EFRAG
European Financial Reporting Advisory Group

IFRS 16 *Leases*: Quantitative assessment of accounting impacts EFRAG Secretariat paper

Objective

1 In the context of its endorsement process for IFRS 16 *Leases,* EFRAG is required to describe the impacts of the new requirements. IFRS 16 will significantly change reported assets and liabilities of lessees, and also impact profit or loss due to the different cost recognition pattern.

2 This paper presents a simulation of the quantitative impact on a sample of listed entities in the European Economic Area. The purpose of the paper is to explain the sources of the data used, the methodology, the limitations of the analysis and the findings.

PART 1 – LARGE LISTED ENTITIES

Sample selection and methodology

3 EFRAG Secretariat used a commercial database (S&P Capital IQ) to extract accounting information for listed entities that are incorporated in one of the thirty-one countries of EEA (the 28 EU countries plus Iceland, Liechtenstein and Norway).

4 At the date of the extraction, 2015 financial information for many entities had either not yet been included in the database or was based on press releases. Therefore, the selection was based on the financial information for 2013 and 2014. Amounts for entities reporting in currencies other than Euro were translated using historical rates.

5 The original selection included 4,596 entities. It was noted that for a large number of entities the information on operating lease commitments was missing. Given that this is the fundamental information to simulate the accounting impact of the new requirements, EFRAG Secretariat decided to restrict the sample.

6 The restricted sample was selected as follows:

(a) Entities were sorted by market capitalisation, and the 250 entities with the largest market capitalisation were selected;

(b) Entities were then sorted by the size of the reported operating lease commitment for the next year, and the 250 entities with the largest operating lease commitment that were not included sub (a) were added to the restricted sample;

(c) The commercial database reports a metric called 'Operating lease debt equivalent' which is based on 8 times the lease expense for the period. Entities were sorted by this metric and the 250 entities with the largest operating lease debt equivalent that were not included sub (a) or sub (b) were added to the restricted sample.

7 EFRAG Secretariat believes that the selection criteria allowed the identification of a sample that includes major entities and entities that will be significantly affected by the new requirements. On one side, the inclusion of large caps especially from the

GICS industry classification Financials may underestimate the relative impact as these entities tend to have very large balance sheets; on the other side the inclusion of entities with the biggest lease commitments could overestimate the impact. The use of 'operating lease debt equivalent' was designed to include entities with significant leases for which information on operating lease commitments was missing in the original extraction for whatever reason.

8 One entity was eliminated after noting that the 2014 financial information was based on *pro-forma* numbers produced for a prospectus following a spin-off. The resulting restricted sample includes 417 entities from nineteen countries.

9 The entities in the restricted sample represent:

(a) Market capitalisation of 7.616 billion Euro (79% of the total for the full sample);

(b) Assets of 39.603 billion Euro (86% of the total for the full sample); and

(c) Net assets of 4.742 billion Euro (79% of the total for the full sample).

10 As a comparison, the sample in the IASB effects analysis included 348 European entities. 232 entities are common to the two samples; out of the remaining 116 entities in the IASB sample, thirty-five are incorporated in European countries outside the EEA.

11 When the extraction did not report operating lease commitments, EFRAG Secretariat checked the notes to the financial statements and made the appropriate manual adjustments based on disclosure. Twenty-two entities in the sample did not report the information in their notes, with some of them explicitly stating that the commitments had been omitted because they were not material. Half of those entities were in the Financials industry.

12 All the other data used in the simulation (total assets, total debt, net equity, net income and capital lease debt) are based on the extracted data and were not subject to verification. Total debt is a supplemental line item across all templates in the commercial database that includes short-term borrowings, capital leases and long-term debt (including current portion)

13 The simulation of the lease liability and right-of-use asset required a number of assumptions:

(a) For those entities that reported operating lease commitments using the time bands 'Due within 12 months', 'Due within 2 and 5 years' and 'Due after 5 years', EFRAG Secretariat assumed a constant amount in years 2 to 5;

(b) EFRAG Secretariat assumed a linear distribution of commitments in year 5 and beyond. In other words, if an entity reported 100 Euro of commitments for year 5 and 450 Euro due after 5 years, EFRAG Secretariat allocated 100 Euro to years 6 to 9 and the residual to year 10;

(c) EFRAG Secretariat assumed a discount rate of 5% for all entities. This is aligned to the IASB effects analysis;

(d) EFRAG Secretariat assumed an original and residual lease term of 8 and 5 years respectively to calculate the right-of-use asset in relation to the lease liability; the 5 years was based on the average weight of the lease commitment by year. Based on these inputs, the right-of-use asset is equal to 93.3% of the lease liability.

14 EFRAG Secretariat is aware that the simulation is only illustrative and cannot correspond to effect of the initial application of IFRS 16 due to the following reasons:

(a) The companies selected are a non-statistical sample, therefore the findings cannot be projected to the full population of IFRS preparers in Europe;

(b) The simulation is based on 2014 accounting data;

(c) The simulation applies a single set of assumptions to all leases without taking into account the specific individual terms;

(d) The simulation implicitly assumes that there are no new leases in the first period after initial application;

(e) IFRS 16 provides different elections for the first application. The simulation assumes that the entities will apply the approach described in paragraph C8(b)(i) in the Standard, which results in an impact on equity on initial application. The use of different elections in the transition requirements would result in a different measurement of the right-of-use asset, a different simulated impact on equity on initial application and a different simulated impact on profit or loss in the first period after initial application.

Quantitative results

Overall results

15 The simulation provided the following results:

(a) The simulated lease liability and right-of-use asset amount to 450.9 and 420.7 billion Euro respectively;

(b) The simulated lease liability represents 4% of the item 'total debt' as defined in the commercial database, and 1.3% of the total liabilities (calculated as the difference between total assets and net equity). When entities in Financials industry are excluded, the simulated lease liability represents 16% of the total debt;

(c) The simulated right-of-use asset represents 14.8% of the net property, plant and equipment;

(d) The difference between the simulated lease liability and right-of-use asset of 30.2 billion Euro represents 0.6% of the net equity;

(e) The simulated lease liability represents 8.7 times the amount of capital leases debt (450.9 billion to 52 billion Euro);

(f) The 'Operating lease debt equivalent' for 2014 amounted to 786.6 billion Euro for the restricted sample, significantly higher than the simulated lease liability.

Sensitivity

16 EFRAG Secretariat performed a sensitivity analysis of changes in the discount rate. Amounts are expressed in billions of Euro:

Discount rate	Simulated lease liability	Simulated lease liability/ Total debt	Simulated ROU asset/ PPE	Impact on equity
4%	470.0	4.1%	15.7%	(0.54%)
4.5%	460.3	4.1%	15.2%	(0.59%)
5% - baseline	**450.9**	**4%**	**14.8%**	**(0.64%)**
5.5%	441.8	3.9%	14.4%	(0.68%)
6%	433.1	3.8%	14.1%	(0.72%)

17 The impact on equity is not particularly sensitive to the discount rate, because of the similar sizes of the right-of-use asset and the lease liability.

18 The impact on net income is highly sensitive to the assumptions of the original and residual lease term:

(a) If these are changed from 5 and 8 years to 6 and 9 years, the impact on income is a lower expense of 13.9 billion Euro;

(b) If these are changed to 4 and 7 years, the impact is a higher expense of 21 billion Euro.

Analysis by industry

19 The following table disaggregates the total using the categories in the Global Industry Classification Standard. Amounts are expressed in millions of Euro.

Industry	**Simulated liability**	**% of total debt**	**Simulated impact on equity**
Consumer Discretionary	93,837.9	17%	-1.2%
Consumer Staples	64,494.8	21%	-1.2%
Energy	60,830.5	26%	-0.8%
Healthcare	17,531.3	10%	-0.5%
Industrials	79,528.7	20%	-1.4%
Information Technology	8,208.1	22%	-0.6%
Materials	14,289.3	9%	-0.3%
Telecommunication	49,406.7	20%	-1.9%
Utilities	16,584.6	4%	-0.3%
Total without Financials	**404.712.0**	**16%**	**-0.9%**
Financials	46,173.5	1%	-0.2%
Grand Total	**450,885.5**	**4%**	**-0.6%**

20 The difference between the ‘Operating lease debt equivalent’ and the simulated liability was most significant, in percentage terms, for Utilities (+177%), Industrials (+132%) and Energy (+126%); and less significant for Consumer Staples (+34%) and Telecommunication Services (+48%). Financials was the only industry with a negative difference, which was mostly due to the fact that for many entities in the industry the database did not report the metric.

Simulated impact on profit or loss

21 EFRAG Secretariat simulated the impact on profit or loss by comparing the operating lease commitments due within one year to:

(a) An amortisation charge calculated by dividing the carrying amount of the simulated right-of-use asset by the assumed residual lease term; and

(b) An interest charge calculated by applying the discount rate to the simulated lease liability.

22 Based on the assumptions and limitations above, the simulated lease expense for the first year amounts to 106.7 billion Euro, which is 1.8 billion Euro lower than the lease commitments within 12 months. The difference represents 0.3% of income before taxes for 2014.

23 EBITDA under IFRS 16 is increased because all the lease expense is presented as either amortisation or interest expense. The simulated increase in EBITDA, excluding the Financials industry, is 10.2%. The impact on EBT and EBITDA is highly sensitive to the lease term assumptions, as the simulated right-of-use asset is amortised on the assumed residual lease term.

24 The following table illustrates the simulated impact by industry. Amounts are expressed in billions of Euro.

Industry	Simulated cost	Op lease commitments	Simulated impact on EBT	Simulated impact on EBITDA
Consumer Discretionary	22.2	20.2	-2.0%	12.3%
Consumer Staples	15.3	13.7	-2.3%	11.9%
Energy	14.4	16.4	3.5%	10.5%
Healthcare	4.1	3.9	-0.9%	6.0%
Industrials	18.8	19.7	1.8%	17.3%
Information Technology	1.9	2.2	1.6%	8.2%
Materials	3.4	3.8	0.9%	4.2%
Telecommunication	11.7	10.0	-6.8%	13.2%
Utilities	3.9	3.4	-1.9%	3.3%
Total without Financials	**95.7**	**93.4**	**-0.6%**	**10.2%**
Financials	10.9	15.1	2.9%	
Grand Total	**106.7**	**108.5**	**0.3%**	

25 EFRAG performed an analysis of the sensitivity of the simulated impact on earnings before taxes to changes in the discount rate. Amounts are in billion Euro.

Discount rate	Simulated cost	Simulated impact	Simulated impact on EBT
3%	108.7	+0.2	-
4%	107.7	-0.8	-0.1%
5% - baseline	106.7	-1.8	-0.3%
6%	105.8	-2.7	-0.5%
7%	104.8	-3.7	-0.6%

26 Under IFRS 16, the cash outflows from financing activities would be increased compared to IAS 17 because the payment for the interest component is presented as a financing outflow, while payments for operating leases under IAS 17 are presented as operating outflows. Under the baseline scenario, the interest component would be 22.2 billion Euro for the first year and would represent 11% of the financing cash flow sub-total reported by the entities in the sample for 2014. When excluding Financials, the ratio would not substantially change.

PART 2 – OTHER ENTITIES

Sample selection and methodology

27 The EFRAG endorsement advice is expected to provide a specific focus for small and medium companies. SME are identified differently by the IFRS and by the European Union. For the IASB, SMEs are those entities that do not have public accountability; an entity has public accountability, if its securities are publicly traded, or it holds assets in a fiduciary capacity for a broad group of outsiders as a primary business (which is true for most financial institutions).

28 For the European Union, SMEs are identified by applying quantitative thresholds with reference to annual turnover, total assets and number of employees[1]. However, an entity that meets the thresholds may not qualify when, for example, it is owned by a large enterprise.

29 EFRAG performed a simulation of the accounting impact of IFRS 16 on a sample of listed and unlisted entities that use IFRS and meet the definition of small and medium entities under the European legislation. As for above large listed entities, the 2014 financial statements were used as a basis for the selection and the simulation.

30 The sample includes 487 entities from twenty countries, of which 412 were listed either on regulated or unregulated markets, and 76 were private unlisted.

31 The selection included all the relevant entities included in the commercial database; EFRAG did not verify the financial statements when data were missing.

Listed SMEs

32 From the full list of listed entities in the European Economic Area, EFRAG Secretariat eliminated:

(a) Firstly, all entities for which the commercial database indicated a number of employees equal to zero or above 250;

(b) Secondly, all companies that had both assets and turnover over the quantitative threshold;

(c) Thirdly, all companies for which the commercial database did not include the amount of operating lease commitments. This left 412 companies that were included in the sample.

Unlisted SMEs

33 The commercial database included 1,272 unlisted entities that use IFRS for their financial reports. EFRAG Secretariat found that 897 entities failed the qualifying criteria for being an SME. Of the remaining 375 entities, the information on the

[1] Under the EU definition, an entity loses the SME status only if exceeds the thresholds for two consecutive years. For simplicity, EFRAG Secretariat applied the test only on one year.

operating lease commitments was missing for 286 and 14 were eliminated because they were banks. This left 75 companies that were included in the sample.

Quantitative results

34 The simulated lease liability amounts to 817.7 million Euro. This represents 2.9% of the total debt as defined in the commercial database. However, the sample includes three finance companies that report very high debt (77% of the total sample), and 158 companies for which the net debt metric is zero. When these finance companies are excluded, the ratio rises to 9.8%.

35 The simulated right-of-use asset amounts to 763 million Euro, representing 13.3% of the net property, plant and equipment. The difference between the simulated lease liability and right-of-use asset of 54.8 million Euro represents 0.3% of the net equity.

36 Given the limited availability in the commercial database of data on unlisted SMEs using IFRS, the limitations to the representativeness of this second sample are stronger.