

FINANCIAL INSTRUMENTS UNDER THE IFRS – A PRIORI ANALYSIS FROM THE CZECH AND ROMANIAN REGULATIONS’ PERSPECTIVE

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ABSTRACT

Accounting for financial instruments brought considerable debate over time, highlighting both conceptual and technical issues, which apparently seem to be far from resolved. Our analysis shows that the main holding back when it comes to reporting for financial instruments under IFRS and rejection of their full endorsement, even within the European Union, is mostly related to the value relevance of the information given through the present value of financial instruments within financial statements. We have conducted an economic (a priori) analysis which emphasizes the fact that both FASB and IASB stress the capacity of market values to incorporate, in an efficient and virtually unbiased manner, market consensus expectation about future cash flows. Once regulatory bodies adopt a financial reporting paradigm, it becomes the guiding principle for accounting regulation, that is, standard setting. We therefore went forward into analyzing the current situation regarding reporting for financial instruments under IFRS in the specific case of the Czech Republic and Romania, by assaying the corresponding national regulations, and then empirically testing the similarities between them and also in connection to the international referential.

🔑 *Financial instruments, fair value, regulatory bodies, standard setting*

INTRODUCTION

Accounting standards setters in many jurisdictions around the world, including the United States, the United Kingdom, Australia, and the European Union, have issued standards requiring recognition of balance sheet amounts at fair value, and changes in their fair values in income. For example, in the United States, the Financial Accounting Standards Board requires recognition of some investment securities and derivatives at fair value. In addition, as their accounting rules have evolved, many other balance sheet amounts have been made subject to partial application of fair value rules that depend on various ad hoc circumstances, including impairment (e.g. goodwill and loans) and whether a derivative is used to hedge changes in fair value (e.g. inventories, loans, and fixed lease payments). The Financial Accounting Standards Board and the International Accounting Standards Board (hereafter FASB and IASB) are jointly working on projects examining the feasibility of mandating recognition of essentially all financial assets and liabilities at fair value in the financial statements. In the United States, fair value recognition of financial assets and liabilities appears to enjoy the support the Securities and Exchange Commission (hereafter SEC). Furthermore, FASB made a fundamental decision that fair value is the most relevant attribute for financial instruments (FASB, 2000: 8). Although the quoted market value is the prescribed measure of fair value, the FASB adopted the term “fair value” instead of market value to encompass estimated values for financial instruments that are not traded in active markets. The decision to mandate fair value disclosures was made amidst a long-standing debate between the advocates of fair value accounting and advocates of historical cost accounting. The basic premise underlying the FASB’s decision is that fair value of financial assets and liabilities better enables investors, creditors and other users of financial statements to assess the consequences of an entity’s investment and financing strategies. Advocates of historical cost, on the other hand, point to the reduced reliability of fair value estimates relative to historical cost. Their arguments suggest that investors would be reluctant to base valuation decisions on the more subjective fair value estimates (Barth, 1994: 3).

The move towards fair value measurement is frequently characterized as a shift in paradigms (e.g. Barlev & Haddad, 2003). A paradigm can be defined as a set of values and beliefs shared by a specific community. Accordingly, where financial reporting is concerned, a paradigm represents a set of shared beliefs on the objectives of financial reporting and on the accounting principles by which these can be achieved. It is grounded in elaborated assumptions, and characteristically requires a theoretical foundation or vindication. Once regulatory bodies adopt a financial reporting paradigm, it becomes the guiding principle for accounting regulation, that is, standard setting.

Our choice of analyzing the current situation regarding reporting for financial instruments under IFRS in the specific case of the *Czech Republic and Romania*

comes from the parallel accounting reform which took place within the two countries during the 90’s.

In *Romania* the political choice which was made in 1991 relied on three major aspects: the need for implementing a new accounting system (after “getting out of the Russian school”), the need for adopting accounting measures which were compatible with the prescriptions within the European Accounting Directives since the country was a candidate for integration within the European Union, and also the need to use an inspirational resource since there was no time for creating a new own accounting system, the euphoria of becoming a EU member requiring quick reforms in different fields. The political choice for the French model was immediately made based on the following arguments: France being considered the “cultural heart” of the world, the financial and technical support offered by France for achieving the Romanian accounting reform, the good relationships between the French experts and the Romanians in charge which quickly became active (the Romanians’ knowledge of French language was also useful), the fear of predominance from the German system (even though economic investments from Germany were foreseen and Hungary, with who Romania has always had delicate relationships, had chosen to guide its regulations on the German system), and last but not least, the French models’ image of simplicity which could be adjusted and allowed a combination of answers for all expectations on micro and macroeconomic level.

The case of the *Czech Republic* is interesting through the choice made in 1991 (the 12st of December 1991 law) referring to building the national accounting system based on the French model, even though the cultural semblance and linguistic closeness criteria did not characterize, during that period, the relationship between France and the Czech Republic. The arguments for this choice are similar to those found in the Romanian case: the intention of creating a certain frontier for the German great economic interest in the Czech economy (even though the German model caught the Czechs’ attention), the option for the French School (despite the fact that the English model was “gaining field” in the accounting development area, training courses being mostly financed from the European PHARE programme; the English model didn’t have enough credibility because of its’ dispersion and because of some scandals which were publicly presented; the American model seemed to complicated and difficult to implement) and also the aim of the Czechs’ Republic integration within the EU. Unlike Romania, in the Czechs’ Republic case the interventions of the French experts never had a significant volume. Another important aspect refers to the fact that the Czech accounting school had a widely recognized existence even ahead the 90’s (the accounting department in Vysoka Skola Economica in Prague gathering well-known accounting researchers and practitioners; the explanation relies on the more industrialized economic structure in the Czech Republic before the war), while in the case of the Romanian accounting profession, even though it has an existence of

more than 80 years, it wasn't able to activate at its real value during the communist period (before 1989).

Without furthermore explanations regarding the historical development of the accounting reform developed within the two countries, we proceeded to analyzing the specific issue of current reporting for financial instruments under the IFRS, in order to determine the extent to which the two national accounting systems have absorbed the foresights of the international standard setting body.

Thus we have structured our paper on the following chapters: *Literature review* with the purpose of reflecting the actual knowledge stage in the field of reporting for financial instruments in the case of the international referential and the two national accounting systems, *Research methodology* within which we approached the two directions of our study: the particularities analysis for the two sets of GAAPs in correspondance to IFRS, as a theoretical description, and the empirical evidence for the similarities and dissimilarities between the considered sets of regulations, consequently followed by a chapter which details each one of them - *Current reporting for financial instruments within the Czech Republic and Romanias' national accounting systems- particularities analysis in correlation with the foresights of the international standard setting body* and *Measurement of similarities and dissimilarities between IFRS and the two sets of GAAPs - empirical evidence and results*. Overall the *Conclusions* chapter summarizes our findings by keeping the two directions which were established before – conclusions based on the particularities of each national GAAP (Czech and Romanian) and conclusions of the extended empirical analysis – and last draws some future research possibilities on the debated topic.

1. LITERATURE REVIEW

Research in the field of *accounting harmonization* has focused primarily on two basic aspects – the *reliability and the correctness of the evaluation* (e.g. Aisbitt, 2001; Emenyonu & Grey, 1992, 1996; Herman & Thomas, 1995). According to Alexander and Nobes (2004), the factors affecting the development of accountancy in a given country can be defined as follows: colonial and external influences, impact of capital providers, character of the legal system, impact of taxation, impact of the accounting profession. Beyond these aspects we should mention a set of conceptual approaches (Roberts *et al.*, 2005; Choi & Meek, 2005; Radebaugh *et al.*, 2006; Nobes & Parker, 2006, 2008; Elliott & Elliott, 2008) which emphasize a system of factors which are considered to be favorable or even determinant for the national accounting diversity. If we intend to identify the common elements of these approaches, we can conclude that the most often met aspects, which on one hand influence or play an important role in matters concerning the development of national accounting standards, and on the other hand determine the positioning of the accounting profession within the context of international accounting

harmonization, can be considered to be reflected through: the degree of global economic integration, the financing resources, the legal and political system, the fiscal system, the accounting professions’ status, the culture, the accounting language and other external influences (Mustață, 2008).

In 2002, the Council of the European Union issued an order imposing *an obligation* on companies listed on European stock exchanges to structure their consolidated final accounts *according to the IFRS* starting with year 2005 at the latest. If it wasn’t for these uniform accounting standards, currently, there would be 27 different methods of financial accounting reporting by listed companies in the EU (Whittington, 2005: 129). Brown and Tarca (2005: 201) anticipate that the future of the IASB will definitely be connected with the successful introduction of the IFRS in Europe. Therefore we can appreciate that the decision of applying IFRS within the European Union represents an approach which implicitly generates a process of reducing the accounting diversity in order to reach a certain level of uniformity, in the regional economic and political context of the European community.

Though the IFRS are not considered as an equivalent method of structuring statements in the *Czech Republic*, the Accountancy Act establishes a legal obligation for certain accounting units to use the IFRS within the framework of financial statements. This exception applies to consolidating accounting units issuing stocks registered on a regulated securities market in the EU member states. Other consolidating accounting units are given the option to structure their financial statements pursuant to either the Czech standards or the IFRS. A similar situation is met within the *Romanian* accounting system, where, through the regulations issued during the beginning of 2000, an implementation programme for national accounting regulation harmonized with the 4th European Economic Community’s Directive and with the International Accounting Standards was set for the period between 2001 and 2005 (OMFP 94/2001). This programme required all entities that overcame some size criteria (turnover, total assets, medium number of employees), at the end of the financial period, to implement regulations which were compatible with IAS/IFRS. The programme was still abandoned since Romania joined the European Union and this status implies developing similar programs and projects at the level of the whole region. Currently, the Romanian accounting system (OMFP 1752/2005) requires reporting under IFRS for entities which issue stocks registered on a regulated securities market, and also using IFRS in reporting for financial instruments is sometimes met (and allowed) within big companies, but only with the status of secondary (alternative) financial statements.

The reasons why IFRSs are considered to be *beneficial* can be synthesized as follows: facilitation of the access to foreign capital markets, improved credibility of multinational corporations on domestic capital markets, global comparability of accounting information, improved transparency, improved comprehensibility thanks to a “common accounting language”, easier regulations on capital markets

and reduced vulnerability of national accounting standards to political pressures (still, we underlie the fact that the decision of implementing IFRS at a national level, itself can also be influenced by the political factor and international lobby). All these aspects are also met within the trade literature (McGregor, 1999; Collett *et al.*, 2001; Choi *et al.*, 2002; Ampofo & Sellani, 2005) that approaches the issue of creating a unique set of general accepted accounting standards at global level.

Before the IFRS standards were adopted in the EU, it was *stock exchanges* in particular which *required* that *listed entities* submit final accounts *in compliance with the IFRS or US GAAP*. Previous researches dealing with the degree of disclosure (Cooke, 1992; Meek *et al.*, 1995), or the probability of using multinational standards (El-Gazzar *et al.*, 1999; Murphy, 1999; Ashbaugh, 2001; Dumontier & Raffournier, 1998; Leuz & Verrecchia, 2000; Leuz, 2003) indicate a positive correlation between the listing of accounting units on foreign markets and the degree of disclosure and use of multinational standards as the basis for financial reporting. Trade literature which approaches the topic of interaction between regulations issued by FASB and IASB (Choi *et al.*, 2001; Chawla, 2003; Zeff, 2007) sustain the idea that those standards which are issued by the international standard setting body (IASB) have a strong practical (material) character when considering matters of presenting financial accounting information.

The standards which are *most widely discussed* in terms of their practical implementation include namely: IAS 32 Financial Instruments: Presentation, IFRS 7 Financial Instruments: Disclosures, and IAS 39 Financial Instruments: Recognition and Measurement. The greatest benefit of IAS 39 is considered to be the wide application of the fair value method for the measurement of financial instruments. It is true that for a long time, it was the historical cost which was considered as the principal basis of measurement, and it was also used in the field of reporting for financial instruments. Nevertheless, the importance and volume of derivative transactions, whose value would be zero if the historical cost model was applied, have been on the rise recently. Whittington (2005) therefore emphasizes that it is much more appropriate to measure derivatives according to their present values reflected in the fair value through the application of IAS 39. Some experts, however, express their concerns regarding the fact that the application of IAS 39 leads to a certain degree of volatility within the framework of economic results and equity capital, and such volatility may differ from the real economic volatility. Previous studies (e.g. Leftwich, 1981), however, indicate that the application of different accounting rules is not usually connected with any changes of prices of financial instruments, unless the application of such rules has further economic consequences.

Prior *empirical research* on fair value measurement is mostly limited to financial instruments. Results so far support the incremental value relevance of fair value disclosures for securities (Petroni & Wahlen, 1995; Barth *et al.*, 2001; Echer *et al.*,

1996; Nelson, 1996) and derivatives (Venkatachalam, 1996) held by banks and insurance companies. Park *et al.* (1999) find value relevance of recognized fair values for available-for-sale securities under SFAS 115. While all these studies focus on financial sector firms, Simko (1999) finds no significant sign of incremental value relevance for SFAS 107 disclosures, for a cross-industrial sample, these being attributed to the insignificance of financial activities for the analyzed firms. With respect to other financial instruments, notably loans held by banks, results differ, which can be interpreted as lack of reliability due to private information. Even though, Beaver and Venkatachalam (2000) find value relevance for the discretionary component of loan fair values. Prior research on value relevance (defined as the association between accounting numbers and security market values) has focused on whether fair value disclosures in the banking industry have incremental information content over and above historical cost. Tests for incremental information content assess whether one measure provides information content in addition to that of another measure and are often used when one or more measures are given or required and another is supplemental (Biddle *et al.*, 1995; Jennings, 1990). Biddle *et al.* (1995: 3) point out that in the absence of an explicit test to examine whether one measure (e.g., fair value) alone is equally, less, or more informative than another measure (e.g., historical cost), incremental information content tests of fair value over historical cost measures can imply several different outcomes. Finding that fair value is incrementally informative can imply that fair value is as, more, or less informative than historical cost. Alternatively, finding that fair value is not incrementally informative can imply fair value is either equally or less informative than historical cost. Therefore, the mapping between an incremental and a relative information content test is not one-to-one. While incremental comparisons assess the incremental contribution of one measure over the other, relative comparisons reflect differences in incremental information content of the two measures.

Numerous studies have also dealt with the use of fair values in *banks’ investment portfolios*. For instance, Riffe (1993) and McAnally (1995) analyzed the information potential of the requirements of the US standard SFAS 105 for bank entities. Riffe (1993) proved that there was an important causal interaction between the values of off-balance sheet items and the value of the company’s equity capital. Other studies aimed directly at the use of fair values for reporting of financial instruments. Barth *et al.* (1995) tested how the financial reporting at fair values influenced the volatility of the economic result and how it influenced the price of shares. They demonstrated that the revenues, as well as the amount of equity capital based on reporting at fair values were more volatile than in the event of accounting on the basis of historical costs, and that the price of the shares was significantly influenced by such added volatility.

Theoretical research so far has been relatively silent on the properties and desirability of fair value measurement. While the informational quality of market values is unassailable under conditions of complete and perfect markets, the contribution of fair value measurement to valuation or contracting purposes is

unclear in a realistic setting (Beaver, 1998). The issue concerning fair value measurement is approached within the trade literature (Herrmann *et al.*, 2006; Jong *et al.*, 2006; Lopez & Rodrigues, 2007; Hann *et al.*, 2007) especially from the point of view of its' determination in correlation with different elements from the estate of the entity. Researches in the field (Hitz, 2007; Reis & Stocken, 2007; Sunder, 2008) also prove the existence of some approaches of the fair value issue which are based on conceptualization.

Pirchegger (2006) is concerned with the fact that accounting units primarily tend to note the high level of disclosure obligations in relation to *hedge accounting* and also the related costs. On the other hand, the primary goal of the standard-issuing authority is the incontestable effort to provide investors with highly relevant information. The fact that the information on hedge accounting should form an indivisible part of the financial statements is motivated by the effort to assure investors that the criteria applicable to the field of hedge accounting were applied correctly rather than by the fact that the information on hedge accounting causes considerable additional costs to accounting units. Numerous studies regarding the practice in this field have dealt with the bond between the economic and the accounting concept of hedging. Melumad *et al.* (1999), for instance, indicates that the application of hedge accounting in compliance with the US standard SFAS 133 leads to deviations from optimum hedging in the economic sense. However, Barnes (2001) draws attention to the fact that these deviations from economic hedging are the very consequence of the set hedge accounting model, pointing out that hedge accounting may motivate poorly performing companies to speculate and influence their economic results on a short-term basis. Several studies have dealt with the information and control effects of hedge accounting (e.g. Jorgensen, 1997; Hughes *et al.*, 2002). The most interesting finding lies in the fact that the voluntary application of hedge accounting leads to a deviation from the optimum hedging strategy (as opposed to the exclusive application of economic hedging without the application of the principles of hedge accounting).

2. RESEARCH METHODOLOGY

Starting with the belief that once regulatory bodies adopt a financial reporting paradigm, it becomes the guiding principle for accounting regulation, that is, standard setting, we began our research by first analyzing the foresights comprised within the IFRS concerning the matter of reporting for financial instruments and than moved forward to the two national accounting systems (the Czech and Romanian ones). Not only have we analyzed the three sets of regulations separately, but also explained and interpreted the particularities found within the two national accounting systems in correlation with the economic realities in each country, and also with the international framework. We have therefore developed an *a priori analysis* from the Czech and Romanian regulations' perspective.

Moreover we conducted an *empirical analysis* by testing the similarities and dissimilarities between the three sets of standards, taken two at a time in order to draw a well established conclusion regarding the comparability degree existent between them. The empirical approach is also based on the information gathered by closely analyzing the regulations mentioned above which were accordingly codified and assayed by using some statistical methods. A more detailed presentation of the empirical analysis process, and the methods which were used, is done within the chapter - Measurement of similarities and dissimilarities between IFRS and the two sets of GAAPs - empirical evidence and results.

Consequently we were then able to draw our conclusions on the two main directions established through the hereby developed scientific demarche, and also to design a short outlook of future research in the field.

3. CURRENT REPORTING FOR FINANCIAL INSTRUMENTS WITHIN THE CZECH REPUBLIC AND ROMANIA’S NATIONAL ACCOUNTING SYSTEMS – PARTICULARITIES ANALYSIS IN CORRELATION WITH THE FORESIGHTS OF THE INTERNATIONAL STANDARD SETTING BODY

Accounting for financial instruments under IFRS is complex. Entities should take the time to understand the requirements, including the impact on systems, processes and documentation. We have tried through our research to create an overview of the foresights in revised IAS 32, revised IAS 39 and IFRS 7, and then deepened the analysis at the level of the two national GAAPs of the countries considered for analysis. Without mentioning the specific elements comprised in the overview of the international referential, we proceed to summarizing the particularities which we found within the two national accounting systems by linking them to their international correspondent and also to the economic specificity of the country.

Reporting of shares

The *Czech* regulations require that accounting units re-valuate equity securities and ownership shares as at the balance date, applying either the method of equivalence or the fair value, depending on the type of portfolio in which the same are included. The fair value of the given instrument is always considered the optimum information; should it be impossible to determine it, the accounting unit uses an expert evaluation on the basis of an evaluation model. Accounting units in the Czech Republic may report equity shares in balance sheets in compliance with their purchase prices if it is impossible to determine the fair value in a reliable manner.

The *Romanian* regulations mention the possibility of valuation of financial instruments at fair value, and also by way of derogation from the general valuation

rules, entities may perform valuation at fair value in the consolidated accounts of financial instruments, including derivatives.

Fair value shall be determined by reference to: a market value, for those financial instruments for which a reliable market can readily be identified. Where a market value is not readily identifiable for an instrument but can be identified for its components or for a similar instrument, the market value may be derived from that of its components or of the similar instrument; or a value resulting from generally accepted valuation models and techniques, for those instruments for which a reliable market cannot be readily identified. Such valuation models and techniques shall ensure a reasonable approximation of the market value. A change in the value on an available for sale financial asset, other than a derivative financial instrument, may be included directly in equity, in the fair value reserve. The fair value reserve shall be adjusted when amounts shown therein are no longer necessary for the implementation of the valuation at fair value. The fair value reserve shall remain in the accounting records as long as the related financial instruments are carried in the balance sheet.

Unfortunately, the optimum situation, i.e. the derivation of the fair value from the market price, seldom occurs in the environment of the poorly transparent Czech and Romanian stock market, and that is why other models usually have to be employed. The disadvantages of evaluation on the basis of net value include the differences in evaluation bases used in accountancy, as well as the fact that the application of the principle of precaution is preferred among Czech companies, and the impossibility of re-valuation of certain types of property to higher values (as distinct from the IFRS).

Bonds

The *Czech* accounting reporting of bonds with a maturity period of less than one year does not show any significant discrepancies with the requirements of the IFRS standards. On the other hand, we should look with a critical eye at the fact that the reporting of these instruments with maturity periods exceeding one year is not consistent with the IFRS. Accounting reports presented by listed and non-listed companies are not comparable in the field of reporting long-term investments in bonds. Accounting units might prefer the application of Article 7 of the Czech Accounting Act (563/1991) specifying true and fair view; nevertheless, the tax aspects play their role, too.

In the *Romanian* case valuation at fair value shall apply only to liabilities which are: held as part of a trading portfolio or derivative financial instruments. Valuation at fair value shall not apply to: to non-derivative financial instruments held to maturity; to loans and receivables originated by the company and not held for trading purposes; and to interests in subsidiaries, associated undertakings and joint ventures, equity instruments issued by the company, contracts for contingent

consideration in a business combination as well as other financial instruments with such special characteristics that the instruments, according to what is generally accepted, should be accounted for differently from other financial instruments. Where a financial instrument is valued at fair value, a change in the value shall be included in the profit and loss account. However, such a change shall be included directly inequity, in a fair value reserve, where: the instrument accounted for is a hedging instrument under a system of hedge accounting that allows some or all of the change in value not to be shown in the profit and loss account or the change in value relates to an exchange difference arising on a monetary item that forms part of a company's net investment in a foreign undertaking.

Derivative Contracts

The most serious problems in the field of reporting derivative contracts by entrepreneurs manifest themselves in determining the fair values of these instruments, as well as the fair values of off-balance sheet receivables and off-balance sheet payables. Nevertheless, the negotiation of derivative financial instruments has entailed and, as can be reasonably feared, will entail an information asymmetry between the enterprise and the company with whom the contract is negotiated. The overwhelming majority of entrepreneurs are unable to determine the fair values of their derivative contracts, fully relying on the information supplied by financial institutions with whom such contracts are negotiated. Unfortunately, in practice, companies often have only information on the fair values of such instruments, lacking any information on the fair values of off-balance sheet receivables and off-balance sheet payables arising from the negotiated derivative contract.

On the other hand, accounting units are required to specify the type and scope of financial derivatives held by them, and their fair values and methods of measurement. In relation to the accounting reporting and disclosure of information on derivative contracts, the following aspects should be mentioned: insufficient information disclosed inconsistent approaches of companies to disclosing information – this applies not only to financial reports of various companies, but even to annual reports of single companies. Thus the comparison and analysis of the disclosed information is made very complicated. The respective pieces of information on the structure of derivatives, their nominal and fair values, types of derivative instruments, their duration, development etc. are usually scattered throughout the annual report. The levels of detail differ, and every company reports data in a different form. For instance, the nominal value is reported with every type of derivative instrument however, the fair value is reported in summary according to the risk hedged by the derivative concerned. Most accounting units in the *Czech Republic and Romania* declare in their financial statements that they do not use derivatives for speculative reasons. The problem of insufficient information on derivatives persists, carrying with it the risk of making it impossible to differentiate between speculative and hedging transactions, and enabling the misinterpretation of reports. The detailed description of the structure of derivatives allows for an improved detection of the purpose of derivatives.

Problems Connected with the Facultative Application of Hedge Accounting

The greatest risk connected with hedge accounting, however, seems to lie in the field of testing the efficiency of hedging relations. Not only is the majority of companies practically unable to test their hedge relations, but they also fear (not without reason) that the given efficiency test will show that hedge accounting is not beneficial; in other words, the test result will not match the requested interval of 80 % and 125%.

It is undeniable that even if the fair-value option was applicable to a greater extent in the *Czech Republic and Romania*, companies would hedge only cash flows. This particular rule questions the long-term perspective of hedging the fair value, with the accounting units applying the fair-value option allowed to re-valuate an automatically hedged item (if it is a financial instrument) without having to meet the demanding conditions of hedge accounting.

**4. MEASUREMENT OF SIMILARITIES AND DISSIMILARITIES
BETWEEN IFRS AND THE TWO SETS OF GAAPS - EMPIRICAL
EVIDENCE AND RESULTS**

In order to achieve a quantification of the similarity degree between the Romanian and Czech accounting referential we developed an empirical analysis with character of comparison between the two national accounting systems and also with the international accounting referential (IAS/IFRS). Starting from this approach we have identified a series of elements regarding financial instruments which we then organized within five big topics as follows: 1. Financial assets, 2. Financial liabilities, 3. Equity instruments, 4. Derivatives and 5. Hedge accounting. For each one of the 20 elements which were identified we proceeded to achieve a comparison between the accounting treatment as it appears within the three accounting referential considered for analysis. Thus, for each possible and/or existent accounting treatment within at least one of the considered accounting referential we have allocated the 1 or 0 value, where the 1 value shows that the considered accounting treatment exists within the considered accounting referential, and the 0 value is given for the situation when the considered accounting treatment isn't found within the considered accounting referential.

On a general level, in order to illustrate our methodological approach, we would benefit from the following situation:

Table 1. Exemplification of the analysis method used for the considered topics

Analyzed elements	The character of the accounting treatment		
	Czech Republic	Romania	IAS/IFRS
Financial liabilities			
Initial measurement			
Cost (the fair value of the consideration received), including transaction costs	1	1	1
Subsequent measurement			
Fair value, with gains and losses reported in income	1	1	1
Amortized cost	1	1	1

Based on such a situation which we built as a result of analyzing the accounting regulations within the two countries and having the international accounting regulations (IAS/IFRS) as a referential, we have empirically tested the comparability degree between the selected accounting systems from two major points of view: 1. the one referring to the similarities between them, and 2. the one of the dissimilarities between the three accounting systems. In order to achieve the proposed comparison, we have considered that the best analysis, in the case of this type of approach, is represented by the nonparametric correlation and the association degree between two or more than two considered variables.

Furthermore, the next step in developing our analysis was the using of the Jaccards’ association Coefficients, since the trade literature (Fontes *et al.*, 2005; Mustață, 2008) frequently uses this measurement instruments when an analysis at the level of national accounting regulations is aimed. On the other hand, the two Jaccard Coefficients offer the possibility of quantifying both the association degree and the dissimilarity degree between different sets of accounting standards taken into consideration for analysis.

So as to dimension the association or compatibility degree between two or more accounting systems, the calculation formula for the Jaccards’ Coefficients shows as follows:

$$S_{ij} = \frac{a}{a+b+c} \quad (1)$$

or

$$D_{ij} = \frac{(b+c)}{(a+b+c)} \quad (2)$$

where: S_{ij} represents the similarity degree between the two sets of analyzed accounting regulations; D_{ij} represents the degree of dissimilitude or diversity between the two sets of analyzed accounting regulations; a – the number of elements which take the 1 value for both sets of regulations; b – the number of elements which take the 1 value within the j set of regulations and the 0 value for the i set of regulations; c – the number of elements which take the 1 value within the i set of regulations and the 0 value for the j set of regulations.

The accounting analyzed elements are therefore given the 1 value for using a certain accounting method and the 0 value for not-using that considered accounting method or treatment (Fontes *et al.*, 2005: 428; Mustață, 2008).

As a result of the effective measurement of the comparability degree between the Czech, Romanian and International (IAS/IFRS) accounting referential based on Jaccards' Coefficients we can present the following existent situation:

Table 2. Comparison analysis based on Jaccards' Coefficients

Topic	Comparison	Czech vs. Romania		Czech vs. IFRS		Romania vs. IFRS	
		S_{ij}	D_{ij}	S_{ij}	D_{ij}	S_{ij}	D_{ij}
Financial assets							
	Recognition	1.000	0.000	1.000	0.000	1.000	0.000
	Initial measurement	1.000	0.000	1.000	0.000	1.000	0.000
	Subsequent measurement	0.667	0.333	1.000	0.000	0.667	0.333
	Disclosure	0.000	1.000	0.000	1.000	0.000	1.000
	Derecognition	0.250	0.750	0.000	1.000	0.000	1.000
Financial liabilities							
	Recognition	1.000	0.000	1.000	0.000	1.000	0.000
	Initial measurement	1.000	0.000	1.000	0.000	1.000	0.000
	Subsequent measurement	1.000	0.000	1.000	0.000	1.000	0.000
	Disclosure	0.000	1.000	0.000	1.000	0.000	1.000
	Derecognition	1.000	0.000	1.000	0.000	1.000	0.000

Financial instruments under the IFRS – a priori analysis from the Czech and Romanian regulations’ perspective

Equity instruments							
	Recognition	0.500	0.500	0.000	1.000	0.000	1.000
	Purchase of own shares	0.667	0.333	0.667	0.333	0.667	0.333
	Dividends on ordinary shares	1.000	0.000	1.000	0.000	1.000	0.000
Derivatives							
	Initial measurement	0.000	1.000	0.000	1.000	0.500	0.500
	Subsequent measurement	1.000	0.000	1.000	0.000	1.000	0.000
Hedge accounting							
	Recognition	1.000	0.000	1.000	0.000	1.000	0.000
	Fair value hedges measurement	1.000	0.000	1.000	0.000	1.000	0.000
	Cash flow hedges measurement	1.000	0.000	1.000	0.000	1.000	0.000
	Hedging of net investments in foreign operations measurement	1.000	0.000	1.000	0.000	1.000	0.000
	Disclosure	0.667	0.333	0.667	0.333	1.000	0.000
Total		0.738	0.263	0.717	0.283	0.742	0.258

The above presented table illustrates the fact that between the Czech and the Romanian accounting referential exists a high level of comparability regarding the issue of financial instruments.

In order to raise the quality of our comparability analysis, or in other words to strengthen the character of the obtained results, we have also proceeded to using other correlation and/or association coefficients regarding both the similarity and dissimilarity degree. This is why we have also used the Phi-square Coefficient, the Binary Euclidian Distance, the Lance and Williams Coefficient (all these being used for reflecting the dissimilarity degree) and the Roger and Tanimoto Coefficient (in order to show the similarity degree), which were added to the above mentioned Jaccards’ Coefficients. The comparative illustration of the obtained results is shown within the following two tables:

Table 3. Comparison analysis based on Dissimilarity Coefficients

	Phi-square Coefficient			Binary Euclidian Distance			Lance and Williams Coefficient			Jaccard Coefficient		
	CZ	RO	IFRS	CZ	RO	IFRS	CZ	RO	IFRS	CZ	RO	IFRS
CZ	0.000	0.370	0.458	0.000	3.000	3.873	0.000	0.138	0.211	0.000	0.263	0.283
RO	0.370	0.000	0.375	3.000	0.000	3.162	0.138	0.000	0.147	0.263	0.000	0.258
IFRS	0.458	0.375	0.000	3.873	3.162	0.000	0.211	0.147	0.000	0.283	0.258	.0000

Table 4. Comparison analysis based on Similarity Coefficients

	Roger and Tanimoto Coefficient			Jaccard Coefficient		
	CZ	RO	IFRS	CZ	RO	IFRS
	CZ	1.000	0.654	0.483	1.000	0.738
RO	0.654	1.000	0.623	0.738	1.000	0.742
IFRS	0.483	0.623	1.000	0.717	0.742	1.000

Furthermore, we will analyze and interpret the existing situation regarding the regulations in the three accounting referential in matters of financial instruments, situation illustrated through our empirical approach, within the next chapter of our paper.

CONCLUSIONS

Because of the two main directions which guided our whole research demarche we also express the reached conclusions in accordance with the two levels, and therefore start with summarizing the main particularities found within the two sets of GAAPs (Czech and Romanian) in correspondence to the international referential (IAS/IFRS).

The accounting reporting of unlisted companies in the field of financial instruments is to a certain extent affected by requirements compliant with the IFRS international accounting reporting standards. In the field of equity securities, there are identical requirements for the initial recording of purchasing prices; nevertheless, the subsequent re-valuations are carried out in a different manner, depending on the comparability of the assignment of the individual tools to the respective portfolios. The adoption of portfolios applicable in international standards and the subsequent application of identical requirements to them would be beneficial in the field of investments in equity securities in the Czech Republic and Romania. In the field of reporting bonds, however, the level of compatibility between the IFRS requirements and Czech regulations is not significant. The issue of amortization of the reminders between the nominal values of bonds and their subscription prices is treated particularly inappropriately (though the solution is relatively elegant in terms of taxation). That is why the introduction of the Held to Maturity portfolio would be beneficial in the Czech Republic on condition that the tax consequences are resolved at the same time, i.e. that the premium amortization is fully allowable for tax purposes from the viewpoint of the investor purchasing a bond. A relatively significant problem regarding accounting for derivative contracts lies in the fact that companies negotiating derivative contracts lack the

appropriate information and knowledge, as well as in the fact that the amount of disclosed information on such contracts is insufficient.

Furthermore we present a short analysis of the obtained results through the empirical approach. We mention the fact that we consider the empirical analysis to bring a broader image on the similarities and dissimilarities existing at the level of the three accounting referential as a result of our methodological approach in interpreting the character of the considered accounting methods/treatment and their place within one accounting system (Czech financial institutions have taken some significant elements from the international referential, situation which is also valid for the consolidated Romanian accounts). The obtained results whose validity we have tried to strengthen by using a set of different coefficients applicable for this type of analysis emphasize the following aspects:

- From the dissimilarity degree point of view we can notice that there is a higher level of comparability between the Czech and Romanian accounting referential in correspondence to IAS/IFRS, where issues regarding financial instruments are concerned. For example, the obtained values of the Phi-square Coefficient are 0.370 (Czech Republic versus Romania), 0.375 (Romania versus IAS/IFRS) and 0.458 (Czech Republic versus IAS/IFRS). If we take into consideration these values and also those obtained by using the Binary Euclidian Distance, the Lance and Williams Coefficient, the Jaccard Coefficient (in their dissimilarity form) we can conclude that from the regulations point of view the Romanian accounting system is a bit closer to the international referential than the Czech one;
- From the similarity point of view it is actually simply to also observe that the Romanian regulations on financial instruments seem to be quite compatible with the international referential IAS/IFRS (considering the Romanian accounting regulations versus IAS/IFRS we have obtained a 0.742 value in the case of Jaccards’ Coefficients and a 0.623 value when using the Roger and Tanimoto Coefficients).

Beyond the obtained values of the analyzed coefficients, we consider that the relative minor differences between the Romanian and Czech accounting referential on financial instruments allows the common development of the two capital market, and on the other hand can represent a favorable argument for the entities within the two countries to be quoted on the Czech and Romanian stock market.

Overall we conclude that our research demarche would be completed by also conducting an analysis of the existent practice in the field of financial instruments within the two countries and also at an international level as a referential. Therefore we would better follow the results of the above analyzed elements from the

regulations point of view, not to forget the fact that we would in that case also meet other influential factors for accounting practices besides the regulation aspects. In the main, we can this way shape an outlook of future research on the approached topic of financial instruments both by going further to accounting practices and maybe even by broadening the considered countries to be analyzed.

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