The uncertainty associated with the estimated lease term and its impact on financial statements items

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Abstract

The paper focuses on the possibility of reviewing the expected lease term after the initial recognition of the leased subject in the lessee’s financial statements. The determination of methodical process and assessment of the possible reassessment of lease term effect on balance sheet items and profit or loss is the main aim of the paper. The authors’ approach is based on the current stage of convergence of U.S. GAAP and IFRS in the area of leases reporting. The possible methodological procedures used in the ED are analyzed for the purpose of consideration and quantification of probability of the option to extend the lease term in case of affected financial statements items. Statistical methods are used for processing.

1. Introduction

Since the beginning of the 21st century objections of many economists against the current approach to the reporting of leases have been arising. The current approach to lease reporting could adversely affect the decisions of financial statements users because very economically similar transactions may be evaluated in very different ways.

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It could lead to irrelevant conclusions of financial statement users, especially in assessing the financial situation of lessee and lessor. The elementary question arises whether the retaining the current classification of the lease as the operating and for financial reporting purposes is justified. According the World Leasing Yearbook 2010 the annual volume of leases in 2008 amounted to USD 644 billion and because of the way leases are currently treated many leases remain off-balance sheet and forcing analysts to make their own assessments about the assets and liabilities arising in lease contracts. The possible way out of this situation could be seen in the current common project of International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) – Leases, where the capitalization of majority of lease contracts is demanded.

2. Methodology

The paper is aimed at quantification of the impact of the possible methods taking into account the option to extend the lease contract in measurement of leased asset and liability in the financial statements. The main aim of this paper is to provide arguments for proposing a unified approach to the consideration of options to extend the lease contract in a way to increase the comparability of financial statements.

The authors’ approach is based on a methodological procedure for measurement of right to use the leased asset and the lease obligation, which are at the lease commencement calculated at the same basis:

\[ PV = a_0 + \frac{a_1}{1+i} + \frac{a_2}{(1+i)^2} + \cdots \]

where \( a_0 \) = individual payments, \( i \) = borrowing rate.

The value of the right to use and lease liability in connection with the estimated term of the lease in relation to the lease term and to the possibility of exercise the option to extend the lease contract and the probability of each variant in course of time of the lease contract are compared. According to Boards’ proposal, it is necessary to use subjective assessment to determine the probability for each variant. It is the prerequisite for recognition and measurement of individual items of assets and liabilities connected with the lease contract:

- it is supposed the use of leased asset only during primary period \((p_1)\),
- it is supposed the exercise of an option to extend the lease term once \((p_2)\),
- it is supposed the exercise of an option to extend the lease term twice \((p_3)\),
- it is supposed the exercise of an option to extend the lease term three times \((p_4)\).

Following the proposals under consideration five possible options can be taken into account:

- measurement of assets and liabilities is based only on the primary lease term and the leased asset and the lease obligation are re-recognized at the moment of exercising the option based on the real time extension,
- right to use and lease obligation measurement is calculated for a period of the most likely variant. The calculation probability of each variant is the subject of the following table:

<table>
<thead>
<tr>
<th>Probability</th>
<th>Primary term</th>
<th>One option is exercised</th>
<th>Two options are exercised</th>
<th>Three options are exercised</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( p_1 )</td>
<td>( p_2 \cdot (1-p_3) )</td>
<td>( p_2 \cdot p_3 \cdot (1-p_4) )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>( p_2 \cdot p_3 \cdot p_4 )</td>
</tr>
</tbody>
</table>

- the reporting entity chooses variant for which is more likely to occur than that does not occur, i.e. the cumulative probability \( k p_2 p_3 > 0.5 \) used for lease asset and liability measurement.
- the lease term as a basis for the leased asset and lease liability measurement is considered as “virtually certain”, i.e. the probability exceeds a certain threshold, e.g. at least 85 % (statistics considers a threshold of 90 % as significant). This attitude is quite often appeared in Comment Letters to Exposure Draft of Leases.
- the measurement is based on probabilistic variants, i.e. the time the lease is determined by the average length of the lease. The real period never corresponds with determined length of lease.

The total expenses connected with the corresponding individual variants (a total impact on the net income) can be expressed as the sum of amortization of right to use and interest expenses contained in the lease payments:

\[ E = a \cdot i + \frac{PV + b}{n} \]

where

\( PV \) - present value,

\( i \) - borrowing rate,

\( n \) - number of periods.
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