The ERICA series:

13. IFRS 16 LEASES – EXPECTED IMPACT

ERICA (European Records of IFRS Consolidated Accounts) WG

European Committee of Central Balance Sheet Data Offices (ECCBSO)

December 2020

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IMPORTANT INFORMATION ABOUT THE SOURCE USED (ERICA[1] DATABASE) AND ABOUT THE FIGURES BY COUNTRY

The data used in this analysis are obtained from publicly available financial statements of European non-financial listed groups, having been treated manually, by CBSO statistics and accounting specialists, to be fitted on to a standard European format (ERICA format). In some cases, this manual treatment involves interpretation of the original data, a constraint that readers of this document should bear in mind.

The database does not represent the total population of European non-financial groups; nevertheless, the coverage attained with ERICA (in the whole dataset of approximately 1,000 groups) of the listed European groups is well-attuned to the situation and national composition of the stock markets. The analysis performed in this document includes some commentaries about the performance of the listed European groups according to the country where the parent company is based. The largest ERICA groups are multinationals, for which reason the following should be borne in mind: the performance of the groups belonging to a country does not necessarily reflect the performance of the country itself.

The opinions of the authors of this document do not necessarily reflect those of the national central banks to which they belong or those of the ECCBSO.

The "ERICA series" complement the annual report prepared on the ERICA database, with additional pieces of information and/or analyses on specific issues, using the full ERICA database or its subset ERICA+. Owing to their interest and/or the specialist nature of the themes treated, these short studies are published separately from the annual report on the ECCBSO webpage (www.eccbso.org).

[1] ERICA (European Records of IFRS Consolidated Accounts) is a database of the European Committee of Central Balance Sheet Data Offices.

THE ERICA SERIES:

13. IFRS 16 LEASES - EXPECTED IMPACT

(Document authored by Vincenzo Favale, *Centrale dei Bilanci - Cerved Group*)

ERICA (European Records of IFRS Consolidated Accounts) WG

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Contents

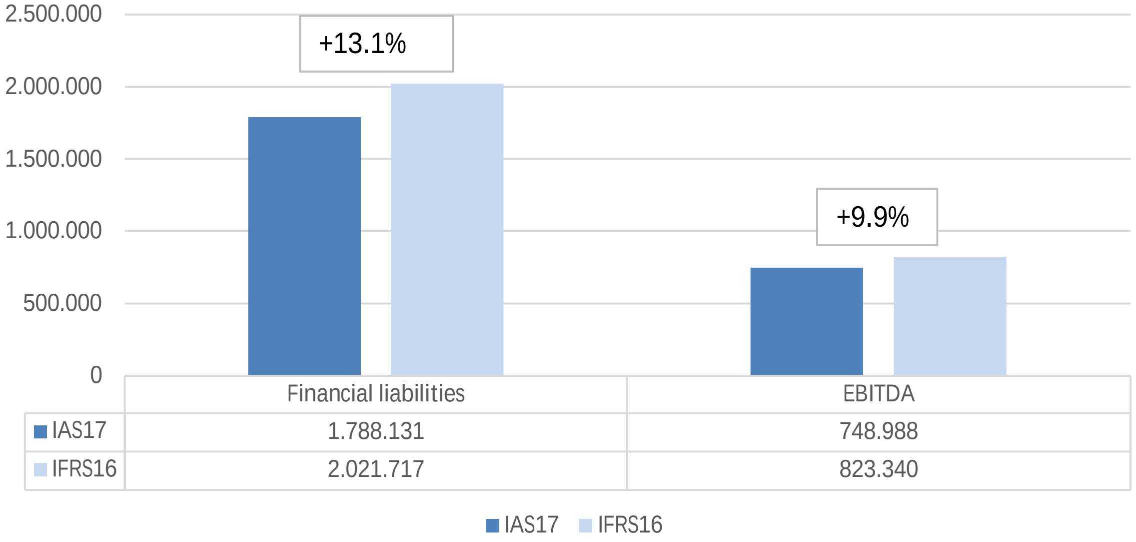
I. MANAGEMENT SUMMARY

The main impacts of the introduction of IFRS 16 on the ERICA database are expected to be:

1 **Financial statement: increase in financial liabilities**
The main effect of the new rule in terms of the financial statement is on the accounting of liabilities not included in accordance with IAS 17; as a consequence of this, both non-current and current borrowing figures will rise. Moreover, this change will see all the financial ratios worsen. The total impact on the ERICA database (restricted to the groups where information is available) is a 13.1% increase in financial liabilities.

2 **Increase in EBITDA**
Conversely, annual EBITDA figures, calculated in the financial performance statement, will increase significantly from € 748 billion to € 823 billion (+ 9.9%) because under IFRS 16 rental expenses are included in financial charges and amortisation, rather than under services.

CHART 1 **IMPACT ON MAIN ITEMS** (in million euros)



Source: ERICA 2018 database (own calculations).

II. INTRODUCTION

IFRS 16 Leases represents the biggest change to lease accounting in over 30 years. Under the new standard, a lease is defined as "a contract, or part of a contract, that conveys the right to use an asset (*the underlying asset*) for a period of time in exchange for consideration".

IFRS 16 introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset, representing its right to use the underlying leased asset, and a lease liability, representing its obligation to make lease payments.

The aim of IFRS 16 is to report information that:

- Faithfully represents lease transactions;
- Provides a basis for users of financial statements to assess the amount, timing and uncertainty of cash flows arising from leases.

The scope of IFRS16 includes:

- Financial leases (former IAS 17);
- Operational leasing;
- Real estate renting;
- Car and equipment renting.

IFRS 16 significantly changes the accounting for lessees but has minimal impacts for lessors. IFRS 16 replaces IAS 17 and its interpretation: IFRIC 4, SIC 15 and SIC 27. IFRS 16 Leases was issued by the IASB Board on 13 January 2016 and has a mandatory effective date of 1 January 2019, with earlier application permitted.

The goal of this analysis is to ascertain the impact of IFRS 16 on the ERICA dataset (a subset of listed consolidated accounts) and give detailed insight into this.

III. IFRS 16 – DEFINITION AND SCOPE

IFRS 16 states that "a contract, or a part of a contract, contains a lease if it conveys the right to control the use of an identified asset (*underlying asset*) for a defined period in exchange for consideration".

The new accounting principle is focused on the "*control of an asset*". A lease is distinguished from a service contract because the lessor maintains control of the asset and has a substantive right to replace it.

In IFRS 16 the distinction between finance and operating leases disappears. Substantial changes are introduced in the accounting of the financial statement of the lessee for rentals of property, plant, equipment and intangible assets.

In the financial and income statement of the lessee:

- The assets are presented separately in “Non-current assets” (tangible or intangible) as right of use net of the related depreciation funds. If the “right of use assets” meet the definition of “real estate assets”, they are presented according to IAS 40.
- The lease is recognised as a “current” or “non-current” lease liability, initially measured at the present value of future lease payments.
- Lease-related depreciation and lease-related interest expenses are presented separately in the income statement.

IFRS 16 has impacts on economic and financial ratio analysis for the lessee:

- The recognition of the assets as “right of use” leads to an increase in both the non-current assets/total assets and the non-current liabilities ratios.
- The accounting of the lease liabilities leads to a worsening of the net financial position and other related ratios (such as the equity/debt ratio) and could potentially result in violation of financial covenants.
- In the income statement, performance indicators such as EBITDA and EBIT will increase. Ratios such as financial costs/sales and financial costs/EBITDA are expected to increase.

IFRS 16 has foreseen two exceptions in lease accounting:

- **Short-term leases**: leases that last less than 12 months and do not contain “options to buy”;
- **Low-value leases:** leases for which the underlying asset is of low value, considering the value of the asset when it was new (examples include tablets, notebooks, smartphones, etc.).

In the financial statement of the lessor there are no changes in lease accounting compared with IAS 17.

Implementation of accounting standard IFRS 16 generates an accounting asymmetry if this standard ends up being introduced into different individual European national accounting regulations, given that some of these may allow the lessor not to derecognise the leased asset. This accounting asymmetry may lead to duplication of such assets in aggregated national accounting statistics (if the lessor does not derecognise an asset and the lessee incorporates the same asset in its non-current assets as “right of use” and if no adjustments are made for statistical purposes).

IV. ERICA DATASET

The ERICA database contains information on the consolidated accounts of non-financial listed groups of nine participating countries: Austria, Belgium, France, Germany, Greece, Italy, Portugal, Spain and, recently, Turkey.

The annual report on the ERICA dataset (ERICA WG 2020)[2] dedicates a section to the coverage of the ERICA data for the 2018 financial year, both in terms of the absolute number of listed groups and in terms of revenue. In terms of revenue, the coverage of the database relative to the total population of non-financial listed groups is very high for all countries, except Turkey.

IV.1 Description of the dataset

The ERICA database contains accounting information from the maximum possible number of listed groups established in the eight participating countries. Some of these groups have a parent company whose consolidated accounts are also part of the ERICA database. The sub-groups are therefore counted twice. Since this analysis focuses on the comparison between countries, such double accounting within the same country should be avoided. This document only considers groups that are not double counted in the same country, for which the employment level is not missing and is different from zero. The database provides the consolidated data for 999 IFRS groups, of which 515 groups record information about leases under IFRS 16.

Each group is classified in one of the following sectors, according to the NACE code of the group's main activity (the percentages below are in terms of the number of groups):

- Construction (NACE codes 41 to 43) represents 7% of the population considered.
- Energy (NACE codes 05, 06, 19, 35 and 36) represents 8% of the population considered.
- Industry (NACE codes 01 to 03, 07 to 18 and 20 to 33) represents 42% of the population considered.
- Services (NACE codes 37 to 39, 45 to 63, 68 to 82 and 86 to 96) represents 43% of the population considered.

All groups in the database are classified into size classes. The three size classes are based on the groups' turnover, as follows (percentages in terms of number of groups):

- Small groups (turnover < € 250 million) represent 39% of the population considered.
- Medium groups (€ 250 million ≤ turnover < € 1,500 million) represent 31% of the population considered.
- Large groups (turnover ≥ € 1,500 million) represent 30% of the population considered.

[2] "European non-financial listed groups: analysis of 2018 data", ECCBSO, February 2020

IV.2 Description of the leases variable

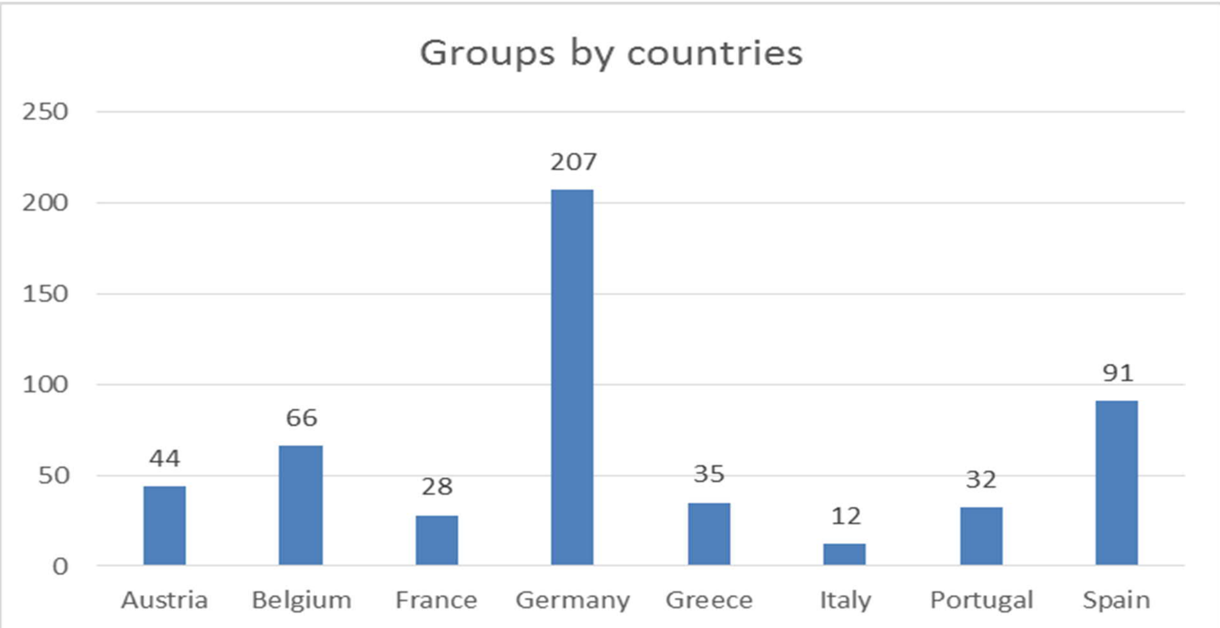
The ERICA dataset has been enhanced with five items dedicated to IFRS impact:

- cc_3100 Lease payments, total
- cc_3101 of which: lease payments not later than one year
- cc_3102 of which: lease payments later than one year and no later than five years
- cc_3103 of which: lease payments later than five years
- cc_3104 Annual rent expense

The value of the main items (financial liabilities, total assets, EBITDA) and key indicators have been recalculated by adding the value of the lease payment (if available) and annual rent expense.

The number of groups considered in the analysis is shown below (data are not available for Turkish groups).

CHART 2 NUMBER OF GROUPS PER COUNTRY



Source: ERICA 2018.

V. ANALYSIS BY SIZE AND BY SECTOR

Virtually every company uses leases as alternatives to the purchase of goods, but the type and amount of assets that they lease and the terms and structures of these leases vary significantly. The effects of applying IFRS 16 differ widely across different activity sectors, as shown in the table below.

TABLE 1 OVERVIEW OF IFRS 16 IMPACT ON FINANCIAL INDICATORS[3]

		Number	Var.% leverage	Var.% financial debt ratio	Var. % current ratio	Var.% asset turnover	Var.% equity ratio
By	**Sector**						
	Industry	**244**	7.4%	1.7%	-2.0%	-1.5%	-0.9%
	Energy	**33**	7.1%	1.6%	-1.6%	-1.1%	-0.6%
	Construction	**30**	10.7%	1.9%	-1.5%	-2.2%	-0.7%
	Services	**208**	24.3%	5.5%	-5.6%	-5.3%	-3.0%
	Total	**515**	***11.8%***	***2.7%***	***-2.8%***	***-2.3%***	**-1.3%**
By	**Sub-sector**						
	Chemicals	**67**	*5.3%*	*1.8%*	*-3.6%*	*-1.4%*	*-1.1%*
	Construction	**30**	*10.7%*	*1.9%*	*-1.5%*	*-2.2%*	*-0.7%*
	Energy	**33**	*7.1%*	*1.6%*	*-1.6%*	*-1.1%*	*-0.6%*
	Information and communication	**71**	*16.5%*	*3.3%*	*-3.7%*	*-2.3%*	*-1.8%*
	Machinery and equipment	**34**	*9.1%*	*2.6%*	*-2.8%*	*-2.6%*	*-1.2%*
	Metals, electronic and electrical	**55**	*6.4%*	*1.7%*	*-2.0%*	*-1.6%*	*-0.8%*
	Other manufacturing industry	**38**	*30.2%*	*8.6%*	*-12.1%*	*-7.5%*	*-5.1%*
	Other services	**51**	*25.4%*	*9.0%*	*-9.1%*	*-6.0%*	*-5.6%*
	Real estate	**18**	*2.2%*	*0.6%*	*-1.7%*	*-0.1%*	*-0.5%*
	Retail trade	**23**	*28.6%*	*8.2%*	*-5.4%*	*-14.4%*	*-3.9%*
	Transportation and storage	**30**	*28.9%*	*5.2%*	*-5.7%*	*-5.4%*	*-2.5%*
	Vehicle manufacturing	**29**	*5.8%*	*0.9%*	*-0.9%*	*-0.9%*	*-0.4%*
	Wholesale	**36**	*49.0%*	*10.8%*	*-6.4%*	*-22.3%*	*-4.4%*
	Total	**515**	***11.8%***	***2.7%***	***-2.8%***	***-2.3%***	***-1.3%***
By	**Size (revenue)**						
	Small groups (<250ml)	**155**	*3.1%*	*1.8%*	*-6.7%*	*-0.5%*	*-1.6%*
	Medium (250ml-1.5bn)	**166**	*12.3%*	*3.3%*	*-8.0%*	*-2.6%*	*-2.2%*
	Large groups (>1.5bn)	**194**	*12.0%*	*2.6%*	*-2.7%*	*-2.3%*	*-1.2%*
	Total	**515**	***11.8%***	***2.7%***	***-2.8%***	***-2.3%***	***-1.3%***

Source: ERICA 2018 database (own calculations).

[3] The formula used for these are listed in Section 8 below.

The sector where the impact seems to be highest is **services sector**, which includes mainly companies engaged in the activity groups: retail trade, wholesale, transportation, information and communication. In this sector, the weighted average of the relationship between financial debts and equity (leverage) increases from 90.0% to 113.8% (+ 24.3%) and EBITDA rises from € 117 billion to € 139 billion (+ 18.2%). These huge increases are spread across the entire services sector but are particularly marked in **postal services** – caused largely by two companies, BPost (Belgium) and Deutsche Post (Germany) – and **wholesale** (particularly at Metro, Puma, Adidas and Fluidra).

In wholesale, the overall impact on the **financial debt ratio** (financial liabilities to assets) is higher than 10%, whereas in the majority of other sectors this is below 5%.

This impact is extremely limited in the **energy** sector as this, as shown below, is the least indebted sector.

An **analysis by size** shows that the main impact is concentrated in medium-sized and large groups, where the effects are similar for all indicators except the current ratio. This ratio declines less in large groups, probably as a consequence of the duration of rental and operating leases, which tend to be longer for groups with revenues of more than € 1.5 billion. When these durations are short this increases the current portion of liabilities, and the smaller groups are similar in this respect to medium-sized groups with current ratio declines of 6.7%: a retail firm is more likely to lease cars and equipment, while a utilities company leases power plants or aircraft.

The impact on **EBITDA** ratios is very similar to that on financial ratios, with the biggest changes showing up in the **construction** sector, where EBITDA improves by 25.4% – the highest growth of all sub-sectors, except for retail trade, where the figure works out at around 45%.

The **EBITDA margin** (which expresses the relationship between EBITDA and operating revenues) improves by 1.6% overall, from 16% to 17.6%, with especially marked increases in “other services” (+ 5.1%) and retail trade (+ 4.8%).

The double impact on financial liabilities and EBITDA doesn’t significantly change the financial debt/EBITDA ratio, where the impact is limited to a small deterioration of 0.10 basis points, evident across all sectors except for construction.

In size terms, the total changes in EBITDA (+ 9.9%) are driven by large groups (+ 9.7%), even if these changes are also significant for **small and medium-sized groups** (17.4% and 13.4%, respectively).

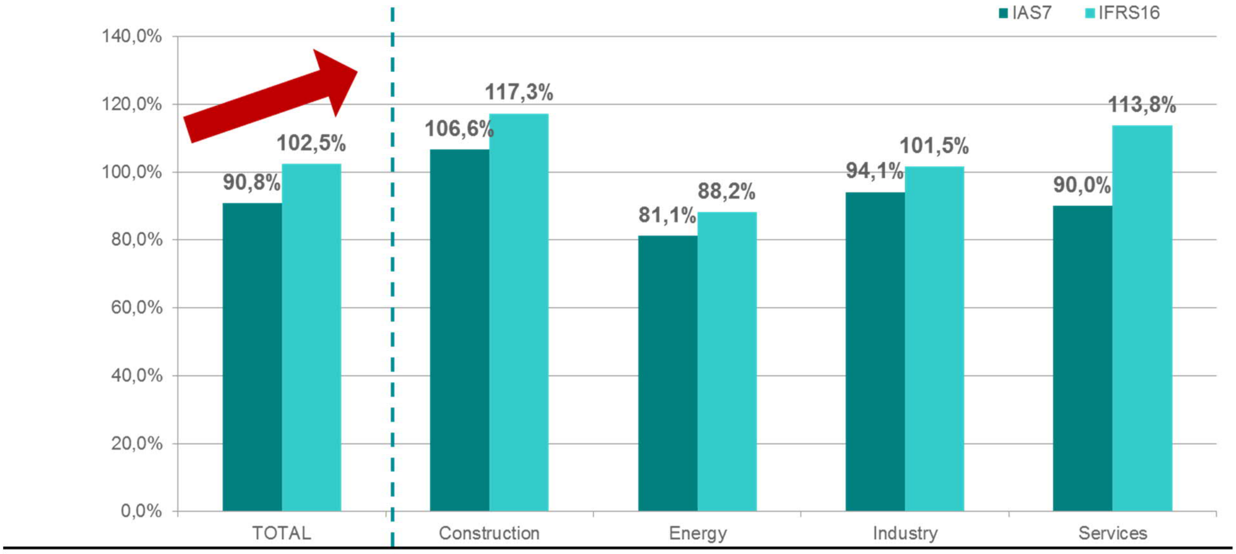
TABLE 2 OVERVIEW OF IFRS16 IMPACT ON EBITDA

		Number	Var. % EBITDA	Var. % EBITDA margin	Var. fin. liabs/EBITDA
By	**Sector**				
	Industry	**244**	*6.2%*	1.0%	*0.00*
	Energy	**33**	*3.2%*	0.4%	*0.12*
	Construction	**30**	*25.4%*	1.5%	*-0.41*
	Services	**208**	*18.2%*	3.3%	*0.38*
	Total	**515**	*9.9%*	1.6%	*0.10*
By	**Sub-sector**				
	Chemicals	**67**	*5.9%*	*1.1%*	*0.05*
	Construction	**30**	*25.4%*	*1.5%*	*-0.41*
	Energy	**33**	*3.2%*	*0.4%*	*0.12*
	Information and communication	**71**	*9.4%*	*2.9%*	*0.13*
	Machinery and equipment	**34**	*14.9%*	*1.6%*	*0.08*
	Metals, electronic and electrical	**55**	*9.7%*	*1.1%*	*0.00*
	Other manufacturing industry	**38**	*21.3%*	*3.5%*	*0.33*
	Other services	**51**	*41.8%*	*5.1%*	*0.55*
	Real estate	**18**	*2.5%*	*1.0%*	*0.60*
	Retail trade	**23**	*44.9%*	*4.8%*	*0.72*
	Transportation and storage	**30**	*17.1%*	*2.5%*	*0.64*
	Vehicle manufacturing	**29**	*4.1%*	*0.7%*	*-0.02*
	Wholesale	**36**	*29.8%*	*1.9%*	*0.74*
	Total	**515**	*9.9%*	1.6%	*0.10*
By	**Size (revenue)**				
	Small groups (<250ml)	**155**	*17.4%*	*2.3%*	*-0.10*
	Medium (250ml-1.5bn)	**166**	*13.4%*	*2.4%*	*0.14*
	Large groups (>1.5bn)	**194**	*9.7%*	*1.6%*	*0.10*
	Total	**515**	*9.9%*	1.6%	*0.10*

Source: ERICA 2018 database (own calculations).

VI. IFRS 16 IMPACT ON KEY INDICATORS

CHART 3 LEVERAGE



mean	90,8%	102,5%	106,6%	117,3%	81,1%	88,2%	94,1%	101,5%	90,0%	113,8%
Q1	23,2%	32,7%	44,6%	46,8%	45,4%	51,1%	23,9%	31,2%	17,5%	36,2%
Q2	59,8%	75,2%	84,7%	97,2%	114,2%	116,7%	54,7%	67,4%	56,0%	78,4%
Q3	108,8%	135,7%	141,3%	150,0%	165,0%	172,0%	93,0%	110,5%	109,0%	156,8%

Source: ERICA 2018 database (own calculations).

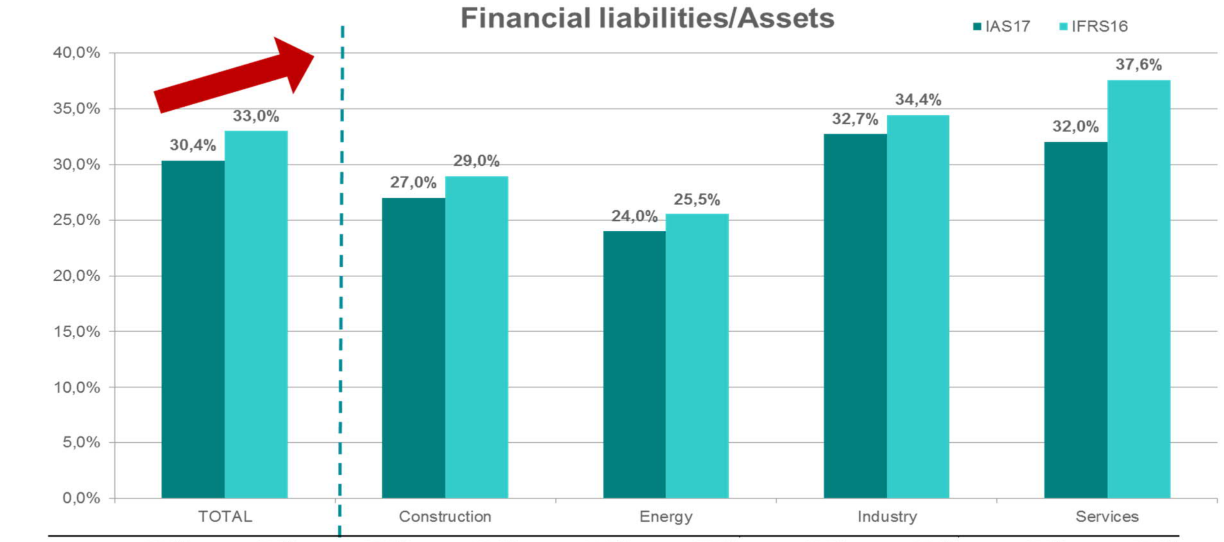
The relationship between financial liabilities and shareholders' equity (the debt-to-equity ratio) is one of the most well-known financial leverage ratios. It may be used to measure the financial risk for investors.

The impact of IFRS 16 is a worsening of this ratio, due to the increase in debts:

- A median increase from 59.8% to 75.2%
- A weighted average increase from 90.8% to 102.5%

This deterioration is spread across all sectors but is particularly significant in services groups, where the ratio rises from 90.0% to 113.8% as a weighted average and from 56.0% to 78.4% as a median. The smallest impact is in the industry sector, due to renting being less frequent here.

CHART 4 FINANCIAL DEBT RATIO



	TOTAL		Construction		Energy		Industry		Services	
mean	30,4%	33,0%	27,0%	29,0%	24,0%	25,5%	32,7%	34,4%	32,0%	37,6%
Q1	12,5%	14,4%	18,6%	19,4%	18,7%	19,0%	12,4%	13,5%	11,1%	14,1%
Q2	25,0%	25,8%	30,3%	30,6%	32,7%	33,3%	23,4%	24,3%	26,3%	27,2%
Q3	37,8%	38,5%	43,7%	44,0%	41,6%	41,6%	34,7%	35,7%	39,4%	40,9%

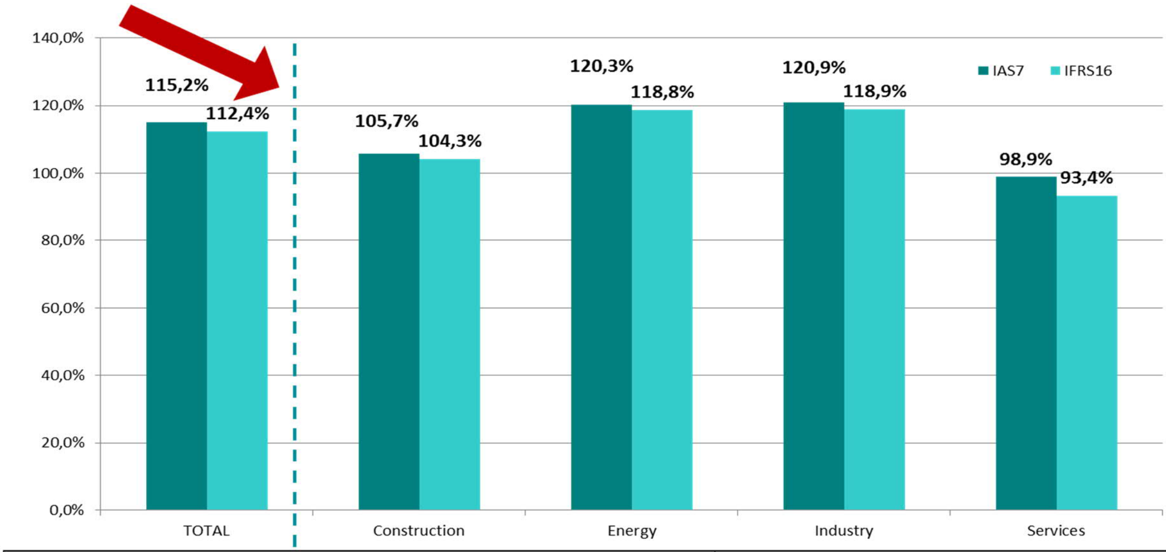
Source: ERICA 2018 database (own calculations).

The financial debt ratio is calculated as the percentage of financial debt to total assets – the higher the ratio, the higher the use of financing leverage. The new standard can be expected to bring an increase in financial liabilities, especially for long-term debts, and a similar increase in the value of non-current assets. Consequently, the level of indebtedness will rise in all sectors, especially in services:

- A weighted average increase from 32.0% to 37.6%
- A median increase from 26.3% to 27.2%

Note that the weighted average is significantly higher than median because a very large number of groups are expected to see their indebtedness rise as a result of the change, as is the case with the financial labilities/equity ratio.

CHART 5 CURRENT RATIO



mean	115,2%	112,4%	105,7%	104,3%	120,3%	118,8%	120,9%	118,9%	98,9%	93,4%
Q1	102,2%	98,5%	103,1%	102,0%	103,4%	102,5%	115,7%	113,4%	85,8%	80,7%
Q2	139,8%	133,5%	132,9%	131,7%	121,0%	119,4%	153,6%	149,2%	127,3%	120,6%
Q3	207,0%	194,9%	210,1%	209,4%	153,6%	152,5%	211,8%	204,6%	196,2%	174,1%

Source: ERICA 2018 database (own calculations).

The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations. It’s calculated as a relationship between current assets and current liabilities: the higher the ratio, the better the liquidity.

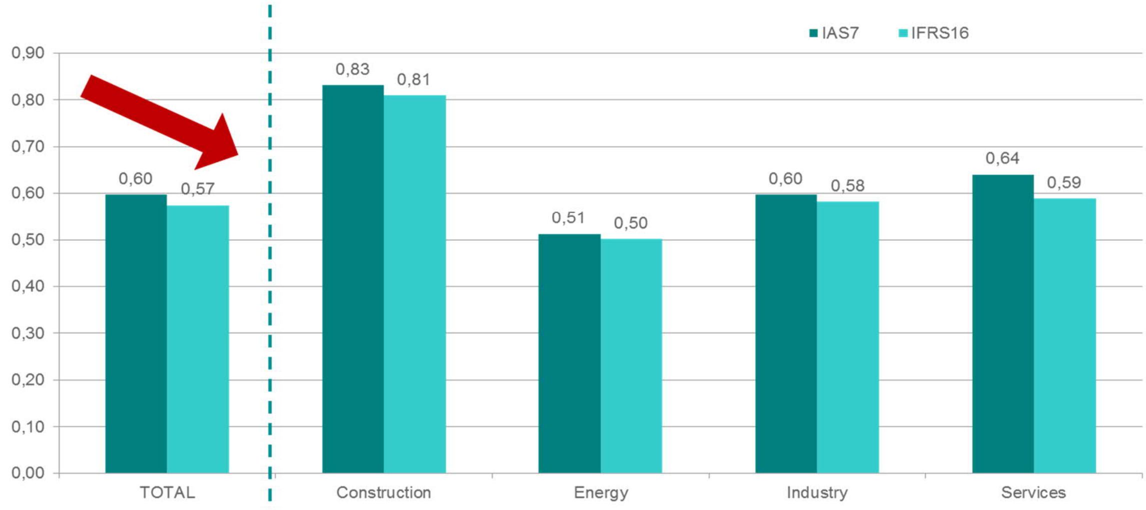
The impact of IFRS 16 on current balance sheet items is to raise current financial liabilities (short-term debts), with no change in terms of current assets.

As a consequence, the ratio is set to worsen, with decreases across all sectors. However, the impact is not as significant as with other ratios:

- A median decrease from 139.8% to 133.5%
- A weighted average decrease from 115.2% to 112.4%

It is worth noting that the first quartile of groups (where the riskiest are located) is not significantly impacted.

CHART 6 ASSET TURNOVER



mean	0,60	0,57	0,83	0,81	0,51	0,50	0,60	0,58	0,64	0,59
Q1	0,51	0,49	0,28	0,28	0,25	0,24	0,65	0,63	0,43	0,37
Q2	0,81	0,77	0,54	0,53	0,57	0,55	0,89	0,85	0,77	0,71
Q3	1,13	1,06	0,80	0,78	0,76	0,75	1,12	1,07	1,22	1,07

Source: ERICA 2018 database (own calculations).

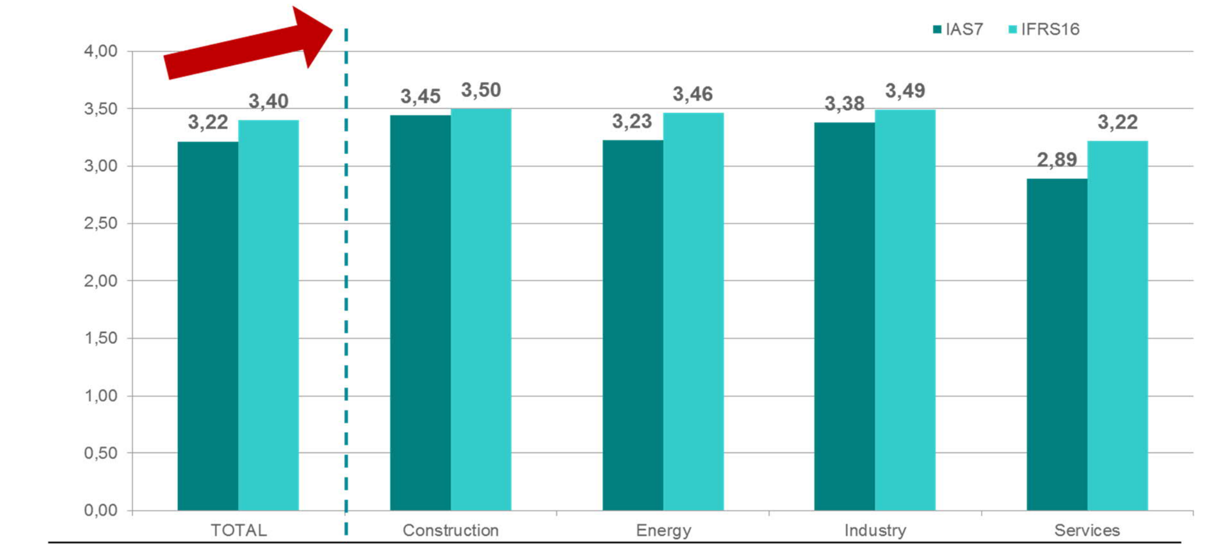
The asset turnover ratio measures the value of a company's revenues relative to the amount of its assets. This ratio is often used as an indicator of the efficiency with which a company is using its assets to generate revenue.

The change to the accounting of operational leases will cause company assets to increase, but the overall impact will be very limited:

- A weighted average decrease from 0.60 to 0.57
- A median decrease from 0.81 to 0.77

Note that groups in the first and the third quartile in particular will not see a substantial change.

CHART 6 DEBT-TO-EBITDA RATIO



	TOTAL		Construction		Energy		Industry		Services	
mean	3,2	3,4	3,4	3,5	3,2	3,5	3,4	3,5	2,9	3,2
Q1	0,8	1,2	-1,2	1,9	1,9	2,0	0,8	1,0	0,7	1,3
Q2	2,3	2,6	2,8	3,3	3,8	4,2	2,2	2,3	2,2	3,0
Q3	4,1	4,3	5,9	7,0	5,7	5,8	3,5	3,7	4,8	5,3

Source: ERICA 2018 database (own calculations).

Debt-to-EBITDA is an indicator measuring the amount of earnings generated and available before interest, taxes, depreciation, and amortisation expenses are paid. The ratio measures a company's ability to pay off its incurred debt: a high ratio may indicate a company's load of debt is too heavy.

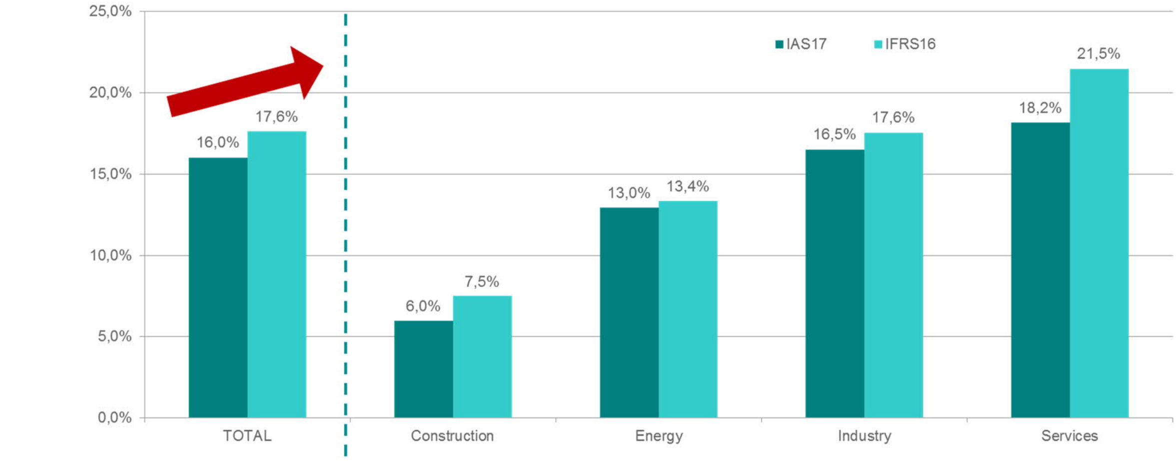
The overall result of implementing IFRS 16 will be the effect of two opposite changes: an increase in indebtedness (negative) and increase in EBITDA (positive); the latter reflects the impact of annual rental expenses that, under IAS 17, are included in services while in IFRS 16 these are included in depreciation and financial charges.

Overall, impact on the debt-to-EBITDA ratio is:

- A weighted average increase from 3.2 to 3.4
- A median increase from 2.3 to 2.6

Energy and services are the sectors most affected by the change, but all sectors examined see this ratio rise above a value of 3 (i.e. financial debt with a value triple to that of EBITDA).

CHART 7 EBITDA MARGIN



mean	16,0%	17,6%	6,0%	7,5%	13,0%	13,4%	16,5%	17,6%	18,2%	21,5%
Q1	7,2%	8,9%	4,6%	4,8%	10,8%	11,4%	8,7%	9,8%	6,3%	8,7%
Q2	12,5%	14,4%	6,0%	7,3%	16,5%	17,6%	12,9%	14,3%	12,0%	15,0%
Q3	20,1%	23,3%	13,3%	14,2%	38,7%	39,6%	18,0%	19,6%	25,5%	30,6%

Source: ERICA 2018 database (own calculations).

As a result of the movement of annual rental charges from expenses for services to amortisation and financial charges, the EBITDA margin improves in all sectors:

- A weighted average increase from 16% to 17.6%
- A median rise from 12.5% to 14.4%

This improvement is spread across every sector.

VII. IMPACT ON MAIN GROUPS

The first 30 groups by amount of lease payments cover 44.9% of the ERICA dataset in terms of turnover and 55.8% in terms of financial liabilities (excluding leases).

TABLE 3 RANKING FOR LEASE PAYMENTS*

Name of reporting period	Country	NACE description	Revenue	Financial liabilities IAS17	Lease payments, total	Financial liabilities IFRS16
Deutsche Telekom Ag Group	Germany	Wired telecommunications	75.656.000	59.589.000	18.284.000	77.873.000
Deutsche Post Ag Group	Germany	Postal activities	61.550.000	16.424.000	12.053.000	28.477.000
Lvmh Louis Vuitton Moet Hennessy	France	Manufacture of wearing apparel	42.636.000	11.576.000	11.444.000	23.020.000
International Airlines Group, S.A.	Spain	Transportation and storage	22.722.222	7.509.339	8.664.000	16.173.339
Telefonica, S.A.	Spain	Wired telecommunications	48.692.917	55.422.685	7.885.000	63.307.685
Fresenius Se & Co. Kgaa Group	Germany	Medical instruments	33.530.000	19.134.000	7.389.000	26.523.000
Volkswagen Ag Group	Germany	Manufacture of motor vehicles	235.849.000	190.882.000	6.371.000	197.253.000
Orange	France	Wired telecommunications	41.096.000	32.604.000	6.047.000	38.651.000
Total	France	Coke and refined petroleum	150.913.840	45.592.800	5.669.080	51.261.880
Fresenius Medical Care Group	Germany	Other services	16.546.873	7.546.228	5.527.638	13.073.866
Metro Ag Group	Germany	Wholesale	29.476.000	4.010.000	5.331.000	9.341.000
Industria De Diseño Textil, S.A.	Spain	Retail trade	26.144.916	112.804	4.954.000	5.066.804
Electricite De France	France	Electricity, gas, steam	69.632.000	56.846.000	4.238.000	61.084.000
Daimler Ag Group	Germany	Manufacture of motor vehicles	167.362.000	144.902.000	3.800.000	148.702.000
Engie	France	Electricity, gas, steam	65.029.000	32.644.000	3.462.000	36.106.000
Compagnie De Saint Gobain	France	Chemicals	40.810.000	9.239.000	3.209.000	12.448.000
Siemens Aktiengesellschaft Group	Germany	Electronic and electrical	83.044.000	32.177.000	3.192.000	35.369.000
Deutsche Lufthansa Group	Germany	Transportation and storage	35.844.000	6.724.000	3.089.000	9.813.000
Jerónimo Martins, Sgps S.A.	Portugal	Retail trade	17.336.708	639.204	3.002.987	3.642.191
Adidas Ag Group	Germany	Wholesale	21.915.000	1.848.000	2.984.000	4.832.000
Autogrill	Italy	Other services	5.156.893	1.016.754	2.980.903	3.997.657
Tui Ag Group	Germany	Other services	19.523.900	2.442.900	2.810.900	5.253.800
Telefonica Deutschland Ag Group	Germany	Information and communication	7.296.000	1.905.000	2.779.000	4.684.000
Bayerische Motoren Werke Group	Germany	Vehicle manufacturing	97.480.000	101.922.000	2.694.000	104.616.000
Innogy Se Group	Germany	Production of electricity	35.063.000	18.705.000	2.506.000	21.211.000
Ceconomy Ag Group	Germany	Retail trade	21.418.000	440.000	2.452.000	2.892.000
L Oreal	France	Chemicals	26.023.700	1.174.400	2.385.000	3.559.400
Ab Inbev Group	Belgium	Manufacture of beer	47.702.050	95.994.491	2.168.553	98.163.044
Iberdrola, S.A.	Spain	Electricity, gas, steam	35.075.873	38.308.672	2.099.659	40.408.331
Nh Hotel Group, S.A.	Spain	Other services	1.613.388	424.534	1.999.645	2.424.179
	FIRST 30 GROUPS BY LEASE		1.582.139.280	997.755.811	151.471.365	1.149.227.176
	TOTAL GROUPS WITH IMPACT		3.525.922.214	1.788.130.805	233.585.922	2.021.716.727
		COVERAGE	44,9%	55,8%	64,8%	56,8%

Source: ERICA 2018 database (own calculations).
* Doubles (i.e. groups belonging to a higher-level group already included in the ranking) have not been excluded.

VIII. RATIO DEFINITIONS

PROFITABILITY		
NAME	**DESCRIPTION**	**FORMULA**
EBITDA	Earnings before interest, taxes, depreciation and amortisation (a proxy for operating cash flow)	Profit (loss) from operating activities + depreciation and amortisation + impairment losses
EBITDA/total assets	Earnings before interest, taxes, depreciation and amortisation / total assets; also known as ROI	(Profit (loss) from operating activities + depreciation and amortisation + impairment losses) / total assets
EBITDA margin	Measure of a company's operating profit as a percentage of its revenue	Gross profit (loss) from operating activities / revenues
Financial liabilities/ EBITDA	Ratio measuring the amount of operating income generated and available to pay down debt	Non-current and current interest-bearing borrowings / (profit (loss) from operating activities + depreciation and amortisation + impairment losses)
Equity ratio	% of total assets financed with equity (a type of leverage ratio)	Equity / total assets (%)
Financial debt ratio	Use of credit to finance operations and investment	Non-current and current interest-bearing borrowings / total assets (%)
Current ratio	Liquidity ratio that measures a company's ability to pay short-term obligations with current assets	Current assets / current liabilities (%)
Leverage ratio	Relationship between own funds and financial liabilities	Non-current and current interest-bearing borrowings / equity (%)
Asset turnover	Ratio that measures the value of a company's revenues relative to the value of its assets	Revenues / total assets

IX. REFERENCES

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