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The impacts of the final phase of transition to IFRS in Brazil

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ABSTRACT

Objective – This article aims to measure the impacts of the final phase of mandatory convergence to IFRS on net income, in equity and total assets of Brazilian public companies.

Design/methodology/approach – It is applied to the inverse of Gray (1980)'s Conservatism Index – which allows you to compare the results between different accounting systems – to determine the impacts of the transition between the two phases of the convergence process in Brazil, covered by the law 11,638 and their CPCs. It was compared the 2009 financial results disclosed in BR GAAP and IFRS.

Findings – The results show that the final stage of mandatory convergence to IFRS led to significant increases in both net income and the shareholders' equity of the companies analysed: a mean increase of about 21% in earnings and about 11% in equity, as well as generating an increase, though somewhat less significant, about 7%, the total assets.

Practical implications – This research helped to improve understanding of the impacts of convergence of Brazilian accounting to the international standard; as well as to assist business managers and users of financial information, especially those from the capital markets, regulators and academia, about the ultimate effects on the results reported in 2011, after the implementation of the final phase of convergence.

Originality/value – The fiscal year of 2009 was a special year for understanding the impact of accounting system in the financial results disclosed in Brazil. The Brazilian public companies reported their results in BR GAAP and IFRS and this research analysed and compare both reports and improve understanding of the impacts of convergence of Brazilian accounting to the international standard.

Keywords: International Accounting Convergence, IFRS; Financial Statements.



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I INTRODUCTION

Free trade between nations and the integration of international markets, including financial markets, are effects of economy globalization. As a result, the importance and the necessity of accounting information for investment decisions and business administration was increased, culminating in the development and improvement of international accounting standards for comparing information among companies from a same group or different business groups.

Comparability is one of the qualitative characteristics of accounting information that Hendriksen and Van Breda (1999) consider as properties of the information that are necessary in order to make it useful. The CFC (Federal Accounting Council) followed a similar path. In its Resolution No. 1,374/11 (2011), CFC ranked comparability as a highly desirable quality and comparability as follows:

Comparability is the qualitative characteristic that allows users to identify and understand similarities of items and differences among them. Unlike other qualitative characteristics, comparability is not related to a single item. The comparison requires at least two items (CFC Resolution No. 1374/11, 2011).

In 2001, the IASB was created (*International Accounting Standards Board*) following the structure of the old IASC (*International Accounting Standards Committee*), aiming to improve the technical structure of formulation and validation of new international statements to be issued by the new body, now with the new name IFRS (*International Financial Reporting Standard*). However, standards (IAS) published before 2001 by the IASC remain valid and coexist with IFRS.

This new name, chosen by the IASB, is an indicative of the Council's will to gradually transform previous accounting statements in new internationally accepted financial report standards in order to meet the growing expectations of

financial information users (analysts, investors, institutions etc.).

De Franco, Kothari and Verdi (2011) believe that comparability reduces the cost of acquiring information and increases the overall quantity and quality of available information on the company, which would reduce company's capital costs. Thus, the IASB would be moving in the right direction to create internationally accepted accounting standards.

Since 2005, all listed European companies are required to adopt IFRS to disclose its consolidated financial statements. In 2007, the SEC (*Securities and Exchange Commission*) allowed foreign companies to file its financial statements, starting from December 31 of that year, according to the IFRS. In 2009, the number exceeded over one hundred countries on all continents.

In Brazil, the approval of Law No. 11,638 in 2007 was crucial to the convergence of Brazilian public companies to IFRS, allowing the transition in two phases: the first partially in 2008, and the second integrally in 2010.

In the first phase, Brazilian companies followed CPCs (Accounting Statements Committee) 01 to 14, and in the second phase, they observed CPCs 15 to 43. For the full transition to IFRS in 2010, companies had to restate the financial statements of 2009, showing the reconciliation of the effect on net income and shareholders' equity of the two systems. This transition brought about changes in net income, shareholders' equity and total assets of these companies.

Since these parameters are relevant for the evaluation of companies and businesses and given the necessity of information of financial reports users, especially those from the capital market, the motivation of this research was to investigate the following *research question*: what is the impact of the final stage of compulsory convergence to IFRS in financial reports of Brazilian public companies?

According to Gray's prevision (1988), Eurocontinental tradition accounting systems, such as Brazil, tend to have lower results compared to Anglo-American-influenced systems, such as IFRS.

Thus, the aim of this research is to measure the impact of the final stage of compulsory convergence to IFRS in net income (NI), shareholders' equity (SE) and total assets (TA) of Brazilian public companies based on republished reports of 2009.

Regarding *methodology*, this research can be characterized as having an empirical-analytic descriptive nature. Data were extracted from the Notes to Financial Statements (FS) from 2010 delivered by publicly held companies to the Securities and Exchange Commission (CVM) in 2011. In this study, non-financial companies are addressed, with capital in excess of 1 (one) billion dollars, with shares listed on BM&FBovespa. Institutions that did not disclose in their 2010 Notes the Result Reconciliation Table among Brazilian standards and IFRS standards for the year 2009 are excluded from this study.

To measure the impact of the mandatory adoption of full IFRS, regarding both net income and shareholders' equity, as well as total assets of companies, this research used the inverse of the index proposed by Gray (1980), which measures differences in results reported by two different accounting systems, the BR-GAAP and the full IFRS. Gray (1980) found that this relation could be called "Conservatism Index". For the author, the companies that showed this lower ratio would be more pessimistic or conservative than companies having this ratio higher than one.

In addition, net income, shareholders' equity and total assets averages of companies before and after the mandatory adoption of the full IFRS were calculated. The sample was divided by type of listing on BM&FBovespa and whether the company was listed in the US through ADR or not.

This study confirmed the expectation that the adoption of full IFRS tends to generate an increase in the results presented by companies in relation to results calculated using previous Brazilian accounting standards.

This paper is organized in five parts, initiated by this introduction, followed by a brief theoretical framework. In the third part, the

methodology is presented, the discussion of the results is made in the fourth part and, in the end, closing remarks are made.

2 LITERATURE REVIEW

In Brazil, different from what occurred in Europe, the process of convergence to IFRS occurred in two phases, beginning in 2008 after the adoption of Law No. 11,638 on 12/28/2007. CVM (2008) stated in a regulatory agenda statement that it has adopted this strategy due to the complexity of accounting issues that should be applied to the adoption of new accounting standards. The process of adoption of IFRS had the following phases:

1. A first initial implementation phase of Law No. 11,638/07 and the Provisional Measure 449/08 (converted into Law No. 11,941/09), with a set of standards on some issues, applicable from the year 2008 (CPCs 01 to 14, except CPC 11, applied only from 2010, and OCPCs 01 and 02). The specific rules for the initial adoption of the law were established in CPC 13, which dismissed companies from republishing 2007 financial statements for comparative purposes, generating two alternative transition dates for the new rules: January 1st, 2007 (for companies that represented FS in 2007, according to the new rules) or January 1st, 2008.
2. A final phase of "full convergence" to the full IFRS, applicable from 2010, with the introduction of standards on new topics and revisions of some of the regulations issued in the first phase of transition (CPCs 15 to 43, OCPC 03 and ICPCs 01 to 15). The specific rules for initial adoption of IFRS standards are set in CPC 37, which establishes the obligation of full convergence to IFRS in financial statements for the year 2010, with a restatement of 2009 statements, according to the new standards, for comparison

purposes, and the restatement of 2010 quarterly statements following the new standard.

2.1 Empirical studies on IFRS

IFRS has been adopted in more than 100 countries since 2005, which prompted researchers from different countries to conduct research in order to analyze the impact of international accounting convergence processes in the results disclosed by companies located in these countries. This chapter is a brief review of these studies.

Stent, Bradbury and Hooks (2010) developed a paper analyzing the impact of adopting IFRS in financial statements in New Zealand and found that 87% of companies had their statements affected by the adoption of IFRS. However, median ranges and the inter-quartile indicate that for most companies the impact of adopting IFRS is small. However, maximum and minimum values indicate that the impact can be great for some entities. The work also shows that the impact has considerable effects on common financial indexes.

In Brazil, the research by Oliveira and Helms (2011) with companies from ten economic sectors, listed both on the New York Stock Exchange (NYSE) and BM&FBOVESPA, confirmed a higher level of convergence between US-GAAP and IFRS, suggesting that, due to the adoption of IFRS, financial statements in BR-GAAP tend to change substantially by increasing the level of disclosure. In addition, the results confirm that sector of activity and size of businesses directly influence the disclosure of information.

Santos and Calixto (2010), studying the impact of the first phase of the transition to IFRS on the results of companies listed on BM&FBOVESPA, observed a low degree of compliance of Brazilian companies with the initial adoption of standards of the new law and a great diversity in the application method of the new rules among companies. On average, results, when following new standards, were higher than those

calculated using previous standards, while certain inconsistencies between 2007 and 2008 were related to the impacts of the 2008 global financial crisis on specific adjustments to the results.

In turn, Albu, Albu, Buena, Calu and Girbina (2011) conducted a study to investigate in depth and explain the issues with the implementation of IFRS in Romania, an emerging country that recently joined the European Union. According to the results, it was found that the implementation of the two phases of IFRS showed different results, with a more profound and qualitative impact in the second phase. The first step was the result of external coercive forces, that is, the influence of the World Bank. Given the lack of other factors in favor of the change process, it is argued that the actual implementation of the IAS in that period was very limited. The second step meant a reduction in scope only to companies with consolidated accounts and listed financial institutions. This reduction was however accompanied by a more significant change process than in the previous period.

Leventis, Dimitropoulos and Anandarajan (2010), examining 91 commercial banks listed in the EU, covering a period of 10 years (before and after the implementation of IFRS), found that the earnings management (using provisions for loan losses) for early and late adopters was significantly reduced after the implementation of IFRS.

The authors also realized that, for venture banks, earnings management behavior is more pronounced when compared with less risky banks, but it is significantly reduced in the post-IFRS period. They concluded that the implementation of IFRS in the EU seems to have improved the quality of earnings by reducing the tendency of managers of listed commercial banks to engage in earnings management using provisions for loan losses.

However, the empirical results of Doukakias (2010) with non-financial companies listed on the Athens Stock Exchange suggest that the current return on equity (ROE) has an informative content for future ROE and the adoption of IFRS

does not appear to improve systematically the persistence of profits and earnings components for future profitability. On the contrary, evidence suggests a lower persistence of operating and non-operating income and a worse explaining power in all models after the adoption of IFRS.

Doukakis (2010) considers important to analyze the impact of IFRS on ROE, for this is a widely used performance measure and often the basis for calculation of executive compensation models. To better identify how IFRS affects ROE, the author divided the results into operating and non-operating.

The work by Santos (2010) with companies listed on BM&FBOVESPA that anticipated the adoption of IFRS (excluding financial institutions) presented the impacts of the adoption of international standards for these companies.

Among the rules that generated more significant increases in corporate profits, the following stood out: exclusion of transaction costs and premiums on the issuance of securities in the calculation of results, which on average tripled the 2007 results of companies that recorded them; inclusion of tax incentives in profit, with an average 24% increase in 2007 profits and 21% in 2008; inclusion of the financial leasing concept and a ban on revaluation of assets, both with an average 19% increase in 2007 profits.

Among the standards that most contributed to profit reduction, the following stood out: impairment of assets, which generated a 260% average negative impact on the results of companies that recorded them in 2008; and extinction of capitalization of expenses, with a 130% average reduction of profits in 2008 and 40% in 2007.

In UK, Ireland and Italian companies, Fifield, Finningham, Fox, Power and Veneziani (2011) showed that the IFRS profit was higher than that reported using previous national GAAP. The study also showed that the IFRS also had a significant effect on equity. While companies in the UK and Italy experienced an increase in capital through the adoption of IFRS, Irish companies recorded a decrease. The analysis also indicated

that the impact of IFRS on equity was primarily attributable to profit and some key standards including IFRS 2, IFRS 3, IFRS 5, IAS 10, IAS 12, IAS 16, IAS 17, IAS 19, IAS 38 and IAS 39.

Concomitantly, the research by Iatridis and Dalla (2011) with companies listed in Greece showed that the implementation of IFRS positively influenced the profitability of most industrial sectors, as well as companies belonging to the FTSE 40 and SMALLCAP 80, and that, on the other hand, the adoption of IFRS seems to negatively influence the liquidity to a number of industrial sectors and components of the stock market. The study also found that an increase in leverage is obtained from the examination of the stock market and industrial sectors' sample indexes. Similar findings are evidenced for large companies with high financing needs.

In Brazil, Santos (2011), in his study with 20 non-financial companies that voluntarily anticipated the adoption of the full IFRS in 2008 or 2009 reports, showed that the overall convergence process generated an average 41% increase in profit in 2007 and 29% in 2008; considering equity, a 6.4% increase in 2007 and 13% in 2008 (all at least 10% significant). The work indicated that only the final stage of transition generated an average 33% incremental increase in profit in 2007 and 20% in 2008 (at least 10% significant) and 6.4% and 13% in equity, respectively, in 2007 and 2008 (2008 was only 5% significant).

According to Santos (2011), the results of his study support a new growth forecast in profit and SE of companies in the reports to be released in 2011 due to the implementation of the final phase of the transition to IFRS in Brazil.

To complete the analysis, the results of Callao, Ferrer, Jarne and Lainez's article (2009) show that the first application of IFRS had different effects on financial reporting among European countries. The cluster analysis identified four groups showing that the impact of IFRS on financial statements of European companies is not related to traditional accounting systems. The results also show that the two traditional accounting systems do not have great differences.

According to the authors, the work on the harmonization of accounting standards in the EU over the past three decades has made possible

for current accounting models to be similar, although Europe lacks a uniform accounting model. According to the authors, Anglo-Saxon accounting systems have traditionally been considered closer to IFRS than continental Europe models.

As can be observed in this literature review, the adoption of IFRS caused impacts, in some cases different and in other cases similar, in various companies around the world. Thus, it is important to expand the research on the subject, especially in Brazil, now that the country finally reaches the full IFRS. Thus, from these findings, the following research methodology adopted in this study is proposed.

2.2 International Financial Reporting Convergence and Gray index

Accounting information has to deal with a trade-off between relevance and reliability. On the one hand, accounting has to provide relevant information that allows its user to use it in the formation of its opinion and in decision-making. On the other hand, the information must be reliable and not be at the mercy of bias of who prepares it.

An accounting restricting the freedom to produce an information closer to reality is a more conservative accounting concerned with reliability at the expense of relevance. An accounting that values relevance should make its rules flexible, allowing a greater subjectivity in applying accounting standards, which, if well used, produces better information, but facilitates the misuse of accounting information.

An accounting more focused in relevance should be accompanied by a strong legal system to punish rigorously those who use the freedom of subjectivity to produce inaccurate information.

In his study on the cultural influence on the development of accounting systems of different countries, Gray (1988) ranks Brazil among the countries with an Eurocontinental influence, which are characterized by a smaller possibility for professional judgment in the

performance of accounting, greater formalism and uniformity in applying the rules, lack of transparency of information and a greater degree of conservatism in the measurement of results.

According to the author, the conservatism of Eurocontinental-influenced accounting resulted, in these countries, mainly from prioritizing tax implications in profit measurement, different from the emphasis on investor in countries with an Anglo-American influence, which traditionally decouples accounting for investors from accounting for tax authorities.

Gray (1980) proposed a methodology to measure the impact of cultural and institutional influences on results reported by the companies originally called Conservatism Index (CI) and subsequently Comparability Index (Weetman, Jones, Adams & Gray, 1998). This index measures how lower (conservatism) or higher (optimism) profits are measured by various accounting systems, as will be presented in the methodology chapter.

The Gray Index has been used in several studies (Adams, Weetman & Gray, 1993; Aisbitt, 2001; Bertoni & Rose, 2006; Cooke, 1993; Haverty, 2006; Hellman, 1993; Istrate, 2013; Nilsson, 2009; Santos & Calixto, 2010; Ucieda, 2003) to measure differences between US-GAAP and the national accounting systems of many countries. More recently, this methodology has been used by researchers to measure the impact of the IFRS standard adopted in various countries, as it is done in this study.

The Gray Index has the disadvantage of reporting extreme index values if the net income approaches zero (Gray *et al.*, 2000). On the other hand, the index has the advantage of highlighting material differences between the two forms of reporting net income (Haverty, 2006).

3 METHODOLOGY

The focus of this work are the effects of mandatory adoption of full IFRS verified in the latest transition phase. The approach is empirical-analytic, aiming to measure the impact

of standards differences in Net Income (NI), Shareholders' Equity (SE) and total assets (TA) of Brazilian public companies.

3.1 Data

Data were extracted from the Notes to Financial Statements (FS) from 2010 delivered by publicly held companies to the Securities and Exchange Commission (CVM) in 2011.

To collect data, a detailed analysis of the Notes of each FS was needed. We chose to work with a smaller sample. To define the sample, only non-financial companies, with capital in excess of 1 (one) billion Reais with shares listed on the BM&FBOVESPA, were considered, totaling 97 companies. Among these, institutions that did not presented their 2010 Notes to Consolidated Results Reconciliation Table between Brazilian standards and IFRS standards for the year 2009 were excluded, as well as those that ended their fiscal years in March 31, culminating in a final sample of 83 companies, which was considered representative.

3.2 Methodological procedures

To measure the impact of the mandatory adoption of full IFRS, the average value of net income, shareholders' equity and total assets presented in the Financial Statements for 2009, both in BR-GAAP and in IFRS, was calculated.

To test the significance of differences, the t Student test was used to calculate averages, both of the full sample and segmented samples, per listing type on BM&FBOVESPA and according to the listing or not of the company in the US through ADR.

In addition, the reverse of the Gray's Comparability Index (1980) was calculated and adjusted so that the analysis is based on the amount referring to the previously existing rule in Brazil.

The Gray's Conservatism Index (CI) (1980), which was later called Comparability Index (Weetman *et al.*, 1998), compares lower

(conservatism) and higher (optimism) results between various accounting systems and is given as follows:

$$IC = 1 - \left(\frac{RA - RD}{|RA|} \right) \quad (1)$$

where:

RA = profits (or returns) adjusted to US-GAAP

RD = profits (or returns) determined in accordance with local practices of each country

The inverse of the index, such as in the work by Santos (2011), was chosen to provide a more intuitive view to the purposes of this study, resulting in values greater than 1 when the result obtained using the new standards is greater than that calculated by the previous Brazilian standard and vice-versa. The inverse index is given by the formula:

$$ICPhaseF = 1 + \left(\frac{RIFRS - RPhase1 Lei11.638}{|RPhase1 Law11.638|} \right) \quad (2)$$

where:

ICPhaseF = Reverse Comparability Index of the final transition phase of Law No. 11,638 (Full IFRS)

RPhase1 Law11.638 = Result (profit/loss or SE or TA) determined according to the rules in effect since 2008 (Law No. 11,638/07 and CPCs 1 to 14)

RIFRS = Result (profit/loss or SE or TA) determined according to the full IFRS standard and corresponding CPCs (11 and 15 to 43).

The ICIs found were also segmented by type of listing on BM&FBOVESPA and according to the listing or not of the company in the US through ADR. For the analysis of ICIs, descriptive statistics instruments were used. Tests were conducted in segmented samples in order to verify if companies listed in corporate governance levels had financial statements closer to IFRS or not. Companies with ADR, because they are already required to submit their financial statements in US-GAAP, could have statements closer to IFRS.

It is expected that the effect of IFRS adoption in Brazil caused an impact on financial statements greater than that observed in Europe, because it is thought that BR-GAAP was more distanced from IFRS than the standards adopted before in European countries and that only earlier statements were not sufficient to reduce this difference.

Among Brazilian companies, a lower impact is expected on those with ADR, for this group of companies already disclosed their results in US-GAAP, more similar to the IFRS, and it is believed that they voluntarily anticipated the adoption of standards that would become obligatory only with the full IFRS in 2010.

It is expected that companies listed in corporate governance levels, because they need to have a better corporate governance, including better information to their stakeholders, will also show less impact when adopting IFRS.

4 ANALYSIS OF RESULTS

The impacts of the final phase of compulsory convergence to IFRS in Brazil in net income are shown in Table 1. The results for total sample and segmented by type of listing are shown. The presented p-value refers to the t test comparing the recorded average net income for 2009 using BR-GAAP and IFRS.

TABLE 1 – Net income using IFRS and BR-GAAP

Tipo de listagem	n	Lucro líquido (milhares de R\$)		p-value
		BR-GAAP	IFRS	
Amostra total	79	483.971	739.865*	0,07351
Tradicional	22	574.642	1.458.301*	0,05909
Segmentos especiais de Governança	57	448.975	462.574	0,44626
ADR	23	910.664	1.530.682*	0,09846
Sem ADR	56	308.721	415.065	0,20397

***, **, * Significant difference at 1%, 5% and 10%, respectively.

As shown in Table 1, it is possible to observe that the disclosure of net income under IFRS results on average 1.54 times the values stated using BR-GAAP. This difference is significant at 10%. This result is consistent with the classification that Gray (1988) made of Brazilian accounting standards. Considering that the professional judgment space is the largest with IFRS, on average, a great increase in the income of the companies analyzed was allowed.

The accounting standard used to demonstrate company's results does not affect efficiency and generation of the company's cash. However, it can affect covenants, distribution of company dividends and investors decisions.

The most affected companies were those listed in the traditional segment of BM&FBOVESPA, a group that recorded a net

income 2.54 times higher with IFRS than with BR-GAAP. Companies listed in any of the special Corporate Governance segments presented a very small non-significant variation in net profit disclosed.

The surprise was with companies with ADR. Because these companies were required to disclose their financial statements in US-GAAP (now, they can also use IFRS to meet listing requirements in the US), it was expected that, for this group of companies, the effect of adopting IFRS would be lower, but the difference was 1.68 times and significant at 10%. This suggests that companies that disclosed results in US-GAAP and BR-GAAP opted for more conservative results with US-GAAP, perhaps not to report very different profits with BR-GAAP and US-GAAP. A survey would be interesting to identify why

companies with ADR presented a difference so great between BR-GAAP and IFRS.

Table 2 shows the average ICI for net income, as well as some dispersion measurements.

TABLE 2 – ICI for net income

Tipo de listagem	n	Média	Mediana	Desvio-padrão	Mínimo	Máximo
Amostra total	79	1,21	1,01	1,83	-9,29	9,04
Tradicional	22	1,81	1,01	2,19	0,54	9,04
Segmentos especiais de Governança	57	0,98	1,01	1,64	-9,29	5,75
ADR	23	1,59	1,03	1,67	-0,73	6,82
Sem ADR	56	1,06	1,00	1,89	-9,29	9,04

As shown in Table 2, the full adoption of IFRS generated an instant boost in corporate profits reported for the same fiscal year (2009): an average growth of 21% (average ICI of NI = 1.2099 and median = 1.0084). However, it can be seen that there is a wide range between the maximum and the minimum, which reflects a high standard deviation.

Such results confirm the prevision made by Santos (2011) of a new growth in companies' results in reports released in 2011 due to the implementation of the final phase of transition to IFRS in Brazil. They are consistent with international studies (Fifield *et al.*, 2011; Iatridis, Dalla, 2011).

However, dispersion measurements show that, although there is a tendency of IFRS to show a net income greater than BR-GAAP, this is not a rule and there are cases in which the net income using IFRS decreased if compared to that found by previous accounting standards.

In the traditional segment, the highest average growth (81%) was found and the smallest difference was in special segments of Governance (-2%). The average difference found among the traditional segment and special governance

The results for total and segmented samples by type of listing are shown.

segments is significant at 5%. The difference between the samples of companies with and without ADR is not significantly different. This is contrary to the expectation of Oliveira (2011): companies with ADR, because they already disclose their results using US-GAAP, a standard closer to IFRS, would present less variation when comparing the income calculated using IFRS and BR-GAAP.

However, this similarity, identified in the comparison of companies with and without ADR, can be justified by the non-use of all the freedom of judgment given to accounting professionals when using US-GAAP, since they could not take advantage of it in financial statements using IFRS. Perhaps companies' accounting professionals with ADR preferred using their freedom of judgment to opt for something similar to that required by BR-GAAP.

Table 3 shows the average equity calculated using BR-GAAP and IFRS for the fiscal year that ended on December 31, 2009. The p-value shown in the table refers to the t test comparing the averages of shareholders' equity in each of the accounting standards. The results for total and segmented samples by type of listing are shown.

TABLE 3 – Shareholders' equity using IFRS and BR-GAAP

Tipo de listagem	n	Patrimônio líquido (milhares de R\$)		p-value
		BR-GAAP	IFRS	
Amostra total	82	5.599.670	6.101.056	0,361054
Tradicional	22	6.433.776	7.529.015	0,297542
Segmentos especiais de Governança	60	5.293.831	5.577.472	0,436623
ADR	23	11.061.908	11.621.038	0,448664
Sem ADR	59	3.470.323	3.949.199	0,257292

Similar to the net income, the shareholders' equity determined using IFRS showed an increased if compared to that previously established using BR-GAAP. However, the differences were not significant. A greater equity allows a greater distribution of profits to shareholders through interest on equity, which is limited to the remuneration of shareholders' equity using long-term interest rate (LTIR).

The average difference presented in net income in the total sample represents 51.04% of the average difference presented in equity. This significant difference of diluted net income in equity, which is much larger, loses its significance.

Table 4 shows the average ICIs to equity and dispersion measurements for both the total sample and samples segmented by type of listing.

TABLE 4 – ICI for shareholders' equity

Tipo de listagem	n	Média	Mediana	Desvio-padrão	Mínimo	Máximo
Amostra total	82	1,11	1,03	0,21	0,78	1,98
Tradicional	22	1,16	1,10	0,22	0,89	1,80
Segmentos especiais de Governança	60	1,09	1,02	0,20	0,78	1,98
ADR	23	1,08	1,03	0,16	0,80	1,50
Sem ADR	59	1,12	1,03	0,22	0,78	1,98

A significant increase was also recorded in equity of companies: an average growth of about 11% (average ICI of SE = 1.1072; median = 1.0275). The average difference among the traditional segment and special Governance segments is significant at 10%. In the same line of results for net income, the change was greater for companies listed on the traditional segments of BM&FBOVESPA.

The dispersion is not as great as that found for net income, but it is possible to see that there are also cases of growth and reduction of shareholders' equity when migrating from BR-GAAP to IFRS. This result does not repeat that found in Europe by Fifield *et al.* (2011), who

found that the adoption of IFRS had a significant effect on equity.

However, Callao *et al.* (2009) found that the adoption of IFRS had different effects on financial reports among European countries, that is, it is not surprising that the adoption of IFRS in Brazil causes impacts different from those observed in other countries, since these are not homogeneous even among European countries.

Companies with ADR showed an opposite behavior to that found for net income. The impact of adopting IFRS on shareholders' equity of companies with ADR was lower than in those without ADR. However, this difference is not significant.

Table 5 shows average total assets calculated using IFRS and BR-GAAP related to 2009. The values are presented both for the total sample and

for samples segmented by type of listing. P-value refers to the t test comparing the average of total assets in each of the accounting standards.

TABLE 5 – Total assets using IFRS and BR-GAAP

Tipo de listagem	n	Ativo total (milhares de R\$)		p-value
		BR-GAAP	IFRS	
Amostra total	65	12.366.915	13.408.640	0,385203
Tradicional	21	15.802.618	18.141.936	0,351792
Segmentos especiais de Governança	44	10.727.147	11.149.567	0,461575
ADR	15	29.151.670	31.096.482	0,441223
Sem ADR	50	7.331.488	8.102.287	0,304301

IFRS also led to an increase in the total assets of companies. This was already expected, since net income and shareholders' equity were higher in IFRS than in BR-GAAP. However, this difference is not significant.

The increase in assets has no direct effect to the shareholder as with net income and shareholders' equity, which may affect dividends,

interest on equity and covenants. However, higher assets can affect depreciation and, consequently, the net profit itself, as well as increase the company's debt capacity and the shareholders' interest in the company.

Table 6 shows the average ICI for total assets, as well as some dispersion measurements for both the entire sample and segmented samples.

TABLE 6 – ICI for total assets

Tipo de listagem	n	Média	Mediana	Desvio-padrão	Mínimo	Máximo
Amostra total	65	1,07	1,03	0,13	0,62	1,51
Tradicional	21	1,11	1,05	0,15	0,97	1,51
Segmentos especiais de Governança	44	1,05	1,03	0,11	0,62	1,38
ADR	15	1,02	1,03	0,13	0,62	1,22
Sem ADR	50	1,08	1,03	0,13	0,94	1,51

Although to a lesser extent, the full adoption of IFRS also led to an increase in the total assets of companies: an average growth of about 7% (average ICI of TA = 1.0658; median = 1.0293). The dispersion is not as great as for net income, being closer to the values found for equity. The smaller asset variation may be related to the impairment of assets identified by Santos (2010).

The traditional segment showed the highest minimum ICI: nearly 1. That is, in the traditional segment, the adoption of IFRS had

practically only positive effects on the value of total assets. This segment also had the highest average ICI, i.e., the adoption of IFRS increased on average 11% of companies' assets that comprise this segment.

The difference found among the traditional segment and special Corporate Governance segments was significant at 5%.

In companies with ADR, the maximum ICI was the lowest found. The highest growth in total assets due to the conversion of financial

statements to IFRS was 22%. The average ICI of companies with ADR was 1.02. This result is lower than that found for companies without ADR. The difference between the two samples is significant at 10%.

Table 7 shows the ICI frequency distributions for net income, shareholders' equity and total assets, showing more clearly the proportional impact of the final phase of compulsory convergence to IFRS in Brazil.

TABLE 7 – ICI distribution frequency

Distribuição de Frequência	ICI Lucro líquido		ICI Patrimônio líquido		ICI Ativo total	
	n	%	n	%	n	%
IC < 0,9	13	16,46%	3	3,66%	1	1,54%
0,9 < IC < 0,95	7	8,86%	6	7,32%	3	4,62%
0,95 < IC < 1	12	15,19%	16	19,51%	9	13,85%
IC = 1	2	2,53%	6	7,32%	2	3,08%
1 < IC < 1,05	18	22,78%	15	18,29%	25	38,46%
1,05 < IC < 1,1	7	8,86%	7	8,54%	9	13,85%
IC > 1,1	20	25,32%	29	35,37%	16	24,62%
Total	79	100,00%	82	100,00%	65	100,00%

According to distribution frequency, it is verified that the adoption of full IFRS generated an increase both in profit and in SE and TA of most companies: profit increased in about 57% of companies, the SE grew in 62% of companies and TA, with a more expressive representation, grew in about 77% of companies surveyed.

These results are in line with the results by Stent, Bradbury and Hooks (2010), who found that most of the financial statements was affected by the adoption of IFRS, although in general the impact was small. However, variations over 10% occurred in about 40% of the cases analyzed, both in net income and in equity.

On the other hand, it is necessary to observe that profit decreased in about 40% of the companies surveyed. For 16% of them, the decrease was more than 10%, while SE decreased by about 30% and TA decreased by 20%. For companies that presented no changes, the percentages were about 7% compared to SE and 3% or less in relation to total assets and profit.

It should be noted that the impact of new standards on the results was highly significant in most of the analyzed companies: shareholders' equity had a positive impact of 10% or more in

about 35% of the companies, and profit and total assets had a positive impact of 10% or more in about 25% of the companies. The great number of companies (almost 40%) that had a positive impact of 5% or less in total assets should be also noted.

The results of this study indicate that the adoption of full IFRS generates an increase in net income, in shareholders' equity and in total assets of Brazilian public companies and, therefore, confirms the prevision made by Gray (1988) regarding the conservatism of the former Brazilian accounting system compared to Anglo-American-influenced systems. This study also contributes to support Gray's (1988) conservatism theory on accounting systems with a Eurocontinental source (such as Brazil).

These results also corroborate previous research by Santos and Calixto (2010) on the impact of the first phase of transition to IFRS, and by Santos (2011) on the impact on companies that anticipate the full IFRS. However, these results should be viewed with caution because here only a single year was compared. It may have been affected by other factors and the difference between companies that reported a net

profit increase compared to those that reported a decrease in net income might not be so significant.

5 FINAL CONSIDERATIONS

This article aimed to measure the impact of the mandatory adoption of full IFRS for net income, shareholders' equity and total assets of Brazilian companies regarding the final transition phase. For this, it took advantage of the opportunity of the mandatory restatement of 2009 reports in 2011, taking them as a basis for comparison.

To verify the impact of the transition to full IFRS on profit, SE and TA of companies, the Gray's Comparability Index (1980), and Weetman and Gray (1991), was applied to the numbers calculated using IFRS and the accounting system previously in force in Brazil, reported in the result reconciliation table for the year 2009, presented in 2011 by the 83 non-financial companies with capital above one (1) billion Reais with shares listed on BM&FBOVESPA. These companies formed the sample.

The results confirmed the expectation that the standard adopted by BR-GAAP was more conservative than that adopted by the full IFRS. The analyzed demonstrations show that the convergence process to the full IFRS generated significant increases in the net income of companies, which on average was about 21%, which, as an immediate consequence, increased the amount of mandatory dividends to be distributed.

The shareholders' equity of the companies, which is important to define the total interest rate on equity (TIRE) that the company can pay to its shareholders and the debt ratio calculation, showed no significant difference, despite the adoption of full IFRS having generated an average increase of about 11% in SE.

Total assets were also increased with the adoption of the full IFRS, although somewhat less expressive, on average about 7%. This difference is not significant.

Therefore, the results of this study allow to conclude that, although the division of the convergence process to IFRS in two phases in Brazil may have diluted and dispersed the results, after the full convergence completed in 2010, most companies recorded a growth in net income, SE and TA as a result of the convergence.

Thus, this research aimed to improve the understanding of the impacts of the convergence process of Brazilian accounting to the international standard, as well as to assist business managers and financial information users, especially those from capital markets, regulators and academia, on the ultimate effects on the results reported in 2011, after the implementation of the final phase of convergence.

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