

IMPACT OF IFRS ADOPTION ON FINANCIAL STATEMENTS COMPARABILITY. A STUDY OF EASTERN VS. WESTERN EUROPEAN COUNTRIES

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Abstract:

The IFRS implementation has marked an important milestone in the history of accounting. Since the beginning, there have been both advocates and critics, debating whether the initial objectives were, in fact, met in practice. The present article examines whether comparability of financial statements increased between Eastern and Western European countries after IFRS adoption. The research is empirical, analysing companies before and post adoption, while bringing forward up to date concepts, beneficial for future research. Policymakers proclaim their policies are rooted in evidence and often turn to academic researchers for impartial and reliable evidence. In view of the fact that a significant number of studies have been conducted thus far, the present paper attempts to further emphasize the positive impact of IFRS implementation.

Keywords: IFRS, COMPARABILITY, FINANCIAL REPORTING

JEL Classification: G14, G15

1. Introduction

In order to ensure successful budgeting of capital, companies and investors alike, must rely on efficient and practical tools that help provide relevant financial documentation and information which would allow said companies and investors to accurately assess financial multinational situations. In June 2003, due to a growing need of companies to compare financial data of worldwide business organizations, a financial set of reporting standards has been issued. It has since been adopted by 167 international jurisdictions and is regarded as an efficient and reliable tool in setting guidelines for transparent financial statements. (Hwang *et al.*, 2018)

In early 2000s, prior to the mandatory IFRS adoption, Europe's accounting and financial standards were seen as clustered with various policies and accounting methods, in dire need of standardization and harmonization. Several high-profile scandals led countries to impose laws on transparency and security, such examples being the Metallgesellschaft scandal, in Germany in 1993, in which one of the country's largest industrial firm "reported staggering losses of about 1.3 billion USD on positions in energy futures and swaps" (Edwards, 1995, p.1), or the Enron scandal (still used today as a case study for corruption and corporate greed) from 2000, which led the French Parliament to pass a financial security law three years later. Belgium also soon followed, in 2003, by passing a law that targeted accounting.

Regardless of the domestic laws imposed by the aforementioned countries, the traditional measures to reform accounting systems fell short of meeting the demands of financial globalization, and as a result, all EU-based publicly traded companies have been mandated to align their financial reports with the International Financial Reporting Standards (IFRS).

The main research question of this paper is whether the implementation of IFRS has achieved to increase the comparability of financial statements. However, one thing is sure: ever since the adoption of International Financial Reporting Standards (IFRS), the world of accounting has changed for the

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better, with long-standing impacts on companies located in countries that ensure reliable outside investor protection.

2. Institutional background – the conceptual framework

The basis for the IFRS implementation is the Conceptual Framework which presents the main concepts that constitute the basis for preparing and presenting the financial statements for external users. The main purposes of the Conceptual Framework are: to give guidance to the Board in the scope of the development of future IFRSs and also to review the existing ones; to reduce the number of alternative accounting treatments permitted by IFRSs by harmonizing the regulations, accounting standards and procedures; to create and to develop national standards; to guide preparers of financial statements through the IFRSs standards and how to handle different topics which are in scope of IFRS; to help auditors defining whether financial statements comply with IFRSs; to adapt the information contained in the financial statements in compliance with IFRSs for the users; and to provide information of the IASB and its approach to the formulation of IFRS. (IASB, Conceptual Framework, 2018)

Given the aforementioned purposes of the Conceptual Framework, it is important to keep in mind that it is not an IFRS and it does not define any standards.

2.1. Objectives of financial reporting

The International Accounting Standards Board (IASB) promulgated, in 2018, a revised and refined Conceptual Framework aimed at guiding financial reporting practices with the means of robust and clearly defined guidelines. It stipulates that the cardinal objective of financial reporting is that of providing financial information, that is both pertinent and transparent, that sheds light on the reporting entities' financial situation, which proves beneficial to potential and existing investors, as well as to all participants in the financial world.

The objectives of the International Financial Reporting Standards are: improved transparency and comparability, better functioning of the internal market, the efficient and cost-effective functioning of the capital market, the protection of investors and maintenance of confidence in capital markets, and helping EU companies compete on an equal footing for capital within the EU and on world capital markets. These objectives are derived from the main objectives of the financial reporting: to give useful and accurate information about an entity, to provide information regarding the resources of the entity, claims against the entity, and how efficiently and effectively the entity's management and governing board have discharged their responsibilities to use the entity's resources and to ensure an information set that will meet the needs of the maximum number of primary users. (IASB, Conceptual Framework, 2018)

The revised framework emphasizes on the importance of accrual accounting. Accrual accounting is translated in a key principle that refers to the acknowledgement of events and transactions, more specifically, the effects of transactions and other events must be recognized at the time they occur, not when cash or its equivalent changes hands. Based on this principle, these transactions and other events are reflected in the entity's accounting records and reported in the financial statements that correspond to the time periods they are associated with. The framework states that, except for cash flow information, an entity is required to use the accrual basis of accounting in the preparation of its financial statements. This means that an entity should recognize assets, liabilities, equity, income, and expenses only when they meet the recognition criteria and satisfy the definitions laid out in the Conceptual Framework, and this recognition is not purely tied to payment of cash, or receipts. That said, when an entity sells services or goods on credit, the income must be recognized at the time of the sale, not when the payment is later received. Likewise, when the entity receives a bill for utilities used over a specific period of time, the expenses should be acknowledged for the timeframe in which the utilities were consumed, not when the bill is actually paid. In the 2018 revision, the IASB emphasized on the concept of stewardship, highlighting the amplified demand for transparency and accountability in terms of company

management. Stewardship encompasses management duty in regard to entrusted resources, and involves the necessity to provide information that aids users in assessing management's decisions and actions. (IASB, Conceptual Framework, 2018)

2.2. Qualitative characteristics of useful financial information

The qualitative characteristics of useful financial information apply to the financial information provided in the financial statements, as well as in other ways. For the financial information to be useful, it should be on one hand relevant and faithfully represented, and on the other hand comparable, verifiable, timely, and understandable.

The fundamental characteristics are relevance and faithful representation. Financial information is relevant if it can make a difference in the decisions made by users. It must have a predictive and/or confirmatory value. The predictive value implies that the information represents an input to processes employed by users to predict future outcomes. The confirmatory value refers to ability of the information to provide feedback about previous evaluations. Both values are interrelated.

Faithful representation means that the financial statements should be complete, neutral, and free from error. A complete representation includes all the necessary information for a user to understand the phenomenon being depicted, with descriptions and explanations. Neutrality in representation refers to unbiased selection or presentation of the financial information. Neutrality suggests a certain level of caution, referred to as prudence, which implies a conservative approach when making judgements under conditions of uncertainty. However, while dealing with uncertainty, if prudence translates into bias in reporting, the concept would end up being incompatible with neutrality, due to misrepresentation of gains, losses, assets, liabilities, income, expenses or the overall equity. The 2010 Framework omitted any direct reference to the concept of "prudence", which was heavily criticized, as the lack of such quality was perceived as inadvertently encouraging over-optimistic reporting. The return of the concept of prudence addressed critiques targeted at the 2010 Framework, whilst reaffirming that prudence, is indeed a crucial element of providing a faithful representation. Faithful representation translates in financial statements that are free from errors or omissions in the description of the phenomenon, and the process used to produce the reported information has been selected and applied without errors. Besides the fundamental qualitative characteristics of financial information, some enhancing qualitative characteristics are worth mentioning, such as: comparability, verifiability, timeliness, and understandability.

Comparability is the qualitative characteristic that enables users to identify and understand similarities in, and differences among, items. Unlike the other qualitative characteristics, comparability does not relate to a single item. A comparison requires at least two items. Consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities. Comparability is the goal; consistency helps to achieve that goal.

Verifiability assures users that information faithfully represents the economic phenomena it represents. Verifiability means that different knowledgeable and independent observers could reach consensus, although not necessarily complete agreement, that a particular depiction is a faithful representation. Quantified information need not be a single point estimate to be verifiable. A range of possible amounts and the related probabilities can also be verified. Verification can be direct or indirect. Direct verification means verifying an amount or other representation through direct observation. Indirect verification means checking the inputs to a model, formula or other technique and recalculating the outputs using the same methodology.

Timeliness means having information available to decision-makers in time to be capable of influencing their decisions. Generally, the older the information is the less useful it is. However, some information may continue to be timely long after the end of a reporting period because, for example, some users may need to identify and assess trends.

Classifying, characterizing, and presenting information clearly and concisely makes it understandable. Financial reports are prepared for users who have a reasonable knowledge of business

and economic activities and who review and analyse the information diligently. At times, even well-informed and diligent users may need to seek the aid of an adviser to understand information about complex economic phenomena.

The quality of the financial information presented in the financial statements also implies a cost. There are several types of costs and benefits to be considered. Providers of financial information expend most of the effort involved in collecting, processing, verifying, and disseminating financial information, but users ultimately bear those costs in the form of reduced returns. Users of financial information also incur costs of analysing and interpreting the information provided. If needed information is not provided, users incur additional costs to obtain that information elsewhere or to estimate it. Reporting financial information that is relevant and faithfully represents what it wants to represent helps users to make decisions with more confidence. This results in more efficient functioning of capital markets and a lower cost of capital for the economy as a whole. An individual investor, lender or other creditor also receives benefits by making more informed decisions. However, it is not possible for general purpose financial reports to provide all the information that every user finds relevant.

3. Related literature

As reporting according to IFRS became over the years mandatory in more and more countries, the question whether the initial objectives stated in the Conceptual Framework were met was asked more often. One can say that the impact of IFRS has remained controversial since its implementation. The costs and benefits of mandatory IFRS adoption appear to provide an ideal topic on which researchers might support the work of policymakers through their studies.

It's widely accepted that the adoption of IFRS by a jurisdiction is no straightforward commitment. Many variables come into play when classifying jurisdictions – should IFRS be applied to all industries? should all listed companies comply to the standards? should parent company statements also comply? While it's no easy task, experts agree, that, in emerging economies, the adoption processes determine just how much of a relevant role IFRS will play.

IFRS adoption does not come with guaranteed benefits. Although IFRS are financial reporting standards that are internationally regarded as being first-rate, the specific methods for implementing the rules for certain situations are seldom not indicated, which could potentially lead to interpretations of the rules. Moreover, IFRS limit reporting methods, which could be detrimental in a company's performance review.

In answering the question of whether or not the IFRS effects continue with the passage of time, the response largely depends on each country's legal system and relevant institutions.

While South Korea has been requesting companies to comply with the IFRS standards with the purpose of narrowing the "Korea Discount" - which stands for a propensity South Korean companies have to being undervalued, which translates in an under-priced stock market -, it was all to no avail. Since the adoption of IFRS, South Korean companies have been proved to invariably lack in terms of accounting transparency, and several fraud scandals have transpired.

In China, the IFRS agenda has been heavily pushed by the Chinese government in hopes of aiding its "Open Door" policy. More than 30% of domestic companies are committed to submit IFRS compliant statements, due to dual listings in Hong Kong and international markets, however, as foreign companies do not yet trade in Chinese securities markets, it is yet to be determined whether these companies will be allowed to adopt and fully implement IFRS standards. (Hwang *et al.*, 2018)

Domestic companies from countries that follow statutory law systems, such as France and Germany, have sustained the quality of earnings (QoE) that was displayed following the IFRS adoption. In countries that follow common law systems, such as Australia and the UK, where outside market capital investors benefit from outstanding legal support, companies have been proved to maintain similar QoE as displayed following the adoption of IFRS.

The aim of IFRS, as previously stated, is to standardize accounting formats on an international level. Developing countries, more specifically ex-communist ones, could widely benefit from adopting

IFRS. For example, in Serbia, whose economic growth lags, the national banks have set specific obligatory regulations that must be followed in the financial sector. (Abhimantra *et al.*, 2013)

Moreover, as presented in the study “A story about IAS/IFRS implementation in Romania” one could consider that the introduction of IFRS could help signal foreign investors that said countries have evolved into trustworthy places of business. From 1947 to 1989, Romania was one of Central and Eastern Europe’s communist states. After the fall of communism, the country underwent a series of reforms, that also tackled the matter of financial reporting from the French accounting model to the International Accounting Standards (IAS), and finally to the European Directives (ED) concerning this topic – as a result of the country’s desire to adhere to the European Union. (Albu *et al.*, 2011)

In 2005, it was decided to only focus on coordinating Romania’s accounting regulations with the EDs, while IFRS implementation was to be requested from listed companies and institutions of the financial system. One could assume that, in the case of emerging or transitioning economies, switching between accounting models should not have major, palpable impacts on the financial sector, however, the lingering after taste of the fallen regimes, has proven itself a much greater hindrance in the convergence process, than the collective need to succeed in progressing.

It’s clear that IFRS implementation is influenced by economic development, but historical precedents, as well as the country’s heritage, have a say in the process. A generational instinct for fraud, lack of expertise and transparency, and old school mindsets of professionals, entwined with poorly allocated resources, can only result in roadblocks. Education could be the cornerstone of this paradigm, but it should be a constant aspect embraced by every participant in the financial game, from shareholder to auditor. (Albu *et al.*, 2011)

For a stakeholder, one of the most important factors that influence financial related decisions lays in the accounting information that sheds light on the company’s financial health, thus, it’s only natural to raise questions in terms of how relevant the adoption of IFRS in providing quality accounting data, in comparison to following domestic standards.

However, one must not disregard the fact that one of the most crucial obstacles regarding the universal introduction of IFRS are tax complexities Incorporating IFRS into practice has engendered adjustments of the accounting policies, which highly contrast the domestic standards (DS). The United Kingdom managed to align their tax reporting with IFRS but other developed countries like Germany and France still use their local accounting standards in the preparation of closed financial reports, the main reason being the fact that the reports are being tax and dividend. Also, the Netherlands follows autonomous tax systems, and taxable profits are synchronized either with IFRS or Dutch GAAP. (Abhimantra *et al.*, 2013). In addition, several nations are against the application of IFRS for Small and Medium Enterprises (SMEs), due to it being considered cost-intensive and complicated.

As stated above, adopting the IFRS led to changes in accounting choices and policies, which differed from the previously used domestic standards. The International Accounting Standards Board’s (IASB) aim is to promulgate a universally accepted accounting lexicon. This profound transformation in accounting methodologies exemplifies the theory of environmental determinism, as postulated by scholars such as Gernon and Wallace (1995) and Rodrigues and Craig (2007).

Nevertheless, Abhimantra et al. conclude their case study by stating that IFRS implementation equates economic growth, tax complexities pose as a primary cause for disparities across nations.

4. Predictions

Coherent and truthful financial information assists stakeholders in decision-making processes by enabling them in appraising the company’s’ future net cash inflow and in evaluating the management’s stewardship of the company’s financial resources. Any alteration in economic assets and obligations that occur due to the entity's financial activities and other events should be reflected in the financial statements.

In this regard, my prediction is that comparability between the financial statements of Eastern and Western European companies increased after Eastern European countries adopt IFRS. I base this

prediction on prior research discussed in the above section. Although prior research provides evidence relating to this prediction, prior research does not test this prediction directly, nor can the result of a test of this prediction be inferred by combining results in prior research.

5. Research design

The research is adapted from Barth *et al.*, (2012) model, designed to test the accounting system comparability. The tests used are applied twice – before IFRS adoption and after IFRS adoption, in order to be able to state whether comparability between financial statements from Western European countries and those from Eastern European countries have increased after IFRS adoption.

In order to eliminate differences other than the financial standards used for the reporting, a matched sample design is used. The same procedure showed reliable results in Gus de Franco *et al.*, (2011). This means that for each Western European company, I choose an Eastern European company from the same industry and with the most similar size in terms of the equity market value. In this way industry specifics and size differences are not permitted to influence the cost of capital. Each Eastern European company is required to have data in the year it adopts IFRS and at least one year before, in order to be able to establish properly the adoption year. For each identified pair of companies only the years in which both have data are used. Also, the pairs for which the size difference exceeds 50% in absolute value are eliminated.

The economic outcomes used are cash flow, stock price and stock return, while the accounting amounts selected are based on combinations of net income and equity book value. Stock price and stock return were selected as they are reflecting the equity value and the change in equity based on the investors' expectations of corporate earnings or profits. Moreover, cash flow plays an important role in the economic models of equity value, forecasting future cash flow being an extremely important aspect for capital allocation decisions. On the other hand, the accounting amounts used were chosen based on prior research, as they are the two primary measures used from the financial statements.

The accounting system comparability test defines accounting amounts to be comparable if an economic outcome estimated based on the mapping from accounting amounts to that economic outcome of one system (Western European countries) is the same as the estimated economic outcome based on the mapping of the other system (Eastern European Countries). This mapping procedure is based on the De Franco *et al.*, (2011) model.

It consists of six main steps. The first step consists of estimating the stock price, stock return, and cash flow separately for Western European companies and Eastern European companies. The equations are the following:

$$P_{it}^{WE} = \beta_0^{WE} + \beta_1^{WE} BVE_{it}^{WE} + \beta_2^{WE} NI_{it}^{WE} + \varepsilon_{it}^{WE} \quad (\text{Equation 1a})$$

$$P_{it}^{EE} = \beta_0^{EE} + \beta_1^{EE} BVE_{it}^{EE} + \beta_2^{EE} NI_{it}^{EE} + \varepsilon_{it}^{EE} \quad (\text{Equation 1b})$$

$$RETURN_{it}^{WE} = \beta_0^{WE} + \beta_1^{WE} (NI_{it} / P_{it-1})^{WE} + \beta_2^{WE} (\Delta NI_{it} / P_{it-1})^{WE} + \beta_3^{WE} LOSS_{it}^{WE} + \beta_4^{WE} LOSS_{it}^{WE} \times (NI_{it} / P_{it-1})^{WE} + \beta_5^{WE} LOSS_{it}^{WE} \times (\Delta NI_{it} / P_{it-1})^{WE} + \varepsilon_{it}^{WE} \quad (\text{Equation 2a})$$

$$RETURN_{it}^{EE} = \beta_0^{EE} + \beta_1^{EE} (NI_{it} / P_{it-1})^{EE} + \beta_2^{EE} (\Delta NI_{it} / P_{it-1})^{EE} + \beta_3^{EE} LOSS_{it}^{EE} + \beta_4^{EE} LOSS_{it}^{EE} \times (NI_{it} / P_{it-1})^{EE} + \beta_5^{EE} LOSS_{it}^{EE} \times (\Delta NI_{it} / P_{it-1})^{EE} + \varepsilon_{it}^{EE} \quad (\text{Equation 2b})$$

$$CF_{it+1}^{WE} = \beta_0^{WE} + \beta_1^{WE} (NI_{it} / TA_{it-1})^{WE} + \varepsilon_{it+1}^{WE} \quad (\text{Equation 3a})$$

$$CF_{it+1}^{EE} = \beta_0^{EE} + \beta_1^{EE} (NI_{it} / TA_{it-1})^{EE} + \varepsilon_{it+1}^{EE} \quad (\text{Equation 3b})$$

P is the stock price, BVE is the book value of equity per share, NI is the net income before extraordinary items per share, Return is the cumulative percentage change in stock price beginning nine months before fiscal year end and ending six month after fiscal year end, adjusted for dividends and stock splits, CF is the operating cash flow scaled by lagged total assets and TA is total assets. LOSS is an indicator that can equal 1 if NIit / Pit-1 is negative or 0 otherwise, in this way the coefficients will differ for loss firms. The coefficient superscripts, WE and EE, denote the pricing multiples relating to the Western European or Eastern European accounting system; the variable superscripts denote that the

variable relates to a Western European or Eastern European firm. “i” and “t” refer to firm and year, respectively.

The second step involves computing within sample fitted stock price, stock return, and cash flow for each set of companies (Western European and Eastern European). The coefficients used are the ones found out in the first step.

$$\hat{P}^{WE,WE}_{it} = \hat{\beta}_0^{WE} + \hat{\beta}_1^{WE} BVE_{it}^{WE} + \hat{\beta}_2^{WE} NI_{it}^{WE} \text{ (Equation 1.2a)}$$

$$\hat{P}^{EE,EE}_{it} = \hat{\beta}_0^{EE} + \hat{\beta}_1^{EE} BVE_{it}^{EE} + \hat{\beta}_2^{EE} NI_{it}^{EE} \text{ (Equation 1.2b)}$$

$$\widehat{RETURN}^{WE,WE}_{it} = \hat{\beta}_0^{WE} + \hat{\beta}_1^{WE} (NI_{it} / P_{it-1})^{WE} + \hat{\beta}_2^{WE} (\Delta NI_{it} / P_{it-1})^{WE} + \hat{\beta}_3^{WE} LOSS_{it}^{WE} + \hat{\beta}_4^{WE} LOSS_{it}^{WE} \times (NI_{it} / P_{it-1})^{WE} + \hat{\beta}_5^{WE} LOSS_{it}^{WE} \times (\Delta NI_{it} / P_{it-1})^{WE} \text{ (Equation 2.2a)}$$

$$\widehat{RETURN}^{EE,EE}_{it} = \hat{\beta}_0^{EE} + \hat{\beta}_1^{EE} (NI_{it} / P_{it-1})^{EE} + \hat{\beta}_2^{EE} (\Delta NI_{it} / P_{it-1})^{EE} + \hat{\beta}_3^{EE} LOSS_{it}^{EE} + \hat{\beta}_4^{EE} LOSS_{it}^{EE} \times (NI_{it} / P_{it-1})^{EE} + \hat{\beta}_5^{EE} LOSS_{it}^{EE} \times (\Delta NI_{it} / P_{it-1})^{EE} \text{ (Equation 2.2b)}$$

$$\widehat{CF}^{WE,WE}_{it+1} = \hat{\beta}_0^{WE} + \hat{\beta}_1^{WE} (NI_{it} / TA_{it-1})^{WE} \text{ (Equation 3.2a)}$$

$$\widehat{CF}^{EE,EE}_{it+1} = \hat{\beta}_0^{EE} + \hat{\beta}_1^{EE} (NI_{it} / TA_{it-1})^{EE} \text{ (Equation 3.2b)}$$

The third step requires computing the fitted stock price, stock return, and cash flow for each set of firms using the pricing multiples from the other set of firms. The coefficients used are the ones found out in the first step.

$$\hat{P}^{WE,EE}_{it} = \hat{\beta}_0^{EE} + \hat{\beta}_1^{EE} BVE_{it}^{WE} + \hat{\beta}_2^{EE} NI_{it}^{WE} \text{ (Equation 1.3a)}$$

$$\hat{P}^{EE,WE}_{it} = \hat{\beta}_0^{WE} + \hat{\beta}_1^{WE} BVE_{it}^{EE} + \hat{\beta}_2^{WE} NI_{it}^{EE} \text{ (Equation 1.3b)}$$

$$\widehat{RETURN}^{WE,EE}_{it} = \hat{\beta}_0^{EE} + \hat{\beta}_1^{EE} (NI_{it} / P_{it-1})^{WE} + \hat{\beta}_2^{EE} (\Delta NI_{it} / P_{it-1})^{WE} + \hat{\beta}_3^{EE} LOSS_{it}^{WE} + \hat{\beta}_4^{EE} LOSS_{it}^{WE} \times (NI_{it} / P_{it-1})^{WE} + \hat{\beta}_5^{EE} LOSS_{it}^{WE} \times (\Delta NI_{it} / P_{it-1})^{WE} \text{ (Equation 2.3a)}$$

$$\widehat{RETURN}^{EE,WE}_{it} = \hat{\beta}_0^{WE} + \hat{\beta}_1^{WE} (NI_{it} / P_{it-1})^{EE} + \hat{\beta}_2^{WE} (\Delta NI_{it} / P_{it-1})^{EE} + \hat{\beta}_3^{WE} LOSS_{it}^{EE} + \hat{\beta}_4^{WE} LOSS_{it}^{EE} \times (NI_{it} / P_{it-1})^{EE} + \hat{\beta}_5^{WE} LOSS_{it}^{EE} \times (\Delta NI_{it} / P_{it-1})^{EE} \text{ (Equation 2.3b)}$$

$$\widehat{CF}^{WE,EE}_{it+1} = \hat{\beta}_0^{EE} + \hat{\beta}_1^{EE} (NI_{it} / TA_{it-1})^{WE} \text{ (Equation 3.3a)}$$

$$\widehat{CF}^{EE,WE}_{it+1} = \hat{\beta}_0^{WE} + \hat{\beta}_1^{WE} (NI_{it} / TA_{it-1})^{EE} \text{ (Equation 3.3b)}$$

Fourth, for each set of firms, the absolute value of the difference between the fitted stock prices/ stock returns/ cash flow obtained in the second and third step is computed.

$$Price_diff^{WE}_{it} = |\hat{P}^{WE,WE}_{it} - \hat{P}^{WE,EE}_{it}| \text{ (Equation 1.4a)}$$

$$Price_diff^{EE}_{it} = |\hat{P}^{EE,EE}_{it} - \hat{P}^{EE,WE}_{it}| \text{ (Equation 1.4b)}$$

$$Return_diff^{WE}_{it} = |\widehat{RETURN}^{WE,WE}_{it} - \widehat{RETURN}^{WE,EE}_{it}| \text{ (Equation 2.4a)}$$

$$Return_diff^{EE}_{it} = |\widehat{RETURN}^{EE,EE}_{it} - \widehat{RETURN}^{EE,WE}_{it}| \text{ (Equation 2.4b)}$$

$$CF_diff^{WE}_{it+1} = |\widehat{CF}^{WE,WE}_{it+1} - \widehat{CF}^{WE,EE}_{it+1}| \text{ (Equation 3.4a)}$$

$$CF_diff^{EE}_{it+1} = |\widehat{CF}^{EE,EE}_{it+1} - \widehat{CF}^{EE,WE}_{it+1}| \text{ (Equation 3.4b)}$$

Fifth, for each Eastern European company and matched Western European company, I compute the average of the differences obtained in step four.

The last step involves computing the stock price, stock return, and cash flow metrics as the mean, median, and standard deviation of the average differences obtained in step five for each comparability analysis I conduct.

If the accounting amounts for Western and Eastern European companies are comparable, then the differences in fitted stock price, stock return, and cash flow based on application of multiples will be indistinguishable from zero.

In order to find out whether comparability has increased after IFRS adoption, I group all the observations for both group of firms as before and after IFRS implementation, depending on the year of adoption.

6. Sample and data

The sample is obtained from Eikon and contains companies from Eastern and Western European countries. Pre-adoption sample years potentially range from 1996 through 2009. Post-adoption sample years potentially range from 2004 through 2019. The matched sample consists of 150 companies from 10 different industries.

The detailed structure of the sample is presented below:

Table 1: Sample composition by country

Country	Number of companies
Belgium	2
Czech Republic	1
France	12
Germany	3
Hungary	1
Ireland Republic of	1
Italy	5
Lithuania	1
Netherlands	7
Poland	67
Portugal	3
Slovenia	5
Switzerland	1
United Kingdom	41
TOTAL	150

Table 2: Sample composition by industry

Industry	Number of companies	
	Eastern European companies	Western European companies
Industrials	18	18
Consumer Cyclicals	15	15
Financials	14	14
Basic Materials	9	9
Real Estate	7	7
Technology	6	6
Consumer Non-Cyclicals	2	2
Energy	2	2
Utilities	1	1
Healthcare	1	1

Table 3: Sample composition by year of adoption

Year of IFRS adoption	No. of Eastern European companies	No. of Western European companies
2004	63	40
2005	5	23
2006	7	12

7. Results

Based on Barth *et al.*, (2012), the model assumes that if the accounting statements between Western European companies and East European companies are comparable, differences in stock prices, stock returns, and cash flow based on the application of multiples should be insignificant after IFRS adoption.

A significant difference in stock price between IFRS data and non-IFRS data would suggest that the adoption of IFRS has influenced the comparability of stock prices between Western and Eastern European companies.

A significant difference in stock returns would suggest an influence of IFRS adoption on the comparability and differences in Cashflow indicate the influence of IFRS adoption on the comparability of cash flows.

After applying the five steps of the model described before the main results obtained are the following:

Table 4: Main results before IFRS implementation

Eastern European Companies					
Price Difference		Return Difference		Cashflow Difference	
Mean	1.86	Mean	17.69	Mean	0.02
Median	0.65	Median	17.14	Median	0.02
Standard Deviation	4.02	Standard Deviation	11.00	Standard Deviation	0.00
Western European Companies					
Price Difference		Return Difference		Cashflow Difference	
Mean	4.72	Mean	18.10	Mean	0.02
Median	0.63	Median	21.24	Median	0.02
Standard Deviation	12.42	Standard Deviation	7.88	Standard Deviation	0.01
Difference West - East NON IFRS					
Price Difference		Return Difference		Cashflow Difference	
Mean	2.86	Mean	0.42	Mean	0.00
Median	(0.02)	Median	4.10	Median	0.00
Standard Deviation	8.40	Standard Deviation	(3.11)	Standard Deviation	0.01

Table 5: Main results after IFRS implementation

Eastern European Companies					
Price Difference		Return Difference		Cashflow Difference	
Mean	7.35	Mean	17.81	Mean	0.00
Median	4.42	Median	14.90	Median	0.00
Standard Deviation	11.30	Standard Deviation	13.50	Standard Deviation	0.02
Western European Companies					
Price Difference		Return Difference		Cashflow Difference	
Mean	15.18	Mean	22.60	Mean	0.00
Median	4.62	Median	16.12	Median	0.00
Standard Deviation	45.37	Standard Deviation	24.64	Standard Deviation	0.01
Difference West - East IFRS					
Price Difference		Return Difference		Cashflow Difference	
Mean	7.83	Mean	4.78	Mean	0.00
Median	0.20	Median	1.22	Median	(0.00)
Standard Deviation	34.07	Standard Deviation	11.14	Standard Deviation	(0.00)

Table 7: Main differences between after IFRS implementation period and before IFRS period

Difference IFRS - NON-IFRS					
Price Difference		Return Difference		Cashflow Difference	
Mean	4.97	Mean	4.37	Mean	(0.00)
Median	0.22	Median	(2.88)	Median	(0.00)
Standard Deviation	25.66	Standard Deviation	14.25	Standard Deviation	(0.01)

The price difference in IFRS is significantly larger than in non-IFRS, suggesting a greater variation in stock prices between WE and EE companies after IFRS adoption.

Return differences are similar between IFRS and non-IFRS, suggesting that IFRS adoption did not have a significant impact on the comparability of returns.

The cash flow difference is significantly smaller in IFRS, suggesting greater comparability in cash flows between WE and EE companies after IFRS adoption.

The adoption of IFRS appears to have had a positive impact on the comparability of cash flows, but not necessarily on the comparability of stock price or returns between WE and EE companies. While cash flows are more comparable under IFRS, there is greater variation in stock prices, which could indicate other factors influencing stock prices outside of accounting standards.

8. Summary and concluding remarks

Earlier research evidence on the benefits of mandatory IFRS adoption is generally not conclusive. On balance it seems likely that there were overall benefits to the initial transparency, comparability, the cost of capital, market liquidity, corporate investment efficiency and international capital flows following adoption. The research evidence also clearly shows that these benefits were unevenly distributed among different firms and different countries. Due to differences in institutions and

incentives, there may have been negligible benefits or even negative effects rather than benefits for particular firms or countries.

The present paper supports the previous research in the area by showing that an increase in comparability between the financial reporting's of Eastern and Western European companies was achieved after IFRS implementation. In conclusion, based on the statistical results obtained, the database seems to be relevant for studying the comparability between West and East companies, especially regarding cash flows. However, there are factors influencing stock prices and returns that aren't covered by the accounting standard, suggesting that further analyses might be necessary to determine the full relevance of the database in these areas. Knowing that isolating the effects of IFRS implementation from other events during a specific time period (different government regulations, financial/ health crisis) is almost impossible, in order to really be able to state a conclusion additional research might be needed.

A possible extension of the current research is testing also some relevant sub-samples such as:

- To test whether the comparability has increased more in some industries than in others after IFRS adoption, the same procedure for each industry sector can be applied.
- To test whether the comparability has increased after 10 years of mandatory IFRS adoption, the observations can be grouped as before 2015 and after 2015, and apply the same tests.
- To test whether the comparability has increased more for mandatory IFRS adoption than for voluntary adoption, the observations can be grouped into earlier adopters and 2005 adopters.

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