

Accounting for Derivatives: Hedging or Trading?

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Abstract: - Paper performs an analysis of the Czech and Romanian derivatives market through a deductive approach, starting from the macroeconomic picture of emergent capital markets of Central and Eastern Europe, and then moving to the specific case of Czech Republic and Romania. Findings reveal potential sources of information asymmetry which might put the informational advantage in the hands of some parties involved in derivatives trading. The very low level of information reported on derivatives operations might be the signal of an alarming situation concerning the characteristics of accounting information that already had its way through the current crisis.

Key-Words: - Hedging; Hedge Accounting; IFRS; Fair Value; Financial Derivatives; Risk Management

1 Introduction

Information provided through financial reporting plays a crucial part on the arena of international financial sector. The current financial crisis makes us reconsider the entire decision making process in financial areas at different levels; financial instruments still having a “front seat” in the whole story. The foresights of the international referential have always been closely analyzed, considering their compatibility to national accounting systems in the context of existing differences. The challenges in endorsing IFRSs are now highlighted by a big question mark on their capacity of properly defending the vulnerabilities of the international financial system.

Currently we are all witnessing the second great era of financial globalization, the first one ending in 1914. Regardless of the chosen measure in evaluating the globalization within the financial sector, evidence seem to show that capital markets were more open in 1914 than in any other subsequent moment in time up to the ‘70.

It is a century and a half that we need to look back in order to get down to the critical changes at the bottom of today's financial sector. Those minutes involved by the use of the telegraph are nowadays cut to microseconds considering the technical developments giving us wider access to information, significantly more rapid flows of data, fast means of communications and transportation.

All these contributed to the present financial sophistication, sustained particularly by the blast of financial instruments based on derivatives, simply considering for example the Black-Scholes derivatives pricing formula and developments from it or the insights of Modigliani and Miller as to how to think about the value of a firm.

Financial sector liberalization is considered to be the aim for all industrialized countries, the exact moment of it happening still depending actually on the legacy of controls from the 1930s and from World War II which were active for a long time (France ended capital control by the late ‘80, while even United Kingdom reached this goal in the early '80).

All these current realities lead both to a higher efficiency of the financial sector and higher vulnerability and therefore concerns towards potential risks within the international financial system. Massive numbers expressing the nominal value of derivative financial instruments raise fears concerning financial crisis, which could occur, but it is still the derivatives that made it possible for the risks to be separated from their original context by shifting them the ones most willing to assume them. Derivative financial instruments are seen by some as bringing a plus of efficiency and robustness in financial systems, but as “financial weapons of mass destruction” [3]. The legendary investor expressed his disapproval in his famous and plain-spoken “annual letter to shareholders” underlying the possibility of

derivatives inducing nasty accounting errors, some of them springing from “honest” optimism, but others being the result of “huge-scale fraud”. The main concern regarding derivatives is that the risks that are passed on through derivative contracts may be inappropriately placed and not adequately recognized. One possibility would be in the case when the risks move from people who understand them to those who don't. It is not to neglect that risks may be moving from places which are forced to mark to market to places which are not forced to mark to market, because many participants in financial markets prefer to retain the capacity to smooth their revenues and profits, these leading to information asymmetry issues.

Statistics released by the Bank for International Settlements show that approximately 93% of total derivatives outstanding as of 31 December 2006 are OTC derivatives. As an old adage has it, whenever competitive conditions are altered, new windows of opportunity open up, market niches grow in dimensions and the more agile companies refocus their plans to take advantage of the innovation. Therefore derivatives could be our friends or foes in accordance to how we design them, price them, use them, and control the exposure we are assuming through them as [5] sees it.

We have framed the topic of our paper within the macroeconomic picture of capital markets and linked it to the main events in their development process. We have therefore taken into consideration a brief description of the capital markets in countries from Central and Eastern Europe (CEE) which have joined the European Union (EU), implicitly being subjected to the integration process that involved interactions between Eastern and Western capital markets.

Since the collapse of the communist regimes the CEE countries acknowledged a transition period from a command economy to a market orientated economic system. Capital markets and the banking system are the major intermediaries that allocate savings and investments in market economies. Under the communist regime capital markets and banking institutions as we know them in Western economies did not exist. The transition in the field of capital markets and banks therefore had to start almost from scratch. As a consequence, although the capital markets of some of the CEE countries have developed quite positively they are still in an early stage.

Paper performs an analysis of derivatives' trading and accounting within the Czech Republic and Romania. Believing that comprehension of the past can color the assumed research questions we have focused on the Czech and Romanian capital market, particularly on aspects concerning derivatives. Data is being used from reports of international organizations surveying capital markets around the world. Finally we have focused on

the comparison of reporting of financial derivatives using IFRS in comparison with the national accounting regulations.

2 Literature Review

Capital market-based researches in financial accounting have been performed starting from the early '70s and still have strong grounding in order to represent a widely approached topic nowadays. In the review made while examining the European evidence for the relationship between accounting information and capital markets, [6] classify the European literature into three groups: studies of the market reaction to newly released accounting information; studies of the long term association between stock returns and accounting numbers and studies devoted to the use of accounting data by investors and to the impact of market pressure on accounting choices.

Analyzing the information content comprised by trading volume in modeling stock price is obvious since we all agree that price and quantity are two fundamental elements in any market interaction [24]. [13] found that the average trading turnover is related to a firm's characteristics, such as expected stock return and market capitalization while examining the implication of portfolio theory for the cross-sectional behavior of equity trading volume. Moreover they have focused on the implication of trading volume in an In temporal Capital Asset Pricing Model (ICAPM) framework showing that a hedging portfolio constructed on individual stock trading volumes consistently outperforms other predictors of future returns on a market portfolio, this hinting that trading volume contains valuable information that can be used to predict future market returns.

[12] performed a survey on emerging derivatives markets concluding that both commodity and financial derivatives markets have grown in emerging market economies over the past few years, though the sizes of the markets are relatively small compared to those of matured economies. Both theoretical and empirical researches which have addressed the role of derivatives markets in emerging market economies showed that commodity derivatives markets offer a more effective and welfare-improving method to deal with price volatility and that derivatives markets had their contribution in supporting capital inflows into these economies. These doesn't mean that using financial derivatives does not have its negative effects, such as leading to exacerbated volatility and accelerated capital outflow, seldom causing financial crisis but having the potential to amplify their negative effects and to accelerate contagion. [12] also stress that the underlying reasons for the negative effects are associated with the

leverage nature of derivatives transactions, non-transparent reporting of transaction risks, and unsophisticated or insufficient risk management controls in financial institutions, as well as weak prudential supervision. Their conclusion concerning the constructive development of derivatives markets in emerging market economies is that it needs to be supported by sound macroeconomic fundamentals and updated financial policies and regulations and that there is no uniform optimal development strategy that countries can adopt to sequence or structure their markets; gradual development schemes accounting for dynamics in different markets being encouraged.

[4] modeled and exploit the busty nature of interest-rate volatility in trying to understand the effect of uncertain and changing volatility on rate-sensitive derivative instruments. [11] examine whether bonds and interest rate derivatives are driven by the same set of risk factors, their results strongly suggesting the existence of systematic unspanned factors related to stochastic volatility in interest rate derivatives markets. [20] provide an accessible description and several examples of how to use Monte-Carlo simulation to value interest rate derivatives when the short rate follows an arbitrary time series process. [10] approached a general framework for interest rate derivatives valuation and construct an interest rate lattice for multi-state variable multi-factor term structure models in the Markovian HJM [8] framework based on Monte Carlo simulation and an advanced extension to the Markov Chain Approximation technique. Their proposed approach mixes Monte Carlo and lattice-based methods trying to exploit the best from both of them, therefore providing significant computational advantages and flexibility with respect to existing multi-factor Markovian model implementations for interest rates derivatives valuation. Their findings could be very important for asset-liability management for a financial institutions holding large portfolios of path dependent securities, such as mortgages, usually priced by applying Monte Carlo simulation and hedged by a portfolio of derivative securities.

[2] provide evidence on the relation between the board of directors and the firm's decision to use interest rate derivatives. Since the capital structure decision and hedging decision are considered to be endogenous they have modeled the firm's capital structure and its interest rate derivative decisions simultaneously. After the losses suffered by several prominent entities in the early '90 greater risk-management oversight was required by firms. If different incentives to managing risk exist between management and shareholders, then conflict situations might appear and moreover the outside members of the board of directors are expected to work in the best interests of the shareholders. [2] prove that

the decision of using interest rate derivatives is being influenced by boards of directors and that the decision varies with the composition of the board. A significant and positive relation was found to exist between the quantity of interest rate derivative use and the relative influence of outside directors. On average, corporate interest rate derivative use was proven to benefit shareholders, while there was no evidence for the managers' benefits.

Another interesting issue concerns the way investors evaluate managers in accordance to their option towards using or not derivatives, as soon as the outcomes of their decision is available, different theories offering different predictions. [9] find that investors are more satisfied with firm managers and assign a higher value to firms when managers use derivatives (that address company's risks) than when they do not. Their study also stresses the idea that investors believe that managers who use derivatives in these situations exhibit a higher level of decision-making care than those who do not use derivatives. Moreover they have documented that these inferences about greater decision-making care do not apply to the speculative use of derivatives.

We believe there is no further need to argue for the role of accounting information in launching the mechanisms of capital markets, but for the impact of accounting regulations on the outcome of financial reporting. Since this study focuses only on accounting regulation aspects we will also stop at previous formal accounting researches. Still we are fully aware that achieving a complete diagnose for the two selected national accounting systems would involve extending the study to actual accounting practices, that is material harmonization, but that will be the subject of future research. Explaining the accounting practices in one country requires a double entendre analysis. The basic path refers to accounting practices being determined by accounting regulations. Another important aspect is accounting practices picking up "habits" which are not foreseen by national accounting regulations¹. Formal harmonization holds its merits through the property of a priori analysis to produce results on hypothetical reporting alternatives prior to implementation and therefore offering support to standard setting bodies and national regulatory bodies [1].

Trade literature also encourages the methodology which involves taking into consideration the cultural dimensions of analyzed countries. The development level of capital market leads to different forms of market efficiency. As discussed before, financial market informational efficiency represents the security prices

¹ Known within the trade literature as spontaneous harmonization, a form of material harmonization

capacity to instantly and fully reflect all relevant available information affecting them. In other words, this would mean that it is not possible to earn excess return in such an efficient market, and also, that the prices are a rational valuation result. This leads us to other worldwide discussed issues on fair value for financial instruments which will not be approached in this paper, but still represents a boundary stone where accounting for financial instruments is concerned. Depending on completeness and speed of information incorporation in securities prices, [7] identified three levels of informational efficiency:

- Weak form, in which the information set is limited to historical prices;
- Semi-strong form, characterized by the integration in prices of all the publicly available information (e.g., annual dividends or earnings announcements, etc.);
- Strong efficiency form is an ideal and theoretical situation characterized by instant and full integration in prices of all information related to assets, either public or private (those private are usually available only for insiders).

The complete financial theory is based on the fundamental hypothesis of rational agents investing in the financial markets. This rationality is characterized by a continuous pursuit of the investors to maximize their utility function (actually maximizing the return of the investment for a given risk level or minimizing the risk for an expected return level). Although most investors show a motivated risk aversion, still financial market implies the existence of investors indifferent to or with preference for risk. We therefore consider the cultural inheritance of a people to play a decisive role in our opinion.

The development of the capital market is sustainable through an active attitude on behalf of financial investors. It is them who search to reach profits exceeding the average and therefore fully use information. A developed capital market is characterized through the fact that the differences between stocks prices and their real values are levelled through the markets self regulating mechanism. Cultural dimensions therefore can induce the classification of investors. Model of [14] shapes a typology of two categories:

- arbitrageurs, which accurately assess the true risks and expected returns offered by all securities (“smart money” - they are completely compatible with efficient markets theory); and
- uninformed (“noise”, or liquidity traders), who trade based on beliefs or sentiments, which are not fully justified by fundamental rational valuation.

3 Research Design

Believing that comprehension of the past can colour the assumed research questions we have first created a brief description of emergent capital markets of CEE and emphasized aspects concerning derivatives trading, and then proceeded to a deductive approach toward the chosen countries for detailed analysis. Furthermore we have performed a quantitative analysis of the trading volumes within their national stock exchanges trying to interpret their informational content in correlation to the year previous and subsequent to EU accession.

The next step in our scientific demarche lead us to focus on the Czech and Romanian capital markets, also focusing on aspects concerning derivatives. The final step of our analysis assumes the role of an empirical analysis performed on companies listed on the Prague Stock Exchange. We have focused on the comparison of reporting of financial derivatives using IFRS in comparison with the Czech accounting regulations. The results are based on the analysis of annual reports of 51 listed companies.

4 Descriptive Analysis

Opening capital markets to international investors brings significant benefits in knowledge spillovers for the financial sector, improvements in domestic accounting, prudential supervision standards and portfolio and risk management. Trading in derivative financial instruments and other financial innovations offering new opportunities for the financial sector to bear risks represents a qualitative change influencing the development of capital markets. Therefore we have provided some information on the stock exchanges in the CEE countries joining the EU along with the two states considered for analysis, which will be furthermore detailed in the following chapters of the paper.

4.1 Development of Capital Markets of Czech Republic and Romania

Since September 1, 1995, the Prague Stock Exchange in the Czech Republic has provided trading in three markets. The Main and Secondary markets have emerged from the original Listed market, and the Free market comprises the former Unlisted market. The whole process of the market segmentation was primarily motivated by the Exchange’s efforts to clearly profile two basic groups of securities: Minimum capital requirements, quality of issue and commitment of the issuing company to provide regularly financial information and promptly report corporate actions are the basic criteria for assignment of an issue to a particular market. The Czech Republic realized an

extensive liberalization of capital movements by the Foreign Exchange Law of 1995 when joining the OECD. Further liberalization measures were taken in 1998 (the new governmental decree on Foreign Exchange Operations came into effect on January 1, 1999) in the area of financial credits and guarantees, issuing of foreign securities on the Czech market, operations in money market instruments and derivatives and currency purchase abroad by residents.

The Romanian Bucharest Stock Exchange (BSE) celebrated in 2007 its 125th anniversary since its first opening in 1882. At that time, the market was dominated by stocks of companies from fields like banking, oil, mining, insurance and transport. In 1935 there were 56 shares listed and 77 fixed income securities. After a peak in 1938, the Exchange was closed in 1948, when the communist regime nationalized all public companies. In 1994, the Romanian Parliament passed the first capital market law, setting up the legal framework for the creation of the new and modern capital market. The National Securities Commission, the BSE, brokerage companies, and the National Association of the Brokerage Houses have been set up based on the provisions of this law. The BSE was re-established in April 1995, and the first trading day took place on November 20th. The entire trading process took place from the beginning in a dematerialized environment. The most recent law, Capital Market Law 297/2004, harmonizes the local legislation with the latest EU Directives regarding capital markets. Institutional changes took place also during the 11 years of operation. Set up in the beginning as a public interest institution, the BSE went in 2005 through a process of demutualization, and the 67 intermediaries, members of the BVB, became the shareholders of a newly set-up joint stock company. Also, as the new law required, the function of clearing and settlement was externalized. The new Central Securities Depository was set up at the beginning of 2007.

Practically, this situation shows that the Bucharest stock exchange feels the crisis now present on more mature capital markets (like the one from US) in a more emphasized manner than the Bulgarian one. This might be the result of a stronger connection of the Romanian capital market with the international context, or just a weak management from the behalf of the Romanian settlement bodies. We consider that the realities of the years to come will offer us an answer for this question.

Furthermore we will concentrate on the two countries chosen for analysis, the Czech Republic and Romania. According to a study performed by the National Bank of Romania the volume of derivatives trading through banks in Romania was at the end of 2002 of 170 mil dollars, in comparison to the one of 1,217.3 mil dollars in the Czech Republic. The development of derivatives

trading within banks in the Czech Republic was influenced by the active involvement of foreign banks and their subsidiaries, on the Czech capital market. Most of these banks came from member countries of the EU, suggesting a direct relationship between the degree of knowledge on financial innovations and the development of the market. Another influential factor for the derivatives in the Czech Republic was the concentration of the banking system by extending the group of medium banks against the small ones, all these taking place at a later time in Romania.

If we approach a comparative analysis of the two stock exchanges, the one in Bucharest and the one in Prague, from the traded shares point of view we can notice that their value in the case of PSE is 25 times larger in terms of turnover (millions USD). Also we can see an almost double market capitalization on PSE which has half of the number of the listed companies on the BSE for the considered period (see Tables 1 and 2):

Table 1. Trading Figures of PSE (shares and derivatives)

Issue	Shares		Derivatives	
	Trades	Deals	Trades	Deals
Turnover (mil. USD)	35 583.03	2 076.56	0	0
Trades	567 893	3 138	29	0
Market Capitalization (mil. USD)	43 529.9	43 529.9	0	0
Listed Companies	32	32	8	8

Source: European Exchange Report 2006

Table 2. Trading Figures of BSE (shares and derivatives)

Issue	Shares		Derivatives	
	Trades	Deals	Trades	Deals
Turnover (mil. USD)	1 460.49	131.75	0	0
Trades	601 499	193	0	0
Market Capitalization (mil. USD)	23 661.45	23 661.45	0	0
Listed Companies	53	53	0	0

Source: European Exchange Report 2006

An overview of the two stock exchanges for the analyzed period can conclude that the Czech stock exchange has a higher degree of development than the Romanian one, but the potential for further developments of the two remains as future research topics.

Summarizing there are some particular aspects, which must be considered for modeling the Romanian capital market. For example, a significant part of share capital for the listed firms owned by the Romanian State was transferred, free of charge, to the population. Therefore, the market's downward slope could be the consequence of the under-valuation of these capital shares. Another particularity for the Romanian financial market is the high rate of return for T-bills, which is one of the greatest in the economy, exceeding the interest rate for the banking deposits and return on equity for most firms. As a result, investments are orientated to the T-bills and the demand for shares is decreased. This aspect could be a supplementary cause for anomalies in rational fundamental valuation.

Even if since 2001 spectacular privatizations had taken place, what it represents the state's part in the capital of companies listed on the Romanian capital market still stands for about two thirds. In other words the overall picture of the Romanian capital market allows an optimistic view, but still the derivatives market is currently underdeveloped.

The potential of the Romanian capital market should also be exploited in the sense of derivatives trading, statistics also showing that even the periods of high volatility in 2007 did not bring a development of using instruments for covering the risks. The weight of the incomes brought by operations with derivatives in total incomes of banks is declared by bank managers to be infinitesimal, the small degree of using derivatives for protection against the volatility of the exchange rates being blamed on a faulty predictive management.

Still in the Czech Republic the most painful reforms ended by the time they joined the EU, and therefore no fundamental reforms were needed after 2004. From this point of view they were relatively better prepared for the adhesion. The few extra years as a member of EU also had their influence on the Czech capital market. Furthermore we will perform a detailed empirical analysis on trading for derivatives on the Prague Stock Exchange. Their trading for derivatives started in September 2006 and therefore we were able to use data published in the Annual Reports of the companies and their Financial Statements for the period of 2006 in order to have an image upon actual accounting practice. A similar analysis was not possible for the Romanian situation (because of missing data, trading for derivatives on the Bucharest Stock Exchange only starting in 2007) but will be the subject of or future research.

Although in the United States derivatives have been traded since around the middle of the nineteenth century, in the Czech Republic a derivative was an unknown term until lately – or rather a term referring to someplace on

an unknown empire. The situation started to change roughly in the late '90, considering the macroeconomic shocks and government crisis in 1997 when interest rates increased significantly and the Czech crown devaluated from day to day. At that time companies felt, for the first time, how heavy impact an unexpected and uncounted change of market conditions may have on them. From 2001 to 2004 another unusual phenomenon occurred which shook the business sector; should a prophet have predicted it at the end of the '90, he would probably be claimed to be crazy. The dollar's exchange rate against the crown dropped from over 40 CZK/USD to 20 CZK/USD (see Figure 1). Companies that had signed their contracts with their customers in dollars, but with suppliers in crowns endured a great exchange rate risk and they frequently paid a lot when the dollar dropped. At the moment we also have to mention world prices of oil and oil products which rocketed so high that nobody could have expected it several years ago.

Figure 1. Evolution of Exchange Rates (CZK/USD, CZK/EUR) during the Period 1999 - 2009.



Source: www.cnb.cz

There are a few reasons which might be considered for the Czech companies starting, or being stringed, to make derivative businesses. The praiseworthy motive is the control of financial risk, elimination of possible unexpected losses from unpredictable movement of exchange rates, interest rates, commodity prices or other market factors which a company cannot control for in any way. This motive, however, is not the only one. In lots of cases companies conclude derivate trades - although they hardly admit it - simple because they want to try such a business. And there are also businesses - fortunately only exceptional - when a company agrees derivate trades that even cannot be determined as hedging and they represent only mere speculation, or an adrenaline game in the market casino. We should also add that such an adrenaline game is usually hidden under the robe of complex models and studies, adding the special shade of scientific, modern and progressive qualities.

In the Czech business sector derivatives are mainly admissible via banks. The access to derivative stock exchange is rather complicated and is related with considerable transaction costs. Some companies, however, are offering the access to derivative stock exchange and it will only take some time before Czech companies will actively begin the search for the access.

4.2 Current Stage of Accounting in Czech Republic and Romania

Numerous researches deal with information potential of measurement and accounting. Information systems are to assure enough information and transfer it according to a company's need, in relation to a company organization structure [21]. Knowledge is a fluid mix of framed experience, values, contextual information, expert insight and grounded intuition [22]. One portion supports day-to-day decision making; another part is used for tactical and strategically decision making [23].

In an accelerated process of reforms, countries in Central and Eastern Europe moved from centrally planned economy towards a market economy system. Financial sector liberalization is considered to be the aim for all industrialized countries, the exact moment of it happening still depending actually on the legacy of controls from the 1930s and from World War II which were active for a long time (France ended capital control by the late '80, while even United Kingdom reached this goal in the early '80). After the experience of a greatly simplified accounting which was essentially a statistical exercise closely correlated with the central plan, former socialist countries of Central and Eastern Europe should have had one clear objective. That is finding a fair solution for their national accounting system based on acknowledging the particular circumstances of each country. On the other hand the recognition or acceptance of international standards could have been the solution for all economies in transition, but while not preventing the aligning to the European Directives.

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 Directives since the country was a candidate for integration within the E.U., and
- the need to use an inspirational resource since there was no time for creating a new own accounting system.

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 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
- the French models' image of simplicity which could be adjusted and allowed a combination of answers for all expectations on micro and macroeconomic level.

Previous researches [19] tried to make a time demarcation for the evolution of the national accounting system after the events of 1989. Four significant periods have therefore been identified and connected with stages in the evolution of the accounting harmonization process for the national regulations with the international referential (IFRS). The first period is considered the 1990 – 1994 and was called the beginning of the transition towards a market economy. This period is characterized through a complex process of transition from the centralized economic system towards an economy based on the capital market. This process which involved an advanced system of reforms having as key elements the privatization of economic entities, work force, developing the capital market, conversion of the national currency, price liberalization and macroeconomic stability.

The second period 1994 – 1997 was called the pre-harmonization period of the national accounting system with the international referential. Year 1994 brought a new accounting system, based on the French one and also the elaboration of a new General Chart of Accounts. This Chart of Accounts based on the philosophy of the French accounting system contained 100 mandatory accounts, which were attributed a name and number established through regulations. Virtually there was no possibility to create or personalize the general chart of accounts at the level of economic entities, according to their informational needs.

Within the next period, Romania becomes a candidate for E.U. accession and therefore develops an intense program of reforms and changes meant to facilitate its road towards the E.U. The key element of this process is represented by the harmonization of the national financial reporting system (including accounting

practices, audit and fiscal issues) with the E.U. Directives and IFRSs. All these aspects mainly aimed at raising the level of direct foreign investments and the value of international trade for the country. This period, 1997 – 2000 is called the harmonization period.

The last period (from the year 2001) is characterized by a large number of regulations issued in the field of accounting and financial regulations. The most relevant ones are

- Order 94/2001 for the approval of the accounting regulations compliant with the 4th E.U. Directive and with the IFRSs;
- Order 306/2002 for the approval of the simplified accounting regulations, compliant with E.U. Directives; as well as
- Order 1752/2005 for the approval of the accounting regulations compliant with E.U. Directives.

Even with the existence of numerous other regulations in the field of financial accounting for this period, it is easily to observe that Romanian accounting standards setters were oriented to harmonization of national accounting system with the international referential. We consider that the political factor and the interest of joining the E.U. had a direct significant influence on the character of the national accounting regulations.

The case of the Czech Republic is interesting through the choice made in 1991 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;
- English model didn't have enough credibility because of its' dispersion and because of some scandals which were publicly presented;
- American model seemed to be complicated and difficult to implement; and
- the aim of the Czech Republic to integrate within the E.U. (majority of E.U. countries use the French model).

Unlike Romania, in the Czech Republic interventions of 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, while in the case of the Romanian accounting profession it wasn't able to activate at its real value during the communist period.

The evolution of Czech financial reporting may be divided just to two major stages. The pre-harmonization period lasted from 1993 until 2001. The Czech accounting at the very beginning adopts the E.U. directives, having horizontal balance sheet and vertical income statement (expenses very divided just by nature). At that time there was a predominance of cost model as a major measurement basis and it was impossible to use fair values for revaluation purposes.

The second stage (2002 – 2004) shall be named as harmonization period, as the Czech Republic finally joined the European Union in 2004. At that time was firstly introduced the fair value approach. This measurement basis was allowed to use for certain financial instruments (financial derivatives, financial assets held for trading or available for sale). From the year 2004 it is granted by Czech Accounting Act, that the listed companies shall present their financial statements based on IFRSs.

On the other hand reporting of non-listed companies still differs from IFRSs. It is not allowed to use present value concept as a measurement base for long-term financial securities or long-term financial instruments (i.e. receivables, liabilities). As upon IFRS companies have to apply for reporting of financial leases the substance over form criterion, upon Czech accounting rules it is still the lessor who reports the object of financial lease [15, 17, 18].

The prudence principle is a driver of both accounting systems, them being an inheritance of the French model as in Romania's case, or also the influence of the German accounting model and Schmalenbach's concepts in Czech's case.

4.3 Analysis of Reporting of Financial Derivatives by Listed Companies

Our analysis is performed on data collected from 51 companies listed on the Prague Stock Exchange. The results obtained on the Czech companies show that the main issue in reporting for derivative operations is the very low level of the information about derivatives. Moreover the companies are in this way non-uniform although they should meet the requirements of IAS 32 (Financial Instruments: Presentation), IAS 39 (Financial Instruments: Recognition and Measurement), IFRS 7 (Financial Instruments: Disclosures) and IFRS 9 (Financial Instruments)². Therefore the data are very difficult to compare and interpret.

² IFRS 9 will replace current IAS 39 from the accounting period 2013. Sooner application is strongly advised by IASB (International Accounting Standards Board – IFRS standards setter)

Information concerning the structure of the derivative operations, their nominal and fair values, types of the derivative instruments is crumbled on the whole length of the annual report. For example the company reports nominal values for each type of derivative instrument, but the fair value of these instruments is aggregated only for the types of financial risks. Another problem is the reporting of cross currency swaps. Some companies report them as a part of the currency risks while other as an art of the interest rate risks.

The majority of the companies didn't report the information about their hedging strategies. The shareholders of these companies therefore have no information on which part of the sum could be classified as a fair value hedge and which part as a cash flow hedge. There was no information reported about the measurement of the efficiency of the hedge accounting. Companies only cribbed the Act about derivatives.

Summing up our empirical analysis on Czech companies we could say that information given within their annual reports is formal, non-uniform and without relying on a polished system. The majority of the companies reported, that the derivative operations are not used for speculation. Therefore the companies which didn't mention this fact demonstrably use derivative operations for the speculation. We assume that the companies are nowadays more cautious in using these operations than in previous years. But we should realize that the very low level of the information concerning the derivative operations have a negative impact on the possibility of making fair financial decisions because of the information asymmetry. Another problem that occurs is also the measurement of fair value in the Czech OTC derivative market. Finally there shall be stated that the very same situation in the way of disclosures in within all emerging countries in European Union.

5 Conclusion

The lack of experience is felt not only in trading and handling of derivatives but also where accounting aspects are concerned. Even though, as shown in a previous study performed on formal harmonization of issues concerning financial instruments [16], the accounting regulations have absorbed a great deal of the foresights of the international referential (referring here to IFRS), the actual accounting practices seem to show otherwise, seen through the lens of companies' financial statements. The low level of information provided for derivatives operations can turn derivative financial instruments into a potential source of private information and furthermore to abnormal returns, and not to forget inefficiency of the market since all the market participants do not have access to the information they need for their decision making processes.

The tricks of trade connected to derivatives refer to their ability to rapidly generate imaginary profits or virtual losses, which respects the foresights of legality and therefore can be shown in the income statement as the real thing, and in the same time they can be used to hide big investment losses.

[18] states that there is statistically significant evidence of different market effects of profits and losses, in that profits are more persistent than losses. However there is no statistically significant evidence of earnings conservatism in the Czech and Romanian market. These results are most probably due to the continuing influence of restrictive tax regulations that mitigate any tendency towards conservatism, as well as the transitional nature of the economy.

This being admitted by one of the smartest financial operators, makes us think twice about really understanding the risks involved by engaging derivatives trading, not only through the possibility of them escaping management control, but moreover through the responsibilities that stand on accounting information to provide the proper information for all market players. This analysis identified potential sources, if not hostess, of information asymmetry that might evolve together with the markets' development and derivative trading. Currently we might find an excuse for the low level of information provided by companies on derivatives trading, in the development level of capital markets and therefore the lack of experience in reporting, but still we shouldn't forget this might be seen as a new window of opportunity in a less ethical manner by those having the informational advantage.

Czech Republic and Romania seem not to be directly affected by the current crisis, only considering indirect influences, the psychological effect being one of them, which could moreover be influenced by the high uncertainty avoidance documented in the paper. Unfortunately, despite theoretical reasoning, recent developments have proved us that crisis have their way of damaging even where it is not expected to have propitious factors. Years 2009-2010 brought clear signs of vulnerability in the Czech Republic. National currency has lost field in comparison to euro, and even this should at least be beneficial for export operations, we also encounter difficulties on western markets strongly affected by the crisis. A number of bankruptcies and reduction of activity have also been registered. The reality is that a financial crisis finds its window in order to get amidst national economies, but we need to look at it as a part of the complex mechanism and focus on getting over it.

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References:

- [1] C. Bonaci, D. Matis, and J. Strouhal, Financial Reporting Paradigms for Financial Instruments – Empirical Study on the Czech and Romanian Regulations, *Journal of International Trade Law and Policy*, Vol. 9, No. 4, 2008, pp. 108-117.
- [2] K.A. Borokhovich, K.R. Brunarski, C.E. Crutchley, and B.J. Simkins, Board Composition and Corporate Use of Interest Rate Derivatives, *The Journal of Financial Research*, Vol. 27, No. 2, 2004, pp. 199-216.
- [3] W. Buffett, *Letter to Shareholders*. Annual Report of Berkshire Hathaway Inc., 2003.
- [4] P. Cotton, J.-P. Fouque, G. Papanicolaou, G. and R. Sircar, Stochastic Volatility Corrections for Interest Rate Derivatives, *Mathematical Finance*, Vol. 14, No. 2, 2004, pp. 173-200.
- [5] D.N. Chorafas, *Introduction to derivative financial instruments*, McGraw – Hill Finance and Investing, 2008.
- [6] P. Dumontier, and B. Raffournier, Accounting and Capital Markets: A Survey of the European Evidence, *European Accounting Review*, Vol. 11, No. 1, 2002, pp. 119-151.
- [7] E.F. Fama, Efficient Capital Markets: A Review of Theory and Empirical Work, *The Journal of Finance*, Vol. 25, No. 1, 1970, pp. 383-417.
- [8] D. Heath, R. Jarrow, and A. Morton, Bond Pricing and the Term Structure of Interest Rates: A New Methodology for Contingent Claims Valuation, *Econometrica*, Vol. 70, 1992, pp. 77-105.
- [9] L. Koonce, M.G. Lipe, and M.L. McAnally, Investor Reactions to Derivative Use and Outcomes, *Review of Accounting Studies*, Vol. 13, No. 4, 2008.
- [10] M.V. Kramin, S. Nandi, and A.L. Shulman, A.L., A Multi-Factor Markovian HJM Model for Pricing American Interest Rate Derivatives, *Review of Quantitative Finance and Accounting*, Vol. 31, No. 4, 2008, pp. 359-378.
- [11] H. Li, and F. Zhao, Unspanned Stochastic Volatility: Evidence from Hedging Interest Rate Derivatives, *The Journal of Finance*, Vol. 56, No. 1, 2006, pp. 341- 378.
- [12] D. Lien, and M. Zhang, A Survey of Emerging Derivatives Markets, *Emerging Markets Finance and Trade*, Vol. 44, No. 2, 2008, pp. 39-69.
- [13] A. Lo, and J. Wang, Trading Volume: Implication of An Intemporal Capital Asset Pricing Model, *Journal of Finance*, Vol. 61, 2006, pp. 2805–2840.
- [14] A. Shleifer, and L. Summers, The Noise Trader Approach to Finance, *Journal of Economic Perspectives*, Vol. 4, 1990, pp. 19–33.
- [15] J. Strouhal, Reporting Frameworks for Financial Instruments in Czech: Czech Accounting Practices versus IFRS, *WSEAS Transactions on Business and Economics*, Vol. 6, No. 7, 2009, pp. 352-361.
- [16] J. Strouhal, C. Bonaci, and D. Matis, Fair Value Accounting for Financial Instruments: A Historical Perspective, *International Advances in Economic Research*, Vol. 15, No. 4, 2009, pp. 490-491.
- [17] J. Strouhal, J. Mackevicius, and S. Zverovich, Comparison of Reporting Bases: Case of Czech and Lithuania, *International Advances in Economic Research*, Vol. 14, No. 4, 2008, pp. 483-484.
- [18] J. Strouhal, L. Mullerova, Z. Cardova, and M. Pasekova, National and International Financial Reporting Rules: Testing the Compatibility of Czech Reporting from SMEs Perspective, *WSEAS Transactions on Business and Economics*, Vol. 6, No. 12, 2009, pp. 620-629.
- [19] A. Tiron Tudor, and R. Mustata, *Recent Accounting Development in Romania on the Way to the European and Global Harmonization*, In Stavárek, D. (Ed), *Future of Banking after the Year 2000 in the World and in the Czech Republic*, Vol. 10, 2005, pp. 1830-1848.
- [20] S. Treepongkaruna, and S. Gray, Short-term Interest Rate Models: Valuing Interest Rate Derivatives Using a Monte-Carlo Approach, *Accounting and Finance*, Vol. 43, 2003, pp. 231-259.
- [21] Z. Tuckova, and J. Strouhal, Knowledge-Intensive Services: New Leader of Production Stages?, *WSEAS Transactions on Systems*, Vol. 9, No. 4, pp. 432-441.
- [22] Yuhua Li, B.A. Zuhair, and M. David, An Approach for Measuring Semantic Similarity between Words using Multiple Information Sources, *WSEAS Transactions on Knowledge and Data Engineering*, Vol. 15, No. 4, 2003, pp. 871-882.
- [23] Yu Chang-Rui, and Luo Yan, Research on Models of Decision-Making Problem Recognition, *WSEAS Transactions on Business and Economics*, Vol. 5, No. 5, 2008, pp. 37-43.
- [24] Z.G. Zhou, The High-Volume Return Premium: Evidence from the Chinese Stock Market, *Review of Quantitative Finance and Accounting*, 2009, [online version].