The ERICA Series:

14. IFRS 15 Revenue from contracts with customers – First application impact in European non-financial listed groups

ERICA (European Records of IFRS Consolidated Accounts) WG

European Committee of Central Balance Sheet Data Offices (ECCBSO)

October 2021

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

The data used in this study is obtained from publicly available financial statements of European non-financial listed groups, having been treated manually by CBSO statisticians and accounting specialists, to be fitted into 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 of listed European groups attained with ERICA (in the whole dataset of approximately 1,000 groups) is well attuned to the situation and national composition of the stock markets. The analyses performed in this document, with the proviso expressed in the previous paragraph, provide a general view of the position and performance of listed non-financial European groups. However, the analysis includes some remarks on the performance of listed European groups according to the country where the parent company is based. The largest ERICA groups are multinationals, so it must be borne in mind that the performance of groups belonging to any given 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 for which they work or those of the ECCBSO.

All the graphs and tables presented in the document are from the same source (ECCBSO-ERICA database).

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

THE ERICA SERIES:

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(Document prepared by Javier González, Banco de España)

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1. INTRODUCTION

One of the mandates the ERICA WG was given by the ECCBSO is the assessment of IFRS implementation and the impact on CBSO databases.

In 2018, the International Accounting Standard IFRS 15 on *"Revenues from contracts with customers"* came into force for listed consolidated groups.

In a bid to comply with the aforementioned area of competence, the ERICA WG is developing this ERICA Series in order to analyse the impact on equity derived from the first application of this new international accounting standard.

This ERICA Series is structured as follows: a brief look into the IFRS 15 *"Revenues from Contracts with Customers"* and its main generic consequences in section 2, a short description and composition of the data input used to analyse the impact in equity after the first application in section 3. Section 4 is devoted to the analysis, which is carried out and structured with a top-down approach, from the aggregated data for general conclusions to the box plot microdata statistical distribution. The purpose is to determine whether aggregated data is the result of a common pattern or the consequence of the impact in a biased group, both in absolute and relative terms for country, sector, size and country-sector classifications. Finally, some conclusions are put forward.

2. IFRS 15 REVENUES FROM CONTRACTS WITH CUSTOMER BACKGROUND

IFRS 15, "Revenues from contracts with customers", under the satisfaction of the "performance obligations[2] with customer" principle turns out to be much more restrictive than former revenue recognition standards, mainly *IAS 18 "Ordinary Revenues"* and *IAS 11 "Construction Contracts",* as well as its corresponding *IFRIC interpretations*[3]. One of the main implications of the standard application is that it can imply changes in the temporal distribution of revenue recognition and its associated costs, which might as well imply an impact in other areas of analysis (loan covenants, bonus calculations, key performance measures, and so on). New accounting standards governing revenue recognition from contracts with customers may imply a deferral or anticipation of revenue recognition. Everything will depend on the aforementioned "performance obligations" and the moment when they are satisfied.

According to IFRS 15, revenue recognition (from contracts with customers) should be analysed following these steps: 1) Identify the contract(s) with a customer, 2) Identify the performance obligations in the contract, 3) Determine the transaction price, 4) Allocate the transaction price to the

[2] Commercial obligations/commitments

[3] IFRS 15 supersedes: (a) IAS 11 Construction Contracts; (b) IAS 18 Revenue; (c) IFRIC 13 Customer Loyalty Programmes; (d) IFRIC 15 Agreements for the Construction of Real Estate; (e) IFRIC 18 Transfers of Assets from Customers; and (f) SIC-31 Revenue—Barter Transactions Involving Advertising Services.

performance obligations in the contract, 5) Recognise revenue when (or as) the entity meets a performance obligation.

So, it is really important that all involved parties in a commercial relationship understand the implications that certain aspects or clauses in the contract might imply (amount, uncertainty of revenue and cash flows arising from a contract with a customer) and the moment when revenue can be recognised. For instance, in a telecommunications company, commercial offers are sold in bundles combining different goods and services, such as packages of landline, mobile, phone, TV and broadband services. Under IFRS 15, every individual service and product will be assigned its independent transaction price in relation to the total bundle price (relative stand-alone selling price method). The revenue for that service or product will be recognised with the satisfaction of the performance obligation, independently of other services to be provided or products to be delivered. For example, if a mobile phone is sold (normally at a discount price within the bundle), revenue from the smartphone will be generally recognised at the very same moment when the device is delivered (when the transfer of control takes place).

Regarding the construction sector, variable consideration of unapproved claims and variations under the contract is relevant, as two elements where requirements for revenue recognition have been tightened up. Entities now have to estimate the variable amount of consideration to which they are entitled. More restrictive conditions for revenue recognition have been set. While the former *IAS 11 "Construction Contracts"* only required them to be "probable" to be accepted or approved by the customer and negotiations about claims to have reached an advanced stage for revenue recognition to take place, under IFRS 15, revenue recognition is only allowed when it is "highly probable" that a significant reversal will not occur once the uncertainty is resolved. The reason for the change was to avoid revenue reversals in subsequent periods, thus enabling better estimates of future revenue.

3. DATASET

This ERICA Series provides information on the consolidated accounts of non-financial listed groups from seven participating countries, namely Austria, Belgium, France, Germany, Greece, Portugal and Spain. The data relate to the country where the parent company is based. It is important to bear in mind that these ERICA groups are multinationals, so the performance of the groups belonging to a particular country does not necessarily reflect the performance of the country itself.

3.1 Description of the Considered Dataset

The dataset used to develop the *IFRS 15 First Application Equity Impact Analysis* consists of the most relevant groups that are part of the ERICA database, the ERICA + real cases in most of the seven participating countries. This dataset accounts for 417 IFRS groups in total. The breakdown regarding country of origin by total number of groups is the following:

COUNTRY							
Austria	**Belgium**	**France**	**Germany**	**Greece**	**Portugal**	**Spain**	**EU-7**
10%	7%	7%	30%	12%	8%	26%	**100%**

Each group is classified into one of the following sectors, regardless of whether they have any impact or not, according to the NACE code of the group's main activity (% in terms of number of groups)[4]:

SECTOR				
Industry	**Services**	**Construc.**	**Energy**	***EU-7***
45%	39%	7%	9%	***100%***

All groups in the database are also classified into size classes. The three size classes are based on the groups' turnover, as follows (% in terms of number of groups)[5]:

SIZE			
Small	**Medium**	**Large**	***EU-7***
29%	31%	40%	***100%***

3.2 Description of the IFRS 15 First Application Equity Impact Variable

TABLE 1 **IFRS 15 FIRST APPLICATION EQUITY IMPACT 2018: NUMBER OF LISTED GROUPS PER TYPE OF TRANSITION METHOD REPORTING AND RECLASIFICATION** ***(in number of groups)***

1. Number of Groups in the 1st IFRS 15 Application Equity Impact

	Modified RM	*Full RM*	*No Impact (*)*	*No Info*	*Total*	*With Impact*	*Without Impact*
Austria	18	3	17	2	40	21	19
Belgium	7	2	15	7	31	9	22
France	6	11	9	2	28	17	11
Germany	52	5	58	10	125	57	68
Greece	11	0	33	6	50	11	39
Portugal	5	1	21	6	33	6	27
Spain	24	2	84	0	110	26	84
EU-7	123	24	237	33	417	147	270

Source: Own calculations based on ERICA WG contributions.

The *IFRS-15 First Application Equity Impact* variable was collected explicitly during the second half of 2019. Groups reported information about the transition period applying two possible different methods: 1) a Full Retrospective method (Full RM) or a 2) Modified Retrospective method (Modified RM). In the first one, the Full RM, there is restated data, in line with *IAS 8 Accounting Policies*, while with the second one, the Modified RM, there is no data restatement, measuring the cumulative effect

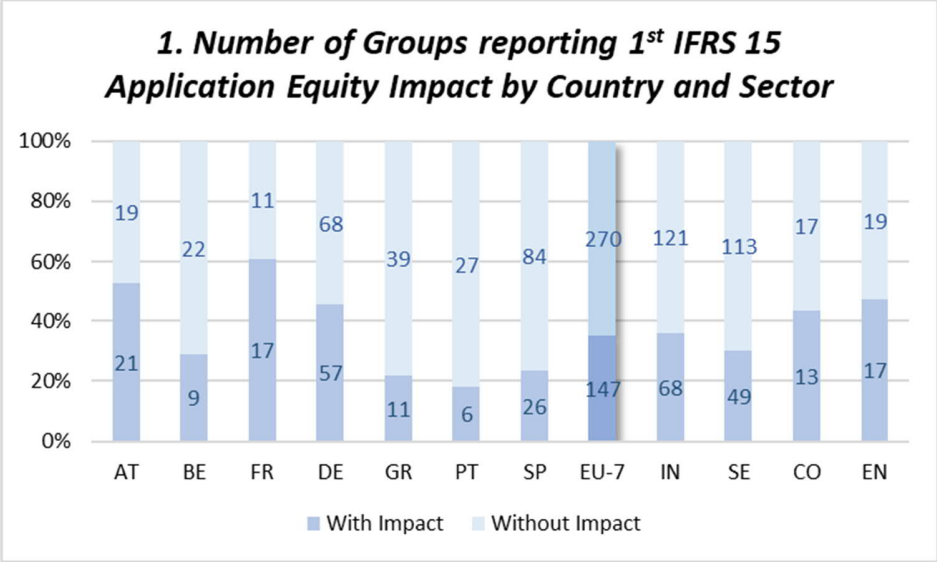
[4] NACE codes by sector: Industry 07 to 18 and 20 to 33, Services: 37 to 39, 45 to 63, 68 to 82, 86 to 96, Construction: 41 to 43 and Energy: 05, 06, 19, 35 and 36.

[5] Small groups (turnover < EUR 250 million), Medium-sized groups (EUR 250 million ≤ turnover < EUR 1,500 million) and Large groups (turnover ≥ EUR 1,500 million).

from initial application of IFRS 15 and an adjustment to the opening balance of "retained earnings" or "other component of equity" (such as non-controlling interest) on the date of initial application.

Chart 1 shows that more than half of French and Austrian groups have been affected by the elected transition method during the first application of IFRS 15. In relative terms, these are the countries that show the highest impact. Construction and energy groups are affected more than the services and industry sectors. These first conclusions should be taken cautiously given the constraints in the heterogeneous and limited number of groups with impact available, particularly when shown by country. The patterns should be confirmed with the absolute and relative equity impact of initial application of IFRS 15 within groups.

CHART 1 FREQUENCY OF EQUITY IMPACTED AND NON-IMPACTED GROUPS BY COUNTRY AND SECTOR *(in number of groups)*



Source: Own calculations based on ERICA WG contributions. Calculated with the aggregation in the number of groups.

3.3 Measurement of the Equity Impact in each IFRS Group (Absolute and Relative)

To measure and assess the monetary impact in the 147 groups that were affected during the first application of the IFRS 15 standard, absolute and relative effects in equity (reserves, non-controlling interests, etc.) were taken into consideration. The first one measures, for a specific IFRS group, the monetary impact in equity in absolute terms, regardless of the transition method applied.

IFRS 15-1st Application Equity Impact in absolute terms (Thousand €uro)

$$Absolute\ Equity\ Impact\ (Thousand\ €uro) = IFRS\ 15\ First\ Application\ Equity\ Impact$$

The second one takes the absolute equity impact into account and divides it by the equity of the corresponding IFRS group at 01.01.2018, thus assessing the relative impact due to the transition

method applied during the initial application of IFRS 15 per monetary unit of equity at 01.01.2018, as explained below.

IFRS 15-1st Application Equity Impact in relative terms (%)

$$Relative\ Equity\ Impact\ (\%) = \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_i\ (Thousand\ €uro)}{Equity\ at\ 1.1.2018_i\ (Thousand\ €uro)} * 100$$

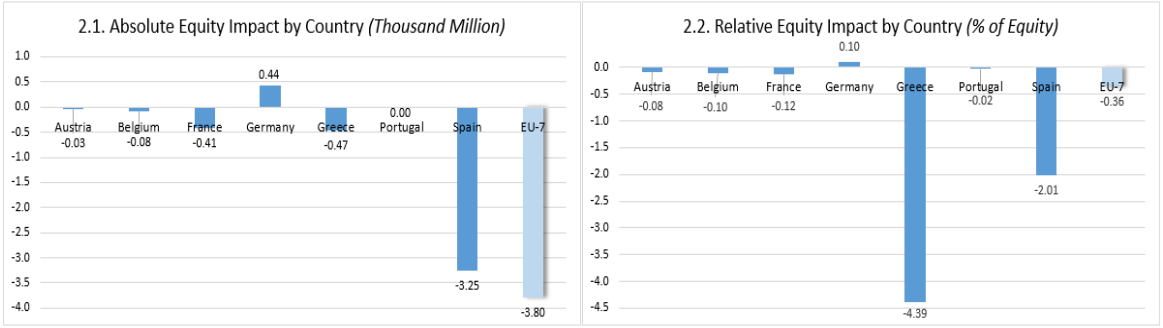
4. ANALYSIS

From a top-down approach, we will firstly analyse both absolute and relative impacts derived from IFRS 15 First Application Equity Impact with an aggregated (macroeconomic) approach by country, sector, size and country-sector, respectively. Then we will analyse both absolute and relative impacts, from an aggregated sectoral breakdown by country perspective. Finally, following the same structure, we will repeat the analysis from a microeconomic perspective with the corresponding principal statistical distributions (median, arithmetic mean, quartiles, interquartile ranges or IQR, skewness or asymmetry). Given the additional information it provides, this will enrich the analytical work to determine, for instance, whether the aggregated impact is biased by an extreme observation or if it is the result of homogeneously distributed real cases.

4.1 Absolute and Relative Equity Impact Analysis by Country

Chart 2.1. shows that the EU-7 global absolute impact is negative (-€3,800 million) but with a different composition at aggregated net level when distribution by country is analysed. Spanish groups account for an absolute net negative impact of -€3,250 million, followed by Greek (-€470 million) and French (-€410 million) groups. Belgian (-€80 million), Austrian (-€30 million) and Portuguese (€0 million) groups account for almost no net absolute impact. Only German groups have a net positive impact with the first application of the IFRS 15 standard (€440 million).

CHART 2 IFRS 15 FIRST APPLICATION EQUITY IMPACT BY COUNTRY (AGGREGATED), ABSOLUTE AND RELATIVE VALUES



Source: Own calculations based on ERICA WG contributions.

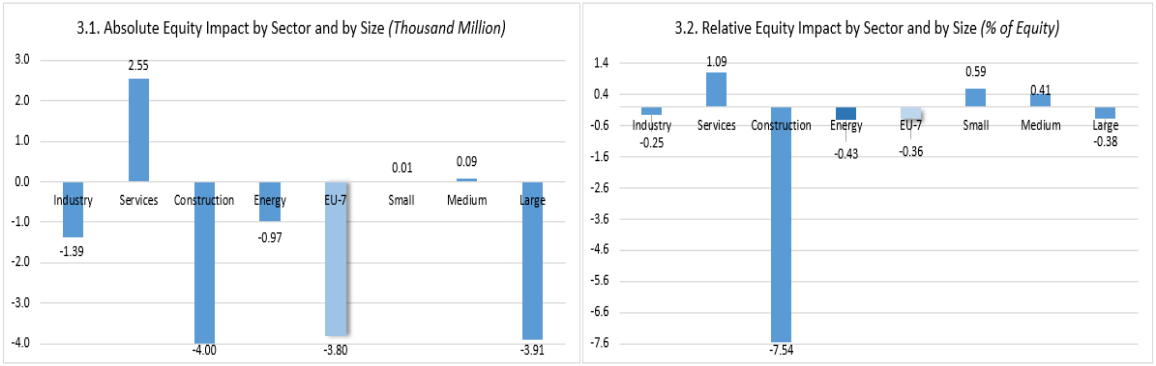
The global relative equity impact by country is obtained by taking the sum of the numerators of all equity-impacted groups in that country and dividing it by the sum of the denominators of all equity-impacted groups in that country.

Chart 2.2. shows, in relative terms, that the EU-7 global absolute negative equity impact (numerator) is being offset by the high equity level (denominator) in most EU-7 groups, leading to only a small negative EU-7 global relative equity impact, especially when compared to Greek and Spanish groups' negative relative equity impact, where the higher negative absolute equity impact, together with a lower equity level (when compared to other countries) exacerbates the relative equity impact effect due to the first application of IFRS 15. French, Belgian, Austrian and Portuguese groups show a mild negative relative equity impact, while only German groups show a slightly positive relative equity impact from their first application of IFRS 15.

4.2 Absolute and Relative Equity Impact by Sector and Size

As can be concluded from Chart 3.1., the EU-7 absolute negative equity impact in the first application of IFRS 15 is mainly caused by the effect in the construction groups surveyed, followed by the equity impact in industry and energy groups. Only services groups present a slight net positive equity impact. Regarding size, obviously large groups account for the most significant weight in the final absolute equity impact of initial application of the IFRS 15 standard.

CHART 3 IFRS 15 FIRST APPLICATION EQUITY IMPACT BY SECTOR AND SIZE, ABSOLUTE AND RELATIVE VALUES



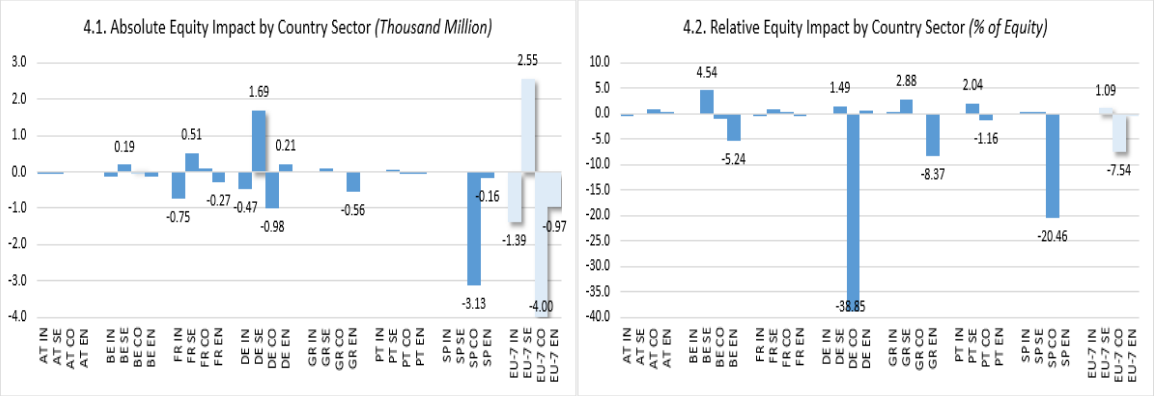
Source: Own calculations based on ERICA WG contributions.

Chart 3.2. focuses on the relative equity impact of the first IFRS 15 application by sector and size. Even though construction groups show a high negative relative equity impact, the lower contribution in equity of these groups when compared to the equity contribution of other groups offsets the global EU-7 equity impact. It reinforces the idea of the importance of the starting level of equity in industry, energy and even services groups in order to explain the offsetting effect in the final relative negative equity impact that EU-7 groups experience. Regarding size, large groups determine most of the final

global EU-7 relative equity impact, while small and medium-sized groups show a positive relative equity impact.

4.3 Absolute and Relative Equity Impact by Country-Sector

CHART 4 IFRS 15 FIRST APPLICATION EQUITY IMPACT BY COUNTRY-SECTOR, ABSOLUTE AND RELATIVE VALUES



Source: Own calculations based on ERICA WG contributions.

As Chart 4.1. shows, the global EU-7 equity impact by sector is already explained in Charts 3.1. and 3.2. The greatest absolute negative equity impact was in Spanish construction groups. They are followed far behind by German construction and French industry groups. On the other side of the coin, the largest absolute positive equity impact derived from the first application of IFRS 15 was observed in German services groups, followed by French services groups. Chart 4.2. also reveals that a low level of equity in German and Spanish construction groups contributed to a more negative relative equity impact in the first application of IFRS 15, followed by Greek and Belgian energy groups. On the positive relative equity impact side, Belgian, Greek, Portuguese and German services groups, in that order, show the largest relative positive equity impact due to the first application of IFRS 15.

4.4 Distribution of Equity Impact in Absolute and Relative Terms by Country

This section begins with the distribution analysis, given that the net aggregated figures shown so far could be masking the heterogeneity and diversity of the real cases considered by branch or confirming the existence of a similar pattern in the equity impact due to the first IFRS 15 application within the considered observations.

Table 2.1. and Chart 5.1. focus on the absolute equity impact of the first use of IFRS 15, combining the calculated arithmetic mean with the quartile figures, enabling a supplementary analysis, since the arithmetic average is influenced by whiskers and extreme values (outliers), while the quartiles and the median that determine the shape of the box neutralise those extremes. Even though the weighted

average is displayed in the tables, due to biased contributions by large equity groups, it is not mentioned much in the analysis.

In order to highlight the negative equity impact found in the observations that configure the distribution across Spanish, French and Belgian groups, the focus is on the widest interquartile ranges, the lowest negative first quartile and the longest downward negative whiskers regarding absolute equity impact. Negative-sided absolute equity impact with downward asymmetry is shown in all three groups (median higher than arithmetic mean) but is more evident in Spanish groups since their median is clearly higher than the arithmetic mean.

With downward asymmetry, EU-7 groups show a negative trend in the absolute equity impact, with the IQR concentrated in a narrow range of values, similar to what is experienced in most of the remaining groups. EU-7 also shows a slight positive skew.

TABLE 2 IFRS 15 FIRST APPLICATION EQUITY IMPACT, DISTRIBUTION IN ABSOLUTE AND RELATIVE VALUES BY COUNTRY

2.1. IFRS 15 1st Application Equity Impact (Absolute Values) *(in Thousand €uro)*

	Austria	Belgium	France	Germany	Greece	Portugal	Spain	EU-7
1st Quartile (1Q)	-4,008	-63,451	-89,150	-6,250	681	-16,621	-233,951	-18,390
Median (2Q)	315	-1,510	-15,000	-97	2,098	-1,486	-2,707	-283
3rd Quartile (3Q)	5,603	25,312	-2,500	2,380	15,050	12,797	4,165	4,866
IQR (3Q-1Q)	9,610	88,763	86,650	8,630	14,369	29,418	238,116	23,256
Weighted Average	-312	-92,843	-11,896	96,586	-288,701	-34,198	12,497	25,939
Arithmetic Mean	-1,547	-8,858	-24,018	7,710	-42,450	-620	-125,036	-25,868
2Q - Arithmetic Mean	1,862	7,348	9,018	-7,807	44,548	-866	122,329	25,585

2.2. IFRS 15 1st Application Equity Impact (Relative Values) *(in % of Equity)*

	Austria	Belgium	France	Germany	Greece	Portugal	Spain	EU-7
1st Quartile	-0.32	-3.09	-0.63	-0.43	-0.23	-1.39	-8.02	-0.70
Median	0.12	-0.15	-0.12	-0.01	1.04	-0.52	-0.17	-0.05
3rd Quartile	0.73	2.44	-0.02	0.29	2.74	1.15	0.57	0.48
IQR (3Q-1Q)	1.06	5.53	0.62	0.73	2.97	2.55	8.60	1.18
Weighted Average	-0.08	-0.10	-0.12	0.10	-4.39	-0.02	-2.01	-0.36
Arithmetic Mean	-0.71	-0.28	-0.45	-0.77	0.37	0.07	-3.98	-0.10
2Q - Arithmetic Mean	0.83	0.13	0.33	0.76	0.68	-0.59	3.81	0.06

Source: Own calculations based on ERICA WG contributions.

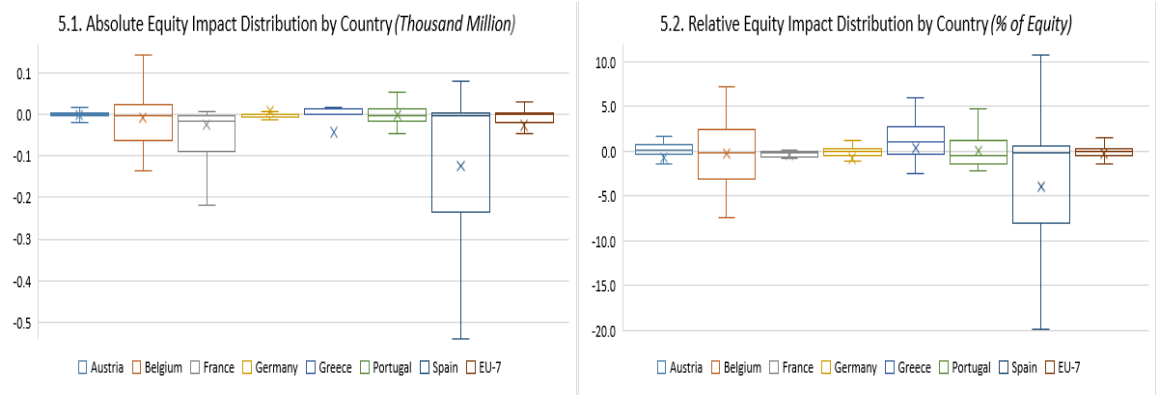
Table 2.2. and Chart 5.2. show the relative equity impact distribution by country due to the first application of IFRS 15, focusing on the median, mean, IQR broadness and the symmetry of the distribution based on the difference between the median and the arithmetic average.

Spanish groups show the clearest downward distribution in relative equity impact, mostly located in the negative side of the equity impact, with the broadest IQR, which implies a wide range of negative effects for almost 75% of real cases, the lowest first quartile and longest whiskers of the geographical region under consideration.

It is followed by Belgian groups' relative equity impact distribution with the second broadest IQR, which is almost equally distributed across both positive and negative sides of the equity impact, the second lowest first quartile and equally distributed in both sides of the relative impact. Greek groups are mostly found in the positive side of equity impact in the chart, showing the third broadest IQR with a leftward skew. Portuguese groups also show a broad IQR mostly located in the positive side of the relative equity impact chart with an upward skew (mean slightly higher than median).

Austrian, French, German and EU-7 groups show a concentrated and quite symmetrical relative equity impact with regard to the first IFRS 15 application, with narrow IQR, small whiskers and tight difference between mean and median.

CHART 5 BOX PLOT DISTRIBUTION OF IFRS 15 FIRST APPLICATION EQUITY IMPACT, ABSOLUTE AND RELATIVE BY COUNTRY



Source: Own calculations based on ERICA WG contributions.

Remark: Each box should be read as follows: the lower and upper edges of the box correspond to the 1st and 3rd quartiles respectively. The line inside the box represents the median. The cross-shaped dot is the arithmetical average or mean. Whiskers extend up from the top of the box to the largest data element that is less than or equal to 1.5 times the interquartile range (IQR, difference between 3rd and 1st quartile) and down from the bottom of the box to the smallest data element that is larger than 1.5 times the IQR.

4.5 Distribution of Equity Impact in Absolute and Relative Terms by Sector and Size

Table 3.1. and Chart 6.1. display the distribution of absolute equity impact from the first use of IFRS 15 by sector and size, similarly to the way it was analysed by country in section 4.4. This is to highlight the distribution in the construction and energy groups. Construction groups take a lower first quartile and a much wider IQR, a downward skew (median higher than mean) and with almost 75% of the real cases located in the negative side of the absolute equity impact. Minor median and small IQR absolute equity impacts are illustrated for industry and services groups. Taking into account the size approach, only large groups are worth mentioning.

TABLE 3 IFRS 15 FIRST APPLICATION EQUITY IMPACT, DISTRIBUTION IN ABSOLUTE AND RELATIVE VALUES BY SECTOR AND SIZE

3.1. IFRS 15 1st Application Equity Impact (Absolute Values) *(in Thousand €uro)*

	Industry	*Services*	*Construct.*	*Energy*	*EU-7*	*Small*	*Medium*	*Large*
1st Quartile (1Q)	-8,017	-4,000	-500,685	-122,650	-18,390	-150	-1,282	-45,620
Median (2Q)	-171	538	-15,550	-26,000	-283	230	538	-4,400
3rd Quartile (3Q)	906	16,642	1,746	11,246	4,866	620	4,866	6,950
IQR (3Q-1Q)	8,923	20,642	502,431	133,896	23,256	770	6,148	52,570
Weighted Average	-54,738	373,362	-299,239	-61,479	25,939	683	1,594	26,521
Arithmetic Mean	-20,370	52,016	-307,589	-56,919	-25,868	733	2,644	-42,033
2Q - Arithmetic Mean	20,199	-51,478	292,039	30,919	25,585	-503	-2,106	37,633

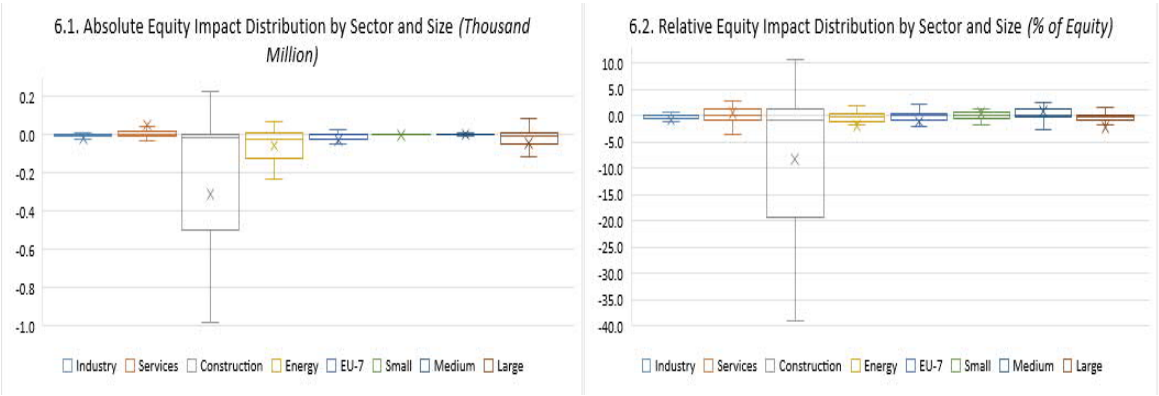
3.2. IFRS 15 1st Application Equity Impact (Relative Values) *(in % of Equity)*

	Industry	*Services*	*Construct.*	*Energy*	*EU-7*	*Small*	*Medium*	*Large*
1st Quartile (1Q)	-0.36	-0.80	-19.30	-1.12	-0.70	-0.37	-0.27	-0.87
Median (2Q)	-0.04	0.00	-0.94	-0.19	-0.05	0.21	0.12	-0.11
3rd Quartile (3Q)	0.23	1.30	1.29	0.51	0.48	0.66	1.25	0.19
IQR (3Q-1Q)	0.59	2.10	20.59	1.63	1.18	1.04	1.52	1.06
Weighted Average	-1.72	3.45	-29.27	-4.46	31.92	0.59	0.41	-0.38
Arithmetic Mean	-0.85	0.59	-8.31	-1.83	-1.14	0.53	0.87	-2.25
2Q - Arithmetic Mean	0.81	-0.59	7.37	1.64	1.10	-0.32	-0.75	2.13

Source: Own calculations based on ERICA WG contributions.

Table 3.2. and Chart 6.2. disclose information about the distribution shape of the relative equity impact from a sector and size perspective. Regarding equity relative impact, we would only highlight the construction groups, that show most of the 75% of the considered real cases in the negative equity impact side, with a negative arithmetic mean, lower than the median, hence leftward skewed and the largest interquartile range. They are followed by the energy groups with a fairly concentrated IQR but also with a negative skew. Finally, EU-7 groups have already been analysed in section 4.4.

CHART 6 BOX PLOT DISTRIBUTION OF IFRS 15 FIRST APPLICATION EQUITY IMPACT, ABSOLUTE AND RELATIVE BY SECTOR AND SIZE



Source: Own calculations based on ERICA WG contributions.

Remark: Each box should be read as follows: the lower and upper edges of the box correspond to the 1st and 3rd quartiles respectively. The line inside the box represents the median. The cross-shaped dot is the arithmetical average or mean. Whiskers extend up from the top of the box to the largest data element that is less than or equal to 1.5 times the interquartile range (IQR, difference between 3rd and 1st quartile) and down from the bottom of the box to the smallest data element that is larger than 1.5 times the IQR.

4.6 Distribution of Equity Impact in Absolute and Relative Terms by Country-Sector

Chart 7.1. shows the distribution of the absolute equity impact from the first application of IFRS 15 on a country-sector level. Even though the interpretation might be biased given that in many country-sector approaches there is only one or no IFRS groups impacted by the first application of the IFRS 15, additional conclusions can be drawn from the chart.

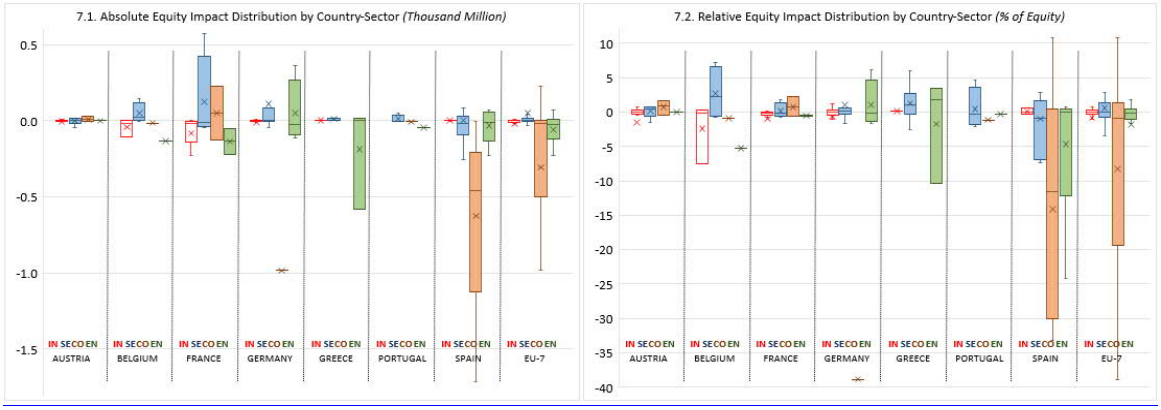
It is important to highlight the negative absolute equity impact from the first application of IFRS 15 in the Spanish construction groups sector. Chart 7.1. shows that these groups present the lowest first quartile, the broadest IQR (wide range of impact in 50% of the real cases), and the largest downward whiskers related to this country-sector.

It is followed by the severe negative absolute equity impact suffered by the sole German real case included in the same sector. None of them can be offset by the positive impact experienced across the distribution represented by French construction sector groups.

The third most negative absolute equity impact distribution affects the Greek energy groups, whose contribution to global EU-7 distribution is partially offset by the effect of positive absolute equity impact in German energy groups and by the less negative (and more concentrated) absolute equity impact in French and Spanish energy groups' distributions.

The French services sector distribution presents a positive absolute equity impact from the first application of the IFRS 15 standard, displaying an almost completely positive-sided, long interquartile range, with an upward skew impact.

CHART 7 BOX PLOT DISTRIBUTION OF IFRS 15 FIRST APPLICATION EQUITY IMPACT, ABSOLUTE AND RELATIVE ON COUNTRY BY SECTOR



Source: Own calculations based on ERICA WG contributions.

Remark: Each box should be read as follows: the lower and upper edges of the box correspond to the 1st and 3rd quartiles respectively. The line inside the box represents the median. The cross-shaped dot is the arithmetical average or mean. Whiskers extend up from the top of the box to the largest data element that is less than or equal to 1.5 times the interquartile range (IQR, difference between 3rd and 1st quartile) and down from the bottom of the box to the smallest data element that is larger than 1.5 times the IQR.

Finally, only Belgian and French industry groups show a small noteworthy absolute equity impact distribution, but they are really concentrated and close to zero impact. In general terms, Austrian, Belgian and Portuguese groups show almost no relevant impact distribution in any of their considered sectors (with just one or even no real cases in some sectors)[6].

Chart 7.2. shows the distribution of the equity impact from the first application of IFRS 15 on country and sector level in relative terms. Even though the interpretation might be biased given that in some country-sectors there is only one or no IFRS groups impacted by the first application of the IFRS 15, some interesting conclusions can as well be drawn from this second right-hand chart.

Owing to the sole real case shown in this category, the German construction IFRS group displays the most relevant negative relative equity impact of all country-sectors. It is even lower than the whiskers and the first quartile for Spanish construction groups who present the lowest and broadest IQR regarding relative equity impact, followed by Spanish and Greek energy groups, whose IQRs are mainly located in the negative side of their relative equity impact and both downward skewed, though most marked among the Spanish groups.

From a sectoral point of view, Belgian industry groups show a significant negatively distributed relative equity impact. In the case of services, Belgian, Portuguese and Greek services groups present a generally positively distributed equity impact, while Spanish services groups tend to show a mainly negatively relative equity impact. As far as the construction sector is concerned, German and Spanish relative negative equity impact cannot by offset by French and Austrian construction groups' relative positive equity impact on the final global EU-7 equity impact distribution. Finally, regarding energy, German groups' relative equity impact, with a positive distribution, does offset the negative relative equity impact in Greek, Belgian and Spanish energy groups[7].

5. CONCLUSION

The main conclusion to be drawn from the first application of the IFRS 15 standard governing *"Revenues from contracts with customers"* is its limited equity impact, in spite of the potential temporal deferral/anticipation that groups could experience in revenue recognition and their consequences regarding earnings, and hence, equity. Only 147 (approximately 35%) groups out of 417 were found to present some impact in equity from the first application of IFRS 15.

The first application of IFRS 15 by country, in absolute terms, ranges from a negative aggregated equity impact of € -3,250 million in Spanish groups to a positive equity impact in German groups accounting for €440 million. In relative terms, the first application of IFRS 15 implied that Greek groups reduced their equity by up to -4.40%, whilst the German groups' relative impact was close to zero.

[6] Regarding EU-7, absolute equity impact by sector was already analysed in section 4.5. and left-hand side of Chart 6.1.
[7] In section 4.5 and the left-hand side of Chart 6.2., the EU-7 relative equity impact distribution due to the first IFRS 15 application by sector is analysed.

A breakdown by sector branches shows a negative equity impact for construction groups of around €4,000 million and - 4%, in absolute and relative terms respectively, in contrast to a positive €2,550 million and +1.10%, in absolute and relative terms, for services groups.

Finally, at an aggregated absolute level, the first application of the new IFRS 15 implied a broad range, from a negative equity impact of €3,130 million in Spanish construction groups to a positive equity impact of €1,690 million for German services groups. In relative terms, it varies from a negative 38.9% equity impact in German construction group to a positive equity impact of 4.6% in Belgian services groups.

Particularly in the Spanish construction sector (which can be extrapolated to the German case), the change in standard implied a significant change in accounting policy, with a relatively high equity (in some cases, transitory) impact, where a higher threshold was required, from probable to highly probable, meaning that no significant reversal of revenue would occur, leaning the main equity (transitory) reduction on trade receivables recognition. The criteria and key estimations used to assess this threshold implied, among other things, the likelihood that the customer accepted non-contractual modifications, the expected project finishing date or the level at which projects were performed/executed. Litigations and other legal situations were also considered.

Regarding size, the entire absolute and negative equity impact due to the first application of IFRS 15 is concentrated in the hands of large groups. Small and medium-sized groups present a mild positive impact that is watered down when relative impact is taken into consideration.

From a top-down perspective for country/country-sector analysis (microdata distributions), it is clear that the Spanish groups were the most equity-affected by the first application of IFRS 15, particularly due to the effect in the Spanish construction sector and, to a much lesser extent, the energy and services sector equity impact.

With a similar negative absolute aggregated equity impact as French groups, Greek groups show a comparatively bigger relative equity impact concentrated in one major Greek energy group. In the case of the French groups surveyed, those in the services sector, and to a lesser extent, French construction groups, partially offset the negative aggregated absolute equity impact in the French industry and energy sectors.

The Belgian absolute equity impact distribution due to the first application of IFRS 15 is quite symmetrical, with both median and mean close to zero. The slight positive equity impact in services is offset by the mild negative effect in equity displayed by industry sector. As far as the country-sector distribution is concerned, there are just two groups, one in energy and another in the construction sector, both with negative equity impacts.

German groups show a net positive aggregated absolute equity impact thanks to the positive effect in services and energy sectors, offsetting the extremely negative absolute effect in equity experienced by just one real case in the German construction sector.

Finally, Austrian and Portuguese groups show almost no absolute/relative equity impact from the first application of IFRS 15.

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Annex 1: How to obtain weighted averages showing that weighted average of the relative impact (Equity ratio) is a globalised ratio

Weighted average of IFRS 15-1st Application Equity Impact in absolute terms (Thousand €uro):

$$Weighted\ Average\ of\ the\ Absolute\ Equity\ Impact\ (Thousand\ €uro) =$$

$$= \sum \left\{ IFRS\ 15\ First\ Application\ Equity\ Impact_i * \frac{Equity_i\ at\ 1.1.2018}{\sum Equity_i\ at\ 1.1.2018} \right\}$$

$$= \sum \left\{ IFRS\ 15\ First\ Application\ Equity\ Impact_i * \frac{Equity_i\ at\ 1.1.2018}{Total\ Equity\ at\ 1.1.2018} \right\}$$

Weighted average of IFRS 15-1st Application Equity Impact in relative terms (%):

$$Weighted\ Average\ of\ the\ Relative\ Equity\ Impact\ (\%) = \sum \left\{ \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_i}{Equity_i\ at\ 1.1.2018} * \frac{Equity_i\ at\ 1.1.2018}{\sum Equity_i\ at\ 1.1.2018} \right\} * 100 =$$

$$= \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_1}{\sum Equity_i\ at\ 1.1.2018} * 100 + \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_2}{\sum Equity_i\ at\ 1.1.2018} + \ldots +$$

$$+ \ldots + \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_i}{\sum Equity_i\ at\ 1.1.2018} + \ldots + \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_n}{\sum Equity_i\ at\ 1.1.2018} =$$

$$= \sum \left\{ \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_i}{\sum Equity_i\ at\ 1.1.2018} \right\} * 100 = \sum \left\{ \frac{IFRS\ 15\ First\ Application\ Equity\ Impact_i}{Total\ Equity\ at\ 1.1.2018} \right\} * 100 =$$

$$\left\{ \frac{\sum IFRS\ 15\ First\ Application\ Equity\ Impact_i}{Total\ Equity\ at\ 1.1.2018} \right\} * 100 = \frac{Total\ IFRS\ 15\ First\ Application\ Equity\ Impact}{Total\ Equity\ at\ 1.1.2018} * 100$$