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The Effect of New Accounting Rules on Capital Leases: A Study of Current Reporting Practices

By James M. Johnson, PhD, and Natalie Tatania Churyk, PhD

Standard setters have placed lease accounting on and off their agendas for many years. Industry associations, the Financial Accounting Standards Board (FASB), the International Accounting Standards Board (IASB), and the Securities and Exchange Commission,[1] to name a few, have contributed to the discussion. Potential changes relate mostly to measurement and disclosure of capital leases and include simplified reporting for leases with a 12-month life or less. The proposed rules will require capital leases to be segregated and reported as such, rather than giving companies the option of including them with long-term debt or other liabilities.

At present, the FASB uses bright-line tests (e.g., economic life) to classify a lease as a capital lease, whereas the IASB promulgates capitalizing a lease if substantially all risks and rewards have been transferred. Actually, both the FASB and IASB require capitalizing a lease if substantially all risks and rewards have been transferred, but the FASB does this through bright-line tests. In August 2010, both boards issued an exposure draft (ED) discussing the possibility of using a more principle-based approach to lease accounting. The new rules would have dramatic effects on firms that account for most of their leases as operating leases.

However, the proposed rules would require all capital leases to be reported as such on the balance sheet—thus including capital leases with long-term debt or other long-term liabilities would no longer be an option.

> Where are lessee firms recording capital leases on the balance sheet: as capital leases or as long-term liabilities or long-term debt? Current reporting can shed light on the effects of the new FASB exposure draft.

Thus, our research question: *When does a capital lease, under current practices, get reported as a capital lease?*

Without an answer to this question, we cannot say how big an impact the proposed rules will have on the balance sheet reporting of capital leases. Much has been studied and written about capital and operating leases over the years.[2] The presumed desirability of operating lease accounting has been expressed countless times.[3] The accounting guidelines indicate that operating leases do not appear on a firm's balance sheet but capital leases do. But the relevant question is, *How often is a capital lease actually segregated from other assets and liabilities in the balance sheet?*

Our study is unique in that we investigate the actual reporting practices surrounding capital leases. This is a great concept to explore, particularly if it is extrapolated to future behavior under the new rules. One of the comment issues raised in the new leasing exposure draft is whether lessees should be required to separately report leases on financial statements, instead of being able to pool them with other liabilities.[4] We have not seen any evidence as to whether this would impact current capital lease financial reporting.[5] Are capital leases currently reported as such on the balance sheet, or do they tend to be pooled with long-term debt or other long-term liabilities? If capital leases tend to be reported as such on the balance sheet currently, then the new rule requiring segregated reporting of capital leases would not amount to a reporting change in practice.

The purpose of this article is to document where lessee firms are currently recording capital leases on the balance sheet: as capital leases or as long-term liabilities or long-term debt (capital leases must appear in one of these categories)? Second, if capital leases are referenced in footnotes, is a dollar amount disclosed? We examine key metrics for the firms. We believe examination of current reporting will shed light on the effects of the newly issued ED.

THE STUDY SAMPLE AND FINDINGS

To identify our sample set of lessee firms, we searched Compact Disclosure for firms containing footnote disclosures with the term "capital lease." To improve the generality of our findings, we performed searches for 1996, 2000, and 2004. This database contains information on public companies. We did not exclude any industries from consideration, to make our results as general as possible. More recent data is not available from this resource as it was discontinued. Our search produced a total of 1,921 companies that mention capital leases in their footnotes to financial statements.

Companies that combine capital leases with other debts or liabilities fall into two subgroups—those that indicate the dollar amount of capital leases in their footnotes, and those that do not.

Once we identified our total sample, we categorized firms into several groups: (1) capital leases reported on the balance sheet as capital leases (477 firms) and (2) capital leases reported with other debt or liabilities (1,444 firms). We further refine group 2 into (3) capital leases combined with other liabilities—dollar amounts disclosed in the footnotes (950 firms) and (4) capital leases combined with other liabilities—no dollar amounts disclosed in the footnotes (494 firms).

We are interested in determining what percentage of the total companies reporting capital leases would be affected by the proposed rules in the exposure draft. This can be determined by calculating how many companies report capital leases as such, compared to all companies reporting they have capital leases. No company currently is required to separately report capital leases on its balance sheet, so the question is, *How many do record capital leases as capital leases, and how many report them in combination with long-term debt or other long-term liabilities?* We also examine if differences exist between key metrics for each of the above referenced groups.

CAPITAL LEASES REPORTED AS CAPITAL LEASES

We find that only 25% of companies with capital leases reported them as such on their balance sheet for the three years studied. Of the total 1,921 companies, only 477 recorded capital leases by that name in their balance sheets. The remaining 1,444 companies included capital leases as part of long-term debt or other long term liabilities. Thus, if the new accounting rules require separate reporting for leases, 75% of the firms with capital leases will be affected in terms of balance sheet reporting.

Companies that combine capital leases with other debts or liabilities fall into two subgroups—those that indicate the dollar amount of capital leases in their footnotes, and those that do not. It is likely that the firms that do not disclose dollar amounts of capital leases in their footnotes do so due to a lack of materiality, but many firms do not state this.

Table 1 (next page) reveals that the vast majority of capital leases are accounted for as something else (other debts or liabilities). It also indicates that almost two-thirds of capital leases reported as something else have their dollar amounts disclosed in footnotes (950 of 1,444). Thus for all companies reporting capital leases—regardless of how they are accounted for—74% (477 plus 950 divided by 1,921) disclose the dollar amount. This suggests that the remaining companies have determined that capital leases are not material and thus the dollar amount of the liability is not disclosed. As there were no filters imposed in the selection of the firms included in this study, other than that they all report having capital leases, there is no reason to conclude the results are biased.

THE EFFECT OF SIZE ON CAPITAL LEASE REPORTING

Next, we examine whether there are systematic differences between companies that report capital leases as

Table 1

How Capital Leases Are Reported

		All capital leases reported as other debt or liabilities		
	Capital leases reported on balance sheet	Dollar amounts disclosed	Dollar amounts not disclosed	All capital leases reported as other debt or liabilities
	Class one	Class two	Class three	Class four
Number of companies	477	950	494	1,444
Percentage of companies	24.8%	49.5%	25.7%	75.2%

Source: Statistics compiled from data secured from Compact Disclosure.

such and those that do not. Table 2 (next page) shows the median tests between key metrics of firms that report capital leases on the balance sheet relative to companies that report them as other long-term debt or other long-term liabilities. We use nonparametric tests due to the non-normality of the data being analyzed. Any probability of 0.05 or less suggests there is a significant difference in median values at conventional levels of testing.

We use five different variables to proxy for size. EBITDA (earnings before interest, taxes, depreciation, and amortization) is a common measure for a company's basic earning power. Other proxies include net income, long-term debt, sales, and total assets.

Table 2 reveals that regardless of the size proxy used, companies reporting capital leases on the balance sheet are substantially smaller than capital lease companies that report them as something else. The income of "other" companies is about 25 times the income of capital lease reporting companies, based on median income. The other size measures are not quite as dramatic, but still show "other" companies to be three to 10 times larger than capital lease reporting companies. Although we have no empirical evidence to support it, we speculate that smaller companies tend to be more strictly compliant with accounting rules, and thus record capital leases as capital leases.

Although we have no empirical evidence to support it, we speculate that smaller companies tend to be more strictly compliant with accounting rules, and thus record capital leases as capital leases.

Next, we compare capital lease firms to firms disclosing the dollar amount of their capital leases (panel B) and to companies that do not disclose dollar amounts (panel C). The existence of dollar amounts may imply that capital leases are "material" in the accounting sense, but not necessarily. Some companies choose to disclose details of their operations even if immaterial, as a matter of corporate policy. However, not reporting dollar amounts (panel C) is an indication of a lack of materiality.

Looking at the proxy significance levels in both panels B and C reveals that the level of disclosure (capital lease dollar amounts disclosed or not) has a similar result. In both cases, the size of "other" companies is statistically larger than capital lease reporting companies. Additionally, we find (panel D) that the two "other" groups do not differ in size with the exception of EBITDA. We conclude that the size of the two groups of companies that do not report capital leases as such are of comparable size.

THE EFFECTS OF FIRM LIQUIDITY, LEVERAGE, AND PROFITABILITY ON CAPITAL LEASE REPORTING

Table 3 (page 5) examines potential differences between companies with respect to key metrics.[6] We report the results of firm liquidity, leverage, and profitability. Our proxy for liquidity is the current ratio, which measures the ratio[7] of current assets to current liabilities. The leverage ratio used is the ratio of long-term debt to total assets. The two profitability measures used are EBITDA to total assets, and return on equity. ROE measures net income divided by owner's equity.

Ratios standardize financial data. They measure the relative nature of a relationship rather than the absolute nature of a relationship. To say "other" companies have much higher income levels than capital lease companies

Table 2

Capital Lease Reporting as a Function of Firm Size

Panel A	**Median dollar measures reported (reported in millions)**		
Size measure	All firms reporting capital leases as something else	Firms reporting capital leases as capital leases (Capital lease firms)	Pr > M
EBITDA	101	4	.0001
Net income	24	1	.0001
Long-term debt	253	44	.0001
Sales	809	121	.0001
Total assets	931	117	.0001
Panel B			
Size measure	Other firms disclosing dollar amount of capital leases	Capital lease firms	Pr > M
EBITDA	12	4	.0020
Net income	2	1	.0001
Long-term debt	225	44	.0001
Sales	788	121	.0001
Total assets	870	117	.0001
Panel C			
Size measure	Other firms not disclosing dollar amount of capital leases	Capital lease firms	Pr > M
EBITDA	121	4	.0001
Net income	2	1	.0001
Long-term debt	267	44	.0001
Sales	720	121	.0001
Total assets	940	117	.0001
Panel D			
Size measure	Other firms not disclosing dollar amount of capital leases	Other firms disclosing dollar amount of capital leases	Pr > M
EBITDA	121	12	.0001
Net income	2	2	.2425
Long-term debt	267	225	.1039
Sales	720	788	.1754
Total assets	940	870	.2425

Source: Statistics compiled from data secured from Compact Disclosure.

does not mean that their rate of return is higher, for example.

The four reported test sets group the companies the same way as shown in Table 2. There are four panels, for the different capital lease reporting types we have defined.

In panel A, we see that there is no significant difference in liquidity between the two groups of companies. Whether they report capital leases as such, or report them as something else, their liquidity is not significantly different. However, it is seen that leverage tends to be significantly lower for companies reporting capital leases as such. On the other hand, capital lease reporting companies are significantly less profitable, as measured by EBITDA to total assets and return on equity than companies reporting capital leases as something else.

Table 3

Effects of Liquidity, Leverage, and Profitability on Capital Lease Reporting

Panel A	**Median measures reported (as financial ratios)**		
Ratio	All firms reporting capital leases as something else	Capital lease firms	Pr > M
Current ratio	1.53	1.54	.4789
Long-term debt to total assets	.23	.18	.0012*
EBITDA to total assets	.11	.07	.0001*
Return on equity	.11	.05	.0001*
Panel B			
Ratio	Other firms disclosing size of capital leases	Capital lease firms	Pr > M
Current ratio	1.54	1.54	.4776
Long-term debt to total assets	.22	.18	.0001*
EBITDA to total assets	.12	.07	.0001*
Return on equity	.10	.05	.0001*
Panel C			
Ratio	Other firms not disclosing size of capital leases	Capital lease firms	Pr > M
Current ratio	1.56	1.54	.3830
Long-term debt to total assets	2	1	.3222
EBITDA to total assets	267	44	.0001*
Return on equity	720	121	.0001*
Panel D			
Ratio	Other firms not disclosing size of capital leases	Other firms disclosing size of capital leases	Pr > M
Current ratio	1.56	1.54	.4009
Long-term debt to total assets	.19	.22	.0213*
EBITDA to total assets	.12	.12	.4537
Return on equity	.10	.10	.3342

Source: Statistics compiled from data secured from Compact Disclosure.

The same conclusions apply to panel B, where we compare the subset of "other" companies that disclose the dollar amount of their capital leases to firms reporting capital leases as such. In panel C, we find that capital lease firms are less profitable, as was the case in panels A and B, but financial leverage is not significantly different. Since it is likely that nondollar disclosed capital leases indicate immateriality, we should not be surprised that those companies have the same leverage as capital lease reporting companies.

In panel D, we look for differences between the two noncapital lease reporting categories and find that the only significant difference between the two is a difference in financial leverage. Firms not disclosing the dollar amounts of their capital leases have significantly lower levels of leverage than firms disclosing the size of their capital leases, but, as a practical matter, the difference is small.

SUMMARY AND CONCLUSIONS

We find that only 25% of the companies in our study that have capital leases report them as such on their balance sheet. The remaining capital lease companies report them as something else on their balance sheet—either included with long-term debt or other long-term liabilities. All public companies reporting capital leases in their footnotes to financial statements are included in the Compact Disclosure database. Thus, our results should be representative of all public companies with capital leases.

Our findings indicate that 75% of all public companies currently reporting capital leases would be required to change their reporting if the new accounting rules adopt line-item reporting for leases on the balance sheet. All leases would be subject to segregated reporting: combining leases with long-term debt or long-term liabilities would no longer be an option.

The change in reporting requirements for capital leases would affect larger, more profitable, and more highly leveraged companies.

Endnotes

1. The SEC staff formally raised issues with, and recommended improvements to, lease accounting as part of its June 2005 report to Congress on off balance sheet arrangements as required by the Sarbanes-Oxley Act of 2002.

2. "Impact of Lease Capitalization on Financial Ratios of Listed German Companies," Rolf W. Feulbier, Jorge L. Silva, and Marc H. Pferdehirt, *Schmalenbach Business Review* 60 (April 2008), and "Capital Structure and the Changing Role of Off-Balance-Sheet Lease Financing," Laurel Franzen, Kimberly R. Cornaggia, and Timothy T. Simin (working paper, SSRN, Aug. 14, 2009), as two of many examples.

3. "The Effects of Lease Capitalization on Various Financial Measures: An Empirical Analysis of the Retail Industry," for example, analyzes the reporting differences between operating and capital leases. Operating leases exhibit lower measures of financial leverage and higher interest coverage than capital leases. In addition, operating leases result in higher measures of profitability, as measured by return on assets and return on equity. *Journal of Applied Research in Accounting and Finance* 2, no. 2 (2007): 3–13.

4. Exposure Draft, Proposed Accounting Standards Update, Financial Accounting Standards Board, Aug. 17, 2010.

5. The closest we could find were studies that examined the classification of hybrid financial instruments. See, for example, "The Effect of Financial Statement Classification of Hybrid Financial Instruments on Financial Analysts' Stock Price Judgements," Patrick Hopkins, *Journal of Accounting Research,* sol. 34 Supplement (1996): 33–50.

6. All data utilized throughout this study are from Compact Disclosure.

7. The quick ratio was also employed as a liquidity proxy, and the results (not reported here) are similar.

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