognition of the imputed interest of the lease obligation, the company's total interest expense would increase. As mentioned in the previous section, EBITDA would increase under proposed accounting guidance. However, the increase in EBITDA would be offset by the increase in total interest. As a result, the interest coverage ratio would decrease (calculated as EBITDA divided by Total Interest). Please see Figure 31 and 32 below for illustration.

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total Revenue | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| Expenses |  |  |  |  |  |
| Straight Line Rent | 796 | 796 | 796 | 796 | 796 |
| Operating Expenses | 500 | 500 | 500 | 500 | 500 |
| Total Expenses | 1,296 | 1,296 | 1,296 | 1,296 | 1,296 |
| EBITDA | 3,704 | 3,704 | 3,704 | 3,704 | 3,704 |
| Interest on Long Term Debt | 210 | 210 | 210 | 210 | 210 |
| Interest Coverage (EBITDA / Int.) | 17.64 | 17.64 | 17.64 | 17.64 | 17.64 |

Figure 31

Income Statement Entries - Proposed

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total Revenue | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| Expenses |  |  |  |  |  |
| Straight Line Rent (N/A) | 0 | 0 | 0 | 0 | 0 |
| Operating Expenses | 500 | 500 | 500 | 500 | 500 |
| Total Expenses | 500 | 500 | 500 | 500 | 500 |
| EBITDA | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 |
| Amortization of Right to Use Asset | 621 | 621 | 621 | 621 | 621 |
| Interest Expense on Lease Obligation | 290 | 241 | 184 | 119 | 44 |
| Interest on Long Term Debt | 210 | 210 | 210 | 210 | 210 |
| Total Interest | 500 | 451 | 394 | 329 | 254 |
| Interest Coverage (EBITDA/Interest) | 9.00 | 9.99 | 11.43 | 13.70 | 17.72 |

Figure 32

Return on Assets:

The return on assets ratio (ROA) is commonly used to assess the overall profitability of a company relative to its total assets. Not only do investors and analysts use this metric to assess profitability, often it is used as an internal metric that influences compensation decisions. Because the total assets of a company would increase as a result of recording the right-of-use asset on the balance sheet, the ROA ratio
would decrease. As stated earlier, under proposed accounting guidance, net income would be lower in early years and steadily increase because of the front-loaded amortization expense and interest expense. While both the current and proposed accounting rules ultimately charge the same expense amount in total, the front-loaded nature of the imputed interest and amortization under proposed accounting would cause the net income to steadily increase (holding all other balance sheet line items constant). Therefore, in Year 5 the return on assets would actually be higher under the proposed accounting standard than existing accounting guidance. See Figure 35 below for illustration.

Return on Assets - Current

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Net Income | $\$ 3,494$ | $\$ 3,494$ | $\$ 3,494$ | $\$ 3,494$ | $\$ 3,494$ |
| Total Assets | 6,000 | 5,750 | 5,500 | 5,250 | 5,000 |
| Return on Assets | $58.2 \%$ | $60.8 \%$ | $63.5 \%$ | $66.5 \%$ | $69.9 \%$ |

Return on Assets - Proposed

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Net Income | $\$ 3,379$ | $\$ 3,428$ | $\$ 3,485$ | $\$ 3,550$ | $\$ 3,625$ |
| Total Assets | 8,484 | 7,613 | 6,742 | 5,871 | 5,000 |
| Return on Assets | $39.8 \%$ | $45.0 \%$ | $51.7 \%$ | $60.5 \%$ | $72.5 \%$ |

## CHAPTER 2: LITERATURE REVIEW


#### Abstract

Chapter Summary The following chapter summarizes possible effects of the proposed lease accounting changes as predicted by relevant industry participants. The chapter describes current methodologies used by rating agencies and analysts to account for operating leases and demonstrates that significant changes to lease accounting may alter perceptions of corporate valuations and credit ratings Prior research is discussed regarding corporate real estate strategy along with how financial statement presentation may play a role. The research described in this chapter will set the basis for how hypotheses are formulated and analyzed in later chapters.


## 2.0: What the Industry is Predicting

Since the FASB and IASB published their discussion paper on leases in July 2009, commercial industry participants have speculated about the potential impact that the proposed changes to lease accounting could have on real estate decisions. As the proposed changes have themselves changed and continue to evolve towards a finalized standard, ${ }^{21}$ so have these speculations. While opinions vary as to whether such changes to accounting would impact real estate decisions, the dialogue among groups that has occurred has helped the standard setters understand areas of concern for particular groups.

One group that has been principally involved in interpreting the proposed changes and what they could mean for the real estate industry is the accounting sector. In their capacity as auditors for companies, accounting firms provide guidance as to how accounting items should be reported. While the "Big Four",22 have produced a litany of publications describing the rules and the reporting implications, they have been less forthcoming in predicting how the proposed changes might affect the actual real estate decisions. However, there have been some predictions expressed by various industry members. In April 2011 interview with Real Estate Finance \& Investment, Josh Leonard, a partner in the real estate consulting group at Deloitte Financial Advisory Services, predicted shorter leases; more specifically, firms that currently target five to ten year terms would reduce their required term to three to five years. He also predicted companies with the available resources would purchase instead of lease real estate assets in the absence of the current accounting benefit. While Leonard believes this shift in strategy would certainly apply to companies seeking build-to-suit transactions and single-tenant buildings, he felt it would also

[^12]occur in multi-tenant buildings in the form of an increase in condo interest transactions (Real Estate Finance \& Investment 2011).

However, other groups assert any changes to accounting that do not alter cash flows should not change the way in which companies make real estate decisions. In an article published in the April of 2011 issuance of McKinsey Quarterly, McKinsey consultant Werner Rehm suggests real estate strategy should not change as a result of any changes to accounting standards because external valuations would not change. He admits the changes may force companies to provide investors with details about specific lease assumptions and certain debt covenants and/or employee compensation ratios may need to be modified, but this would not affect a company's cash flows or how it operates and creates value. Further, company values should not change as a result of the initial transfer of leases to the balance sheet since investors are already aware of, and track lease obligation using footnote disclosure. (Rehm 2011).

A survey published by Deloitte in February $2011^{23}$ sought the direct opinions of the groups that would be impacted the most by the proposed changes. The responses to the survey, the participants of which included 178 lessees and 81 lessors $^{24}$, suggested companies anticipated significant changes if the proposed accounting changed were implemented. Specifically, 18 percent of the lessee and service provider respondents thought it would be "extremely" or "very likely" that their companies would try to negotiate shorter lease terms. 38 percent thought that this strategy would be "somewhat likely" while 45 percent thought it was "not at all likely". In addition, 28 percent of percent of all respondents thought, for companies that would likely lease under current accounting rules, it would be extremely/very likely for more of such companies to purchase rather than lease if the proposed rule changes are adopted (Deloitte 2011).

While this survey offered valuable perspective by targeting the actual groups who would be directly affected (lessees and lessors), it should be noted that of the survey participants, 44 percent of the companies were privately held. We suspect public and private companies hold divergent views on the impact of the proposed changes since any resultant change to financial statements would generally impact public companies. Therefore, further analysis of the responses should be performed to determine whether any potential change in commercial real estate strategy is more likely to any particular group.

[^13]These three examples give an idea of the difference in opinion throughout the commercial real estate opinion as to what the impact of the proposed accounting changes could be. It seems the tentative status of any specific rule decisions coupled with the multitude of revisions to these rules as they were described in the Exposure Draft have made it difficult for many companies to remain informed. We suspect, as the proposed rule changes near a finalized statues, companies will devote additional time and resources to further analyze the changes within the context of their real estate strategy. With this additional understanding, companies will likely modify their current opinions.

## 2.1: Potential Changes to Corporate Ratings and Valuations

## Rating agency methodology: Accounting for operating leases in assessing risk

A primary concern of regulators, and one of the key drivers that guided the Boards to propose a new set of lease accounting rules, is that some off-balance-sheet transactions lack transparency in financial reporting. The lack of transparency leads regulators to ask the question, 'Are these off-balance-sheet obligations appropriately assessed by users of financial statements, including rating agencies, analysts, lenders and investors?" Analysts and rating agencies may not assign the same amount of risk to capitalized operating leases as they do financing leases, or owned assets; however, they do conclude that lease obligations represent debt, regardless of whether they are categorized as operating or capital leases. Yet analysts and rating agencies are not privy to all information regarding operating leases and, instead, use various methods to capitalize operating leases into present value liabilities using information found in the footnotes of financial reports. Research suggests this effective capitalization of operating leases among market participants is inconsistent as rating agencies and equity analysts differ in their approaches to for applying this method.

Both Moody's and Standard \& Poor's (S\&P) employ methodologies for capitalizing operating leases since they perceive most leases as a form of debt that should be reflected as such in their credit assessments of a company. The ratings agencies also use this operating lease capitalization to compare companies that lease core assets against companies that purchase core assets. Despite this shared goal to reflect the elements of lease capitalization in their credit assessments, the companies use different methods to achieve it. Each method emphasizes a different aspect of the underlying risk associated with a company's interest in an operating lease.

## Moody's

According to Moody's (1999), "our objectives in analyzing operating lease intensive companies are twofold: to accurately depict a firm's effective leverage and to achieve comparability in analyzing firms employing different financing tools (e.g. lease vs. buy)." More generally, Moody's adjusts financial statements in an effort to:

- Apply accounting principles that more faithfully capture underlying economics
- Remove the effects of unusual or non-recurring items
- Reflect assumptions that better that are more appropriate given a company's particular circumstances (Moody's 2010)

Based on anecdotal evidence, Moody's currently uses a multiple of current rent expense to capitalize future operating lease obligations. This method is intended to create an obligation similar to one that would be incurred if the asset were purchased. The multiple is designed to recognize the full economic life of the asset and associated lease payments whereas a method that utilizes the present discounted value of the remaining future lease obligations does not consider a company's need for leased space beyond the current term. Moody's method recognizes and accounts for a company's long-term need for the asset or a replacement thereof. The specific multiple employed ranges from 4 x to 10 x and is based on industryspecific as well as entity and asset-specific factors. This amount is then compared to the present value of the future lease payments (similar to the guidance in the proposed accounting changes), with the greater chosen to represent the capitalized lease obligation for credit assessment purposes.

Since Moody's already utilizes a more conservative method for estimating the impact of future lease obligations, it is unlikely the firm would alter its methodology substantially. However, in a December 2010 report describing its rating implementation methods, Moody's asserted its current methodology was subject to change in response to any change in lease accounting.

## Standard \& Poor's

S\&P capitalizes operating leases by discounting the future minimum lease payments disclosed by companies, in financial statements, using a single estimate of rates implicit companies' overall lease agreements, an approach that is notably different from the multiple approach employed by Moody's. In its recent paper "Credit FAQ: How Proposed Changes To IFRS and U.S. Lease Accounting Requirements Are Likely To Affect Standard \& Poor's Credit Analysis" (September 2010), S\&P indicated that in some
instances, the proposed accounting standards would result in balance sheet obligations that could differ significantly from S\&P's current adjustment of operating leases. For instance, renewal options are generally not capitalized under S\&P's current approach, as the renewal options are not always disclosed in the footnotes to the financial statements. However, under proposed accounting rules, these additional periods would need to be capitalized to the extent there exists a "significant economic incentive" for the tenant to renew. Also, the proposed accounting guidance would require companies to discount future minimum lease payments at their internal rate of borrowing (assuming the rate implicit in the lease would be unattainable), which could change from lease to lease, whereas S\&P uses a single rate for the aggregate portfolio of leases for each company. Due to these discrepancies between S\&P's current method and the proposed new accounting method, S\&P reported that it would need to adjust certain aspects of its methodology. In addition, S\&P suggested credit ratings could change due to the disclosure of new information regarding details of particular leases. However, the ratings agency did not anticipate material changes to credit ratings of companies as a result of any changes in its methodology.

## Impact of lease capitalization on valuation of public companies

As previously discussed, companies must record a capital lease as an asset and liability on the balance sheet, while they are only required to disclose certain information regarding operating leases in the financial statement footnotes. ${ }^{25}$ This means financial statement users must capitalize the future operating lease obligations using a method similar to those of ratings agencies, in order to accurately account for these future obligations as current liabilities. Given the variation in types of capitalization methods used and the limited amount of information disclosed in the footnotes, it warrants additional discussion to determine if these lease obligations are properly reflected in company valuations. Empirical research suggests financial statement users allocate less analytic value to information consigned to footnotes (including operating leases). This evidence suggests that the ability for companies to structure leases as operating and keep such obligations off the balance sheet leads to more favorable firm valuations. However, as the following section will support, more detailed information is needed for analysts to accurately reflect the current financial condition of a company. The proposed lease accounting changes

[^14]will help improve financial transparency and allow for evaluations that correctly reflect the underlying financial health of companies.

## 2.2: The Effect of Financial Statement Presentation on Corporate Decision Making

## Efficient Market Hypothesis

The Efficient Market Hypothesis, developed by more than forty years ago Eugene Fama, suggests financial markets reflect all publicly available information through instantaneous price adjustment of the underlying securities (Fama 1969). This implies that since the cash flows of a firm would not change, the proposed changes should similarly have no impact on the valuation of the firm. However, the Efficiency Market Hypothesis is not dependent on the accounting system in efficiently disseminating information in the market. The information conveyed though financial statements does not promote more efficient markets in and of itself. Rather, it is the efficiency by which the market processes such information, regardless of its quality or breadth, that makes the market efficient (Abdel-khalik 1972).

Financial statements are meant to serve as a conduit through which information is conveyed to the users. The information is meant to provide an accurate representation of the underlying financial condition of a company. For public companies, this means analysts and the more general investing public will use the data supplied though financial statements as a key determinant for whether to invest in a company. For many companies, the use of operating leases as a kinder reflection of the actual risk of the underlying business operations has distorted the perception of such companies. With the proposed accounting changes aimed at eliminated companies' ability to utilize operating leases as a form of off-balance sheet financing, the ensuing corporate real estate strategy should highlight certain firms that have relied heavily on the use of operating leases to portray their financial health in a more favorable way than the new data may suggest.

## Desire for specific financial statement presentation

To determine whether companies would alter real estate decisions as a result of changes to accounting, it necessary to explore the dynamic between (public) companies' perceived need to report earnings that meet market expectations and the need to make business decisions that maximize economic benefit to companies. There is significant evidence that managers actively "manage earnings" to present the financial situation of a company in as favorably as possible. To achieve this favorable financial statement
presentation, companies can use two types of methods. The first method requires managers to adjust the actual accounting for specific events by utilizing assumptions, often discretionary in nature, that result in a better financial statement presentation. ${ }^{26}$ This method only impacts the presentation of an event on the financial statement; it has no effect on the actual cash flows of a company. The other method managers can utilize operational decisions to produce cash flows that are perceived more favorably for the purposed of earnings reporting (Roychowdhury 2006).

Both methods of intentional earnings management suggest company leaders make questionable (and in some cases, illegal) business decisions, implying the potential gains from such decisions must be considerable. Graham, et al. (2005) offers several key observations from their study. First, accounting earnings are more important than cash flows for the purposes of financial reporting because meeting or exceeding earnings benchmarks is believed to be a paramount concern to company managers. This is because beating earning estimates can yield: (i) an increase in a company's credibility with the capital market, (ii) an increase in stock price, (iii) an improvement in the external reputation of the management team, and (iv) the conveyance of future growth prospects. If additional emphasis is placed on accounting earnings, it seems probable that additional weight would be given to any difference in accounting treatment in deciding between two different business decisions. Second, holding cash flows constant, decision-makers place considerable emphasis on smoothing reported earnings over near-term times periods. Volatile earnings are considered undesirable because they convey higher risk or lower growth prospects to the market. Third, managers are willing to sacrifice economic value to achieve more desirable financial statement presentation.

## Capital versus operating leases

Even if it as accepted that managers are willing to sacrifice economic value to achieve a more favorable financial statement presentation, it is not self-evident why so many managers go to such lengths to ensure a lease is not categorized as capital, and recorded on the balance sheet. As described in Chapter 3, there are several methods to effectively capitalize leases and provide financial statement users with an approximation of the impact operating leases would have on a company's balance sheet if it they were viewed, like capital leases, as a form of ownership. Yet so many companies structure leases to narrowly avoid capital lease classification. Understanding the value companies place on operating lease classification (and the balance sheet exclusion that accompanies it) will help us understand why

[^15]companies might sacrifice economic value to reduce balance sheet recognition if the proposed accounting changes are implemented in their current form.

It should be noted, that in the majority of cases, it seems companies are able to structure operating leases without sacrificing significant, if any, economic value. By adhering to all four of the prescribed criteria set forth in the bright-line tests, and making minor modifications to lease agreements, companies are able to ensure operating lease classification. According to Statement of Financial Accounting Standards No. 13 (FAS 13), the criteria that determine if a lease should be categorized as capital are as follows:
(1) The lease agreement specifies that ownership of the asset transfers to the lessee at the end of the lease term;
(2) The lease agreement allows the lessee the option to purchase the asset at a bargain purchase price;
(3) The lease term is equal to 75 percent or more of the estimated economic life of the leased property;
(4) The present value, at the beginning of the lease term, of the minimum lease payments, excluding that portion of the payments representing executory costs such as insurance, maintenance, and taxes to be paid by the lessor, including any profit thereon, equals or exceeds 90 percent of the excess of the fair value of the leased property. A lessor shall compute the present value of the minimum lease payments using the interest rate implicit in the lease. A lessee shall compute the present value of the minimum lease payments using his incremental borrowing rate, unless (i) it is practicable for him to learn the implicit rate computed by the lessor and (ii) the implicit rate computed by the lessor is less than the lessee's incremental borrowing rate. If both of those conditions are met, the lessee shall use the implicit rate.

The tests are meant to establish whether the lease represents a transfer of sufficient enough risks and rewards to be considered a form of ownership. In such case, the lease would be recorded as an asset and liability on the balance sheet, similar to the manner in which all leases would be recognized under the proposed lease accounting changes. Otherwise, the lessee must only recognize a minimum, straight-lined rent expense (with expenses and contingent rent recorded as they are incurred) with no balance sheet recognition. With these tests serving as a definitive guide by which lessees can easily structure operating leases, it seems logical that virtually all lessees would structure leases in this way, even if the benefit of such categorization were trivial in size. And if the benefit were in fact trivial, the removal of this categorization would have little impact to lessees and result in no change in real estate strategy. However,
empirical evidence suggests the value derived from operating lease classification is material to many companies.

## Increased Use of Operating Leases

Empirical research suggests the value of utilizing operating lease classification can be seen in part simply by the increase in the number of firms that employ the practice. According to Imhoff and Thomas (1988), following the passage of FAS 13 in 1976, there was a significant increase in the use of operating leases and a corresponding decrease in the use of capital leases. Further, companies with capital leases in place, began re-negotiating leases so that they would be reclassified from capital to operating. In a more recent study, Franzen, et al. (2009) found operating lease financing increased 745 percent while the prevalence of capital leases decreased by 50 percent over the twenty-seven year period from 1980 to 2007. Such empirical results suggest companies have embraced the use of operating leases as a preferred classification to capital leases.

## Utilization of operating lease classification in varying capacities

In their paper, Franzen, et al. (2009) also find that companies structure leases as operating to appear less leveraged. While, as noted, there are numerous methods to account for the debt equivalent of operating leases using information disclosed in footnotes, the use of operating leases in place of capital leases can lead to more favorable company valuations. Further, the research suggests current accounting methods do not accurately reflect the equity risk implied by the level of operating leases for companies.

In their paper, Chu, et al. (2007) focus on the relationship between operating lease liability and debt cost of financing. They specifically focus on operating leases disclosed in the notes to the financial statements and whether or not these obligations are fully accounted for by banks during loan pricing. Their findings indicate that the operating leases disclosed in the notes to the financial statements are not fully accounted for by banks and therefore banks may not be able to properly assess off balance sheet obligations when determining credit risk.

Further analysis conducted by Lim, et al. (2005), examines whether the market fully values the credit risk of operating leases and provide evidence that debt ratings do not seem to reflect the impact of operating leases. These findings are consistent with the argument that accounting information disclosed in the footnotes may not be examined with the same level of scrutiny as information that is recognized financial statements. Lim, et al. argue that the failure to correctly account for operating lease exposure is a result of
three shortcomings of current accounting practice: (ii) often, only the minimum lease payments are disclosed; second, the minimum lease payments are disclosed for the subsequent five year period on an individual basis and any obligations beyond five years are aggregated, and; (iii) there is the potential that some lease obligations are omitted from the footnotes altogether. For companies with inferior credit ratings, these findings suggest the use of operating leases may be useful in attaining a more favorable credit rating.

For some companies, the disclosure of operating lease information (versus recognition of capital lease information) reduces the resources these companies must devote to reporting accuracy. The distinction in reporting quality between financial statement recognition and disclosure through footnotes can be significant. Libby, et al. (2006) found that audit partners of public companies view misstatements in footnotes as less material and exert less pressure on clients to correct such misstatements. Thus, information, such operating lease disclosure, which is relegated to the footnotes of financial statements, is less likely to be reliable than information recognized in financial statements. Similarly, Altamuro, et al. (2011) found substantive errors in lease obligation interpretation through footnote disclosure. Through their research compiling data from COMPUSTAT of over 5,000 lease observations, they noted that a majority of disclosures related to future minimum lease payments beyond the detailed five years of minimum lease payment disclosures are either missing or incomplete. While these findings do not suggest active earnings management or economic value realization by companies, it does demonstrate that, for companies with a significant lease portfolio, a material incentive exists to classify leases as operating. However, the increased reporting and lease tracking that would be required under the proposed rule changes would likely eliminate much of the demand for this incentive as all companies would be required to have detailed understanding of their lease portfolio, and therefore, more confidence in their reported lease information.

Beatty, et al. (2009) performed research to determine the effect of financial reporting quality on investment decisions. They find that companies with poor financial reporting quality ${ }^{27}$ will have a greater inclination to lease their assets as opposed to own them. Absent the leasing alternative, research concludes that firms with poor accounting quality generally are tied to financial constraints that impede their ability to invest. Therefore, while firms with lower accounting quality may purchase fewer assets, those firms may be more inclined to lease assets as a substitute for ownership. Beatty, et al. attempt to

[^16]explain the association between propensity to lease (versus own) and accounting quality by suggesting that this relationship is simply a desire of low accounting quality firms to engage in off-balance sheet financing.

## 2.3: Corporate Real Estate Strategy - Relative Importance of Financial Statement Presentation

While empirical evidence suggests companies are sensitive to the accounting implication of business decisions, it must be remembered that corporate strategies typically consider several factors and it is the relative importance of these factors to each other that is used by mangers in their decision-making processes. Corporate real estate (CRE) is a term used to describe the real property held by a non-real estate company to support core business operations. Corporate real estate strategy, if implemented effectively, can generate value for the business it supports. CRE decision-makers must decide how to efficiently manage a company's real estate needs in a manner that best supports the company's core business. An important component of this decision-making process is the analysis of "lease versus buy". In performing this analysis, CRE groups must consider many factors ranging from micro-level, companyspecific factors like current space needs to macro-level factors like stability of the real estate market. The lease versus buy decision is comprised of a compilation of factors that are each prioritized and analyzed differently for each company. Companies that value control of space and/or the image it conveys may choose to own an asset and have it built specifically to their needs. Conversely, companies that value flexibility and require capital to fund operations prefer to lease and not tie up funds in capital-intensive assets. The chart on the following page produced by Jones Lang LaSalle (2010) illustrates reasons why companies choose to lease or own their real estate.

According to O'Mara (1999) there are four main considerations that come into play when a company makes the decision to lease or buy real estate: (i) Characteristics of the facility required, (ii) dynamics of the local real estate market, (iii) overall context of the company, and (iv) company financial position. These four considerations are explained in detail below and supplemented by Brueggeman and Fisher (2001: 413, 419-424) and Nourse (1990:104) as gathered by Ghyoot (2003). Further considerations described by Jones Lang LaSalle (2010) are discussed below as well.

Ownership versus Leasing Decision Criteria

| Variable | Ownership Characteristics | Leasing Characteristics |
| :--- | :--- | :--- |
| Liquidity | - Significant cash reserves / liquidity | - Lower cash reserves / liquidity |
| Credit Quality | - Investment grade profile | - Lower than investment grade profile |
| RE Investment | - Interest in property appreciation | - Opposed to residual value risk ${ }^{28}$ |
| Appetite | - Favor control of property | - Potential for future obsolescence |
| Flexibility Goals | - Decisions based on borrowing costs | - Decisions based on WACC |
| Financial Metrics | - Low opportunity cost of ownership | - High opportunity cost for ownership |
| Perceived RE Risk | - Established company with stable | - Dynamic growth and acquisition |
| Growth Stage | orientation |  |

## Figure $4^{29}$

Characteristics of the Facility:

## Build-out specifications

Companies that require generic space tend to lease rather than own. For example, a company that requires basic office space will likely lease the space. A company that requires highly customized space is likely to own the asset. An example of this would be a specialized manufacturing facility or highly technical R\&D space with build-out specific to the tenant. Smith and Wakeman (1985) suggest that firms are unlikely to lease assets that are highly specific to the organization because that would create agency conflicts between the lessor and the lessee. ${ }^{30}$ Leasing is likely to occur if the lessor has market power and comparative advantage in disposition of the asset. Smith and Wakeman predict that leasing is more likely to occur if the value of the asset is not specialized to the firm. In this case, firms are likely to lease generic facilities as opposed to more firm-specific production and R\&D facilities. Similar conclusions are reached

[^17]by Williamson (1988) who indicates that assets that are more readily saleable, i.e., assets with resale value that are not firm-specific, are likely to be leased.

## Duration

The length of time that a company is expected to use a facility will affect a company's decision to lease or own the property. Companies tend to lease their space when the requirement is relatively short-term fin nature and conversely, if the company anticipates remaining in the space for a considerable length of time, they may be more apt to own. If the duration is uncertain, a company may choose to lease the asset to preserve flexibility. For example, if a retail tenant is entering a new market they may choose to lease the space to allow flexibility to move in the event the market proves unsuccessful.

## Single vs. Multi-Tenant Property

When the needed space is less than an entire building, a company is likely to lease. However, if the space needed is an entire building, the company may choose to purchase the building. For example, an office tenant that requires one or two floors of a downtown office building may not purchase the property for several reasons, either because (i) the landlord is not willing to divide the asset into condominiums, or (ii) the company is not in a position to purchase the entire asset due to financial constraints, and/or, (iii) owning and managing a building and acting as landlord to other tenants is not in the company's core business.

## Dynamics of the local real estate market

The specific characteristics of the target market play a part in the decision to buy or lease property. Certain locations may warrant consideration for leasing if there are indications of declining real estate market conditions or potential obsolescence, which could affect residual value of the property. Further, when a company is operating in a market that is not core to their operations, leasing may be more attractive because of the potential lack of market knowledge that might lead to residual risk. Lastly, specific locational characteristics may lend themselves to purchasing an asset because of the capital investment in equipment and infrastructure required for the relocation.

## Overall Context of the Company

## Life Stage

The overall stability and predictability of a company's performance will help determine the lease versus buy decision. Companies that are better able to forecast their demand for space with little fluctuation will tend to own their assets as opposed to lease. Conversely, to the extent forecasts are uncertain and therefore space needs are unpredictable, a company may lean towards leasing a facility to take advantage of the flexibility that leasing offers. For example, companies that are in a significant growth period, like a start-up firm, may have less ability to forecast future space needs as opposed to a mature, stable company. Young companies in a growth phase may need capital to put towards production instead of tying it up in real estate. These companies lease their property in part to free up capital to finance their growth prospects.

## Property Management Considerations

Some companies prefer to avoid owning real estate because they do not have the capacity to manage real estate operations along with normal day-to-day business operations. According to Benjamin, de la Torre and Musumeci (1998), many lessors are well equipped compared to corporate owners and have an advantage in providing efficient maintenance. The ability for real estate investors to better manage real estate is a result primarily of (i) economies of scale realized when managing large real estate portfolios (as the number of real estate properties under management increases, so would the economies of scale due to the fixed-cost nature of many ownership and management expenses), (ii) possible tax savings, (iii) better access to credit markets and (iv) better market knowledge which can lead to comparative advantage in asset acquisition and disposition.

## Maintaining control of an asset

The control component is especially critical for companies that are determining whether to purchase or lease a headquarters building. In this context, the importance companies place on their identity and branding becomes apparent. A company may want to control the maintenance of a property and the surrounding context in order to preserve its image. Conversely, if a company is leasing generic space that is not critical to business operations or company image, some firms may prefer to relinquish managerial control and maintenance of a facility in order to better focus on production and operations.

## Financial Position of the Company

## Cost of Debt and Opportunity Cost of Invested Funds

Some companies have the ability to access debt at a relatively inexpensive rate. This plays a role in the decision to lease or buy. An investment grade, credit tenant may have a lower cost of debt than a noninvestment grade tenant and therefore may purchase an asset in order to take advantage of this lower debt cost. When a strong company leases an asset, the implied lease rate charged by the landlord is directly related to the landlord's cost of debt, which in some cases might be higher. Therefore, in certain cases it might be more advantageous for the tenant to buy.

Another financial consideration that influences a company's decision to buy or lease is the opportunity cost of funds. Companies use this measurement to determine the return on invested funds as a result of using funds to purchase real estate as opposed to funding other, possibly more lucrative, business operations. Applying an opportunity cost adds an implied expense to owning real estate.

In a leasing situation the burden of ownership is placed on the lessor, and therefore the lessee avoids the risk of residual value, however the decision to own and incur debt exposes a company to residual value risk. This may significantly alter the valuation of an investment opportunity; therefore should be considered in any ownership versus lease analysis. If real estate is not within a company's core business operations, they may not be best suited to take on the responsibilities of selling the property at the end of the occupancy period. This is further affected by whether or not the asset represents a large or small part of total corporate assets. The risk of owning is lessened to the extent the asset represents a small percentage of total corporate assets.

## Leverage

Based on an empirical study by Lasfer (2005) comparing the leverage characteristics of companies with significant leasing propensity to companies with high ownership propensity, the results indicate that companies that own much of their property have significantly lower leverage than companies that lease their property. This may suggest that companies that choose to lease have reached their optimal debt level, in which case the costs to borrow become prohibitive. Thus, it is more effective for these companies to lease their property than to purchase it and incur debt.

## Income tax considerations

Past empirical literature on leasing analyzes the role of taxes on lease versus buy decisions. A common reason cited for the existence of leasing markets is the avoidance or reduction of taxes. For example the
role of taxes in the lease versus buy decision is explored by Graham, Lemmon and Schallheim (1998) who provide evidence that firms with low marginal tax rates lease more, and have lower debt levels, than firms with high tax rates. The effect that leasing has on income taxes comes into play when analyzing after-tax discounted cash flow. Leasing can provide a tax shield to both the lessor and lessee because the lessor, as owner of the property, deducts the depreciation of the asset from its taxable income while the lessee can deduct the lease payments from its taxable income. Sharpe and Nguyen (1995) further support this notion and find that firms with lower tax rates are more inclined to lease.

## Financial accounting motives

Real estate strategy and the lease versus buy decision for some companies is driven by the desire to keep debt off the balance sheet in order to maintain certain financial ratios, to avoid debt covenant violations, and to conserve its capacity for borrowing to fund other business activities. Prior to the proposed lease accounting changes, it was possible for companies to structure leases to avoid capitalization. However, with the proposed changes to current lease accounting guidelines, off-balance sheet lease obligations will no longer be an option for companies. For example, lenders and regulators often place restrictions on companies that limit their ability to fund capital investments. Therefore, a firm with a capital expenditure limitation may be forced to lease to avoid significant capital outlay often required for purchasing an asset. In addition, lenders and regulators might place covenants on companies that requires them to maintain certain capital ratios (i.e. debt-to-equity ratios). This may incentivize a company to execute a lease that, under current accounting guidelines, qualifies as an operating lease and is reported off the balance sheet. By doing so, the company gains use of the asset but does not report it on their balance sheet, thereby maintaining their required leverage ratios.

## CHAPTER 3: MACRO-LEVEL ANALYSIS

## Chapter Summary

The proposed guidelines for lease accounting, if implemented in their current form, would transfer a significant amount of assets and liabilities to the balance sheets of companies industry-wide and change the way in which rent expense is recognized on the income statement. The following chapter is meant to illustrate the magnitude of the proposed changes and provide scope to the reader. Specifically the chapter introduces the concept of "effective capitalization," developed by Imhoff, Lipe and Wright (1991), in order to estimate and analyze the impact of lease capitalization for the companies that comprise the $S \& P 500$ index.

### 3.0 Development of Excel-based Model

As part of this study we developed an Excel-based model to present a hypothetical lease in both the current accounting format (consistent with SFAS 13) as well as the proposed format (consistent with the proposed standards as of July 2011). We used the model to isolate and analyze the changes to the current accounting standards. Our goal was to identify significant changes that might impact the balance sheet and income statement. The impact of each change was measured based on the aggregate change but also on the subjectivity and variability a company would encounter in interpreting and determining each component of the proposed standards (for those components that allow for such judgment).

### 3.1 Macro-Level Analysis - Methodology

We developed the Excel model to determine how any given lease could be interpreted and accounted for differently under the proposed guidelines. However, to provide better context for these changes and their potential impact, it is important to understand the estimated magnitude of the changes at an aggregate level. In the 2005 report and recommendations paper the Securities and Exchange Commission (SEC) issued pursuant to section 401 (c) of the Sarbanes Oxley Act ${ }^{31}$, the SEC estimated that the total undiscounted cash flows associated with off-balance sheet operating lease transactions could approach

[^18]$\$ 1.25$ trillion (more than twenty-seven times the estimated amount of undiscounted cash flows from capital leases). ${ }^{32}$

The proposed guidelines would indeed result in significant financial statement recognition for lessees, as the guidelines would shift an enormous amount of assets and liabilities to the balance sheet and change the way in which rent expense is recognized on the income statement. While the remained of this study further examines the possibility that different lessees and lessors react differently to the effect of accounting changes (since those groups value the impact of financial statement recognition differently depending on its relevance in their overall real estate strategies), this section is meant to provide the reader with a sense of the magnitude that the proposed accounting changes would have on both lessees and lessors, irrespective of any shift in real estate strategy as a response.

To understand the magnitude of the effect that lease capitalization would have on a company's financial reporting metrics, it is necessary to employ a method of "effective capitalization". One such method, developed by Imhoff, Lipe, and Wright in their 1991 paper "Operating Leases: Impact of Constructive Capitalization", called "constructive capitalization", has been replicated several times in studies examining the effects of lease capitalization. Our analysis utilizes this method (with slight adjustments) to measure the effects of lease capitalization for companies in the S\&P 500 index, based on their last twelve months of financial reports as of July 2011. To capitalize the future lease payments, we performed the following steps:

1. SFAS 13 requires companies to disclose all future minimum non-cancellable rent payments ${ }^{33}$ in excess of one year. Companies must report the minimum rent payment obligation for each of the subsequent five years along with the aggregate sum of all future minimum rent payments due beyond the fifth year.
2. To estimate the capitalized value of the future lease payments, we must estimate the average remaining lease term for the aggregate sum of future lease payments beyond the fifth year. In this analysis, we assume the rent payments due in the fifth year represent a sufficient approximation for the yearly lease obligation beyond the fifth year. By dividing the aggregate lease payments

[^19]due beyond the fifth by the amount due in the fifth year, we derive an estimate for the remaining average lease term:

| Year | 1 | 2 | 3 | 4 | 5 | > 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Future Minimum Lease Payments | \$500.0 | \$550.0 | \$605.0 | \$665.5 | \$732.1 | \$3,660.3 |
| Total Amount Due Beyond Year 5 | $=$ | \$3,660.3 | $=$ | 5 Years |  |  |
| Year 5 Minimum Rent Payment |  | \$732.1 |  |  |  |  |

3. Next we determine a discount rate to use. As discussed in Chapter 1, the discount rate for the lessee should be the incremental rate of borrowing, unless the rate implicit in the lease is known. Since in this analysis we examined the entire S\&P 500 index, we used a range of discount rates, from six percent to twelve percent ${ }^{34}$ to utilize in our present value calculation. By discounting the lease payments over the ten-year period (our estimated five years of remaining term plus the initial five years required for disclosure), we arrive at the capitalized lease liability:

| Year | Minimum Rent | $\begin{gathered} \text { NPV at } \\ 6.00 \% \end{gathered}$ | $\begin{gathered} \text { NPV at } \\ 8.00 \% \end{gathered}$ | $\begin{aligned} & \text { NPV at } \\ & 10.00 \% \end{aligned}$ | NPV at $12.00 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \$500.0 | \$471.7 | \$463.0 | \$454.5 | \$446.4 |
| 2 | 550.0 | 489.5 | 471.5 | 454.5 | 438.5 |
| 3 | 605.0 | 508.0 | 480.3 | 454.5 | 430.6 |
| 4 | 665.5 | 527.1 | 489.2 | 454.5 | 422.9 |
| 5 | 732.1 | 547.0 | 498.2 | 454.5 | 415.4 |
| 6 | 732.1 | 516.1 | 461.3 | 413.2 | 370.9 |
| 7 | 732.1 | 486.9 | 427.1 | 375.7 | 331.1 |
| 8 | 732.1 | 459.3 | 395.5 | 341.5 | 295.7 |
| 9 | 732.1 | 433.3 | 366.2 | 310.5 | 264.0 |
| 10 | 732.1 | 408.8 | 339.1 | 282.2 | 235.7 |
| Total | \$6,712.8 | \$4,847.6 | \$4,391.4 | \$3,995.8 | \$3,651.2 |

Figure 36
4. Next, the capitalized lease asset must be determined. Recall from chapter one that current proposed accounting standards would require the right-of-use asset to be amortized on a straightline basis while the corresponding lease liability would be amortized using the effective interest

[^20]method. The result is an asset that amortizes at a faster rate than the liability. This impairs our ability to accurately capitalize operating leases since, per existing disclosure requirements, the present point in the aggregate term of a company's lease portfolio is unknown. For the purposes of this analysis, it is assumed the balance of the average asset is sixty-seven percent ${ }^{35}$ that of the balance of the liability. This allows us to estimate an asset carrying value to correspond with our liability carrying value:

| Asset Carrying Value | Liability Carrying Value |  |
| :---: | :---: | :---: |
|  | $\$ 2,927.6$ | $\$ 4,391.4$ |
| Figure 37 |  |  |

5. To make the necessary accounting adjustments, the company's marginal tax rate (assumed to be forty percent) must be applied to the excess liability:


## Effects of Capitalization on Income Statement

The net effect of effective lease capitalization on the income statement depends on the average life remaining on the given lease portfolio. As demonstrated in Chapter 1, the current straight-line expense under an operating expense is less than the proposed two-component expense method during the initial years of the lease term. Up until the "point of maximum difference", the straight-line expense will be less than the proposed expense recognition method. This point occurs sometime beyond the midpoint of the lease term, between 53 to 63 percent of the right-of-use asset has depreciated. ${ }^{36} \mathrm{As}$ a result, if the portfolio of leases were capitalized was less than 50 percent through its collective term, the effective capitalization

[^21]would result in a decrease in net income. However, for the purposes of this analysis, it is assumed the impact on net income is negligible and therefore not measured.

### 3.2 Effect of Lease Capitalization - S\&P 500 Index Companies

As various studies and reports over the last few years have suggested, the impact on financial statements of operating lease capitalization would be significant. The following tables estimate and analyze the impact of lease capitalization for the companies that comprise the S\&P 500 index. Figure 39 shows the future lease payment obligation by year, including the aggregate amount due beyond the fifth year. In total, more than $\$ 642$ billion in non-cancellable future lease payments is scheduled for the S\&P 500 companies.

## Future Lease Obligations - S\&P 500 Companies

|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Industry | Market Cap | Total Future Lease Payments | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | $>$ Year 5 |
| Automobiles | $\$ 93.0$ | $\$ 3.5$ | $\$ 0.9$ | $\$ 0.7$ | $\$ 0.5$ | $\$ 0.4$ | $\$ 0.3$ | $\$ 0.7$ |
| Consumer Discretionary: | $1,316.6$ | 150.6 | 20.1 | 18.3 | 16.4 | 14.2 | 12.4 | 69.2 |
| Consumer Staples: | $1,424.2$ | $1,614.4$ | 16.2 | 11.4 | 10.6 | 9.8 | 8.8 | 8.2 |
| Energy | $1,974.1$ | 7.9 | 67.3 |  |  |  |  |  |
| Financials | $1,417.3$ | 119.0 | 16.5 | 14.9 | 12.9 | 11.0 | 9.4 | 54.3 |
| Healthcare | $1,355.3$ | 20.8 | 4.4 | 3.6 | 2.9 | 2.2 | 1.8 | 5.8 |
| Industrials | $2,453.8$ | 56.9 | 10.9 | 8.9 | 7.0 | 5.6 | 4.5 | 20.1 |
| Information Technology | 450.8 | 37.8 | 9.2 | 7.4 | 5.5 | 4.1 | 3.2 | 8.3 |
| Materials | 364.4 | 11.2 | 2.3 | 1.8 | 1.4 | 1.1 | 0.9 | 3.7 |
| Telecommunications | 413.1 | 57.4 | 6.9 | 6.5 | 5.9 | 5.4 | 4.7 | 27.9 |
| Utilities |  | 33.8 | 3.1 | 2.9 | 2.9 | 2.6 | 2.4 |  |


|  | $\$ 12,876.9$ | $\$ 642.2$ | $\$ 93.6$ | $\$ 82.0$ | $\mathbf{\$ 7 0 . 1}$ | $\mathbf{\$ 5 9 . 0}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$ 50.7$ | $\$ 286.8$ |  |  |  |  |

Figure 39

To estimate the aggregate impact of capitalized future operating lease payment obligations, we performed the steps described above. Using financial statement data from Capital IQ, we estimated the average remaining lease term for future lease obligations with more than five years of lease term remaining. We then discounted the respective cash flow of each company by aggregate discount rates of $6,8,10$ and 12 percent. The effect of such lease capitalization is between $\$ 368$ (discount rate of 12.0 percent) and $\$ 471$ billion (discount rate of 6.0 percent). Consumer Discretionary, Financials and Consumer Staples face the most exposure as these three sectors account for 37 percent of the total index capitalization but approximately 58 percent the potential capitalized leases.

Estimated Capitalized Lease Obligations for S\&P 500 Companies

| (\$ Billions) |  | Estimated Lease Liability at Various Discount Rates |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Industry | Market Cap | Total Lease Payments | $6.00 \%$ | $8.00 \%$ | $10.00 \%$ | $12.00 \%$ |
| Automobiles | $\$ 92.99$ | $\$ 3.54$ | $\$ 2.9$ | $\$ 2.8$ | $\$ 2.6$ | $\$ 2.5$ |
| Consumer Discretionary | $1,316.6$ | 150.6 | 109.7 | 100.2 | 92.2 | 85.2 |
| Consumer Staples | $1,424.2$ | 116.2 | 79.1 | 70.8 | 63.9 | 58.1 |
| Energy | $1,614.4$ | 35.1 | 28.2 | 26.5 | 24.9 | 23.5 |
| Financials | $1,974.1$ | 119.0 | 85.8 | 78.7 | 72.6 | 67.3 |
| Healthcare | $1,417.3$ | 20.8 | 16.7 | 15.6 | 14.7 | 13.9 |
| Industrials | $1,355.3$ | 56.9 | 44.3 | 41.2 | 38.4 | 36.0 |
| Information Technology | $2,453.8$ | 37.8 | 31.0 | 29.2 | 27.6 | 26.2 |
| Materials | 450.8 | 11.2 | 8.6 | 8.0 | 7.4 |  |
| Telecommunications | 364.4 | 57.4 | 42.1 | 38.4 | 35.2 | 3.0 |
| Utilities | 413.1 | 33.8 | 22.8 | 20.4 | 18.3 |  |


| Total | $\mathbf{\$ 1 2 , 8 7 6 . 9 5}$ | $\mathbf{\$ 6 4 2 . 2}$ | $\mathbf{\$ 4 7 1 . 2}$ | $\mathbf{\$ 4 3 1 . 7}$ | $\mathbf{\$ 3 9 7 . 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{\$ 3 6 8 . 6}$ |  |  |  |  |

Figure 40

By examining the capitalized operating leases and comparing those amounts to current liabilities and owners' equity, we can gain additional perspective on the sectors that could be most affected by the proposed changes. As a percentage of owners' equity, the Consumer Discretionary, Automobile, Consumer Staples and Telecommunications industries appear particularly exposed. Figure 41 shows that capitalized leases could reduce stated owners' equity across these four industry sectors 23 percent, 20.5 percent, 18 percent and 16.5 percent, respectively. By incorporating liabilities into the analysis, we see the Consumer Discretionary, Consumer Staples, and Telecommunications sectors again seem most exposed.

Capitalized Operating Leases as a Percentage of Equity \& Liabilities
(\$ Billions)

| Industry | Capitalized Operating Leases | Current Equity | \% of Current Equity | Current Liabilities | \% of Current Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Automobiles | \$2.8 | \$13.4 | 20.58\% | \$202.0 | 1.37\% |
| Consumer Disc | 100.2 | 435.9 | 22.99\% | 635.6 | 15.77\% |
| Consumer Staples | 70.8 | 400.6 | 17.68\% | 648.2 | 10.93\% |
| Energy | 26.5 | 696.9 | 3.80\% | 710.6 | 3.73\% |
| Financials | 78.7 | 1,922.9 | 4.09\% | 14,684.2 | 0.54\% |
| Healthcare | 15.6 | 536.0 | 2.92\% | 651.1 | 2.40\% |
| Industrials | 41.2 | 472.0 | 8.73\% | 1,280.6 | 3.22\% |
| Information Tech. | 29.2 | 666.2 | 4.38\% | 631.4 | 4.62\% |
| Materials | 8.0 | 162.7 | 4.90\% | 258.3 | 3.08\% |
| Telecommunications | 38.4 | 235.1 | 16.32\% | 374.6 | 10.24\% |
| Utilities | 20.4 | 273.1 | 7.45\% | 687.0 | 2.96\% |
|  |  |  |  |  |  |
| Total | \$431.7 | \$5,814.9 | 7.42\% | \$20,763.8 | 2.08\% |
|  |  |  |  |  | Source: Capital IQ |

Figure 41

One financial ratio used by analysts and rating agencies to measure financial health/riskiness is the debt-to-equity ${ }^{37}$. As discussed above, the capitalization of leases adds to long-term debt and has a negative effect on total equity, resulting is an increase in the debt-to-equity ratio. For firms with high debt-toequity ratios coupled with large operating lease exposure relative to overall capitalization, the impact of lease capitalization would be dramatic. The Consumer Discretionary, Consumer Staples, and Telecommunication and Information Technology sectors would experience the largest relative increase in debt-to-equity ratios.

## Estimated Effect on Debt-to-Equity Ratio

| Industry | LT Debt | Equity | D/E Ratio | Potential LT Debt | Potential Equity | Potential D/E Ratio | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Automobiles | \$24.33 | \$13.4 | 1.81 | \$26.77 | \$12.9 | 2.07 | 14.6\% |
| Consumer Discretionary: | 271.4 | 435.9 | 0.62 | 362.0 | 415.9 | 0.86 | 38.4\% |
| Consumer Staples: | 254.5 | 400.6 | 0.64 | 321.8 | 386.4 | 0.82 | 28.7\% |
| Energy | 206.2 | 696.9 | 0.30 | 230.6 | 691.6 | 0.33 | 12.0\% |
| Financials | 2,511.8 | 1,922.9 | 1.31 | 2,583.8 | 1,907.2 | 1.35 | 3.6\% |
| Healthcare | 206.3 | 536.0 | 0.38 | 220.0 | 532.9 | 0.41 | 7.2\% |
| Industrials | 463.1 | 472.0 | 0.98 | 499.5 | 463.8 | 1.08 | 9.6\% |
| Information Technology | 137.8 | 666.2 | 0.21 | 164.9 | 660.4 | 0.25 | 19.4\% |
| Materials | 105.2 | 162.7 | 0.65 | 112.5 | 161.1 | 0.70 | 7.6\% |
| Telecommunications | 154.6 | 235.1 | 0.66 | 188.4 | 227.5 | 0.83 | 25.6\% |
| Utilities | 304.7 | 273.1 | 1.12 | 324.8 | 269.1 | 1.20 | 7.4\% |
| Total | \$4,639.9 | \$5,814.9 | 0.80 | \$5,035.1 | \$5,728.6 | 0.88 | 10.2\% |
| Source: Capital IQ |  |  |  |  |  |  |  |

Figure 42

Another ratio that would be impacted by a shift in operating leases to the balance sheet is return on assets. This ratio is used to determine profitability relative to total assets. Since total assets (denominator) would rise if leases were capitalized and little or no impact to net income (numerator) would occur, the result for companies would be a decrease in return on assets. Similar to the debt-to-equity ratio, the return on assets would fall the most for a company with a large operating lease portfolio relative to its asset level. Companies in the Consumer Discretionary, Consumer Staples and Telecommunication sectors would experience the greatest percentage decline in their return on assets.

[^22]
## Estimated Effect on Return on Assets

(\$ Billions)

| Industry | Current Net Income | Current Total Assets | Return on Assets | Potential Net Income | Potential Total Assets | Potential ROA | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Automobiles | \$8.85 | \$215.45 | 4.11\% | \$8.8 | \$217.33 | 4.07\% | -0.8\% |
| Consumer Disc. | 67.6 | 1,071.5 | 6.31\% | 67.6 | 1,138.3 | 5.94\% | -5.9\% |
| Consumer Staples | 94.0 | 1,048.7 | 8.96\% | 94.0 | 1,095.9 | 8.57\% | -4.3\% |
| Energy | 108.3 | 1,407.6 | 7.69\% | 108.3 | 1,425.2 | 7.60\% | -1.2\% |
| Financials | 129.3 | 16,608.3 | 0.78\% | 129.3 | 16,660.8 | 0.78\% | -0.3\% |
| Healthcare | 84.6 | 1,187.1 | 7.13\% | 84.6 | 1,197.6 | 7.07\% | -0.9\% |
| Industrials | 81.7 | 1,752.6 | 4.66\% | 81.7 | 1,780.1 | 4.59\% | -1.5\% |
| Information Tech. | 164.2 | 1,297.7 | 12.66\% | 164.2 | 1,317.2 | 12.47\% | -1.5\% |
| Materials | 26.6 | 421.0 | 6.31\% | 26.6 | 426.3 | 6.23\% | -1.2\% |
| Telecom | 25.6 | 609.7 | 4.21\% | 25.6 | 635.3 | 4.04\% | -4.0\% |
| Utilities | 25.9 | 960.2 | 2.70\% | 25.9 | 973.8 | 2.66\% | -1.4\% |
| Total | \$816.6 | \$26,579.9 | 3.07\% | \$816.6 | \$26,867.8 | 3.0\% | -1.1\% |
| Source: Capital IQ |  |  |  |  |  |  |  |

Figure 43

Finally, we examine return on equity. The results of this analysis are interesting. Return on equity is calculated as net income divided owners' equity. Recall from the discussion in Section 3.0, the effect on both net income and equity depends on the current point in the term of the aggregated lease portfolio. Although our assumption in this analysis is that the effect of lease capitalization on net income is minimal as discussed in the fifth step for capitalizing a lease, the amount of owners' equity decreases assuming the lease is beyond the first month of the term (this is due to the right-of-use asset amortizing at a faster rate than the lease liability). As a result, the return on equity actually increases with this lease capitalization. And the sectors with the largest relative lease portfolio were those sectors impacted the greatest.

## Estimated Effect on Return on Equity

| Industry | Current Net Income | Current Equity | Return on Equity | Potential Net Income | Potential Equity | Potential ROE | \% <br> Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Automobiles | \$8.8 | \$13.4 | 65.82\% | \$8.8 | \$12.9 | 68.64\% | 4.3\% |
| Consumer Discr. | 67.6 | 435.9 | 15.52\% | 67.6 | 415.9 | 16.26\% | 4.8\% |
| Consumer Staples | 94.0 | 400.6 | 23.46\% | 94.0 | 386.4 | 24.32\% | 3.7\% |
| Energy | 108.3 | 696.9 | 15.53\% | 108.3 | 691.6 | 15.65\% | 0.8\% |
| Financials | 129.3 | 1,922.9 | 6.72\% | 129.3 | 1,907.2 | 6.78\% | 0.8\% |
| Healthcare | 84.6 | 536.0 | 15.79\% | 84.6 | 532.9 | 15.88\% | 0.6\% |
| Industrials | 81.7 | 472.0 | 17.31\% | 81.7 | 463.8 | 17.62\% | 1.8\% |
| Information Tech. | 164.2 | 666.2 | 24.65\% | 164.2 | 660.4 | 24.87\% | 0.9\% |
| Materials | 26.6 | 162.7 | 16.33\% | 26.6 | 161.1 | 16.49\% | 1.0\% |
| Telecom | 25.6 | 235.1 | 10.90\% | 25.6 | 227.5 | 11.27\% | 3.4\% |
| Utilities | 25.9 | 273.1 | 9.48\% | 25.9 | 269.1 | 9.62\% | 1.5\% |
| Total | \$816.6 | \$5,814.9 | 14.04\% | \$816.6 | \$5,728.6 | 14.3\% | 1.5\% |

[^23]The results of this type of analysis illustrate the relative impact the proposed lease accounting changes would have across industry sectors. This type of exercise has been performed for years, with varying assumptions and degrees of precision, by rating agencies, Wall Street equity analysts and other financial statement users, to gauge the underlying financial performance of companies. This type of effective capitalization helps dissuade companies from actively pursuing operating leases as a means of off-balance-sheet financing. However, as we argue in the next chapter, such calculations have their limitations and do not eliminate the fact that the current method for lease accounting lacks the transparency the Boards hope to achieve with the revised accounting standards.

## CHAPTER 4: FORMULATING HYPOTHESES

## Chapter Summary:

Prior literature described in Chapter 2 suggests that financial statement presentation is a variable that some companies consider, at least in part, when formulating their real estate strategies. This concept, coupled with the context for the magnitude of the potential impact proved in Chapter 3, provide a basis for formulating hypotheses. The following chapter will predict how companies may potentially change their real estate strategy to lessen the impact that the proposed accounting changes would have on their financial statements.

### 4.0 Development of Research Questions and Testable Hypotheses

The proposed changes to the lease accounting standards would result in a considerable recalibration to the financial statements of any company for which operating leases are its primary method to control its required facilities. Capitalizing operating leases would dramatically alter such company's assets and liabilities as they appear on the balance sheet, which, consequently, would alter various performance metrics like return on asset ratios, debt-to-equity ratios, and interest coverage ratios, amongst others. While it is clear that many types of financial statement users currently apply adjustments to help consider the economic implications of operating lease obligations, these adjustments (and interpretations thereof) have proven to be deficient. For reasons relating to a lack of information available through financial statement disclosure along with an inadequate emphasis placed on the importance of future obligations, the underlying economic significance of operating leases does not appear to be fully appreciated through current financial statement interpretation. And while effective capitalization analyses such as the one discussed in the previous chapter can be used to help measure the initial impact of lease capitalization, the full impact of the proposed accounting changes would include additional factors. Our goal in this study is not to predict all of the changes that might occur if the proposed lease accounting standards are implemented in their current form; rather, our objective is to develop an understanding of the role financial accounting plays in the strategic decision-making processes and behavior of corporate real estate groups.

We hypothesize certain types of companies are more sensitive to the appearance of their financial statements than others. For public companies that are heavily scrutinized by capital markets participants, the importance of financial statement presentation and the embedded performance ratios cannot be overstated. Lenders and analysts use these ratios to measure a company's risk profile and overall financial
health. An imbalance in these ratios could weaken the appearance of companies in the eyes of investors, and, trigger debt covenant defaults. Depending on the size of a company's operating lease portfolio in relation to its balance sheet, important financial ratios may be significantly impacted by the implementation of the proposed changes. And for those companies that are capital-constrained to begin with, the need to maintain certain ratios can be critical. The increased transparency that would be created by recognizing leases on the balance sheet would alter the ways in which rating agencies, analysts, and investors review financial statements in order to determine credit ratings, valuations and investment decisions.

As a result, a company may seek to alter its real estate strategy to achieve the most favorable financial statement interpretation. Based on this potential dynamic, we hypothesize changes with respect to corporate real estate strategy and, further, we predict that these changes in strategy will differ significantly in form and complexity based on the specific profiles of each tenant.

## Creative structuring of leases to reduce capitalized obligations

Capitalizing operating leases would add more than one trillion dollars onto corporate balance sheets, increasing leverage, and potentially leaving tenants in violation of existing debt covenants. In addition to balance sheet impacts, income statements would change significantly. As previously discussed, the proposed front-loaded expense recognition of the two income statement components (amortization of the right-of-use asset and interest expense) is different from the current straight-line expense recognition. The resultant shift in the timing of real estate occupancy expenses may cause companies to adjust their practices for budget forecasting and other income statement projections. Companies may be inclined to reduce expense recognition impacts and take measures to proactively structure leases to diminish the liability and right-of-use obligation that is required to be capitalized. Creative structuring of leases that would include signing shorter terms, modifying renewal options, and/or reducing base rent (by increasing contingent/variable rent) would help lessen the capitalized right-of-use asset and associated front-loaded expense recognition.

Put simply, a ten-year lease would result in twice as much debt on the balance sheet as a five-year lease. As such, there may be an impetus to shorten the length of new leases. Further complicating matters is the accounting for lease renewals. Many companies sign leases with additional renewal terms (e.g., a fiveyear lease with two options to renew for five years each). Typically, a company structures leases like this to permit near-term flexibility while also ensuring that future space needs can be met. However, under the proposed accounting rules, if there were deemed to be an economic incentive to exercise both renewal
options, a company would recognize and capitalize the entire fifteen-year lease term. Conversely, if there were not such an incentive, then the company would only recognize and capitalize the initial five-year lease term. As previously discussed, the language to determine "significant economic incentive" has not been finalized by the Boards. Depending on the final standards and the subjectivity of this language, companies may be more or less inclined to include renewal language in their lease arrangements.

Under the proposed accounting changes, executory charges ${ }^{38}$ and other non-lease expenses are expensed as incurred and, therefore, the base rent obligation that would be capitalized, as an asset and liability should exclude these charges. If a gross lease ${ }^{39}$ is signed, the tenant and landlord must determine the portion of the rental rate that is related to the aforementioned expenses in order to determine the appropriate portion of the lease obligation that should be capitalized. Further, as the Boards currently propose, contingent or variable rent obligations would also be expensed as incurred, and not capitalized. ${ }^{40}$ Because only base rent is capitalized, a company may be inclined to increase its contingent rent obligation and lower its base rent obligation in order to reduce the total recorded liability and effect on the balance sheet. Therefore, we hypothesize that:

- H1: Certain companies may plan to actively seek to lessen the total obligation capitalized on their balance sheet by either executing shorter lease terms, modifying renewal options, and/or structuring higher contingent rent (while decreasing base rent) to help smooth the effects of the proposed base rent capitalization on the income statement and reduce the initial recognition on the balance sheet.


## Eliminating the distinction between operating and capital leases will eliminate constraints during lease negotiations that previously occurred when one or both parties sought to avoid capital lease classification

As previously discussed, the current SFAS 13 accounting standard imposes classification guidelines that result in a clear distinction between operating leases and capital leases asset. At inception of a capital lease, a liability and an asset are recognized on the balance sheet. However, if a lease agreement does not meet any of the four criteria noted above, it would qualify as an operating lease and would not be reported as an asset or liability on the balance sheet.

[^24]Because of the well-defined line distinguishing capital from operating leases, through purposeful structuring, a company would be able to achieve operating lease classification to the extent it desired to keep the obligation off the balance sheet. For example, given the specific thresholds of 75 percent and 90 percent noted above, lease terms that are 74 percent of the remaining asset life or payment obligations that result in a PV of future cash payments that is 89 percent of the fair market value of the asset, would be considered operating leases and would be disclosed only as footnotes to the balance sheet. Often, as noted above, companies work to negotiate and renegotiate lease classification that would result in operating leases to keep the obligation off the balance sheet.

Since operating lease classification would no longer exist under the proposed accounting standards, the analysis of the bright-line tests would no longer be employed by corporate real estate users for the same reasons as before (i.e., to achieve operating lease classification and avoid capitalization). Companies that actively avoid capital leases through manipulation of lease terms would no longer have incentive to do so as all leases would be capitalized. Instead, companies would be free to pursue a lease structure that promotes optimal economic benefit. For instance, a company that would have otherwise imposed lease term restrictions to structure a lease with lease payments that would fall just short of 90 percent of the FMV could now pursue a lease at 95 percent of the FMV of the asset, if the underlying economic value supported it. While this difference may be marginal, it nevertheless would represent a change in behavior among corporate real estate users, and also achieve a goal of the Boards in removing the incentive to structure leases to achieve a particular accounting treatment. Based on this reasoning, we hypothesize that:

- H2: Companies that perform the bright-line tests in order to structure leases to avoid capitalization would no longer have reason to engage such behavior as the bright line tests would become obsolete. Rather, these companies would be more inclined to enter into leases that provide optimal economic benefits without consideration for lease categorization.


## Leasing and buying real estate would now have similar financial statement recognition which would lead to more in-depth analysis and consideration within the context of the lease versus buy decision

As noted in the literature review, there are incentives to leasing, like flexibility and liquidity, which may provide sufficient motive for companies to lease. However, upon implementation of the proposed accounting standards, it is reasonable to believe that some companies would find that owning an asset would be equally as attractive as (or in some cases more attractive than) leasing since, in either case, the property would become a depreciating asset on the balance sheet, and possibly create a valuable
incremental tax shield. One incentive to leasing, as previously discussed, is to gain use of an asset through off-balance-sheet financing methods. For some companies, the benefits (or perhaps, optics) of such financing can be significant and has been used as a primary determinant in the lease versus buy decision. Absent this incentive, under the proposed accounting standards, some companies may reexamine the lease versus buy decision and determine that owning a building may provide more strategic benefit than leasing. For companies that never performed the lease versus buy analysis in the first place, the removal of the operating lease treatment could serve as the impetus needed for such companies to engage in that decision process. The point is, for any company that currently perceives any incentive to lease under the current accounting guidance, the relative desirability of ownership may increase. Therefore, it can be deduced that more detailed analysis and scrutiny will be conducted within the context of the lease versus own decision, and for some, this "incentive removal" may serve as final motivating factor to purchase (assuming the decision was a close one before). Therefore, we hypothesize that:

- H3: Corporate tenants that consider the accounting benefits afforded by operating leases as a method of off-balance-sheet financing to be a material factor in their corporate real estate strategy (and, more specifically, in the lease versus own decision) will have less incentive to lease. At the very least, more companies will expand their corporate real estate analysis to include both lease and ownership analyses.

In the following chapter, we analyze these hypotheses using information collected through a series of interviews involving a representative sample of real estate industry professionals. We have chosen both public and non-public lessees and lessors of varying profiles in order to identify the nuanced behavioral changes, if any, that will develop as a result of the proposed lease accounting changes.

## 4.1: Research Methodology

Our primary research methodology consisted of a series of interviews with real estate users (both owners and lessees), landlords and other industry professionals with unique perspective or deep understanding of the proposed changes and the role of financial accounting plays in corporate real estate decisions. Specifically, our interviews consisted of:

- 19 lessees / users
- 14 publicly traded companies
- 5 private companies
- 6 landlords ${ }^{41}$
- 4 publicly traded landlords
- 2 private landlords
- 4 industry experts (taxation and valuation analyst, ratings agency, lease auditor, real estate market capital markets data firm)

By targeting 29 interviewees from a wide spectrum of backgrounds, we tried to collect opinions representative of the diversity that exists throughout the corporate real estate arena. This research was supplemented by the industry-wide statistics and financial statements derived from Capital IQ. This data helped provide context to evaluate the impact of the proposed lease accounting changes and the relative financial reporting position of our interviewees.

## 4.2: Research Challenges

The research posed several distinct challenges, such as:

## The predictive component of the analysis

To gain the most from our research, we tried to gain a nuanced understanding of the topic. However, this led our line of questioning during our interviews to highly specific topics such as the four criteria by which a company's "significant economic incentive" to renew would be based or the difference between contingent rent based upon an index versus contingent rent based upon specified sales volume. For most companies, this degree of specificity was difficult to discuss since the final standards have yet be set and the companies had not yet had the chance to formulate any type of detailed real estate strategy in response.

## The preliminary state of the standards

When we began our research, we knew the proposed standards would not likely be finalized before we had finished. However, we did not anticipate the quantity and magnitude of the changes the Boards made throughout the research period. This posed problems for us because: (i) we had to continuously follow the

[^25]changes and update our financial model to ensure it reflected the most current proposals, and (ii) several interviewees had difficulty themselves in keeping up to date on all of the changes.

The complexity of the topic

We chose to examine certain perspectives of a particularly technical topic. This posed challenges because, in many cases, our interviews consisted of conversations with either a technical accounting professional or a corporate real estate strategist. Both types of professional brought unique and interesting perspective. However, it was difficult for the technical accountants to speak to real estate strategy and the real estate strategists to speak to the nuances of the accounting changes.

# CHAPTER 5: ANALYSIS OF HYPOTHESES - FINDINGS FROM INTERVIEWS 

Chapter Summary<br>In order to test the hypotheses described in Chapter 4, targeted interviews were conducted with relevant industry participants over the course of several weeks. The following chapter recounts detailed information received from the interviews. It is evident that companies will continue to base their real estate strategies on economic variables; however, using anecdotal evidence, we attempt to point out the factors that may exist that compel companies to change their real estate strategy in order to obtain beneficial accounting treatment.

Corporate real estate decisions are made based on numerous factors; ultimately, decisions should result in utilization of the underlying real estate that provides optimal support to the core business of the company. While a core set of factors drive real estate decisions for most companies, each company is likely to attribute relative importance across factors differently. Factors such as long-term need and control, location, building improvements, residual value risk and market risk are all primary real estate decision drivers for most companies, but the relative value of each factor should differ from company to company depending on the core operating business. However, it is clear certain companies exhibit increased sensitivity to financial statement presentation. For these companies, the impact of real estate decisions on financial statements is an additional consideration in the corporate real estate decision-making process.

How much consideration is dependent on a particular company's sensitivity to financial statement presentation relative to the other driving factors in its real estate selection? For companies that place considerable consideration on external financial statement interpretation, how intent are they on maintaining certain capital ratios? When all other factors in the decision-making process are essentially equal, would realizing more favorable accounting treatment drive corporate real estate decisions?

The proposed requirement to capitalize all operating leases would have an impact on any company that currently utilizes operating leases and accounts for those under using current SFAS 13 guidance. The extent of this impact for a particular firm would be largely based on some combination of (i) the size of a company's operating lease portfolio relative to the rest of its balance sheet, and (ii) a company's sensitivity to financial statement presentation. Therefore, the significance of this effect would vary both by industry and company-to-company within the same industry. As a result, some companies should be more inclined than others to reduce the effect of the new accounting changes by modifying their typical corporate real estate strategy. Through a series of interviews with a diverse sample of companies, we
attempt to provide insight to the real estate industry as to how and to what degree corporate real estate decisions would change (or at least be influenced) by the proposed changes to lease accounting. It should be noted that sample size for this study is not necessarily representative of the entire population of United States corporate real estate users. Rather, this study explores whether certain company characteristics may increase the likelihood for changes in real estate decisions in response to changes in accounting requirements.

The implementation burden of the new accounting standards would be borne by any company that is required (or chooses) to provide audited financials in accordance with GAAP standards. Though this burden would not necessarily lead to changes in real estate decisions, it is important to note the significance of the implementation burden companies would encounter. As evidenced by the analysis reported in Chapter 3, the magnitude of the change in financial statement appearance would be significant for companies in virtually every industry. Further, the additional reporting requirements would force companies to implement substantial upgrades to their lease management systems in order to track all of the relevant details about individual leases. Even sophisticated companies with sophisticated lease administration systems would find that implementation is cumbersome and would likely seek to overhaul their existing lease reporting systems. While some companies we spoke with have started the process of meticulously reviewing their operating lease portfolios to understand the likely impact to financial statements and be ready to adhere to the new standards, others have chosen to wait until the standards are finalized before incorporating a new reporting system into their corporate real estate operations.

A large component of the proposed lease accounting changes relate to lessor accounting. Two subsets of our interview sample are public and private landlords. The initial goal of this study was to determine how the proposed changes to lease accounting, for both lessor and lessee, could alter the way in which strategies are formed or transactions are structured. While we spoke to landlords about the potential impact to lessor accounting, three factors limited the added value of such conversations to the overall research goals of this analysis:

1. The Boards had just reached a tentative decision on the model for lessor accounting in mid-July, 2011. As a result, most of the companies we spoke to were not aware of any of the specifics regarding the proposed lessor changes.
2. Companies generally did not perceive any major issues with lessor accounting as compared to the many industry participants who have expressed concerns over the existing model for lessee accounting.
3. Landlords that would qualify as real estate investment firms would not be subject to the proposed lessor accounting. Rather, those companies could use the fair value accounting part of the Boards initiative (for which the Exposure Draft has not yet been issued) as to require measurement largely consistent with that defined by IAS 40, Investment Property.

Despite the lack of substantive findings in relation to implications on real estate strategy of landlords as lessors, the interviews with landlords were of significant value to our overall findings. The interviewees imparted a breadth of knowledge and insight on potential tenant behavior, based on both theory and actual experience.

## Private Companies:

It should be noted that, prior to any interview, the first distinction we made separated publicly-traded firms from private firms. While companies, both public and private, utilize GAAP accounting standards for a variety of reasons, private companies are not strictly required to report in accordance with GAAP standards and, therefore, do not face the same level of scrutiny from external groups with respect to the interpretation of their financial statements. Public companies, on the other hand, are required to report in accordance with GAAP standards as their financial statements serve as a primary conduit for the transfer of information to analysts, rating agencies, and other investors. Due to reduced reporting requirements and public scrutiny, the typical private company is far less sensitive to the manner in which its financial statements are presented or perceived. ${ }^{42}$ Therefore, it seemed private companies for the most part will be less affected by the changes to lease accounting. However, we sought out accounting and real estate professionals at private companies to collect their impressions of the proposed changes in the context of their companies' overall real estate strategies. Through our interviews of private company lessee respondents, we determined private companies would be largely unaffected by the proposed changes and therefore unlikely to modify their real estate decisions in any substantive way.

## Interview 1

We performed several interviews with representatives of private companies. One such interview demonstrated the difference in levels of external scrutiny placed on the financial statements of public versus private companies. This private company is an international retailer with retail and

[^26]manufacturing sites throughout the United States. The company does not generally source external financing and, therefore, is not influenced by external pressures to maintain certain loan covenants tied to GAAP-based measurements that would change if the proposed lease accounting changes are implemented. The respondent for this company indicated very little emphasis had been placed on any need to prepare for the proposed changes, let alone incorporate any change in corporate real estate strategy as a response. Even with a substantial retail presence with store locations under leases subject to percentage rent, this company does not face external pressure in ensuring financial statements correctly portray the underlying financial health company health. For private companies such as this one, with little or no external pressure from lenders to maintain specific ratio-based covenants, these changes would do little to impact the manner in which business is conducted.

In the sections to follow, we examine each hypothesis described in Chapter 4 and provide anecdotal evidence collected through our subject interview process.

## 5.0: Analysis of Hypothesis (H1) - Creative Structuring of Leases to Reduce Total Liability

## Shorter lease terms

To reduce the effects that the proposed accounting changes would have on balance sheets and capital ratios, as well as expense recognition on the income statement, companies may attempt to creatively structure leases that would allow for recognition of a shorter term. A shorter lease term would decrease the liability and right-of-use asset that is capitalized on the balance sheet and would also smooth the effect caused by front-loading expenses on the income statement. Our anecdotal research suggests certain tenants would be inclined to reduce lease terms while other types of tenants would be less inclined to do so.

## Interview 2

Respondents from a publicly traded office-user indicated that they would attempt to reduce the company's total lease term as a result of the proposed accounting changes in order to lessen the
impact on their balance sheet. The respondents expressed the group's current aversion to capital leases because of the shifted expense allocation from the straight-line treatment of operating leases. The proposed accounting treatment would apply this same effect to all leases but, as previously described, the shift would be less severe for leases with shorter terms. As flexibility has become an increased priority this particular firm has recently initiated an overall corporate strategy to reduce its overall occupancy footprint, workspace per worker, and lease term; consequently, the proposed changes add additional incentive to reduce lease term even more as structuring shorter-term leases would provide better accounting treatment and reinforce the firm's overall corporate strategy.

## Interview 3

The respondent from a publicly traded production company acknowledged an incentive to sign shorter-term leases to lessen the impact of proposed accounting standards on the balance sheet. However, this company's growth expectations and space needs are relatively uncertain and, therefore, the flexibility of shorter lease terms is important to their overall corporate strategy in and of itself. As was the case with Interviewee 1, the respondent communicated that the company would seek shorter-term leases to achieve both beneficial accounting treatment as well as flexibility when growth is expected, but uncertain.

For both interviewees, shorter term leases already provide a benefit (flexibility) given the current growth profiles of each. However, they both acknowledged accounting treatment is a factor in their real estate analysis (with Interviewee 2 giving additional weight in its analysis) and the fact that it coincides with their overarching real estate strategy further supports and even magnifies their proclivity for shorter lease terms.

Through our research we also discovered that companies with certain profiles would be less inclined to sign shorter-term leases. For these companies, the security of the longer term, highly specialized space fit-out, or other external factors outweighed any accounting impact. This is particularly true for lab tenants and certain retail tenants as discussed below.

## Interview 4

A large, publicly traded landlord indicated that tenants with expensive build-outs required significant tenant improvement allowances might not seek shorter lease terms. For these tenants, the landlord-provided tenant improvement allowance constitutes a significant portion of the base rent. If the tenant opts for a shorter term, it must compensate the landlord for the shorter period over which the initial tenant improvement contribution must be amortized. ${ }^{43}$ Tenants with significant build-out requirements may find that the positive accounting effect associated with a shorter-term lease would be negated by the increased rental rate. In particular, tenants within the research and development (R\&D) industry tend to have much higher build-out requirements relative to the requirements of tenants in other industries. For these companies, shorter terms would mean significantly higher annual rental rates. The interviewee also emphasized, with R\&D companies in particular, cash management is vital to a company's success (or more appropriately, survival). Many biotechnology R\&D firms operate for years without generating a profit in the hopes of realizing a considerable profit through a milestone such as a drug approval. For these companies, minimizing cash outlay in the initial years is far more important to the overall business goals than achieving a desirable accounting treatment.

## Interview 5

The feedback from our interviews suggests that, for many retail companies, the driving force in determining the length of lease term is often the length of the franchise agreements associated with the locations. This relationship between the lease and franchise agreement seems to be interdependent as the coterminous lease and franchise term represent the appropriate length to reflect the risk (along with the associated fees and revenue) of the underlying agreements. Interviewee 4 , a representative for a large national retail company stated that, similar to many retail companies, the firm is often both the master lessee and the sub-lessor at many sites. ${ }^{44}$ In this type of situation, an imbalance in the length among the master lease term, the sublease term, or the franchise agreement would result in one contractual agreement expiring at a different time

[^27]than the others, creating a significant misalignment of interests. ${ }^{45}$ In this type of agreement, while the company may desire a shorter term for lease capitalization reasons, the net income realized through its leasing strategy (in conjunction with its franchise agreements) may be too great to forfeit to achieve more favorable accounting treatment.

## Interview 6

Respondents from a publicly traded retail tenant indicated that sale-leasebacks are a significant part of the company's real estate strategy. ${ }^{46}$ The proceeds received from the sale leaseback transactions essentially are reinvested into the growth strategy of the company. Assuming the rate implicit in the lease ${ }^{47}$ is less than the rate of return the company received on its reinvestment of sale proceeds, the strategic real estate decision is a profitable one. This particular company indicated that the length of the lease term is directly related to the pricing received on the sale. The company had identified its target lease term range as the term length required to achieve the pricing it desired. In this case the typical initial term ranged from 15 to 25 years. If the company identified the resultant accounting recognition of such a term as undesirable, it would presumably have to accept a lower sale price given the increased risk from the buyer/lessor's perspective.

For both Interviewees 4 and 5, the lease terms were a reflection of a broader real estate strategy that has been incorporated into the firms' core business strategies. For these specific cases, while the companies may very well have relatively high degrees of operating lease exposure and may be sensitive to financial statement interpretation, the companies' core business strategies depend on these real estate transactions as a profitable source of revenue. The proposed accounting changes would add transparency to the companies' strategies and, based on how this additional information is interpreted by the market, the companies could face decisions regarding these real estate transactions as a continued source of revenue into the future.

[^28]
## Creative structuring of renewal options

As discussed previously, the determination on how lease renewal and termination options are accounted for under the proposed accounting standards has not yet been finalized. According to the initial Exposure Drafts, if an option is "more likely than not" to be exercised, the option should be capitalized along with the base term. After receiving significant adverse feedback from constituents, the Boards relaxed their "more likely than not" criterion. The revised proposed standard would require the capitalization of the renewal term along with the initial term if there were deemed to be "significant economic incentive" to exercise an option, This categorization would be determined using market factors, entity-based factors, asset factors, and contract factors. ${ }^{48}$ However, the proposed language is ambiguous and requires significant subjective judgment when determining whether an economic incentive exists. As indicated, the Boards have not yet reached a final conclusion on this aspect. Should the Boards settle on a low threshold for triggering capitalization, (i.e. the determination of significant economic incentive is objective and widely applicable, making it difficult to avoid capitalizing the renewal option), it is possible that tenants would be inclined to include fewer or shorter renewal options in the lease contract to reduce the total liability capitalized. However, if the eventual standards require a high threshold to trigger capitalization (i.e. the determination of significant economic incentive is subjective, making it relatively easy to avoid capitalizing the renewal option through clever use of contract language), tenants may be inclined to reduce the base term and include more renewal options. In this case, the tenants would need to somehow account for the increased rental rate that the lessor would presumably require (for purposes of amortizing the tenant improvement allowance as previously discussed).

Several interviewees confirmed that they would be inclined to structure a lease contract with a shorter base term and include additional renewal options provided the "significant economic incentive" threshold was one around which lease language could be sufficiently maneuvered to avoid capitalization.

## Interview 7

An example cited by one interviewee considered a requirement for a 30-year term that was bifurcated into a 5-year base term with five, 5-year renewal options (renewal terms would be at fair market rents). Effectively, the company would achieve the advantage of a 30 -year term but also achieve beneficial accounting treatment by capitalizing only the 5-year base term. While this

[^29]may be an extreme example, it is possible that some variation of this hypothetical lease structure may be utilized by the company to achieve beneficial accounting treatment.

## Interview 8


#### Abstract

A respondent from an international, publicly traded production company confirmed that the company would be inclined to sign shorter lease terms. The company's overall corporate strategy is geared toward what could be characterized as "modest growth" with an overall need for shorter-term flexibility. As such, the beneficial accounting treatment offers more incentive to shorten the base term and include more renewal options. The company's need for flexibility suggests that there may not be significant economic incentive to exercise the renewal options; therefore, they would be required to capitalize only the initial base term.


## Reduction of base rent and increase in contingent rent

The proposed two-component method for recording rent expense on the income statement would create a front-loaded expense recognition pattern for any capitalized lease. For most public companies with an aggregate lease portfolio that includes a fairly substantial number of leases with staggered lease commencement or lease expiration dates, the impact of this dynamic would likely be minimal. Since the combined amortized right-of-use asset and effective interest expenses would be lower during the (approximate) second half of the lease term, the resultant increased net income would offset the higher expense total from the first half of the lease term. Assuming a company's leases are at varying stages of their respective terms, the individual net income effect of any particular lease would counteract the opposite effect of another lease at a different point in its respective term.

However, for certain types of companies, the impact of a front-loaded expense for each lease could be significant. For instance, a company with a relatively few number of locations that are each significant in size and corresponding rent expense relative to that company's revenue, would be more exposed to this dynamic than the typical company. A company like this would seemingly be more likely to attempt to structure leases with a large contingent rent component. While the total rent per annum might be the same as a lease with no contingent rent but a higher base rent, only the base rent is capitalized and recognized as a right-of-use asset and lease liability on the balance sheet.

## Interview 9

Respondents from this national retailer with more than 5,000 locations indicated the company's future lease obligations included a number of leases with percentage rent clauses. However, many of these were not entered into by the company but rather were acquired through the acquisition of a parent company. Generally this company does not actively seek percentage rent clauses in leases. The main reason for this seems to be the company's preference for sale-leaseback transactions. The revenue raised from sale-leasebacks is largely dependent on a reliable rent payment to the investor. The inclusion of percentage rent would erode much of the predictability that is associated with the NNN leases the company typically structures. As a result, the company's priority of realizing value and raising capital was too important to risk to achieve the favorable accounting treatment that would be the result of a small capitalized lease liability and right-of-use asset.

While our interviews did not suggest companies would structure percentage leases to reduce capitalized lease obligations, the majority of our research suggests that certain companies would be more likely to modify their typical lease structures in order to reduce the operating lease liability reported on their balance sheet, thereby having a "less negative" effect on their financial metrics. In these cases, companies would actively attempt to structure leases for the purpose of achieving a particular accounting treatment. However, a company's decision to structure a lease for accounting benefit would need to fit within the overall real estate strategy of the company without conflicting with another factor of greater relative importance. For instance, the cost for a tenant's desired space build-out may offset the effect that a shorter lease term has on the reported obligation as the tenant improvement costs are generally amortized over the life of the lease. While the tenant could opt to accept a less expensive build-out to offset the increase amortization rate, it would need to consider whether the beneficial accounting treatment was more significant than the negative value it would place on a less desirable space. Therefore we can preliminarily conclude from our research that companies would be inclined to reduce their total lease liability by engaging in creative lease structuring; however, since overriding factors may exist that outweigh the benefits of the positive lease accounting, we cannot universally accept our hypothesis (H1).

## 5.1: Analysis of Hypothesis (H2) - No bright-line tests would lead to more economical lease negotiations

As previously discussed, there is a distinct line between operating leases and capital leases, as set forth by the current SFAS 13 accounting standard. Prior research indicates that companies have used this nondiscretionary, rule-based standard to their advantage, structuring leases to avoid capitalization and achieve off-balance-sheet disclosure. This concept was further confirmed through our anecdotal research. Respondents from several of the companies interviewed confirmed that they actively structure leases to avoid capital lease classification. This is done in a variety of ways including limiting the base term of the lease or lowering the rental rate. As noted in Chapter 3, since SFAS 13 was implemented in 1976, there has been a significant decrease in the number of capital leases reported and a corresponding increase in the number of operating leases reported by companies. Two transactions that are very similar economically (i.e. a certain lease with NPV of $91 \%$ of market value and a certain lease with NPV of $89 \%$ of market value) would each utilize very different accounting treatment, under current guidance. As a result, studies support that companies actively structure leases below $90 \%$, despite the economic similarities. However, since the capitalization of all leases would eliminate the ability to avoid capital lease treatment for their leases, companies would no longer pursue this creative lease structuring to avoid capitalization of leases and, instead, structure such leases in a manner that better reflects the corporate real estate strategy of the company. While this effect may be marginal ${ }^{49}$, it nevertheless represents a possible change in behavior among corporate real estate users. As confirmation, our anecdotal research indicates that companies, across a breadth of industries, may be less restricted when negotiating leases.

## Interview 10

A respondent from a large retail company indicated that the company currently structures leases to avoid capitalization; therefore the CRE group's fundamental thinking with respect to corporate real estate strategy may change slightly. For instance, when there is no longer an accounting reason to sign a lease that falls below the $90 \%$ bright-line rule, in order to avoid capital lease classification, they may be more likely to sign a lease with an NPV over $90 \%$ of market value. Going forward, there will be more freedom to optimize lease terms without concern for differential accounting treatment.

[^30]Interviewee 11, a representative of a large international, multi-disciplinary company, indicated the bright-line tests were currently employed not to achieve the benefits of off-balance sheet financing but rather to signal whether a particular asset should be leased or owned. The respondent suggested a lease proposal that violated the bright-line test signaled that the underlying value of the lease was too close to the fair value of the asset to warrant a lease. Rather, if the particular building or space was perceived as integral, the company would seek to purchase as opposed to lease, assuming the purchase price made economic sense. It is evident that certain companies use the bright-line test for reasons other than attempting to keep a lease off the balance sheet. Whether this firm continues to employ this test should the proposed accounting changes be implemented will help reveal whether accounting treatment played a role in the firm's application of the test.

Nearly all respondents we spoke with confirmed that the elimination of the operating lease classification would eliminate any creative lease structure to avoid the distinct line imposed by the current classification. In summary, we accept our hypothesis (H2) that companies would be less restricted during lease negotiations when consideration for lease categorization is no longer a constraint.

## 5.2: Leasing and buying real estate would now have similar financial statement recognition which would lead to more in-depth analysis and consideration within the context of the lease versus buy decision

As evidenced by the literature review in Chapter 3, and further supported by our anecdotal research, some companies utilize operating leases as a primary corporate real estate strategy instead of owning assets due to the beneficial accounting effects of off-balance-sheet financing. Corporate tenants that consider the accounting benefits afforded by operating leases as a method of off-balance-sheet financing to be a material factor in their corporate real estate strategy (and, more specifically, in the lease versus own decision) should have less incentive to lease because the new accounting rules would eliminate this benefit. Therefore, these tenants may begin to look at buying assets, or at least incorporate additional ownership analysis into their decision-making process.

## Interview 12

Respondents from a large publicly traded office tenant indicated that they have executed saleleaseback transactions (that resulted in operating lease treatment) in an effort to (at lease in part) improve capital ratios. In addition, they indicated that the company typically avoids structuring capital leases as a corporate strategy. Assuming capital ratios served as a significant impetus for the sale-leaseback transactions, this company would be less likely to engage in a similar transaction if the proposed lease accounting changes are implemented.

## Interview 13


#### Abstract

Respondents from a publicly-traded, multi-national tenant indicated that the analysis conducted within the context of lease versus buy decisions would become more complex in order to incorporate both lease and ownership analyses. Groups at this company have begun the process of understanding the company's lease portfolio in detail in order to prepare for the lease accounting changes. Throughout the process the participants have gained a better understanding of the company's worldwide real estate footprint. This particular company has office, distribution and production facilities worldwide. Its real estate strategy typically involves executing long-term leases in specific locations, as control of certain properties is essential. The respondents indicated that because the new accounting standards would create a lease obligation that looks similar to a mortgage, the company might examine the economics of purchasing more assets as a potential real estate strategy.


The respondents were generally divided into two groups in their responses to questions regarding lease versus buy analyses. For companies that did consider ownership to be within the scope their core business strategy, respondents indicated that the decision to purchase (as a result of changes in accounting) seemed to them, an overreaction. For respondents from companies that already owned assets, the potential elimination of beneficial operating lease treatment would make ownership incrementally more attractive. In summary, we accept our hypothesis (H3) that predicted that by eliminating off-balance-sheet leasing, more companies would consider owning as a real estate strategy and, therefore, additional analysis would be implemented by companies within the lease versus buy context.

## 5.3: General Observations - Anecdotal Evidence from Interviews

During the several week timeframe over which we conducted interviews, we observed certain common sentiments from those we interviewed. Among the most prevalent was the sense that these new accounting standards would require a new level of detailed information because every lease, no matter how large or long, would need to be recorded and tracked over its term. Several companies interviewed, that have already begun the implementation process, admitted to realizing that their current information systems lack detailed lease information and, therefore, understanding an entire portfolio of complex leases would prove to be extremely challenging. Some companies mentioned specific lease tracking systems, of which certain components had already been installed, which provided companies with a level of understanding far beyond that which had previously been available. Assuming virtually every public firm with the need for this data would incorporate systems like this, the result would create clarity, and possibly even efficiency throughout the industry, as companies would become more aware of the space they occupy versus their actual space requirements. Consequentially, companies will be forced to look critically at their real estate strategies. Going forward, determining real estate strategy will involve many elements; however, when all else is equal, the proposed lease accounting changes may be a catalyst to implementing change.

## CHAPTER 6: CONCLUSION AND OPPORTUNITIES FOR FURTHER RESEARCH

This study sought to answer the question, "Would the proposed changes to lease accounting have an impact on corporate real estate decisions?" Real estate strategy is formulated by assessing a compilation of economic variables to determine what form of real estate is needed to best support the goals and objectives of a company's operations. The proposed accounting changes would force companies to critically examine their real estate portfolios in order to comply with the new standards. It is evident that the basis on which real estate decisions are made would become more transparent and by that effect, companies may make different decisions than they otherwise would have.

To determine how accounting plays a role in real estate decisions, we first explored prior research to understand the primary drivers for corporate real estate strategy. As suspected, corporate real strategy is composed of many variables, mostly economic factors that include locational requirements, expected growth of the organization, willingness to take on risk, and financial position, amongst others. While a core set of factors drives real estate decisions for most companies, each company is likely to prioritize these factors differently. Through our research we also found evidence to support that sensitivity to financial statement presentation may be an additional (though possible ancillary) variable in decisionmaking. Companies that are required to report in accordance with US GAAP and are scrutinized by analysts and investors tend to be sensitive to how their financial statements are perceived. Often these companies must maintain certain capital ratios to remain in compliance with loan covenants and other regulations. There is evidence to support that companies engage in marginal manipulations of transactions in order to achieve beneficial accounting treatment. As discussed previously in the paper, SFAS 13 established four measurable, rule-based criteria used to differentiate capital from operating leases. Through creative structuring of leases, these criteria can be used advantageously to obtain off-balance-sheet classification. Indicative of this, in the years since the issuance of SFAS 13 in 1976, the industry experienced a significant increase in operating leases and a corresponding decrease in capital leases. One could infer that leases were purposefully structured to avoid capital lease classification in order to keep the obligation off the balance sheet.

Because our research indicates that accounting is a potential variable in corporate decision-making, the next question we asked is "How much does accounting influence the decision and could the proposed changes to lease accounting prove to be a catalyst for companies to change their behavior?"

To answer this question, we conducted targeted interviews with a diverse sample of companies representing tenants, landlords, and other industry professionals. We engaged participants from both the public and private sectors; however, it was inferred from the conversations that private companies will likely be unaffected by the change, or at least affected to a lesser degree, as they are not required to report in accordance with US GAAP. Considering this, we targeted private companies along with public companies in order to understand perspective from both sides of the market.

In our goal to understand the role of accounting, and specifically the proposed changes to lease accounting within the context of real estate decisions, we tested three hypotheses. The first hypothesis predicted that companies would modify typical lease structures in order to reduce the liability that is capitalized on their balance sheet and to lessen the impact of the front-loaded income statement obligations. Specifically, we asked companies whether they would attempt to (i) shorten lease terms, (ii) increase contingent rent in order to decrease base rent, or (iii) modify renewal options. Most companies recognized the positive effects that a shorter lease term or larger contingent rent component would have on their financial statements under proposed accounting standards. However, these companies communicated that they would only modify their behavior in this regard to the extent it coincides with their overall corporate strategy. For instance, a shorter lease term would provide flexibility to a company that is expected to grow and has uncertain space needs. In this case, the proposed changes to lease accounting would further support and even magnify their inclination to sign shorter lease terms. Our research also suggests that some companies have a proclivity to sign longer-term leases due to the need to control their space for an extended period of time and for this reason, a change in accounting would not be impactful enough to cause them to sign shorter leases and jeopardize this control. Further, shorter lease terms are often cost-prohibitive to many companies that have extensive build-out requirements because amortizing the improvement costs over a shorter term would increase the total rental obligation. A company's propensity to modify their renewal options was more challenging to gauge. As we discussed previously in the paper, the determination on how lease renewal and termination options are accounted for under the proposed accounting standards has not yet been finalized. However, several interviewees confirmed that they would be inclined to structure a lease contract with a shorter base term and include additional renewal options provided the "significant economic incentive" language was such that could be sufficiently maneuvered around to avoid capitalization.

Our second hypothesis predicted that because there is no longer a distinction between operating leases and capital leases companies would be less restricted during lease negotiations when consideration for lease categorization is no longer a constraint. Since the capitalization of all leases would eliminate the
ability to avoid capital lease treatment, companies would no longer pursue this creative lease structuring to avoid capitalization of leases and instead structure such leases in a manner that better reflects the corporate real estate strategy of the company. While this effect may be marginal, it nevertheless represents a possible change in behavior among corporate real estate users. Nearly all respondents we spoke with confirmed that the elimination of off-balance-sheet lease financing and the distinction between operating and capital lease classification would eliminate the need for purposeful lease structuring to avoid capitalization.

Our third hypothesis predicted that by eliminating off-balance-sheet leasing, companies would consider owning as a real estate strategy, and therefore additional analysis would be implemented by companies within the lease versus buy context. Specifically, those corporate tenants that consider off-balance-sheet incentives to be a material factor in their corporate real estate strategy would now have less incentive to lease because the new accounting rules would eliminate this incentive. The results of our research were bifurcated. Some companies whose real estate strategy does not include ownership feel that a change in lease accounting standards would not cause a higher propensity to buy. Therefore one might infer that changes to accounting are not impactful enough to warrant an overhaul to strategy. Conversely, other respondents, those that already owned assets as part of their real estate strategy, indicated that elimination of off-balance-sheet operating lease treatment would make ownership somewhat more attractive, or at the very least would compel them to complete more analysis within the lease versus buy decision.

In conclusion, the proposed changes in lease accounting would not have an industry-wide effect on corporate real estate strategy. However, our research suggests that accounting may play a part in corporate real estate decisions and for some companies the proposed changes to lease accounting may be a catalyst for changing real estate behavior. The impact for a particular firm would be largely based on two main factors or a combination of both: (i) the size of a company's operating lease portfolio relative to its balance sheet and (ii) a company's sensitivity to financial statement presentation. These factors make a company more likely to change their behavior to mitigate the effects of the proposed changes. As a result, some companies should be more inclined than others to reduce the effect of the new accounting changes by modifying their typical corporate real estate strategy. However, in some instances as we found through our research, there are other unique attributes of corporate strategy that may override these two factors. For instance, as discussed earlier, a publicly-traded retail firm with a significant operating lease portfolio considers sale-leaseback transactions to be a core part of their strategy. For them, the length of the lease term is directly related to the pricing received on the sale. Therefore, despite the fact
that they meet the two criteria noted above, for them, beneficial accounting treatment of a shorter lease term is not an impetus for them to accept lower pricing.

The proposed accounting changes would require companies to incorporate sophisticated lease tracking systems in order to comply with the new reporting requirements. This would lead companies to scrutinize their real estate footprint in greater detail. As a result companies would be more aware of inefficiencies in the space they occupy. Real estate decisions would have an effect on financial statements and therefore more analysis and more communication between internal departments would be required. For instance corporate real estate groups would need to discuss transactions with corporate finance and accounting groups. Companies will be better equipped to make appropriate real estate decisions which could lead to more efficiencies in the market. Going forward, determining real estate strategy will continue to involve many economic variables, however, when all things are equal, the proposed lease accounting changes may be a catalyst to implementing change.

## Opportunities for Further Research

As we have discussed throughout this paper, the proposed changes to lease accounting have not yet been finalized. Although this posed a challenge in our research, we knew when we initiated the study that we would be analyzing potential behavioral changes from a pre-implementation standpoint in order to provide the industry a framework of the potential effects of these changes. If the standards are finalized and implemented, there would opportunity to build on the research from a post-implementation standpoint once companies have had time to adjust their behavior. In our study, we posed three hypotheses that made predictions about possible changes in real estate behavior. Once the changes are implemented, research could follow to assess whether or not these potential changes actually occurred and to what degree.

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## APPENDIX A: LIST OF INTERVIEWEES

## Tenant / User (Lessee)

## Public:

Citizens Financial Group, Inc. ${ }^{1}$ (LSE: RBS)
Cubist Pharmaceuticals (Nasdaq: CBST)
CVS Caremark Corporation (NYSE: CVS)
Dunkin' Brands (NASDAQ: DNKN)
FedEx Corporation (NYSE: FDX)
McDonald's Corporation (NYSE: MCD
OneBeacon Insurance (NYSE: OB)
Pitney Bowes Inc. (NYSE: PBI)
Procter \& Gamble Co. (P\&G, NYSE: PG)
Staples Inc. (NASDAQ: SPLS)
State Street Corporation (NYSE: STT)
VistaPrint NA (Public, NASDAQ:VPRT)
Whirlpool Corporation (NYSE: WHR)
Private:
Big Y Foods, Inc.
Bose Corporation
Fidelity Investments (FMR LLC)
Goodman Global Group, Inc.
SCHOTT North America
Wilmer Cutler Pickering Hale and Dorr LLP

## Landlord (Lessor)

Public:
BioMed Realty Trust, Inc. (NYSE: BMR)
Boston Properties, Inc. (NYSE: BXP)
Ford Land (Ford Motor Company (NYSE: F))
ProLogis (NYSE: PLD)
Private:
CRIC Capital
Taurus Investment Holdings, LLC
Tishman Speyer Properties

## Other

CyberLease, LLC
Jones Lang LaSalle (NYSE: JLL)
JPMorgan Chase \& Co. (NYSE: JPM)
Moody's Corporation (NYSE: MCO)

## APPENDIX B: INTERVIEW MATRIX



[^31]
## APPENDIX C: SUMMARY OF PROPOSED ACCOUNTING CHANGES

| Summary - Current versus Proposed Lease Accounting Standards ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Existing Accounting Treatment | Exposure Draft | Comments / Critiques of Exposure Draft | Current Position |
| Definition of a lease | FASB currently defines a lease as "an agreement conveying the right to use property, plant, or equipment (land and/or depreciable assets) usually for a stated period of time". | Exposure Draft (ED) defined a lease as a contract where right to use a specified asset, (underlying asset), is conveyed for a period in exchange for consideration. a contract is or contains a lease if the following conditions are met: <br> - it conveys the right to use a specified asset <br> - it conveys the right to control the use of the underlving asset. | - Proposed definition of a lease is too broad and may end up including contracts that are deemed to be service contracts <br> - Opportunities for transaction structuring may exist due to the significant differences between accounting for a service and a lease | Boards have tentatively decided that a contract contains a lease if: <br> - the fulfillment of the contract depends on the use of a specified asset <br> - the contract conveys the right to control the use of a specified asset for a period of time |
| Capital v. Operating Leases | If, at an inception, a lease meets any of the four criteria of the "bright line" test, it is classified as a capital lease. Otherwise, it is categorized as an operating lease. | ED specified all leases in excess of 12 months in length shall be capitalized and recorded in a similar fashion to how capital leases are currently recorded. | The single accounting model may not be sufficient for all leases. | While the Boards briefly agreed two types of leases, they subsequently reverted back to the model described in the $E D$. |
| Short-term Leases | Short-term leases are currently accounted for in the same manner as operating leases of greater term length. | For leases of 12 months or less in term length: <br> - a lessee would be permitted initially to measure lease liability at undiscounted amount of lease payments and right-of-use asset at amount of lease liability plus initial direct costs <br> - a lessor would be permitted not to recognize additional assets and liabilities arising from lease contract and not to derecognize any of the underlving asset | - lessees be offered the same option as lessors in choosing which short leases to present on the balance sheet <br> - allowing a lease-by-lease assessment could lead to inconsistent treatment and that an accounting policy choice by asset categories would avoid inconsistencies. | Boards have tentatively reaffirmed that short term leases would be accounted for under current guidance for operating leases and that lessees may elect to apply the accounting for non-short-term leases to their short-term leases |
| Renewal Options | Future renewal options are only included in the current lease term if they are considered a "bargain renewal option". | ED defined lease term as the longest possible term that is more likely than not to occur. For renewal options, if there was a "greater likelihood than not" of exercising a renewal option, the renewal option period would be accounted for within the initial term | - volatility in financial statements due to reassessments of the lease term <br> - determination of the lease term would involve significant judgment | Boards have tentatively decided that "lease term" would be defined as the non- cancellable period plus any option periods for which there is a "clear economic incentive" for the lessee to exercise the option |
| Variable Lease Payments | Variable lease payments are charged to expense when incurred. | ED stated Lessee must determine present value for all future lease payments based on expected outcome. Expected outcome would be the present value of the probability weighted average of the cash flows for a reasonable number of outcomes | Such predictions would be costly and challenging to reliably estimate | Boards decided that future variable lease payments to be discounted would only include: <br> - All variable lease payments that are based upon an index or rate (payments measured based on the spot rate at lease inception) <br> - Minimum lease payments disguised as variable lease payments |
| Discount rate | - For lessor, interest rate implicit in the lease <br> - For lessee, incremental borrowing rate | ED stated: <br> - a lessee measure its lease liability by discounting lease payments at its incremental borrowing rate or, if it can be readily determined, the rate the lessor charges the lessee; and - a lessor measure its lease as set by discounting lease payments at the rate it charges the lessee | How lessees and lessors would determine which rate to use if multiple discount rates are available | Boards tentatively decided: <br> - lessees would use the rate implicit in the lease, if determinable. If that rate is not available, then the lessee would apply its incremental borrowing rate <br> - lessors would apply the rate implicit in the lease. |

Summary - Current versus Proposed Lease Accounting Standards ${ }^{1}$

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| :---: | :---: | :---: | :---: | :---: |
|  | Existing Accounting Treatment | Exposure Draft | Comments / Critiques of Exposure Draft | Current Position |
| Lease/Non-Lease | Currently no distinction as service or maintenance in connection with leases is considered part of the lease agreement | ED stated lessee must separately account for and capitalize expenses categorized as "lease component" well recording "service component" when incurred (per Revenue Recognition ED) | The separation of performance obligations within a single contract may not be consistent in Leases / Revenue Recognition ED's. | Payments between lease and non-lease components as follows: <br> - If stand-alone selling price of each component is observable, the payments would be allocated on relative stand-alone selling price <br> - If stand-alone selling price of one or more components is observable, payments would be allocated using the residual method. If none of the components has an observable stand-alone selling price, then the entire contract would be accounted for as a lease |
| Sale Leaseback | A sale-leaseback transaction involving real estate, including real estate with equipment, that includes any continuing involvement other than a normal leaseback in which the seller-lessee intends to actively use the property during the lease should be accounted for by the deposit method or as a financing | - Sale Leaseback that does not qualify as a sale would be accounted for as a financing of the underlying asset <br> - Sale Leaseback that does qualify as a sale would result in derecognition of the underlying asset by the seller-lessee and recognition of a gain or loss for the difference between the consideration receiver from buyer-lessor and the carrying value | Inconsistency between the criteria to recognize a sale (and subsequent leaseback) in the Leases ED and in the Revenue Recognition ED | Boards tentatively confirmed that sale/leaseback transactions would be accounted for as two separate transactions - a sale and then the leaseback of the sold asset |
| Subleases | Net present value of all rental costs including writeoffs of depreciation and subleasing costs, offset by the sublease income | Intermediate lessor shall present the liability to make lease payments under a head lease separately from other assets and liabilities arising from the sublease and shall present following items on balance sheet: <br> - right-of-use assets (which are the underlying assets in subleases) <br> - rights to receive lease payments under subleases lease liabilities | Lack of clarity for how subleases should be accounted | Head lease and sublease should be accounted for as separate transactions and that the intermediate lessor (lessee in the head lease and lessor in the sublease) would follow the lease standard including all tentative decisions made to date |


[^0]:    ${ }^{1}$ IAS 17 represents IASB's version of SFAS 13. This paper will focus predominantly on SFAS 13.
    ${ }^{2}$ These four criteria have become known as the "bright-line" tests for lease capitalization:

    1. The lease transfers title to the property to the lessee by the end of lease term.
    2. The lease contains a bargain purchase option.
    3. The lease term is equal to 75 percent or more of the estimated economic life of the leased property.
    4. The present value of the minimum lease payments equals or exceeds 90 percent of the excess of the fair value of the leased property to the lessor
    3 "Off-balance sheet financing" refers to a form of financing capital expenditures through various classification methods, none of which are recognized on the balance sheet (as is the case with standard forms of financing). One of the most popular forms is through operating leases.
[^1]:    ${ }^{4}$ The two Exposure Drafts were effectively the same in substance and will be referred to singularly throughout the paper.

[^2]:    ${ }^{5}$ A triple net lease ( $N N N$ ) is a lease agreement on a property where the tenant or lessee agrees to pay all real estate taxes, building insurance, and maintenance on the property in addition to base rent expense.

[^3]:    ${ }^{6}$ IFRS Staff Paper, Definition of a lease, Reference 1D, April 7, 2011
    ${ }^{7}$ A 'specified asset' refers to an asset that is identifiable. A physically distinct portion of a larger asset could be considered a specified asset however a capacity portion of a larger asset that is not physically distinct would not

[^4]:    ${ }^{8}$ A discount rate is the percentage by which the value of a cash flow in a discounted cash flow (DCF) valuation is reduced for each time period by which it is removed from the present

[^5]:    ${ }^{9}$ Effective Interest Amortization calculated as follows:

    - Effective Interest - Month $1=\$ 3,105,171 \times 10 \% / 12=\$ 25,876$
    - Liability Reduction - Month $1=\$ 62,500-\$ 25,876=\$ 36,624$
    - Remaining Liability - Month $1=\$ 2,941,586-\$ 36,624=\$ 3,068,547$

[^6]:    ${ }^{10}$ The straight-line method recognizes the total lease obligation for the entire term equally during each accounting period.

[^7]:    ${ }^{11}$ The lessor would employ the Performance Obligation Approach if the lessor retained significant exposure to the risks and benefits associated with the underlying asset. Under this approach, the lessor would recognize an asset (the right to receive lease payments) along with a lease liability (recognize the obligation to permit the lessee to use the underlying leased asset- initially measured at present value of expected lease payments to be received over the lease term). If the lessor transfers to the lessee significant exposure to the risks and benefits of the underlying asset, the lessor would use the Derecognition Approach. Under this approach, the lessor would similarly recognize the right to receive lease payments but instead of recognizing a lease liability, the lessor would derecognize a portion of the carrying value of the underlying asset (e.g. building). This amount should equal the value to the lessee for the right to use the asset over the lease term. The remaining portion of the carrying value would have been re-classified as a residual asset (portion that represents the lessor's rights in the underlying asset that it did not transfer).

[^8]:    ${ }^{12}$ The "rate implicit in the lease" is another debated topic in itself. Assuming it is the rate of return the lessor would realize on a particular lease given some cost basis, it is not clear why this would be the discount rate the lessee would use.

[^9]:    ${ }^{13}$ Fair Value is defined as amount for which the property could be exchanged between knowledgeable, willing parties in an arm's length transaction.
    ${ }_{15}^{14}$ This study does not directly include the accounting for investment properties within the framework of the research objectives.
    ${ }^{15}$ The inception of the lease is usually the earlier of (i) the date of the lease agreement or (ii) the date of commitment by the parties to the principal provisions of the lease. The commencement of the lease term is the date from which the lessee is entitled to exercise its right to use the leased asset

[^10]:    ${ }^{16}$ IASB Agenda paper 11G / SFASB Memorandum 146, March 16, 2011, Page 6
    ${ }^{17}$ Sometimes the lessor is unwilling or unable to provide the lessor's implicit rate to the lessee, therefore the lessee may need to determine its incremental borrowing rate through discussions with bankers, or by reference to obligations of a similar term issued by others having credit rating that is similar to that of the lessee. A lessee's incremental borrowing rate is essentially the rate at which third parties would charge to provide a comparable amount of debt financing.(Kentner,2004)

[^11]:    ${ }^{19}$ Percentage rent is calculated as a percentage of the tenant's annual sales made in or from the premises
    20 "Accounting for Variable Lease Payments", IASB Agenda paper 5A / SFASB Memorandum 129, February 14, 2011, Page 7

[^12]:    ${ }^{21}$ In July 2009, The FASB and IASB announced they would re-expose their proposed guidance on lease accounting with a target date for standard setting of early 2012.
    ${ }^{22}$ The "Big Four" refers to the four largest international accountancy firms: (i) Ernst \& Young, (ii) PwC, (iii) Deloitte Touche Tohmatsu, and (iv) KPMG.

[^13]:    23 The survey conducted online by Deloitte by Bayer Consulting from December 1, 2010 to January 3, 2011.
    ${ }^{24}$ An additional 22 respondents were service providers

[^14]:    ${ }^{25}$ For operating leases having initial or remaining non-cancelable lease terms in excess of one year:
    i. Future minimum rental payments required as of the date of the latest balance sheet presented, in the aggregate and for each of the five succeeding fiscal years.
    ii. The total of minimum rentals to be received in the future under non-cancelable subleases as of the date of the latest balance sheet presented.
    c. For all operating leases, rental expense for each period for which an income statement is presented, with separate amounts for minimum rentals, contingent rentals, and sublease rentals. Rental payments under leases with terms of a month or less that were not renewed need not be included.

[^15]:    ${ }^{26}$ Roychowdhury suggests under-provisioning for bad debt expenses and delaying asset write-offs are examples of adjustments to the accounting for a specific event or item.

[^16]:    ${ }^{27}$ Beatty et al use four different measures of accounting quality and combine them to make one composite measure; The four criteria measure i) the extent to which accruals map into cash flows, ii) earnings persistence, iii) earnings predictability, iv) cash flow predictability

[^17]:    ${ }^{28}$ Residual value is the price at which a fixed asset is expected to be sold at the end of its useful life.
    29 Koster, Jay. Jones Lang LaSalle. "Perspectives on Leasing: A tenant's guide for evaluating ownership versus lease decisions." April 2010
    ${ }^{30}$ In this example agency costs refer to the excess costs associated with conflicts that arise between lessor and lessee in dividing the excess value of the specific asset to the user and the value of the best alternative use..

[^18]:    ${ }^{31}$ Summary of Section 401: Financial statements are published by issuers are required to be accurate and presented in a manner that does not contain incorrect statements or admit to state material information. These financial statements shall also include all material off-balance sheet liabilities, obligations or transactions. The Commission was required to study and report on the extent of off-balance transactions resulting transparent reporting. The Commission is also required to determine whether generally accepted accounting principals or other regulations result in open and meaningful reporting by issuers.
    http://www.soxlaw.com/s401

[^19]:    ${ }^{32}$ SEC, Report and Recommendations Pursuant to Section 401(c) of the Sarbanes-Oxley Act of 2002 On Arrangements with Off-Balance Sheet Implications, Special Purpose Entities, and Transparency of Filings by Issuers, page 64, 2005.
    ${ }^{33}$ Minimum rent payments do not include contingent rent or renewals. If the future rent payments are tied to an index, the minimum lease payments for the entire term are based on the index at lease commencement, with changes incurred over the lease period.

[^20]:    ${ }^{34}$ There are several ways to estimate the borrowing rate for a company. In his 1997 Accounting Horizons paper, "Operating Leases: Income Effects of Constructive Capitalization", Imhoff describes a method to derive the implicit interest rate from a company's capital lease recognition and another by dividing a company's interest expense by the book value of its interestbearing debt.

[^21]:    ${ }^{35}$ Imhoff further describes the rationale for a selecting the average asset life remaining in his 1991 Accounting Horizons article, Operating Leases: Impact of Constructive Capitalization.
    36 "Point of Maximum Difference" defined by Imhoff in 1991 Accounting Horizons article as "the stage in the lease's life where net income is the same when measured under either the operating lease or capital lease accounting".

[^22]:    ${ }^{37}$ Debt-to-Equity is defined as Long-Term Debt plus Capital Leases divided by Shareholder Equity (Assets minus Liabilities).

[^23]:    Figure 44

[^24]:    ${ }^{38}$ Net charges to a tenant for items such as taxes, insurance, common area maintenance, utilities, janitorial, etc. ${ }^{39}$ A Gross lease is a type of commercial lease where the landlord includes as part of the base rent the tenant's proportionate share of the building's property taxes, insurance and maintenance. Conversely, with a triple-net lease, the landlord separately bills the tenant for its proportionate share of the building's property taxes, insurance and maintenance ${ }^{40}$ As previously discussed to the extent the variable or contingent rent obligation is based on unpredictable measurement (i.e. future sales) and not a quantifiable index, it will not be capitalized.

[^25]:    ${ }^{41}$ Some users would also qualify as landlords or lessors as those companies own facilities in which space is leased to other companies. However, in those instances, their role as landlord was not considered substantial enough to warrant separate or additional classification as such.

[^26]:    ${ }^{42}$ A notable exception to this observation would be private companies that secure outside funding and must submit financial statements to ensure certain borrowing criteria are met.

[^27]:    ${ }^{43}$ Landlords often provide an allowance to tenants as part of the lease contract. The contribution typically goes toward building the space out for the tenant. The Landlord recovers this initial contrition through its embedded amortization into the base rent over the lease term.
    ${ }^{44}$ The retail corporation enters into a master lease at a site and simultaneously enters into a sublease agreement with a sublessee/franchisee.

[^28]:    ${ }^{45}$ For Example: Assume the sublease expired in year 15 while the master lease and franchise agreement expired 5 years later, in year 20. At expiration of the sublease, the sub-lessor/master lessee would be forced to renew the sublease because if not they would also have to terminate the franchise agreement which the sublessee/franchisee might not agree to.
    46 In a sale-leaseback, a company essentially sells an asset to a third-party buyer and leases it back under pre-negotiated terms.
    ${ }^{47}$ In this case, the "rate implicit in the lease" refers to the investment yield the buyer on the property would achieve based on the agreed upon rental rate. For sale lease back transactions, participants typically agree upon an investment yield (which is usually highly dependent on the credit of the seller/lessee), and structure the purchase price and rent to reflect that yield.

[^29]:    ${ }^{48}$ Please refer to Chapter 1 for detail on how these four factors are used to determine whether options get capitalized.

[^30]:    ${ }^{49}$ The NPV would not likely increase much higher than $90 \%$; as it nears $100 \%$ it would start to resemble a purchase and no longer be economical.

[^31]:    ${ }^{50}$ Citizens Financial Group is a subsidiary of The Royal Bank of Scotland

