IS CAPITALIZATION OF OPERATING LEASE WAY TO INCREASE OF COMPARABILITY OF FINANCIAL STATEMENTS PREPARED IN ACCORDANCE WITH IFRS AND US GAAP?

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Abstract


The paper is concerned with an evaluation of possibilities of companies using operating lease and prepared financial statements under IFRS or US GAAP comparison. The data of non-financial companies listed on the Prague Stock Exchange and reporting information on operating lease in accordance with IAS 17 are used. The study presents the impact of operating lease capitalization on companies’ financial statements and financial analysis ratios. The results show a negative impact of operating lease capitalization on financial analysis ratios. The study was motivated by a common effort of the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) to develop the common standard for Lease reporting. In 2013, a joint exposure draft of standard (ED2013/6) Leases was published. Under the new standard, it is required to capitalize all lease agreements over one year. The distinction between operating leases and finance leases should not exist anymore. The study was carried out to demonstrate the potential impact resulting from the proposed adoption of the new accounting standard concerning mandatory capitalization of all lease contracts.

Keywords: operating lease, finance lease, capitalization of operating lease, IAS 17, ROA, D/E

INTRODUCTION

Information is one of the most valuable commodities in investors’ decision making. Information provides investors the basis for informed decision makings delivering the desired profit. Important information for decision-making purposes can be obtained from financial statements. The growth of cross-border investing and capital flows caused that the use of different national accounting systems makes difficult and costly for investors to compare opportunities and make financial decisions. According to Svoboda, Bohušová (2013) differences in national accounting systems imposes additional costs on companies that prepare financial statements based on multiple reporting models in order to raise capital in different capital markets. Financial reporting as a result of application of accounting treatments should become a comprehensible source of information for users from different countries. Financial statements information to be comparable publicly traded companies must apply a single set of high quality accounting standards, for the preparation of consolidated financial statements, to contribute to better functioning capital markets (Quigley, 2007). The single set of accounting standards in a form of the IFRS has the potential to facilitate cross-border comparability and increase reporting transparency, enabling stakeholders and potential investors to understand the financial results of entities globally. According to Starová, Hinke (2013) the implementation of IFRS reduces the information asymmetry between informed and uninformed investors. More than 100 countries in the world have already adopted IFRS.
Companies’ financial statements provide investors with vital information about a company’s performance and - more importantly - pointers to its prospects. Analyzing that information using financial ratios allows comparisons to be made with the past, with other companies in the industry, and with the market as a whole. There is not any problem in comparison with past information of the company to be the future predicted. The problem could arise in the comparison among companies and in the comparison with companies in other countries. The first case is connected with use of different treatment allowed by IFRS for reporting the same transaction (Nobes, 2006). There could be used different ways of measurement of long term assets (historical cost and fair value), different ways of measurement of inventories. The second case are situations that a similar transaction could be structured in different ways (lease, pension) to get the demanded effect by reporting company (on-balance sheet and off-balance sheet). Lim, Mann, and Mihov (2004) consider off-balance sheet financing a way to reduce reported leverage. While there are several types of off-balance sheet financing that firms could employ, pensions and operating leases are the most commonly used off-balance sheet activities.

AIM AND METHODOLOGY

The paper is concerned with comparison of two different possibilities of the lease agreement structuring and the impact on financial statement items and financial analysis ratios. The main aim of this paper is quantification of the impact of reporting an operating lease as a balance sheet item (leased asset and lease liability) on the information provided by financial statements and indicators of financial analysis. The modified method of constructive capitalization is applied for quantification of leased asset and lease liability.

The financial statements of non-financial companies listed on the Prague Stock Exchange (hereinafter as BCPP) data are used for the research. These companies prepare financial statements in accordance with IFRS obligatory. Only the companies whose notes to financial statements comply with all reporting requirements for operating leases are subject of the research. According to IAS 17.56, the companies are obliged to disclose the future minimum lease payment for each of the following period:

- Not later than one year;
- Later than one year and not later than five years;
- Later than five years.

It is necessary to estimate annual lease payments when the single figure is disclosed for lease payments occurring between two and five year. According to the study of Bennett, Bradbury (2003), it is assumed that all lease payments over the lease term are equal and the annual lease payment are estimated by dividing the minimum lease payment between year two and five by four.

3. Implicit lease interest expense is removed from operating income and it is considered as financial cost. The calculation is based on value of the operating lease payment multiplied by the interest rate of secured debt (5%). The remaining rental expense is considered as depreciation of leased assets.

To provide results comparable to prior researches – Imhoff, Lipe, Wright (1991, 1993, 1997), Opperman (2013), Durocher (2008), Beatie (2006), Bennett, Bradbury (2003), Mullford, Gram (2007), the research is focused on non-financial companies.
reporting under IFRS indexed on BCPP. There were 25 companies with securities listed on BCPP in December 2013. Financial companies and business entities which do not provide information according to IAS 17,56 (companies without operating lease disclosure) were excluded from the researched sample. The sample consists of 6 companies. The size of the researched sample is in line with similar researches carried out in the USA (Duke, Hsieh, 2006), Germany (Imhoff, Lipe, Wright, 1991). The ratios displaying the structural changes in the balance sheet and income statement were used. It was expected that all above mentioned items are affected by capitalization of operating lease.

To quantify the impact of operating lease capitalization on indicators financial analysis the indicators whose structure is based on items that are affected by the capitalization of operating leases are utilized. Fixed assets, total assets, long-term liabilities, short-term liabilities, total liabilities, operating expenses, financial expenses, operating profit were affected by capitalization of an operating lease. The percentage changes due to capitalization of an operating lease in above mentioned items and the changes in selected financial analysis ratios were expressed. Return on assets (hereinafter as ROA) is used to indicate changes in the profitability of companies’ assets, total indebtedness is used to evaluate companies’ financial risk, and debt-to-equity (hereinafter as D/E) ratio to assess the way of financing companies’ growth.

\[
\text{ROA} = \frac{\text{Net Income}}{\text{Average Total Assets}}.
\]

\[
\text{Total Debt to Total Assets} = \frac{\text{Total Debt}}{\text{Total Assets}}.
\]

\[
\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholders’ Equity}}.
\]

**THEORETICAL BACKGROUND**

According to the World Leasing Yearbook 2014, the annual volume of leases is amounted to USD 868 billion in 2012. Leases could be currently treated in different ways as an operating or financial. There is the IAS 17 Leases for lease reporting under IFRS and similar rules under Topic 840 ASC US GAAP. Lease is classified as financial if it transfers substantially all risks and rewards incidental to ownership of an asset to the lessee. It is irrelevant whether after the end of the lease there will be a transfer of ownership to the lessee for classification of lease as a finance lease. Otherwise a lease is recorded as an operating lease. Many leases remain reported off-balance sheet according to the current treatments for operating and finance lease reporting. According to the current IFRS or US GAAP treatments when a company borrows money to purchase an asset, the asset and debt are recorded in the company’s balance sheet, and interest is deducted from operating profit to determine net income. Accounting for finance lease is similar to the acquisition of the Statement of financial position way.

In an operating lease, the leased asset is not shown on the balance sheet. It means that leases are a source of off-balance sheet financing. It means that the debt on the balance sheet does not reflect the lease liability and there is no asset to reflect that liability on the balance sheet either. The total balance sheet is shrunken due to understatement of assets and debt. In a finance lease, the present value of the lease liability is shown as debt. At the same time, there is an item representing the leased asset. Any measures that are built on these balance sheet items, such as total assets or invested capital are affected by whether a lease is treated an operating or finance lease. According to Damodaran (2009) many firms prefer operating leases, since they hide the potential liability to the firm and understate its effective financial leverage. Currently the line between operating and finance leases remains fine and companies can modify lease agreements to cross the line in the demanded way. According to Ketz (2010) billions, maybe trillions, of dollars of lease obligations have been off-balance sheet due to operating lease in the USA. Ketz’s estimation of off-balance lease financing (2010) made on a small sample of firms revealed the heterogeneous percentage of off-balance liabilities, which were from 7.38% of Target to 215.60% of Walgreens. Similarly according to Leonard (2011) an approximately 1.5 trillion dollars’ worth of operating lease expenses is off-balance sheet. It is necessary to be capitalized (it have been shown only as a footnote to the financial statements). It will be add some really ugly numbers to the balance sheet for companies whose portfolios contain real estates and leased equipments.

The leased assets in the case of operating lease do not appear in the lessee’s balance sheet despite the fact that the leases assets are used in the same way as the purchased assets. Research made by Grossmann, Grossmann (2010) revealed that in a sample of 91 non-financial companies the significant increase in balance-sheet items in case of the capitalization of operating leases in a range from 5% to 50% in the case of current liabilities. To be financial statements comparable the current lease classification forces analysts to make own assessments about the assets and liabilities arising in lease agreements. According to Duke, Hsieh a Su (2009) many companies use operating lease to hide their current liabilities and assets and increase operating profit to external users in the post Enron era. They present the possibility of financial analysis ratios improvement (ROA, D/E, current ratio) by reporting leases as operating. According to their estimations the non-reported liabilities assets are about 11.13% of reported.
liabilities and non-reported assets are about 3.97% of total reported assets. According to Ge (2006), 80 percent of US companies lease majority or all of the equipment they use, and operating lease liabilities accounted for almost 40% of total fixed claims in comparison to less than two percent for finance lease obligations in 2004. Lim, Mann and Mihov (2003) consider capitalization of operating leases as a tool for increase of effective leverage, and reduction of interest coverage, and decrease the funds from operation-to-debt. Based on results of their study, there is the conclusion that operating lease debt is less significant than balance-sheet debt for debt rating. On the other hand, Sengupta and Wang (2010) reveal that firms with greater off-balance sheet debt are less significant than balance-sheet of their study, there is the conclusion that operating the funds from operation-to-debt. Based on results of their study, there is the conclusion that operating lease debt is less significant than balance-sheet debt for debt rating. On the other hand, Sengupta and Wang (2010) reveal that firms with greater off-balance sheet debt arising from operating leases are found to be associated with inferior bond ratings and higher bond.

The importance of including operating lease in capital structure decisions stressed Graham, Lemmon, Schallheim (1998); Fuelbier, Lirio Silva, Pferdehirt (2008) stress the gradual shift from finance lease to operating lease and the problem of misleading accounting ratios due to off-balance sheet lease reporting. The ways of including and assessments of lease assets and liabilities in case of operating lease were developed in the course of time (Standard and Poor's Present value method (2005), Moody's Factor method (2006), Fitch Hybrid model (2006), constructive capitalization method used by Imhoff, Lipe, Wright (1991, 1993, 1997)) etc. The purpose of lease capitalization techniques is to adjust the financial statements to show what would have resulted if operating leases had been accounted for as finance lease. In 2001, Fahnestock and King (2001) contributed to lease capitalization by a modification of Imhoff, Lipe, Wright (1991) capitalization method. Using the operating lease capitalization methods an increase in ratios concerning the indebtedness such as D/E and decrease in ratios concerning the profitability of assets (ROA) were confirmed in studies carried out in this issue (Ely, 1995), Beattie, Edwards, Goodacre (1998), Durocher (2005).

Based on above mentioned studies it is apparent that the current treatments for lease reporting provide a space for structuring of lease in the way to serve demanded data for external users. Financial analysis ratios such as ROA, D/E based on financial statements data do not give a true view on financial position of the company. The ratios are not fully comparable among companies due to the use of different ways of similar lease agreement reporting. The bright-line rules have led to significant comparability issues. As Fahnestock (1998) pointed out, the footnote disclosures for financial and operating leases are so different that it is virtually impossible to compare one firm that has finance leases on the balance sheet to another firm that has operating leases disclosed in the footnotes. The controversy surrounding financial versus operating leases has led researchers to estimate the impact of non-capitalized operating leases on performance metrics.

In 1996 the G4+1 (Nailor, Lennard, 1996) and FASB published a report: Accounting for Leases: A New Approach. One of the main findings was that the current approach to lease reporting based on classification as operating and financial is arbitrary and unsatisfactory due to omission of material assets and liabilities arising from operating lease on financial statements. The report concludes that the non-capitalization of operating leases affects the key financial indicators and ratios.

Based on conclusion of G4+1 report and Beattie, Edwards, Goodacre (1998), Ciesielki,Weirich (2010) the capitalization of operating lease is supported, because operating lease is considered as a form of off-balance financing consistently enhancing a firm’s financial position by understanding financial leverage, due to unrecognized assets, the performance measures such as ROA are distorted. Imhoff, Lipe, Wright (1997) recommend adjustment to US GAAP or IFRS based financial statements for unrecorded assets and liabilities to better approximate the economic position and performance of the business entity and to be relevant for decision making.

There are two ways out of this situation. The first way was already mentioned – it is capitalization of operating lease only for financial analysis purposes. There are many different approaches to an operating lease capitalization with different effects on financial statements and financial analysis ratios.

The second way is a development of new treatments for the lease with the term over one year reporting regardless of the lease classification. Since 2006, the IASB and FASB have been working on a joint project with the aim to develop a common standard for lease reporting. The main aim of this project is that the lease reporting should be based on principles that fairly show the substance of the lease transaction. In March 2009 IASB and FASB published the discussion paper Leases – Preliminary Views. Based on comment letters to the discussion paper to the Exposure draft – Leases was issued in August 2010. ED issued by IASB and FASB was built on the presumption that every lease contract with the term over one year represents transfer of right to use leased asset. During 2011 and 2012 the IASB and FASB considered the comments received on the ED. The revised Exposure Draft (hereinafteras Re-ED) was released in May 2013 as a response to the opinions of experts and the general public. On the other hand, it should be noted that a number of comments in the form of Comment Letters criticized the intention to use a single concept for all leases due to the fact that economic practice brings a number of very different and specific contracts, the nature of which cannot be reported realistically only using a single unmodified model (which was the original intention of Boards – all leases recorded using the same methodology), which allow only simple lease contracts.
RESULTS

The Impact of Operating Lease Capitalization on Statement of Financial Position

The capitalization of operating lease represented increase of total assets of 38 million CZK in the researched sample of the six entities that meet the conditions of IAS 17.56 and present information suitable for capitalization of operating leases. The increase is connected with the increase in liabilities for the researched sample. All the researched units increased the value of fixed assets, for individual entities ranging from 2% to 13% respectively 318%. Excluding the Company 5, it can be stated that the results are consistent with the findings of similar studies carried out in the UK (Beatie, 2006), Canada (Durocher, 2008), New Zealand (Bennett, Bradbury, 2003), South Africa (Opperman, 2013), the USA (Mulford, Gram, 2007). In the research of Mulford, Gram (2007) the median of assets increase was 14.6%. The median increase in fixed assets is 11.5% for the researched sample. The increase in assets due to capitalization of operating leases is corresponding to the increase in liabilities, in the case of long-term liabilities in the range from 0.2% to 125.6% and in the case of short-term liabilities in the range of 0.7% to 24%. These values are consistent with conclusions of Mulford, Gram (2007) and Bennett, Bradbury (2003). Bennett, Bradbury (2003) examined the impact of capitalizing operating leases on 38 New Zealand firms. Bennett and Bradbury (2003) found out 23% average increase in total liabilities. Mulford, Gram (2007) reached similar conclusions. There is also an increase in total assets from 0.5 to 16.7%, as shown in Tab. I.

There result of the research illustrates the increase of all affected balance-sheet items due to the operating lease capitalization. Due to the fact that an operating lease is not reflected on a company’s balance sheet, it may appear that a company has lower liabilities and fewer financial obligations than it really does. However operating leases represent real liabilities that a company must pay.

The Impact of Operating Lease Capitalization on Income Statement

An operating lease instalment is reported only on the income statement. Company incurs the expense of the leased asset each accounting period. On the other hand, capitalization of an operating lease leads to separation of expenses connected to an operation lease into two categories. The depreciation of the long-term assets and interest expenses are recorded. The total of the expense connected to lease could differ. Both part of income are affected, the operating income and financial income. The operating income increases due to reduction of operating expense. Operating expenses are reduced by calculated interest costs as a part of financial costs.

The impact of Operating Lease Capitalization on Financial Ratios

The changes in items of financial statements entail changes in financial ratios. The first ratio examined was ROA. The capitalization of operating lease decreased this ratio in all the sample. Median change of ROA is 1%. The percentage point change in ROA does not appear to be significant. When compared against a median ROA of 6.2%, the median reduction in ROA represents 16.12%. It is quite consistent with the conclusion of Mulford, Gram (2007) they found the 15.5% reduction in ROA. Bostowick, Fahnestock and O’Keefe (2013) found median of ROA decrease 9.5%. In case of operating lease, returns are generated by firm’s assets including unrecorded assets leased by operating lease. Imhoff, Lipe Wright (1991) used seven pairs of companies from different industries matched on size but with different operating lease

<table>
<thead>
<tr>
<th>Item</th>
<th>Comp. 1</th>
<th>Comp. 2</th>
<th>Comp. 3</th>
<th>Comp. 4</th>
<th>Comp. 5</th>
<th>Comp. 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term Assets</td>
<td>1.082</td>
<td>1.130</td>
<td>1.132</td>
<td>1.018</td>
<td>4.181</td>
<td>1.007</td>
</tr>
<tr>
<td>Long-term Liabilities</td>
<td>2.256</td>
<td>1.036</td>
<td>1.736</td>
<td>1.077</td>
<td>1.238</td>
<td>1.003</td>
</tr>
<tr>
<td>Short-term Liabilities</td>
<td>1.006</td>
<td>1.011</td>
<td>1.099</td>
<td>1.004</td>
<td>1.235</td>
<td>1.007</td>
</tr>
<tr>
<td>Total Balance-sheet</td>
<td>1.012</td>
<td>1.011</td>
<td>1.074</td>
<td>1.013</td>
<td>1.167</td>
<td>1.004</td>
</tr>
</tbody>
</table>

Source: author’s calculation based on Annual Reports

<table>
<thead>
<tr>
<th>Item</th>
<th>Comp. 1</th>
<th>Comp. 2</th>
<th>Comp. 3</th>
<th>Comp. 4</th>
<th>Comp. 5</th>
<th>Comp. 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income</td>
<td>1.01</td>
<td>1.09</td>
<td>1.04</td>
<td>1.03</td>
<td>1.03</td>
<td>0.99</td>
</tr>
<tr>
<td>Financial costs</td>
<td>Not available</td>
<td>1.01</td>
<td>1.85</td>
<td>1.00</td>
<td>1.28</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Source: author’s calculation based on Annual Reports

1 Decrease of loss
2 Denominator is zero
use. They confirmed decrease in ROA in the range from 10% for “low” lease companies to 34% for “high” leases companies. Results of the research are in line with the results of the research of Graham, King (2011) which shows that present value of operating lease minimum payments, as estimates of the right-to-use contractual lease obligation, have a strong association with current and future return on assets.

Total indebtedness was the other examined ratio. The capitalization of operating lease leads to the increase of indebtedness for majority of business entities. Excluding the company 6 due to the negative equity, we observed a slight increase in indebtedness from 0.38% to 5%. The average increase is 2.1%. It corresponds with Durocher’s findings (2008), the increase observed in other studies is higher – from 5.22% Opperman (2013) to 10.66% Bennett, Bradbury (2003).

D/E ratio was the last ratio examined. The increase in this ratio could be observed. The increase was in the interval from 1% to 56%. The average increase is 12.93%. The median of increase was 3.5%. It is consistent with other researches in this area. Opperman (2013) observed the average increase 12.54% in the sample indexed on the Johannesburg Stock Exchange. The other studies in this area carried out in different countries revealed increase in D/E ratio in the interval from 9% to 191% in the case of “high” operating lease companies (Imhoff, Lipe, Wright, 1991). The results are shown in Tab. III.

<table>
<thead>
<tr>
<th>Item</th>
<th>Comp. 1</th>
<th>Comp. 2</th>
<th>Comp. 3</th>
<th>Comp. 4</th>
<th>Comp. 5</th>
<th>Comp. 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA (operating lease)</td>
<td>0.1272</td>
<td>0.0623</td>
<td>0.1044</td>
<td>0.0228</td>
<td>0.2526</td>
<td>−1.0527</td>
</tr>
<tr>
<td>ROA (capitalization)</td>
<td>0.1257</td>
<td>0.0616</td>
<td>0.0972</td>
<td>0.0225</td>
<td>0.2165</td>
<td>−1.0572</td>
</tr>
<tr>
<td>Difference</td>
<td>0.0015</td>
<td>0.0007</td>
<td>0.0072</td>
<td>0.0003</td>
<td>0.03611</td>
<td>0.0045</td>
</tr>
<tr>
<td>Indebtedness (operating lease)</td>
<td>0.6372</td>
<td>0.5855</td>
<td>0.2461</td>
<td>0.7062</td>
<td>0.7029</td>
<td>1.3044</td>
</tr>
<tr>
<td>Indebtedness (capitalization)</td>
<td>0.6414</td>
<td>0.5901</td>
<td>0.2983</td>
<td>0.7100</td>
<td>0.7454</td>
<td>1.3031</td>
</tr>
<tr>
<td>Difference</td>
<td>−0.0042</td>
<td>−0.0046</td>
<td>−0.0522</td>
<td>−0.0038</td>
<td>−0.0425</td>
<td>−0.0013</td>
</tr>
<tr>
<td>D/E (operating lease)</td>
<td>1.7567</td>
<td>1.4127</td>
<td>0.3264</td>
<td>2.4048</td>
<td>2.3670</td>
<td>−4.2984</td>
</tr>
<tr>
<td>D/E (capitalization)</td>
<td>1.7892</td>
<td>1.4397</td>
<td>0.4253</td>
<td>2.4888</td>
<td>2.9286</td>
<td>−4.2843</td>
</tr>
<tr>
<td>Difference</td>
<td>−0.0325</td>
<td>−0.0270</td>
<td>−0.0988</td>
<td>−0.0440</td>
<td>−0.5616</td>
<td>−0.0141</td>
</tr>
</tbody>
</table>

Source: author’s calculation based on Annual Reports

CONCLUSION

Despite the fact that the distinction between financial and operating leases may seem reasonable, it is appropriate, from a financial point of view, to maintain that distinction for the financial analysis and comparison among companies. A part of operating lease expenses need to be reclassified as financial expenses and these affect the level of operating income. The present value of future operating lease expenses need to be treated like debt and this has an impact on assessments of capital and leverage for firms.

This study is concerned with an effect of capitalization of operating leases on selected items of financial statements on the one hand and selected financial analysis ratios on the other hand. Results consistently show a relation between capitalized future minimum lease obligations as an item of assets and return on assets, relation between capitalized future minimum lease obligations and Indebtedness and relation between capitalized future minimum lease obligations and D/E ratio. Firms use operating leases to acquire the use of assets while not acquiring legal ownership. The results of the study confirmed that firms use the operating lease to improve their financial analysis ratios in comparison to acquisition of assets. The capitalization of operating lease leads to deterioration of all financial analysis ratios affected by the capitalization (decrease of return on assets and increase of indebtedness and D/E ratio).

The results of this study are consistent with the intention of joint FASB/IASB Leases project proposing capitalization of all non-cancelable operating leases with the term over one year. For all firms currently using operating leases as a way of acquisition of long term assets may fundamentally change financial situation due to the capitalization of operating lease.

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