

## **MEASURING THE EFFECTS OF IFRS ADOPTION IN ROMANIA ON THE VALUE RELEVANCE OF ACCOUNTING DATA**

*Irina-Doina Pășcan*<sup>1</sup>

*ABSTRACT: In Romania, the entities listed on a regulated market must prepare their individual financial statements in accordance with the International Financial Reporting Standards (IFRS) starting with the financial year 2012. Since the IFRSs are considered high-quality accounting standards, IFRS adoption should lead to improvement of the quality of financial reporting. In this paper, we analyze the effect of mandatory IFRS introduction in Romania on accounting quality. Our main objective is to empirically test whether IFRS adoption in Romania increases the quality of accounting data reported by Romanian entities listed on Bucharest Stock Exchange. The results of our analysis conducted over the years 2010-2013 suggest that IFRS adoption in Romania generates an enhancement of accounting quality, registered especially in the case of information about the book value of equity.*

*Key words: IFRS, accounting quality, value relevance, Romanian listed entities, Bucharest Stock Exchange*

*JEL Codes: M 41*

### **Introduction**

With the enhancement of economic globalization, the idea of preparing and disclosing financial information in a common accounting language, which could ensure the comparability and the communication between transnational stakeholders, became a reality along with the issuance and the widespread of the International Financial Reporting Standards (IFRS). The IFRSs were issued as a response to the need for transparency, quality and comparability of information provided in the financial statements and nowadays they are being used worldwide.

At European Union level, the efforts towards financial reporting harmonization from the mid-1960s, characterized by the development of accounting directives, took an interesting turnover in 2002, when the European Council approved the IAS Regulation (EC, 2002). According to IAS Regulation, all publicly traded Community companies must prepare their consolidated financial statements in accordance with one single set of accounting standards, namely the IFRSs, at the latest by 2005.

In Romania, the first attempt to introduce the IFRSs into Romanian accounting regulation was the issuance, in 1999, of the Order 403 for the approval of accounting regulations harmonized with the Fourth European Economic Community and with the International Accounting Standards (Ministry of Public Finance, 1999). This regulation was very daring and among other things anticipated the appearance of the international accounting standards and of the national accounting standards, in the third volume (Neag, 2008). The practical application of these rules was carried out in a first phase in 2000, experimentally, to a number of 13 entities and national companies (Jianu and Jianu, 2012). Following this experiment, Romanian accounting regulation was revised and a new accounting regulation, Order 94 from 2001, required large entities to apply the international standards, including for the preparation of individual financial statements (Ministry of Public

---

<sup>1</sup> „Petru Maior” University of Tg. Mureș, Bucharest University of Economic Studies, Romania, e-mail: [irina.pascan@ea.upm.ro](mailto:irina.pascan@ea.upm.ro); [pascanirina@yahoo.com](mailto:pascanirina@yahoo.com)

Finance, 2001). However, researchers testify that for most entities, there was no improvement in the quality of financial reports (Bunea, 2006).

A new stage of Romanian accounting reform, started in 2006, aimed to issue a national strategy for implementing the IFRSs. Therefore, credit institutions must prepare their consolidated financial statements in accordance with IFRS beginning with the financial year 2006. Romania became a Member State of the European Union on January 1<sup>st</sup>, 2007 and must comply with EU regulation, including IAS Regulation. Accordingly, starting 2007, Romanian entities listed on a regulated market must prepare their consolidated financial statements in accordance with IFRS. A recent study on the impact of first-time adoption of IFRS on the performance of Romanian listed groups provides the following findings: of the 14 Romanian entities that must prepare consolidated financial statements in accordance with IFRS from January 1<sup>st</sup>, 2007, the majority (57.14%) voluntarily applied IFRS before 2007; IFRS had a varied impact on the performance of analyzed Romanian entities, expressed by means of net income reported in the first IFRS consolidated financial statements and no clear tendency could be identified regarding changes in net income of Romanian listed groups generated by the transition from national accounting regulations to IFRS (Pășcan and Țurcaș, 2012).

Recently, the scope of IFRS was enriched; beginning with January 1<sup>st</sup>, 2012, credit institutions have to keep their accountancy records according to IFRS and to publish the individual annual financial statements according to IFRS, in Romanian language and national currency. Moreover, since 2012, the IFRSs became mandatory for the individual financial statements of Romanian listed entities; this provision concerns a number of 68 entities, according to the Order 881 from 2012.

The benefits of IFRS adoption are documented in the research literature (Pășcan and Țurcaș, 2012) and consist of: the increase of comparability and transparency of financial reporting (Haverals, 2007); the harmonization of internal and external reporting under IFRS by creating a single accounting “language” across the business (Jermakowicz, 2004); the decrease of information asymmetry (Djatej et al., 2009); the improvement of the functioning of capital markets (Schleicher et al., 2010).

However, according to Jeanjean and Stolowy (2008), „these expected benefits are based on the premise that mandating the use of IFRS increases transparency and improves the quality of financial reporting”.

In this paper, we analyze the effect of mandatory IFRS introduction in Romania on accounting quality. Our main objective is to empirically test whether IFRS adoption in Romania increases the value relevance (and, accordingly, the quality) of accounting data published in the individual annual financial statements prepared by entities listed on Bucharest Stock Exchange.

Our paper provides the following contributions to the research literature. First, it offers insight on the effects of IFRS adoption in an emerging economy with a relatively new and small stock exchange. Second, to our knowledge, it is the first study that analysis the impact of mandatory IFRS adoption in 2012 on the quality of accounting data reported by Romanian listed entities in the individual financial statements and explores the value relevance of book value of equity and net income in the two years of mandatory compliance with IFRS.

The rest of the paper is structured as follows. Next section presents a short review of the researches that we consider fundamental for addressing the relation between IFRS adoption and the accounting quality and the metrics developed in order to measure the quality of accounting data. The third section presents the research methodology and describes the sample, the empirical model applied and the data used. In fourth section we present and explain the results of our study. The last section contains the concluding remarks and directions for future research.

### Literature review on accounting quality

Researchers show that „regulation of accounting affects the quality and quantity of financial reporting, which in turn have welfare and policy implications” (Fields, Lys and Vincent, 2001, cited in Gornik-Tomaszewski, 2005:73).

In the light of the premise that “high quality, reliable financial information is the lifeblood of capital markets”, the IASB Foundation’s primary mission is „to develop, in the public interest, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles”. The International Financial Reporting Standards (IFRS) issued by the IASB are nowadays being used in 130 jurisdictions around the world, according to the information published on the website of IFRS Foundation.

Soderstrom and Sun (2007) state that “the quality of accounting is determined by the quality of the accounting standards chosen”. Moreover, since the IASB aims to issue high quality accounting standards and is continuing to improve the quality of the IFRSs, financial reporting in accordance with IFRS should become “increasingly value relevant and reliable” (Soderstrom and Sun, 2007: 688).

It seems like the value relevance represents a possibility to measure the (increase in) quality of accounting data after the adoption of IFRS. The research literature is abundant in studies that have tested the value relevance of accounting data, but it also provides other metrics developed by authors in order to appreciate the quality of data published in the financial statements.

Brown & Hillegeist (2007) analyze the quality of accounting by means of *disclosure quality*, which is expected to affect the level of information asymmetry. The authors define disclosure quality by reference to five attributes: “the quantity of value-relevant information that is conveyed, its timeliness, precision, credibility, and how widespread is it disclosed”. Disclosure quality affects the informational risk because of the way public and private information are distributed among investors. Considering that the reduction of choices followed by IFRS implementation should result in higher quality public information and lower the quality of private information, Djatej et al. (2009) have examined the comparative impact of East European and West European countries of domicile degree of implementation of IFRS on the quality of public and private information. The authors have concluded that IFRS implementation “increases the quality of public information and decreases the quality of private information for both East European and West European countries of domicile”.

The quantity of disclosed information is often measured using the disclosure index. For example, Fekete *et al.* (2008) tested the extent of compliance of Hungarian companies with IFRS, using the disclosure index determined for four standards related to the consolidation process and concluded that high tech companies comply best with IFRS rules. Girbina and Bunea (2009) have conducted a similar research on a sample of 10 Romanian listed entities, aiming to analyze if Romanian entities comply with IFRS disclosure requirements related to the risks generated by financial instruments. Their results show that risk disclosure is correlated with the field of activity (financial or nonfinancial) and with the leverage of studied entities.

Another approach followed by researchers in order to assess accounting quality is to measure the *extent of earnings management practices*. More precisely, IFRS adoption contributes to the improvement of accounting quality if it reduces earnings management practices. We consider that a valuable research on this topic is the one of Leuz *et al.* (2003). They propose four metrics for earnings management which insiders could use in order to exercise their discretion to manage reported earnings: smoothing reported operating earnings using accruals; smoothing and the correlation between changes in accounting accruals and operating cash flows; discretion in reported earnings: the magnitude of accruals; discretion in reported earnings: small loss avoidance. Barth *et al.* (2008) have also studied the earnings management practices in relation with accounting quality and have used four earnings management metrics - three for earnings smoothing (the variability of the change in net income scaled by total assets; the ratio of the variability of the change in net

income to the variability of the change in operating cash flows; the Spearman correlation between accruals and cash flows) and one for managing earnings towards a target.

Based on the literature review, Jeanjean and Stolowy (2008) present a classification of the research design for studies of earnings management, highlighting the following three categories: those that use discretionary accruals, those that use specific accruals, and those that study statistical properties of earnings to identify thresholds. The authors have chosen to apply the third methodology in order to analyze the distribution of earnings in three countries, Australia, France and the UK. Their purpose was to identify whether companies in the sample managed their earnings to avoid losses any less after the implementation of IFRS. Interestingly, the results show that the use of earnings management practices did not decline after the introduction of IFRS, and in fact increased in France.

A recent study analyzes the effects of mandatory IFRS adoption in 20 countries using three groups of accounting quality metrics: income smoothing, reporting aggressiveness, and earnings management to meet or beat a target (Ahmed *et al.*, 2013).

However, great number of empirical researches uses *the value relevance* concept in order to test if IFRS adoption has brought the improvement of accounting quality. We present only some of the most important papers that applied value relevance models, aiming also to provide a typology of these empirical models. For instance, Muller (2014), Dimitropoulos *et al.* (2013), Paananen and Lin (2009) have used the price model, while Filip and Raffournier (2010), Zeghal *et al.* (2012) have chosen the return model.

### **Research methodology**

As presented in the first section, in Romania, the IFRSs became mandatory for the preparation of individual annual financial statements starting with the financial year 2012. Under these circumstances, our main objective is to empirically measure the impact of mandatory IFRS adoption on the quality of financial information presented by Romanian entities listed on Bucharest Stock Exchange, by means of their value relevance.

Our sample includes all Romanian entities listed on Bucharest Stock Exchange, exchange segment BSE, that must prepare individual financial statements in accordance with IFRS starting with the financial year 2012. The list of these entities is included in the Order no. 881 from 2012 (Ministry of Public Finance, 2012) and consists of 68 entities. We excluded from the sample 4 entities because they have been delisted, thus the association between share price and accounting data is no longer relevant or possible to estimate.

Our study examines the period 2010-2013. For the financial years 2010 and 2011, the studied entities have prepared individual financial statements in accordance with the Romanian accounting regulation (Order no. 3055 from 2009), so the period 2010-2011 is referred in our study as pre-IFRS period. The years 2012 and 2013 are the first two years of mandatory application of IFRS for individual financial statements; accordingly, the period 2012-2013 is mentioned as the post-IFRS period.

Some of the entities in the sample were not listed on the exchange segment BSE for the whole analyzed period (previously, they were listed on the exchange segment RASDAQ). We excluded from the research data from that period. Therefore, our study is based on a number of 249 observations (59 from 2010, 62 from 2011, 64 from 2012 and 64 from 2013).

Following Dimitropoulos *et al.* (2013), Muller (2014) and numerous other researchers, we chose to analyze the impact of IFRS adoption on accounting quality in Romania using a methodology based on the value relevance of the accounting information. In this paper, we use the price model also mentioned by Filip and Raffournier (2010), and estimated by Dhaliwal *et al.* (1999) in order to test whether comprehensive income is a better measure of performance than net income. Our independent variables are net income per share and book value of equity per share

reported by Romanian listed entities in their individual annual financial statements over the years 2010-2013.

The empirical models applied are the following:

$$P_{it} = \alpha_0 + \alpha_1 BV_{it} + \varepsilon_{it} \tag{1}$$

$$P_{it} = \alpha_0 + \alpha_1 NI_{it} + \varepsilon_{it} \tag{2}$$

where:

- $P_{it}$  is the share price of entity  $i$  at the end of year  $t$ ;
- $BV_{it}$  represents the book value of equity per share (the book value of entity  $i$  reported for the financial year  $t$ , divided by the total number of outstanding shares at the end of year  $t$ ); and
- $NI_{it}$  represents the net income per share (the net income of entity  $i$  reported for the financial year  $t$ , divided by the total number of outstanding shares at the end of year  $t$ ).

Data were collected from the individual annual financial statements prepared by the entities in the sample and available on their websites and from the website of Bucharest Stock Exchange (<http://bvb.ro/>).

### Results and discussion

In order to answer to our stated objective, we applied the two regression models for each of the four surveyed years. The results are summarized in the table below:

The value relevance of equity and earnings for the period 2010-2013

Table no. 1

<b>Equation (1) Independent variable: Book value of equity</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
$\alpha_0$	-1.230 (-0.464)	-1.149 (-0.887)	-1.199 (-1.081)	-0.494 (-1.082)
$\alpha_1$	0.854*** (11.949)	0.684*** (21.081)	0.745*** (24.027)	0.668*** (53.596)
No.	59	62	64	64
R <sup>2</sup>	0.715	0.881	0.903	0.979
Adjusted R <sup>2</sup>	0.710	0.879	0.901	0.979
F-statistic	142.781***	444.406***	577.293***	2872.559***
<b>Equation (2) Independent variable: Net income</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
$\alpha_0$	3.497*** (2.730)	0.951*** (2.112)	1.055*** (2.810)	2.105*** (2.716)
$\alpha_1$	8.267*** (27.431)	6.909*** (63.078)	7.732*** (72.901)	6.503*** (30.327)
No. obs.	59	62	64	64
R <sup>2</sup>	0.930	0.985	0.988	0.937
Adjusted R <sup>2</sup>	0.928	0.985	0.988	0.936
F-statistic	752.447***	3978.784***	5314.622***	919.701***

\*\*\* Significantly different from 0 at 1% level

Source: Author's analysis

Results presented in Table no. 1 show that, for both of the estimated models and in all surveyed years, the coefficient  $\alpha_1$  is positive and significant at 1% level, suggesting there is a positive correlation between book value of equity and share price and, respectively, between net income and share price. Moreover, as mentioned in previous researches, "an accounting figure is

said to be value relevant if its regression coefficient ( $\alpha_1$ ) is statistically significant (Filip and Raffournier, 2010: 91). In our study, the results obtained for the coefficient  $\alpha_1$  show that both book value of equity and net income reported by Romanian listed entities over the years 2010-2013 are value relevant.

Another important observation in the table above is that, in all cases, the explanatory power of the two models (given by the Adjusted  $R^2$ ) is high, suggesting a strong association between accounting data and share price.

Since the explanatory power of the econometric model is used as a measure of value relevance of accounting data (Muller, 2014: 980), next we analyze only the results obtained for Adjusted  $R^2$ .

Evolution of the value relevance of book value of equity

*Table no. 2*

Year	<i>Pre-IFRS</i>		<i>Post-IFRS</i>	
	2010	2011	2012	2013
No. of observations	59	62	64	64
Adjusted $R^2$	0.710	0.879	0.901	0.979
$\Delta$ Adjusted $R^2$	x	0.169	0.022	0.078
Average Adjusted $R^2$	0.795		0.940	
$\Delta$ Average Adj. $R^2$	0.145			

Source: Author's analysis

Evolution of the value relevance of earnings

*Table no. 3*

Year	<i>Pre-IFRS</i>		<i>Post-IFRS</i>	
	2010	2011	2012	2013
No. of observations	59	62	64	64
Adjusted $R^2$	0.928	0.985	0.988	0.936
$\Delta$ Adjusted $R^2$	x	0.057	0.03	-0.052
Average Adjusted $R^2$	0.957		0.962	
$\Delta$ Average Adj. $R^2$	0.005			

Source: Author's analysis

Results presented in Table no. 2 show that the value relevance of book value of equity is increasing from year to year. The most important increase (of 16.9%) is recorded in 2011. IFRS adoption in 2012 contributes to the improvement of the quality of book value of equity, which increases with 2.2% in 2012 and 7.8% in 2013. On average, in post-IFRS period, the value relevance of book value of equity is 14.5% higher than in pre-IFRS period. These findings prove that IFRS adoption increases the quality of accounting data (expressed through book value of equity) reported in the individual annual financial statements of Romanian listed entities.

Table no. 3 reports the evolution of the value relevance of net income per share over the period 2010-2013. Results are broadly similar with those obtained for the book value of equity. On average, we can also notice an increase in the quality of earnings in post-IFRS period compared to pre-IFRS period, but this increase of 0.5% may not be statistically significant. The most important increase in the value relevance of earnings (of 5.7%) is registered in 2011, similar with results described for the book value of equity.

We consider that the important increase in the value relevance of book value of equity and net income per share registered in 2011 can be explained in relation with the accounting legislative framework from that period. A regulation issued in July 2010 by National Bank of Romania

requires credit institutions to keep accountancy records and to prepare individual annual financial statements in accordance with IFRS, beginning with January 1<sup>st</sup>, 2012. Also, according to a regulation issued in 2011, entities authorized and supervised by Romanian National Securities Commission (recently reorganized in Financial Supervisory Authority) must prepare, for informational purposes, an additional set of financial statements in accordance with IFRS. Under these circumstances, we argue that entities begin to prepare themselves for the transition to IFRS and align their accounting practices with the ones permitted by IFRS and, on the other hand, investors, being aware of the possible future changes in accounting regulation, felt more confident in accounting data quality. This could also be a possible explanation of the relatively small increase in accounting quality recorded in 2012, after IFRS adoption, compared to 2011, last year of reporting according to Romanian accounting regulation.

If we compare the results reported in Table no. 2 and Table no. 3, we can notice that the augmentation of the value relevance over the analyzed period is smaller for net income per share than for book value of equity per share. In order to explain these results, we refer to the findings on the effects of mandatory IFRS adoption in 2012 on net income and equity in case of Romanian listed entities, presented by Neag, 2013. The author showed that from the surveyed sample of 65 Romanian listed entities, a lot of companies (19 companies, representing about 30% of the sample) have presented no differences between net income reported in accordance with Romanian accounting regulation and the one reporting in accordance with IFRS in the first IFRS individual financial statements. Neag (2013) presents some possible explanations for this striking result, related to a possible lack of conformity in IFRS application or to the fact that, in the last years, the Romanian accounting regulation was modified and many accounting treatments were complying with IFRS.

We also argue that IFRS adoption for the preparation of individual financial statements does not bring important changes on the quality (measured by means of the value relevance) of accounting information published by Romanian listed entities, because the stages of Romanian accounting reform have contributed to a certain conformity of Romanian accounting regulation with IFRS provisions. On the other hand, we consider that Romanian listed entities, anticipating the transition towards IFRS, have chosen to apply those accounting policies from Romanian accounting regulation that are also permitted by IFRS.

In order to check the robustness of our results, we excluded from the sample Romanian listed entities that are parent companies and we estimated the two regressions on the remaining number of observations. Our motivation for this endeavour is presented below.

One of the specificities of the Bucharest Stock Exchange is that, in case of the exchange segment BSE, most of the Romanian listed entities are not parent companies; in contrast, on large European markets, the majority of listed entities own one or more subsidiaries. As a matter of fact, from the total number of 64 Romanian listed entities included in our sample, 12 are parent companies and, accordingly, must also prepare consolidated financial statements. In the first section of the paper, we presented a short history of IFRS adoption in Romania and pointed out that beginning with 2007 Romanian listed groups compulsorily prepare consolidated financial statements in accordance with IFRS. In other words, 12 Romanian listed entities have adopted IFRS for the preparation of consolidated financial statements beginning with 2007 and for the preparation of individual financial statements beginning with 2012. For these 12 entities, could the IFRS individual financial statements reported for the financial year 2012 bring more useful or qualitative accounting information compared to the ones already prepared in accordance with IFRS and available through the IFRS consolidated financial statements? Since accounting information compliant with IFRS is available to investors beginning with 2007, what could be *new* in the IFRS individual financial statements prepared in 2012?

We argue that, for the 12 Romanian listed entities, reporting the individual financial statements for the years 2012 and 2013 in accordance with IFRS does not provide an increase in accounting quality. In fact, by excluding the 12 entities from the sample, we expect the results of our regressions to be similar to the ones obtained for the whole sample.

Table no. 4 reports the results obtained from the two regressions, after excluding from the sample the parent companies, on a number of 201 remaining observations.

The value relevance of equity and earnings – parent companies excluded

Table no. 4

<b>Equation (1) Independent variable: Book value of equity</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
$\alpha_0$	-1.410 (-0.421)	-1.394 (-0.867)	-1.351 (-1.001)	-0.572 (-1.072)
$\alpha_1$	0.858*** (10.581)	0.687*** (18.866)	0.751*** (21.913)	0.671*** (50.774)
No.	47	50	52	52
R <sup>2</sup>	0.713	0.881	0.906	0.981
Adjusted R <sup>2</sup>	0.707	0.879	0.904	0.981
F-statistic	111.959***	355.911***	480.160***	2577.959***
<b>Equation (2) Independent variable: Net income</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
$\alpha_0$	3.931 (2.541)	0.942 (1.936)	0.689 (1.974)	2.106 (2.356)
$\alpha_1$	8.270*** (25.437)	6.915*** (64.920)	7.771*** (87.266)	6.571*** (29.192)
No. obs.	47	50	52	52
R <sup>2</sup>	0.935	0.989	0.993	0.945
Adjusted R <sup>2</sup>	0.934	0.989	0.993	0.943
F-statistic	647.060***	4214.588***	7615.368***	852.163***

\*\*\* Significantly different from 0 at 1% level

Source: Author's analysis

Similar to results obtained for the whole sample, data summarized in Table no. 4 provides evidence on enhanced value relevance of book value of equity and net income over the period 2010-2013.

In order to test our assumption that for the 12 Romanian listed groups, reporting the individual financial statements for the years 2012 and 2013 in accordance with IFRS does not provide an increase in accounting quality, we compare the results of the two regressions obtained for the whole sample and for the sample resulted after elimination of observations regarding parent companies. We focus on the evolution of the value relevance over the period, measured through the explanatory power of the econometric models applied (Adjusted R<sup>2</sup>). Results of the comparison are presented in the table below.

Evolution of value relevance - whole sample versus sample excluding parent companies

Table no. 5

	<i>Pre-IFRS</i>		<i>Post-IFRS</i>	
Year	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Equation (1) Independent variable: Book value of equity</b>				
<i>Whole sample (A)</i>				
Adjusted R <sup>2</sup>	0.710	0.879	0.901	0.979
Average Adjusted R <sup>2</sup>	0.795		0.940	



$\Delta$ Average Adj. R <sup>2</sup>	0.145			
<i>Sample after elimination of parent companies observations (B)</i>				
Adjusted R <sup>2</sup>	0.707	0.879	0.904	0.981
Average Adjusted R <sup>2</sup>	0.793		0.943	
$\Delta$ Average Adj. R <sup>2</sup>	0.150			
<i>Differences (B) – (A)</i>	0.005			
<b>Equation (2) Independent variable: Net income</b>				
<i>Whole sample (A)</i>				
Adjusted R <sup>2</sup>	0.928	0.985	0.988	0.936
Average Adjusted R <sup>2</sup>	0.957		0.962	
$\Delta$ Average Adj. R <sup>2</sup>	0.005			
<i>Sample after elimination of parent companies observations (B)</i>				
Adjusted R <sup>2</sup>	0.934	0.989	0.993	0.943
Average Adjusted R <sup>2</sup>	0.962		0.968	
$\Delta$ Average Adj. R <sup>2</sup>	0.006			
<i>Differences (B) – (A)</i>	0.001			

Source: Author's analysis

According to the results from Table no. 5, the increase in quality of book value of equity in post-IFRS period compared to pre-IFRS period is 0.5% higher for the sample obtained after the elimination of parent companies than the whole sample. Similar findings are registered in case of net income, the increase being only with 0.1% higher. Thus, we consider that the differences between the two analyzed samples are not statistically significant and our assumption is confirmed.

### Conclusions

Given the mandatory IFRS adoption for the preparation of individual annual financial statements of Romanian listed entities starting with the financial year 2012, the main objective of this paper is to empirically test whether IFRS adoption increases the value relevance (and, accordingly, the quality) of accounting data published by these entities. We applied two regression models in order to test the value relevance of book value of equity and net income over the period 2010-2013 which included two years of reporting in accordance with Romanian accounting regulation and two years of reporting in accordance with IFRS.

The results of our regressions show that, on average, in post-IFRS period, the value relevance of book value of equity is 14.5% higher than in pre-IFRS period, testifying that IFRS adoption in Romania increases the quality of individual financial statements (expressed through book value of equity). Also, the quality of net income in post-IFRS period compared to pre-IFRS period registered an increase of 0.5%, but we consider that this result is not statistically significant.

Similar results were obtained when we excluded from the sample parent companies, due to the fact that they have been preparing IFRS consolidated financial statements since 2007, so that investors already had access to accounting information prepared in accordance with high quality accounting standards.

However, our study is subjected to several limitations. One of the limitations is that some of the entities in the sample may have voluntarily applied IFRS for the preparation of individual financial statements and, thus, have disclosed accounting information in accordance with IFRS before 2012. For these entities, the mandatory IFRS adoption in 2012 is not expected to improve the quality of accounting data. Excluding these entities from the sample could lead to more accurate results for our stated objective. Also, some of the surveyed entities have reported negative values for the book value of equity and/or for the net income. Maybe our analysis could be complemented

if losses are excluded and the association between accounting data and share price is studied only for positive values.

We intend to continue our research in the field of the effects of IFRS adoption on accounting quality in Romania. We consider that a valuable approach could be to study the changes in accounting quality following IFRS adoption through earnings management practices. Also, future research could address the quality of financial statements prepared by Romanian listed entities in relation with the institutional settings that characterize our country or with reference to the findings of similar researches conducted on samples of European listed companies.

## **References**

1. Ahmed, A. S., Neel, M. and Wang, D., 2013. Does Mandatory Adoption of IFRS Improve Accounting Quality? Preliminary Evidence, *Contemporary Accounting Research*, 30 (4), pp. 1344--1372.
2. Barth, M. E., Landsman, W. R. and Lang, M. H., 2008. International accounting standards and accounting quality. *Journal of Accounting Research*, 46 (3), pp. 467--498.
3. Brown, S. and Hillegeist, S. A., 2007. How Disclosure Quality Affects the Level of Information Asymmetry, *Review of Accounting Studies*, 12, pp. 1--53.
4. Bunea, S., 2006. Analysis of the impact of the convergence process on the evolution of national accounting systems and lessons for Romania, *The XVI<sup>th</sup> Congress of Romanian accounting profession*, Bucharest, 201--216.
5. Dimitropoulos, P. E., Asteriou, D., Kousenidis, D. and Leventis, S., 2013. The impact of IFRS on accounting quality: Evidence from Greece, *Advances in Accounting, incorporating Advances in International Accounting*, 29 (1), pp. 108--123.
6. Dhaliwal, D., Subramanyam, K.R., Trezevant, R., 1999. Is comprehensive income superior to net income as a measure of firm performance?, *Journal of Accounting and Economics*, 26, pp. 43--67.
7. Djatej, A., Gaob, G., Sarikasc, R. and Senteney, D. L., 2009. An investigation of the comparative impact of degree of implementation of IFRS upon the public and private information quality of East and West European firms, *Advances in Accounting, incorporating Advances in International Accounting*, 25, pp. 208--215.
8. European Council, 2002. Regulation (EC) No. 1606/2002 of the European Parliament and of the Council on the application of international accounting standards, available on-line at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2002R1606:20080410:en:PDF>.
9. Fekete, S., Matis, D. and Lucacs, J., 2008. Factors influencing the extent of corporate compliance with IFRS. The case of Hungarian listed companies. *Annales Universitatis Apulensis Series Oeconomica*, 1, pp. 46--57.
10. Filip, A. and Raffournier, B., 2010. The value relevance of earnings in a transition economy: The case of Romania, *The International Journal of Accounting*, 45, pp. 77--103.
11. Gîrbină, M. M. and Bunea, S., 2009. Este informarea privind riscul entităților românești în conformitate cu IFRS 7?, *Accounting and Management Information Systems*, 8 (1), pp. 53--77.
12. Gornik-Tomaszewski, S., 2005. Antecedents and expected outcomes of the new accounting regulation in the European Union, *Research in Accounting Regulation*, 18, 2005, pp. 69--103.
13. Jeanjean, T. and Stolowy, H., 2008. Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption, *Journal of Accounting and Public Policy*, 27, pp. 480--494.
14. Jianu, I. and Jianu, I., 2012. The told and retold story of Romanian accounting, *Accounting and Management Information Systems*, 11 (3), pp. 391--423.

15. Leuz, C., Nanda, D. and Wysocki, P. D., 2003. Earnings management and investor protection: an international comparison, *Journal of Financial Economics*, 69, pp. 505--527.
16. Ministry of Public Finance, 1999. Order no. 403 from 1999 for the approval of accounting regulations harmonized with the Fourth European Economic Community and with the International Accounting Standards, published in the Official Gazette no. 480 on 4.10.1999.
17. Ministry of Public Finance, 2001. Order no. 94 from 2001 on the approval of the accounting regulations harmonized with the Fourth European Directive and International Accounting Standards, published in the Official Gazette no. 85 on 20.02.2001.
18. Ministry of Public Finance, 2012. Order no. 881 from 2012 on the application by entities whose securities are traded on a regulated market of the International Financial Reporting Standards, published in the Official Gazette no. 424 on 26.06.2012.
19. Muller, V.-O., 2014. The impact of IFRS adoption on the quality of consolidated financial reporting, *Procedia Social and Behavioral Sciences*, 109, pp. 976--982.
20. Neag, R., 2008. The reform of Romanian accounting – a present reality, *Proceedings of National and Regional Economics VII*, Technical University of Kosice, Faculty of Economics, Herlany, Slovakia, 1-3 October 2008, vol. 1, pp. 757--760.
21. Neag, R., 2013. The effects of IFRS on net income and equity: evidence from Romanian listed companies, *Emerging Markets Queries in Finance and Business*, Tg. Mures, Romania, October 2013.
22. Paananen, M. and Lin, H., 2009. The development of accounting quality of IAS and IFRS over time: the case of Germany, *Journal of International Accounting Research*, 8 (1), pp. 31--55.
23. Pășcan, I. D. and Țurcaș, M., 2012. Measuring the impact of first-time adoption of International Financial Reporting Standards on the performance of Romanian listed entities, *Procedia Economics and Finance*, 3, pp. 211--216.
24. Soderstrom, N.S. and Sun, K. J., 2007. IFRS Adoption and Accounting Quality: A Review, *European Accounting Review*, 16 (4), pp. 675--702.
25. Zeghal, D., Chtourou, S. M. and Fourati, Y. M., 2012. The effect of mandatory adoption of IFRS on earnings quality: evidence from the European Union, *Journal of International Accounting Research*, 11 (2), pp. 1--25.

### ***Acknowledgment***

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/142115 „Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain”.