

Effects of the Convergence to International Financial Reporting Standards in Earnings Management

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Abstract The mandatory adoption of International Financial Reporting Standards (IFRS) in the consolidated financial statements of companies located in the European Union, since 2005, had the objective of improving the quality of the accounting information. This goal of this study is to identify European countries of the sample in which the adoption of IFRS represented greater change in the earnings management levels disclosed by companies. The documentary research was based on Thomson Financial data base, from which were collected the data covering the period from 2000 to 2003 (before the IFRS adoption) and from 2006 to 2009 (after the IFRS adoption), to calculate the frequency distribution of small profits over small losses, as an indicator of earnings management. The research results indicate the existence of three groups of countries: those positively affected by the adoption of IFRS, with a reduction in the level of earnings management; those negatively affected, with increased management; and those which that did not present significant effects or they could not be detected. It was concluded that, despite the higher quality expected with the adoption of the IASB accounting standards, in some countries the effect of IFRS application is not consistent with this expectation in the period analyzed.

Keywords IFRS, Earnings management, Small profits, Small losses

1. Introduction

The development of global capital markets and trade has contributed to the increased need for greater comparability and transparency of accounting information. In this scenario, the global accounting convergence process to the International Accounting Standards Board (IASB) has been significantly developed in recent years.

The European Union enforcement to the public companies located in their scope area to publish consolidated financial statements based on IFRS from 2005 can be considered as an important step in this process. Over 100 countries have adopted or are in total or partial adoption process of the accounting standards established by IASB. It is worth to mention that Brazil, where the requirement for public companies and financial institutions is to adopt the International Financial Reporting Standards (IFRS) from 2010 on, is also in adoption process.

However, the results of these studies do not point to a single direction. Some studies indicate that the adoption of IFRS may increase the earnings management levels in certain countries, depending on characteristics such as the rigidity degree of local regulations, the country's legal

system and the accounting education level, among others. In general, greater IASB standards flexibility, based on principles, would give greater discretionary power to the accounting information preparer in certain countries. On the other hand, some studies have highlighted the reduction in the earnings management levels with the adoption of IFRS, once the IASB standards have a higher quality compared to the set of local rules of several countries, dealing with various situations not covered by the local regulations. Moreover, the principles of IFRS recognition and disclosure would be closer to the economic transactions reality, regarding the accounting standards of certain countries.

The determination of earnings management existence, according to Mohanram (2003), can occur through qualitative and quantitative models. According to Martinez (2001), quantitative models are more frequently used and are based on three basic methodologies: frequency distribution; analysis of specific accruals; and analysis of aggregate or total accruals.

In the methodology of frequency distribution analyzes the behavior of the accounting result with some reference point is analyzed. One of the positive aspects for its application is that the accruals do not need to be estimated. In turn, the focus of the specific accruals analysis is to evaluate the behavior of certain segments of businesses or specific ledger accounts. In the methodology of aggregate or total accruals, the target of the analysis is to estimate the discretionary component of the accruals.

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Given the above, the following research question was made up: What is the impact of the IFRS adoption in the earnings management levels of European companies, taking in consideration the positive results of frequency distribution compared to the negative results for the period analyzed? Thus, the goal of the study is to identify in which European countries of the sample the adoption of IFRS represented greater changes in the earnings management levels disclosed by companies.

The main contribution of the study is to demonstrate through empirical evidence that the regularity in the frequency distribution of financial results, for example, a small number of companies disclosing small losses and a large number of small firms disclosing small profits, characterized as earnings management, as proposed by Burgstahler and Dichev (1997). This involves checking whether the observations of results below the parameter (previous year results or nil results) are very different from the observations above that parameter (Trapp, 2009).

The research is justified by the importance of investigating changes in the quality of the financial information of the companies, specifically European companies, since the IFRS adoption in 2005, in the earnings management perspective. It is important to analyze whether a greater IASB standards flexibility, based on principles, allowing greater discretion power to the preparer of the financial information, leads to earnings management changes. To analyze the impact, the periods from 2000 to 2003 (before the adoption IFRS) and 2006 to 2009 (after the adoption of IFRS) were considered.

The contribution of this study consists in showing that the convergence process to IASB accounting standards does not necessarily represent improvement in the quality of the accounting information, particularly regarding the reduction in levels of earnings management. This finding may lead to the identification of similar contextual characteristics among the surveyed European countries, which may relate to this effect. Thus, new studies, with a qualitative approach, can be carried out on those specific countries in order to confirm the influence of environmental characteristics on the levels of earnings management from the adoption of IASB standards.

2. Theoretical References

2.1. Definition of Earnings Management

The term earnings management has as main definitions the ones presented by Schipper (1989) and Healy and Wahlen (1999). According to Schipper (1989, p. 92), earnings management is a "purposeful intervention in the external disclosure process, having the intention of obtaining some private gain". With this definition the author limits the discussion on external reporting management, not addressing the question of managerial earnings management.

Baptista (2008) warns that in Schipper's definition of

management can occur, in any part of the external disclosure and may be practiced through the use of accruals (or accumulations derived from the accrual system), changes in the accounting method, among others. Paul (2007) points out that studies on accounting manipulations have analyzed management through the use of aggregate accruals, specific accruals and frequency distribution analysis (histogram analysis).

Healy and Wahlen (1999, p. 368) understand that the earnings management occurs when managers use "judgment on the financial information and on operational activities to change the financial information, or deceive investors about the economic performance of the company, or to influence contractual outcomes that depend on the accounting numbers disclosed".

By analyzing the definitions of Schipper (1989) and Healy and Wahlen (1999), Martinez (2001) infers that the earnings management can be characterized as an intentional change of accounting results of a company in order to achieve some particular goals.

Cardoso (2005) considers Healy and Wahlen's (1999) definition of earnings management as the best up to date. Commenting on its key points, he states that accounting information management occurs to the extent that managers use discretionary criteria to amend the financial statements and mislead some users of such information about the actual economic performance of an organization or to influence contractual outcomes that depend on the numbers disclosed. The author also emphasizes that the discretionary judgment is not limited to the choice of accounting practices, but may also include operational activity manipulation.

The earnings management, according to Gould (2007), can be understood as an interference of the financial statements preparer's specific interests in the content or form of the information disclosed. It is noteworthy that earnings management is not the same as fraud. Dechow and Skinner (2000) differentiated fraudulent choices and aggressive but acceptable choices. Earnings management, according to the authors, is practiced in accordance with accounting principles.

2.2. Arrangements for Earnings Management

Martinez (2001) states that there are several modalities of earnings management, depending on the motivations involved in the process. However, the author highlights three main modalities: a) target result (target earnings) - manage to increase (improve) or decrease (worsen) the accounting results; b) result smoothing (income smoothing) - manage to reduce the variability of accounting results; c) conservative accounting (big bath accounting) - manage to reduce the current profit in order to increase future profit.

Mohanram (2003) also classifies the management methods in three specific types: bump up, big bath and Cookie Jar. All modalities are related to a target result. The first classification (bump up) occurs when a company is very close to reaching its target result, having incentive to

increase profits through management. The second classification (big bath) is the same as used by Martinez (2001), smoothing results. The third classification (Cookie Jar) occurs when a company is above the target result, having incentive to reduce the result through management, not to raise excessively market expectations for the next periods.

Trapp (2009) also mentions result smoothing (income smoothing) as a modality of management, already stated by Martinez (2001), for reducing the profits variability, showing to investors lower volatility and risk in the company income rates. These modalities of earnings management imply methodological procedures in their calculation, which is addressed below.

2.3. Methodological Procedures for Determining Earnings Management

Several methodological approaches for the calculation of earnings management are found in the literature but, in general, are divided into qualitative and quantitative. Mohanram (2003) presents the following steps for the qualitative approach: a) identify the most important accounting policies for the companies' segment; b) evaluate the company's accounting flexibility; c) evaluate the accounting strategy adopted by the company; d) evaluate the disclosure quality; e) evaluate if the company provides adequate information for understanding the economic strategies; f) analyze and identify the red flags; and g) undo accounting distortions.

However, it is found in the literature that the quantitative approach is the most used in empirical research. Martinez (2001) distinguishes three basic procedures used in studies of the area: analysis of specific accruals; analysis of aggregate or total accruals; and frequency distribution.

The goal of the analysis of specific accruals is to analyze the behavior of certain segment of businesses or specific financial accounts. This requires large number of observations (Trapp, 2009), and by working with a larger length of data, this method allows the development of multivariate analysis. However, it has as main disadvantages the fact of being based on certain assumptions that are not necessarily true, and not being conclusive on the practices of management, since it does not focus on specific incentives (Cardoso, 2005).

Regarding the aggregate or total accruals, Healy (1985) was the first author to use this methodology. The goal is to estimate the accruals' discretionary component. The accruals are divided into: discretionary and non-discretionary. The discretionary part of the accruals is that which is manageable, or depends on the manager's judgment, and the non-discretionary is not manageable.

Studies based on the frequency distribution have the objective of verifying the behavior of the accounting results, relating them to some reference point or benchmark, which may be the result of the previous year or nil. From this point of reference, it can be verified whether the observations of

accounting results below this point are very different from the observations above this point (Trapp, 2009).

The regularity in the frequency distribution of results was associated with the earnings management by Burgstahler and Dichev (1997). According to these authors, it consists of empirical evidence of a small number of companies with small losses and a large number of companies with small profits. According to Baptista (2008, p. 47), "the concentration of small profits observations related to the small losses observations could indicate that the companies are making efforts to avoid negative results, [...] surpassing zero".

The main advantage of this methodology is not to have to estimate the accruals. However, it does not allow analyzing how the result management was done (Trapp, 2009). This last methodological approach to calculate earnings management is adopted in the development of this study.

3. Research Method and Procedures

A documentary research was done so as to collect the data. They were collected from the electronic website of Thomson ONE Banker in the Thomson Financial database. Were collected the figures of Sales, Operating Profit (Lop) and companies Active Total (AT), in the period from 2000 to 2003 and from 2006 to 2009. Data of the years 2004 and 2005 were not used, because it was the transition period of the IFRS adoption by sample companies.

3.1. Data Analysis

The first data analysis consists of a descriptive statistics, contemplating mean, median and standard deviation of the figures of sales, Operating Profit (OP), Total Asset (TA) and Operating Profit divided by Total Assets (OP / TA) of companies under analysis, divided into two periods: period 1 (2000-2003), before the adoption of IFRS, and period 2 (2006-2009), after the adoption of IFRS by the companies.

After this preliminary analysis, based on the study of Burgstahler and Dichev (1997) and Jeanjean and Stolowy (2008), was calculated the frequency distribution of Operating Profit over Total Assets (OP / TA) of companies, based on a range from -1 to +1. It was then analyzed the number of observations on two central points near zero (nil result) in frequency distribution, the range -0.1 and the range +0.1. The greater the difference in the number of observations in the range +0.1 related to range -0.1, the greater the indication of earnings management existence.

According to Glaum, Lichtblau and Lindemann (2004), irregularities in the frequency distribution indicate that companies often avoid the disclosure of negative net results, when close to zero, managing them up. In the absence of earnings management, a relatively smooth distribution near the limit zero (nil result) is expected.

In order to determine which countries were most affected in terms of earnings management with the IFRS adoption, a rate was calculated based on the studies of Brown and

Higgins (2001), Leuz, Nanda and Wysocki (2003), Glaum, Lichtblau and Lindemann (2004). This rate consists of the division of the number of observations of small profits (located in the range 0: 0.1 in frequency distribution) by the number of observations of small losses (located in the range -0.1, 0) of the distribution.

The intention of this survey is, firstly, to determine the impact of the IFRS adoption in the earnings management levels presented by European companies. From this, it seeks to identify countries in which this impact was more significant. However, it is necessary to highlight that the study does not cover all European Union countries, nor all companies of the countries examined.

3.2. Population and Sample

The population of the research comprises companies located in the Union European, which adopted IFRS for disclosing consolidated accounting statements from 2005, and have their accounting information indexed in the Thomson Financial database. The samples of the research were selected from this population. The sampling is non-probabilistic, and this fact must be considered in the analysis of results, especially regarding its generalization.

First, companies from countries most economically representative of the European Union were selected, such as Germany, France, Britain, Italy and the Netherlands. However, being a descriptive research and trying to give more diversity to the sample, data were also collected from companies in the Iberian Peninsula, Portugal and Spain; from a representative of Eastern Europe, Czechoslovakia; of a Scandinavian country, Denmark; and also Greece and Belgium. Table 1 shows the sample.

Table 1. Survey Sample

Country	Companies	Observations
Germany	422	3.376
Belgium	87	696
Czechoslovakia	124	992
Denmark	107	856
Spain	97	776
France	427	3.416
Great Britain	682	5.456
Greece	191	1.528
Netherlands	100	800
Italy	181	1.448
Portugal	38	304
Total	2.456	19.648

The sample consists of 11 countries, totaling 2,456 companies and 19,648 observations. The number of observations is the number of companies multiplied by eight (number of social exercises analyzed). Britain, France and Germany stand out as countries with the largest number of companies. Moreover, the analysis of Portuguese companies is limited due to the sample size obtained.

3.3. Research Hypothesis

Although several international studies on the subject are not unanimous about the effects of the convergence to IASB accounting standards in the levels of earnings management practices employed by companies, some research indicates that certain contextual features of the countries can influence this process.

Countries with weak investor protection mechanisms (Nenova, 2003; Dyck & Zingales, 2004; Renders & Gaeremynck, 2007) and stock market in development (Jeanjean & Stolowy, 2008) are more susceptible to the practice of earnings management after the adoption of IFRS, especially if their local accounting standards are based on rules rather than principles (Van Tendeloo & Vanstraelen, 2005; Goncharov & Zimmermann, 2006).

Thus, two research hypotheses were developed from these assumptions:

- H₁ - companies in countries with weak stock market or in development present higher levels of earnings management accounting;
- H₂ - companies in countries with local accounting standards based on principles rather than on rules present higher levels of earnings management.

4. Data Description and Analysis

This section presents the description and analysis of the research data. First a general analysis was performed based on the research data, with emphasis on the descriptive statistics of the figures of Sales, Total Assets and Operating Profit of the companies surveyed. Then, it is presented the frequency distributions of the Operating Profit over the Total Assets of the companies, in histogram form, individualized per country. Following, the rate of small profits over small losses in the analyzed countries is calculated.

4.1. Descriptive Statistics

This topic presents the mean, median and standard deviation of the figures of Sales, Total Assets, Operating Profit and Operating Profit over Total Assets of the companies researched, individualized by country (Table 2).

Analyzing the development of sales from period 1 (2000-2003) to period 2 (2006-2009) in Table 2, it is possible to verify that, in general, the figure of sales mean increased in all countries. That, somehow, was expected by the economic development of these countries along the time, in spite of the sample contemplating the period of economic depression, between late 2007 and early 2009. The countries with larger developments of sales mean were Belgium (103%), Spain (91%) and Greece (85%). The smaller variations in sales mean were found in Britain (24%), Czechoslovakia (22%) and the Netherlands (15%).

Regarding the Total Assets, it is also observed a positive change in the mean figure of Total Assets in companies of

all analyzed countries. Stand out as major variations companies in Spain (129%), Greece (105%) and Denmark (100%). Countries where there was less variation of Total Assets of companies were the Netherlands (48%), Germany (46%) and Czechoslovakia (38%).

In Table 3 it is evident how this development in sales and Total Assets reflected in the profitability of the companies in each analyzed country. Figures of mean, median and standard deviation of Operating profit and Operating Profit divided by Total Assets are presented.

Germany, Spain and Denmark, in Table 3, stand out as countries where companies presented more development in operating profit within the two periods analyzed. The negative highlight is the Netherlands, only country that had a negative change in the mean operating profit, in addition to Czechoslovakia and Greece, which had the smallest changes, though positive.

Comparing this information to those in Table 2, it is verified that only Spain was among the countries that had

the greatest variations, both in sales and in total assets, resulting also in greater variation in operating profit. The Netherlands was ranked as a country with the smallest variation, both in sales and in total assets, which may also have been reflected in the decrease of the mean operating profit of these companies.

Germany can also be highlighted since, even not having significant variations in the sales and total assets in the period. It is the country where the mean operating profit of companies grew the fastest within the two periods.

This information is important once, in addition to characterizing the development of sales, assets and profits of companies in the studied countries, they support the analysis of the earnings management levels, which can be affected by changes in these variables from one period to another. One way to measure the earnings management level is by profits frequency distribution analysis, which was adopted in this research as outlined below.

Table 2. Descriptive statistics of Sales and Total Assets in thousands of Euros

Country	Sales					
	Mean p1	Mean p2	Median p1	Median p2	Standard deviation p1	Standard deviation p2
Germany	3201,56	3803,92	130,34	165,19	12553,11	13364,90
Belgium	1287,45	2609,41	138,45	200,02	3537,66	10690,44
Czechoslovakia	2611,25	3179,42	345,73	437,46	8274,04	9800,79
Denmark	535,68	859,50	91,79	139,34	1325,41	2403,24
Spain	2455,11	4698,49	399,64	784,16	6489,89	11425,32
France	3140,05	4139,84	151,73	224,86	10282,75	13408,75
Britain	2083,45	2581,20	104,71	131,93	10892,10	13756,03
Greece	281,94	522,11	69,28	96,30	693,93	1359,17
Netherlands	5674,09	6548,82	352,84	448,07	20412,29	27316,02
Italy	2322,13	3258,41	259,91	364,98	8033,07	10993,89
Portugal	1122,03	1548,56	432,42	548,04	1726,33	2489,36
Grand Total	24714,74	33749,68	2476,82	3540,32	84220,59	117007,91
Country	Total Assets					
	Mean p1	Mean p2	Median p1	Median p2	Standard deviation p1	Standard deviation p2
Germany	9655,80	14121,69	135,58	176,13	63093,78	104167,49
Belgium	7310,38	12848,02	265,62	328,29	41729,85	73112,12
Czechoslovakia	12208,83	16820,88	499,54	648,99	76615,28	118366,57
Denmark	2791,28	5572,33	151,01	275,32	19487,40	41388,13
Spain	11352,48	26015,57	651,73	1354,63	46075,20	110689,37
France	9857,43	19038,16	179,77	345,11	58664,73	132125,17
Britain	6964,74	13590,54	153,31	202,66	49398,61	127106,42
Greece	1146,45	2352,82	108,51	165,54	5042,82	10643,03
Netherlands	14678,09	21711,91	372,22	537,32	76621,26	129110,32
Italy	9447,75	18490,76	430,94	681,42	34987,83	88023,54
Portugal	5159,49	7919,15	642,19	745,91	12409,46	19228,82
Grand Total	90572,73	158481,84	3590,40	5461,28	484126,20	953961,00

Table 3. Descriptive statistics of Operating profit and OP / TA in thousands of Euros

Country	Operating Profit					
	Mean p1	Mean p2	Median p1	Median p2	Standard deviation p1	Standard deviation p2
Germany	76,39	213,81	1,33	5,54	551,06	1055,00
Belgium	92,00	153,87	6,91	13,85	286,91	719,84
Czechoslovakia	251,74	329,28	24,44	36,44	962,06	1553,38
Denmark	45,61	87,62	5,28	9,30	155,07	265,73
Spain	270,63	573,93	30,47	53,91	778,10	1738,96
France	187,39	333,35	6,65	14,30	850,24	1471,37
Britain	197,85	308,40	6,85	10,13	1271,16	1668,60
Greece	30,87	43,23	3,33	2,30	109,11	189,93
Netherlands	591,58	563,78	21,91	33,30	2792,32	2848,47
Italy	178,26	340,88	8,32	16,85	897,23	1573,18
Portugal	79,52	139,09	4,88	8,17	241,40	329,40
Grand Total	2001,84	3087,25	120,36	204,07	8894,67	13413,85
Country	OP/TA					
	Mean p1	Mean p2	Median p1	Median p2	Standard deviation p1	Standard deviation p2
Germany	-0,048	0,024	0,009	0,038	0,699	0,167
Belgium	0,027	0,049	0,038	0,042	0,121	0,126
Czechoslovakia	0,043	0,058	0,048	0,065	0,121	0,126
Denmark	0,027	0,018	0,037	0,035	0,138	0,252
Spain	0,052	0,040	0,042	0,035	0,105	0,099
France	0,025	0,041	0,040	0,043	0,137	0,098
Britain	-0,006	0,041	0,047	0,059	0,317	0,176
Greece	0,049	0,005	0,038	0,017	0,082	0,351
Netherlands	0,034	0,050	0,063	0,059	0,184	0,119
Italy	0,001	0,012	0,012	0,016	0,145	0,088
Portugal	-0,001	0,006	0,007	0,012	0,127	0,093
Grand Total	0,204	0,344	0,382	0,422	2,175	1,695

4.2. Distribution of the Disclosed Results

To detect the presence or absence of changes in the earnings management levels with the IFRS adoption, an analysis of the frequency distribution of OP / TA in the two studied periods, for each country of the sample was performed. The pre-IFRS period of analysis (period 1) covers the years from 2000 to 2003. The post-IFRS (period 2) covers the years from 2006 to 2009.

The operating profits divided by total assets (OP / TA) of the companies were grouped into 20 classes, from -1 to +1. The ranges in bold are the ones close to the limit zero (-0.9 and +0.1), where this analysis focuses on earnings management (Burgstahler & Dichev, 1997; Glaum, Lichtblau & Lindemann, 2004; Jeanjean & Stolowy, 2008).

It can be seen in Figure 1 that Belgian companies have higher concentration of small profits compared to small

losses in relation to post-IFRS, which may denote a higher earnings management level with the adoption of IASB standards.

However, when comparing the rate of small profits on small losses (SPSL) from period 1 ($176/50 = 3.52$) at the same rate for period 2 ($199/51 = 3.90$), there is a difference of only 10.8%. Whereas the mean OP / TA of Belgian companies rose 81% (Table 3), it is possible to suppose that this variation in SPSL is influenced by this variation, but it cannot be said that this is result of increase in the earnings management levels.

In the case of Czechoslovakia, which is noticed in Figure 2, there is a greater regularity in the distribution of small profits and small losses in the post-IFRS period. The rate of SPSL in period 1 was 2.726 ($169/62$), decreasing to 1.982 ($111/56$) in period 2.

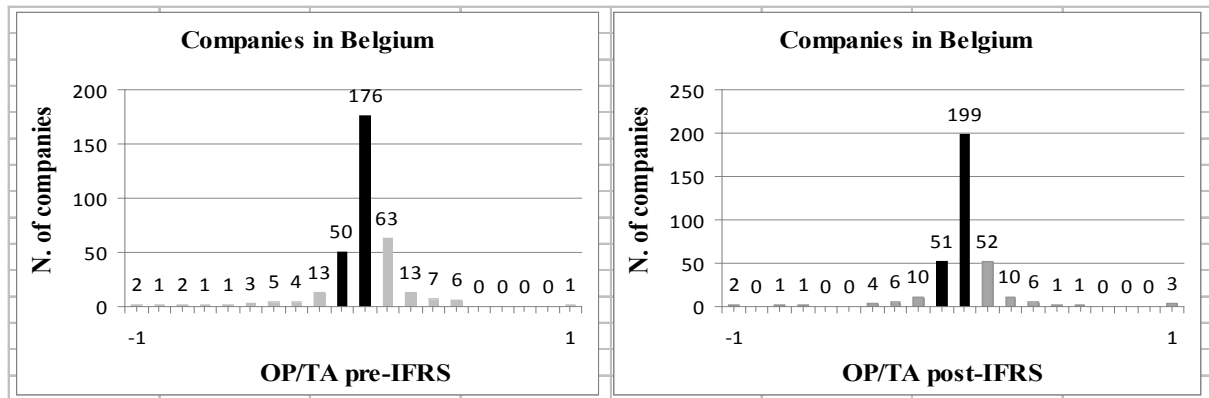


Figure 1. Concentration of small profits versus small losses of companies in Belgium

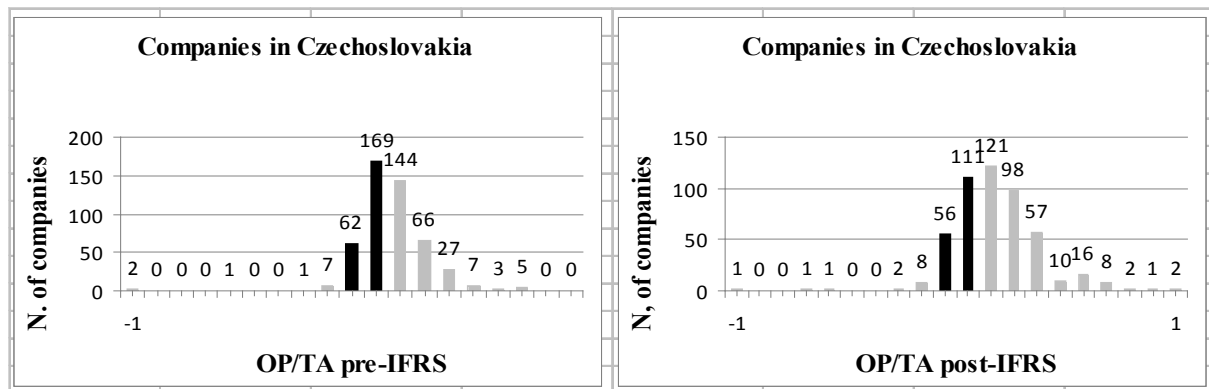


Figure 2. Concentration of small profits versus small losses of companies in Czechoslovakia

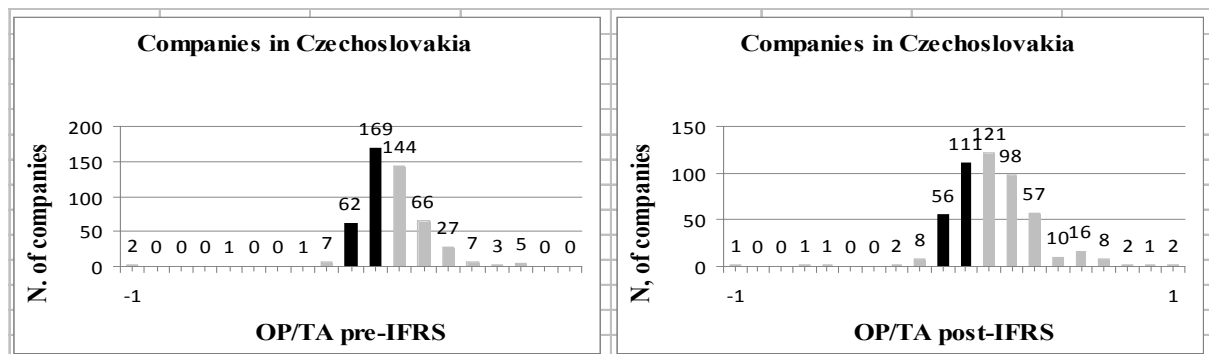


Figure 3. Concentration of small profits versus small losses of companies in Germany

This may represent evidence of higher earnings management in pre-IFRS period, considering that the mean OP/TA grew approximately 33% in period 2 compared to period 1. Therefore, among the large number of companies that made small profits in the period pre-IFRS (169), there are probably some which managed their results to prevent the disclosure of losses. It is inferred that the adoption of IASB standards had the beneficial effect on accounting disclosure of Czech companies, regarding earnings management.

Figure 3 shows that in Germany occurred the opposite that in Czechoslovakia. There was less regularity in the frequency distribution of OP / TA in the post-IFRS period, providing evidence that higher flexibility of IASB standards provided opportunities for the German companies to

manage their results in order to avoid the disclosure of small losses, which decreased from 379 companies in the pre-IFRS period to 264 companies in the post-IFRS period, representing a reduction of approximately 30%.

The SPSSL rate, which was 1.678 (636/379) in period 1, increased to 2.375 (627/264) in period 2, an increase of 41.5%. Therefore, it can be said that there is evidence that the IASB standards, in this case, contributed in raising the level of earnings management of German companies.

The result of the Danish companies, in Figure 4, must be carefully analyzed. In a first analysis, there is a greater irregularity in the distribution of the results in the pre-IFRS period, which denotes a lower level of earnings management with the IASB standards adoption. The SPSSL rate of period 1 was 3.241 (188/58), dropping to 2.444

(154/63) in the second period, a reduction of approximately 24.6%.

However, the mean OP/TA of Danish companies decreased 33% from period 1 to period 2, which may explain the reduction in the companies that showed a small profit from period 1 (188 firms) to period 2 (154 companies). Therefore, it cannot be said that the decrease in the SPSL rate is an exclusive or predominant effect of the IFRS adoption.

Figure 5 shows a 49% decrease in the SPSL rate of Spanish companies, from 8.4 (294/35) in period 1 to 4.262 (179/42) in period 2, indicating an improvement in the earnings management levels with the adoption of IFRS. Even considering a reduction in the mean OP/TA of companies of 22%, the decrease in the number of companies that showed small profits from period 1 (294) to period 2 (179) was significant.

Therefore, there is evidence that the adoption of IASB standards by Spanish companies contributed to reducing the levels of earnings management disclosed by these companies, thereby increasing the quality of the accounting information reported.

The analysis of the frequency distribution of small profits and losses of French companies in Figure 6 shows evidence of increased levels of earnings management after the IFRS adoption. The SPSL rate, which was 2.186 (564/258) in period 1 went up to 4.362 (1012/232) in the second period, an increase of 99.5%.

The mean OP / TA of French companies in the same period grew 60% (Table 3). Thus, it can be assumed that the increase in the SPSL rate is due in part to a higher earnings management performed by these companies, to prevent the disclosure of small losses.

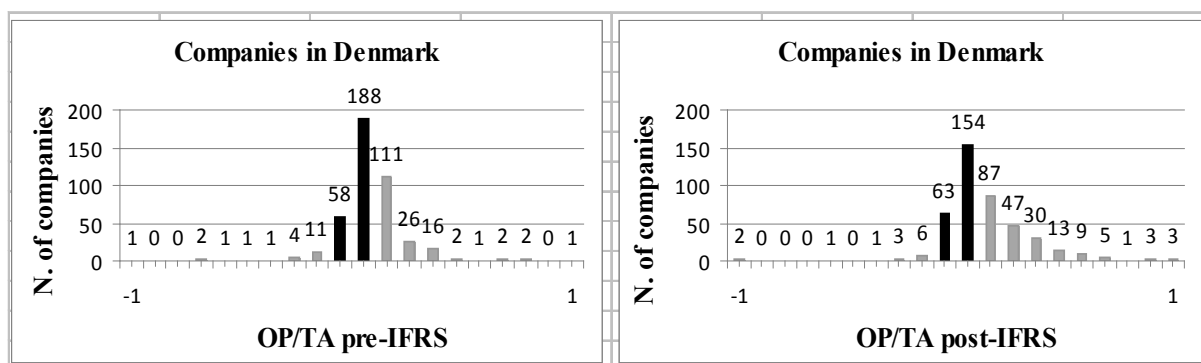


Figure 4. Concentration of small profits versus small losses of companies in Denmark

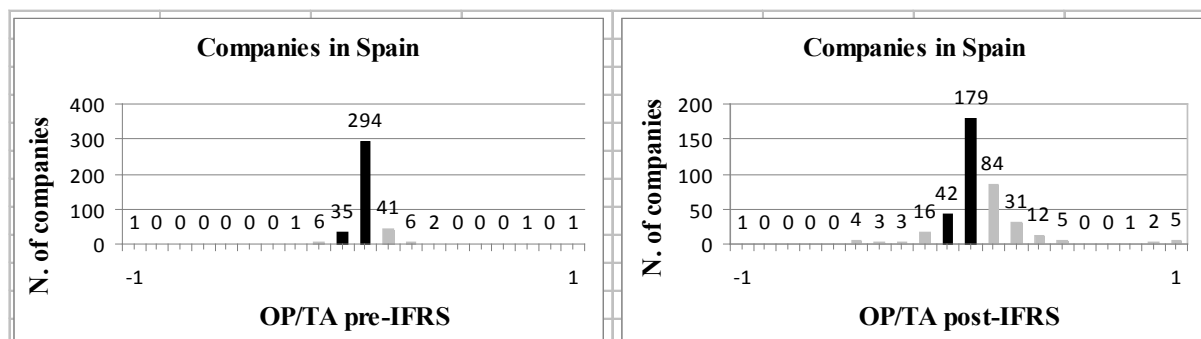


Figure 5. Concentration of small profits versus small losses of companies in Spain

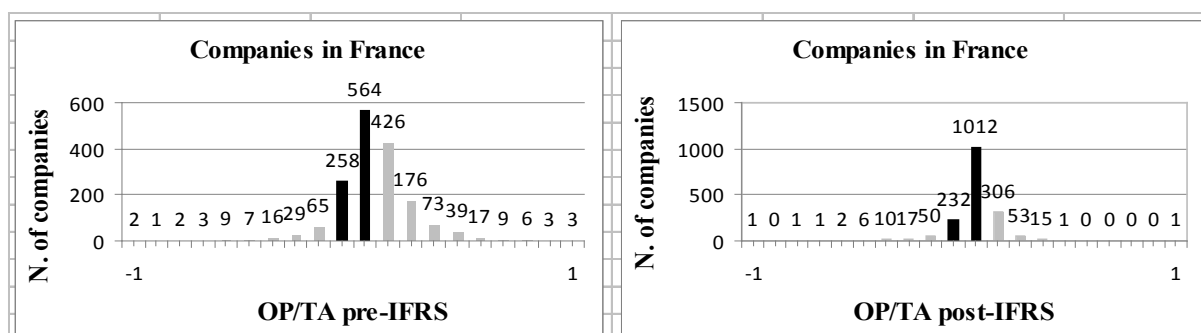


Figure 6. Concentration of small profits versus small losses of companies in France

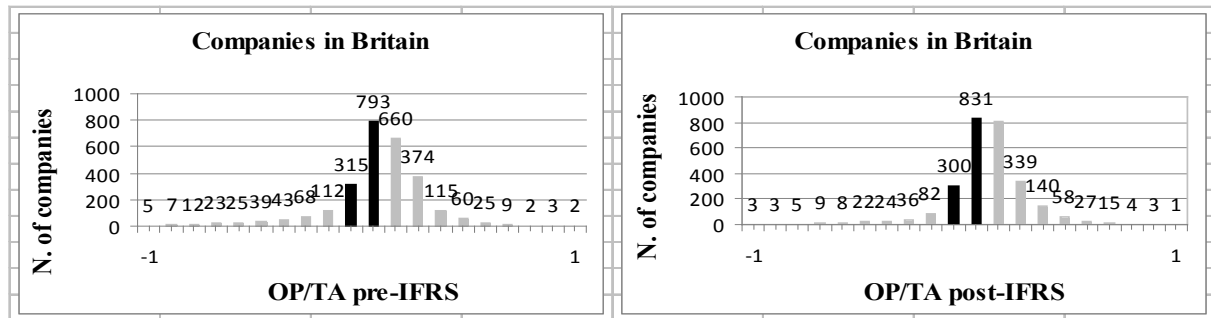


Figure 7. Concentration of small profits versus small losses of businesses in Britain

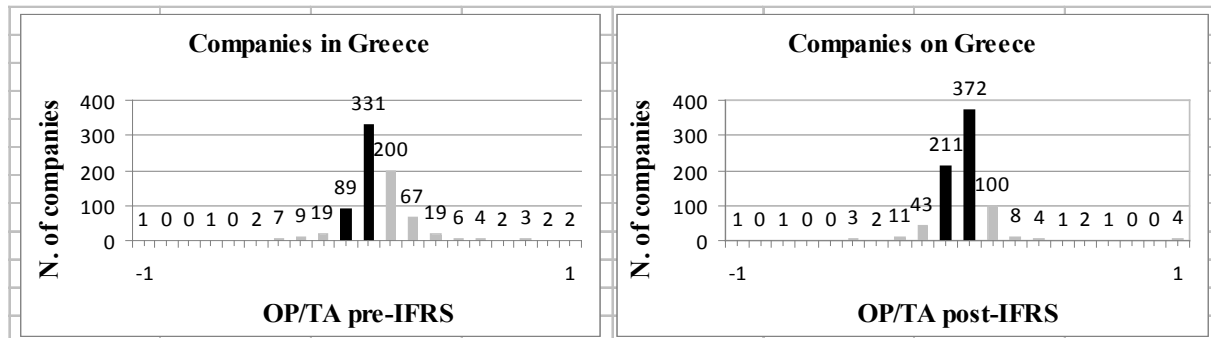


Figure 8. Concentration of small profits versus small losses of companies in Greece

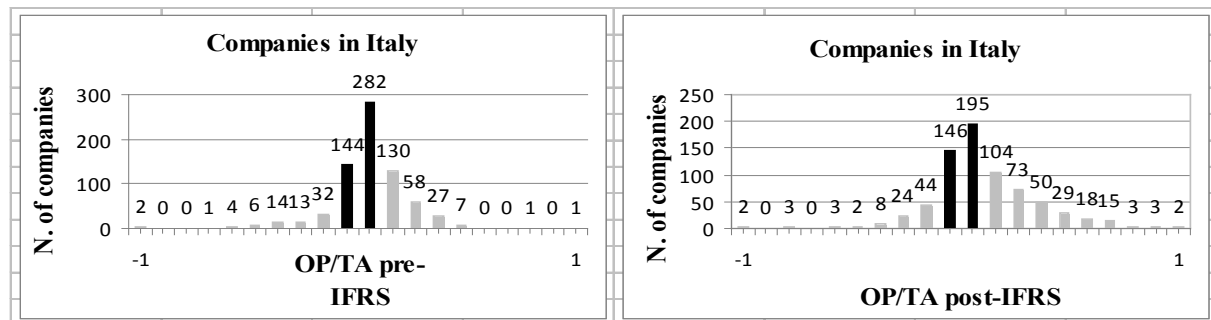


Figure 9. Concentration of small profits versus small losses of companies in Italy

The analysis of the frequency distribution of companies in Britain, in Figure 7, shows no signs of significant change in the levels of earnings management after the IFRS adoption. The SPSL rate of period 1 was 2.517 (793/315), increasing to 2.77 (831/300) in period 2, about 10%.

Considering that the mean OP/TA of companies in Britain in the same period grew by 820%, it cannot be said that the variation of about 10% in SPSL is the result of changes in the levels of earnings management practiced by these companies.

Figure 8 shows a reduction in the SPSL rate of companies in Greece from 3.719 (331/89) in period 1 to 1.763 (372/211) in period 2, indicating a reduction in the earnings management levels after the IASB standards adoption.

However, the mean OP / TA of the Greek companies decreased 90% during the same period, which may help to explain an increase in the number of companies with small losses from period 1 to the period 2 (89 to 211).

The number of companies with small profits even increased in the second period (331 to 372), but this could have occurred due to the reduction of the number of companies with a profit classified as +0.2 in the frequency distribution (200 to 100). Therefore, it cannot be said that the adoption of IASB standards by Greek companies has impacted the levels of earnings management disclosed by these companies.

Figure 9 shows a significant decrease in distribution irregularity of results of Italian companies. A more balanced distribution is clear in period 2, indicating a reduction in the levels of earnings management.

The SPSL rate was reduced from 1.958 in period 1 (282/144) to 1.336 (195/146) in period 2, representing a decrease of about 32%. The increase of 1239% in the mean OP / TA of Italian companies does not help to explain the high number of companies with small profits in period 1 (282), compared to period 2 (195), which reinforces the idea of a greater earnings management in the pre-IFRS period.

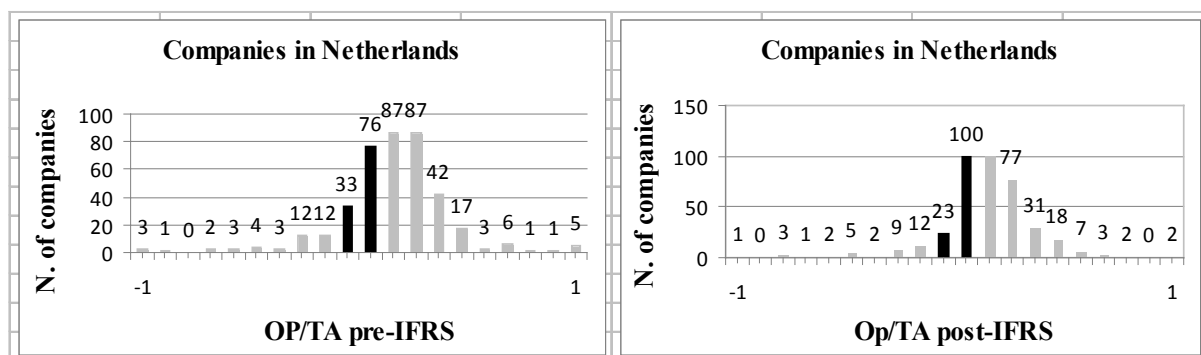


Figure 10. Concentration of small profits versus small losses of companies in the Netherlands

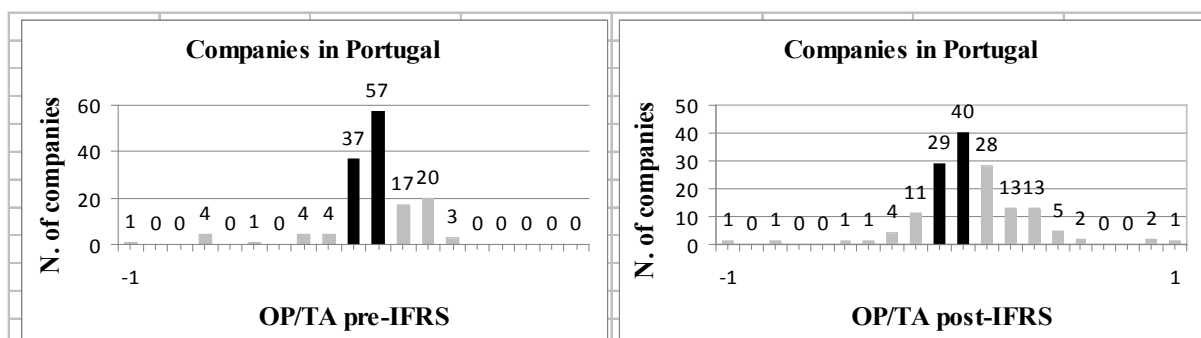


Figure 11. Concentration of small profits versus small losses of companies in Portugal

Figure 10 shows evidence of increase in the earnings management level of companies in the Netherlands, after the adoption of IASB standards. The SPSL rate went up about 89%, going from 2.303 (76/33) in period 1 to 4.348 (100/23) in period 2.

The increase in the mean OP / TA in these companies in the same period was 49%, indicating that the increase in the number of companies with small profits (76 to 100) and the reduction in the number of companies with small losses (33 to 23) were possibly influenced by earnings management practices, that have occurred with greater intensity in the post-IFRS period.

Figure 11 shows that the SPSL rate of Portuguese companies decreased approximately 10% over the period analyzed, from 1.541 (57/37) in period 1 to 1.379 (40/29) in period 2.

However, this reduction may not be directly associated with a reduction in the earnings management levels. Analyzing the change in the mean OP / TA in the period, there is an increase of approximately 857%, which may explain the decrease of companies that have showed small losses (37 to 29). Possibly, part of these companies started to disclose profit in period 2.

Another question that can be explained by the increase in the OP / TA is the reduction in number of companies that have disclosed small profits (57 to 40) once these companies probably have had their profits increased, being classified in the next class (+0, 2). In Figure 11 there is a noticeable increase in number of companies in the class +0.2, from 17 in period 1 to 28 in period 2. Therefore, it cannot be said that there was no impact of adopting IFRS in

earnings management levels of Portuguese companies.

4.3. Summary of Results

A summary of results is presented in Table 4, considering the changes in the indicator of Small Profits on Small Losses (SPSL) for the period 1 to period 2, with changes in Operating Profit on Total Assets (OP / TA) of companies in the same period.

Table 4. Summary of Results

Impact of IFRS in GR	Country	Δ SPSL	Δ OP/TA
Increase	Germany	42%	-151%
	France	100%	60%
	Netherlands	89%	49%
Reduction	Czechoslovakia	-27%	33%
	Spain	-49%	-22%
	Italy	-32%	1239%
Neutral	Belgium	11%	81%
	Denmark	-25%	-33%
	Britain	10%	-821%
	Greece	-53%	-90%
	Portugal	-10%	-857%

Table 4 shows that companies in Germany, France and the Netherlands have had a higher increase in the SPSL indicator from period 1 to period 2. Considering the variation in the OP / TA of these companies during this period, it was noticed that the SPSL indicator showed a higher increase than the variation in the OP / TA, which is

an evidence of greater earnings management in period 2. In German companies, this situation becomes even more evident since despite the OP / TA have decreased considerably in the second period, there was an increase in the SPSL indicator.

These results are consistent with previous studies, such as Goncharov and Zimmermann's (2006), which also found management increases in German companies after IFRS adoption. Mansfield and Lorenz (2004) warned about the impact of the IASB standards adoption in Germany, especially regarding the use of fair value, due to German GAAPs having a very consistent basis in cost as the base of value.

An opposite situation was found in companies in Czechoslovakia, Spain and Italy. It can be observed in Table 4 a reduction in SPSL indicator in companies by these countries, greater than the reduction in the mean OP/TA, in the case of Spanish companies, or against an increase in the OP / TA, regarding Czech and Italian companies. This fact reinforces the evidence of a reduction in earnings management levels after the IFRS adoption.

In the other countries listed in Table 4 there were no significant variations in the SPSL indicator from period 1 to period 2, except Greece and Denmark. However, in these countries, the change in SPSL was significantly less compared to the variation in the mean OP / TA. Therefore, it cannot be said that in these countries there was a significant impact on earnings management levels due to the IFRS adoption.

It is noteworthy that Italy, Spain and Greece, according to Ausseneg, Inwinkl and Schneider (2008), have already showed higher levels of earnings management in relation to Britain, for example, even before the IFRS adoption. Therefore, a greater reduction in the earnings management levels in those countries, in relation to Britain, seems normal and expected.

Also based on Table 4, the rejection or not of the research hypotheses can be evaluated. Related to H1, it was found that in countries with more developed stock market, such as England, Germany, Belgium, Spain and France showed no reduction in the levels of earnings management after the adoption of IFRS, with the exception of Spain. In addition, two countries with a strong stock market showed an increase in the level of earnings management, such as Germany and France. Thus, it can be affirmed that the strength of the country's capital market has significant influence on the reduction in levels of earnings management from the international accounting convergence process, which leads to the rejection of H1.

As for H2, taking into consideration the study of Bae, Tan and Welker (2008), which points out differences between local accounting standards of various countries and IASB standards, it was observed that countries whose local accounting standards are more similar to IASB's, such as Britain and the Netherlands, showed no reduction in earnings management. Moreover, in the other analyzed countries, whose local accounting standards have greater

differences in relation to IASB standards, were not observed increases in earnings management, with the exception of Germany and France. Thus, H2 is also rejected once it is not possible to say that countries with accounting standards based on local rules and, therefore, more distant from the IASB standards, have higher levels of earnings management after the adoption of IFRS.

However, the rejection of these hypotheses does not mean that contextual characteristics of the countries can not influence the changes in the levels of earnings management from the adoption of IFRS. Possibly, other environmental characteristics such as country's legal system (Leuz, Nanda, & Wysocki, 2003) and quality of accounting education (Ding & Su, 2007; Elbannam, 2010), among others, taken together, can influence this process.

5. Conclusions

The goal of the study was to identify in which countries of the sample analyzed the IFRS adoption has represented a greater change in the earnings management levels disclosed by companies. A descriptive study was performed with a quantitative approach, based on documentary analysis in Thomson Financial's database, where data covering the period 2000 to 2003 and from 2006 to 2009 were collected to calculate the frequency distribution of small profits on small losses.

Regarding the profitability analysis of companies, through the mean OP / TA indicator, it was observed that companies in Greece, Spain and Denmark showed negative change in this indicator. Coincidentally or not, Greece and Spain were the two countries highlighted in the worldwide news media in 2010 due to financial difficulties faced by their governments.

On the other hand, countries such as Germany, Britain, Italy and Portugal showed higher profitability growth (OP / TA) in their companies, when comparing the two analyzed periods of the study. Germany and Britain traditionally are countries with strong and stable economy, two of the biggest EU economies. What is surprising here is the performance of Portuguese companies, faced with problems similar to those that Greece and Spain faced by the Portuguese government.

However, this study did not intend to do an economic analysis of these countries, but rather use the OP / TA indicator assist the analysis of earnings management presented by companies after the IFRS adoption. It was found that there are countries where there was a reduction of management with the use of IFRS, countries where companies started to exhibit higher levels of management and countries where there was no significant impact with the IASB accounting standards adoption.

It was found that in companies from Czechoslovakia, Spain and Italy there was a reduction in earnings management levels after the IFRS adoption, showing that the IASB standards, more flexible and with high quality, contributed to the improvement of the accounting

information provided by these companies.

On the other hand, companies in Germany, France and Netherlands have had opposite results with the IFRS adoption. There was an increased of earnings management levels. The result of German companies, which has an accounting model strongly legalistic, and French companies, with tax-based accounting model (Nobes, 1983), in a sense, is not surprising. The use of a more flexible accounting standard, based on principles rather than standards such as IFRS, could give greater discretionary power to managers who, accustomed to stricter standards, would feel greater freedom to practice earnings management.

The result of German companies is consistent, somehow, with the study of Goncharov and Zimmermann (2006) that analyzed German companies and found higher levels of earnings management based on IFRS compared to the U.S. GAAP. Regarding French companies, Jeanjean and Stolowy (2008) also found an increase in the level of management after the IFRS adoption.

Finally, there is a group of countries of which cannot be said that the IFRS adoption brought changes in the levels of management, given the small variation observed in the SPSL rate or by the influence of changes in the corporate profitability, measured by the variable mean OP/TA. In this group countries such as Belgium, Denmark, Britain, Greece and Portugal can be classified.

It is concluded, therefore, that, despite the higher quality expected with the adoption of IASB accounting standards, in some countries the effect of the IFRS practice is not consistent with this expectation in the period analyzed. In addition, features how the strength of the country's capital market and the similarity of their accounting standards with IASB standards did not impact the results of this study. However, other characteristics such as legal system and accounting education system from each country, which were not under investigation in this study, can influence these effects.

Understanding how these various environmental characteristics influence, either alone or together, the process of adopting the accounting standards of IASB, is a concern that requires further research. A deeper analysis of these characteristics in the countries that have showed in this study increase in management (Germany, France and the Netherlands) and countries in which there was a decrease in management (Czechoslovakia, Spain and Italy) can help to get those answers.

It is important to highlight that the results here presented may change depending on the period of analysis and the model used to measure the management. Another limitation of this research is regarding the use of a single model to assess the management, based on the frequency distribution of small profits on small losses. Several other models, based on total or discretionary accruals, may be found in the literature. Using several control variables it can also contribute to increase the reliability of results.

As this is a descriptive study, the concern was to draw a general profile of the countries regarding earnings

management with the IFRS adoption. It is recommended for future research to deepen the study, using other models for detecting earnings management, or to have a more specific focus on a given country in order to obtain explanations for earnings management.

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