



**BABEȘ – BOLYAI UNIVERSITY**

**CLUJ-NAPOCA**



**FACULTY OF ECONOMICS AND BUSINESS  
ADMINISTRATION**

**DEPARTMENT OF POLITICAL ECONOMY**

# **PhD Thesis**

**- SUMMARY -**

**PARADOXES OF MODERN STOCK EXCHANGE MARKETS**

**Scientific Coordinator:**

**Professor CIOBANU Gheorghe, PhD**

**PhD Student: Ioana-Cristina SECHEL**

**Cluj-Napoca  
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**Keywords:** paradoxes of stock markets, stock investment, modern stock market characteristics, fictitious capital, the January effect, the end of month effect, the weekend effect, the size effect, neuroeconomics, information asymmetry, investment culture, risk aversion.

## **Introduction**

Today, the financial market is a reality that can be found in any modern economy. Financial market is necessary for any economy, which is mainly characterized by a great dynamism and innovation. It must be constantly adapted to the economic environment but more than that, it can greatly influence the economic environment in the country (economy) in which they operate.

Financial market or capital market offers countless opportunities for gain, for their actors but also creates risks for all participants.

The identification of so-called paradoxes of stock exchanges, and the ways of their forming process, the factors influencing the elements that make up such paradoxes and impact on the market and the various actors brought to it, is a real challenge. Any delineation of some discrepancies in practice that economic reality of economics specialist, could have unexpected results, some of these results may have solid arguments about the fundamentals of economics.

The choice of research topic - Paradoxes of modern stock exchange markets - and the field of interest - Economics and International Affairs - we argue with the fact that in this area of research- capital market in Romania, is still at it's early experience, relevance of research in this area may be considered a priority in the development of the Romanian economy and beyond. This points to the importance of research. As regards the capital market practice, the oldest practitioners currently have about 17 years experience in the Romanian capital market, given that Bucharest Stock Exchange was operational in October 1995.

The PhD thesis aims to be focused on the study of financial markets as a whole and the principles considered basic to the functioning of stock markets. The aim of the thesis is to research paradoxes stock exchanges, phenomena that contradict economic theory expert, and trends in the field with respect to the real situation in the financial markets. We took into consideration the problems and anomalies encountered at macroeconomic level and the causes which determined the appearance of such practices in international investment environment.

In the final part of the thesis, we submit for consideration a case study based on responses of several brokers active in the stock market in Romania and beyond. We consider such practices, trends and gaps that appear in the investment environment. To this aim we

used the questionnaire method in order to obtain relevant data from the authorized brokers on the Romanian market as well as international ones.

The working hypothesis for scientific research in this area is the existence of significant discrepancies in the evolution of the real economy on the one hand and changes in financial markets, on the other hand. We consider for the moment that these discrepancies are caused mainly by differences in interpretation of various financial market participants, or participants in the real economy, for various economic or other phenomena. Another hypothesis that launch our research is related to the formation of necessity or opportunity of so called bubbles in financial markets, which are directly related to the natural economic cycles that occur over a period of time in the economy.

As scientific research methods, we used both induction and deduction, to observe phenomena investigated for their explanation in terms of dependency relationships among the factors generating the phenomenon and the phenomenon itself, or to verify how the results of scientific research assumptions underpin initially proposed. Induction involves the formation of an analysis of empirical data, and can thus reach a conclusion that a theory which evolves from the particular to the general. Conversely, deduction verify the validity of theories and evolves from general to particular.

As future research directions that this topic opens us, include: neuroeconomics and investment decision making, financial innovations and their dynamics according to the needs of market participants and the stock market in Romania and its evolution due to the fact that it is still in its infancy.

This doctoral thesis was conducted within the project:



## **Investește în oameni!**

**Proiect cofinanțat din Fondul Social European prin Programul Operațional Sectorial pentru Dezvoltarea Resurselor Umane 2007 – 2013**

**Axa prioritară: 1 „Educația și formarea profesională în sprijinul creșterii economice și dezvoltării societății bazate pe cunoaștere”**

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## **1. A framework for the existence of modern stock exchange market**

Under a changing world economy as a result of permanent innovations especially in the field of financial investments, stock exchange markets are designed to ensure the premises of financial stability. This stability can be built as long as the stock gives credibility to the participants. Seen generically, credibility is a very simple phrase, but so that it can be associated with the stock market, a number of conditions must be met and above all, they must each act in the stock market to demonstrate a particular morality. Only under these conditions can the stock exchange market provide credibility to its participants. Derived from this is the confidence that market actors manifest to their work, and this is best seen in the trading volumes of each stock exchange.

Because on the stock market there are traded "symbolic" values as we call them, we must always ensure the most appropriate correlation with the real economy; so that financial stability and balance between the two can be guaranteed. Imbalance between the two can be seen best when excessive enthusiasm due to the stock market happens and creates the so-called bubbles, which when broken flow into the real economy chaos and panic. It would be ideal to identify the point where the stock market is moving somewhat far from the real economy (in the moment the speculative bubbles form) and take the appropriate measures to counter possible negative effects.

The main purpose of existence of stock exchange markets is that of mobilizing capital in an economy, namely the distribution of capital to the most profitable areas. In addition, we can say that the stock market is the best meeting place of information, whatever the origin (macroeconomic, national or referring to issuers). Based on all the information available in the market there are various tests that can be calculated in order to anticipate future developments in the economy and in the exchange market. We shall not drop from sight of the fact that the stock market exchange is the most suitable place for the formation of financial crises and speculative bubbles whose consequences may alter the real economy and can have a significant impact on the global economy as a whole.

Investor confidence in the stock market and its evolution are the subject of study of many researchers in this field. For most stock exchanges various reports for analyzing the investor sentiment about the stock market and its evolution are carried out. It turned out that investor's feelings are directly correlated with the overall evolution of the exchange market, so if the investor feelings are high, stock prices are part of a growing trend, while if investor



feelings are low, then the evolution of the stock exchange is part of a downward trend. In determining the so-called "investor feeling" we considered their hopes for the development of various assets listed on the stock market for several periods of time. The determination is based on the analysis of responses to a periodical questionnaire, through which the respondents highlight the most relevant aspects of the stock exchange at a time. So, this feeling is likely to give an insight into pessimism or optimism expressed by participants on the future evolution of the stock exchange.

Regulation refers to a form of supervision of the financial institutions outlining restrictions or requirements for financial market participants, so that they can be assured the integrity of the financial system. In contrast, deregulation refers to the situation where the authorities deliberately reduce their role in the market as to ensure its greater freedom. Precisely for this reason, we often find the notion of deregulation associated with the liberalization of markets. Control on the financial market is virtually equated the concept of deregulation, as long as the supervisors of the financial institutions market and are able to exert control over the market. With regard to financial market regulation, its most important objective in our perspective is that of financial stability. Financial stability is desirable in any market because it contributes to strengthening the financial system as a whole. One purpose of regulation is to ensure confidence to market participants, thereby confirming the objective of maintaining confidence in the system's financial stability. Moreover, financial market regulation came as a state's measure regarding the reduction of financial fraud and illegal practices.

From our perspective, demonetization of gold and dematerialization of money in the form of banknotes is the element around which the world stock exchange markets' modernization began (80). The impulse given by the dematerialization unleashed financial innovations and the idea that any instrument traded on an exchange market to take back a real active both physically and in value, was abolished. There was a fine transition from the notion of real asset to the financial asset that underpin the creation of new financial instruments that are traded on exchange markets and are designed in accordance with market needs.

The leverage effect is the one responsible for transforming lot of rich people into poor investors, and also a lot of really poor investors into very people rich. Precisely because of this, leverage is considered a cornerstone for the entire market of financial derivatives or hybrid products.

The leverage effect can be defined as "the use of investment capital in a way that a small amount of money enables the investor to control a relatively high value" (Drakoln, 2002, p 33). The leverage effect literature we found referred to it as a yield enhancement, which allows the obtaining of increased profits through the use of borrowed capital in addition to the equity (Reuters, 2001, p 55). It allows market participants to transact higher values than they could normally afford on a spot market. Margin trading can generate huge profits due to the leverage effect, but also can generate huge losses for the same reason.

## **2. Modern financial markets**

Defining financial markets is still a controversial topic both in academia and in the business world. This is because the notion of financial markets often merges with the capital markets. Elements that maintain the controversy refer to the coverage of the two concepts and the specifics of each country in which they are found. In the literature two concepts have emerged relating to the capital market, namely the Anglo-Saxon conception and design of continental Europe (Anghelache, 2004).

According to the Anglo-Saxon point of view, the financial market consists of capital market and money market plus insurance market. So, according to this view financial market includes the stock market, but reciprocally true. Capital market can also be called as the financial instruments' market, providing investing this capital in the medium and long term. Unlike the stock market, the capital market is attracting and placing short-term capital.

According to the continental European concept capital market consists of money market mortgage market and the financial market. In this case, money market is represented by the capital market is the short and medium term. Mortgage market is specific for housing construction financing, in essence providing mortgage loans. According to this view, financial markets are identified with long-term capital market.

The main goal of the financial markets is placing financial instruments (securities) held by some participants who are seeking capital, and which are representatives of the securities offer to holders of surplus capital, the latter being representatives of capital supply. Stock exchanges make possible the meeting between the two categories of participants (representatives of relevant supply and demand), thus there is a negotiation that ultimately may result in a transaction, thus satisfying their needs.

Typically, investors are divided into three categories, as follows (Bako D. E, 2006, p 35): financial institutions or institutional investors, companies and individuals. In a simplified classification of financial market investors, we summarize the investors to share in only two categories, namely: individual investors and institutional investors, the latter including companies.

From all the components of financial market, the most famous is the stock market by both the participants and the people who have no connection with the investment. This is due to intense media coverage in magazines and newspapers specialized in showing the opportunities that companies can use to finance current business through market share and the scale on which this market has known over time.

Market shares is based on securities issued by joint stock companies. Creation and development of joint stock companies is considered by some authors (Ciobanu, 1997, p 113) the greatest discovery of modern times, and those are considered financial securities that were the basis of the financial market exchanges.

The bond market is another important component of the financial market using long-term capital. It is a developed market being able to compare very well with the action, in terms of value traded. In the major developed stock markets, this is a fact, but is not the case in Romania, which started only bond debt financing in 1997. Practice has shown that the global financial liabilities are financial instruments often used. In the case of the developed markets, the value of the share transactions is close to that of bond trading in shares.

The stock market indices hold the front page also in times of crisis, because they have generated huge gains in addition to a small number of participants, and large losses to most participants. Indices are used both for traders of financial intermediation companies, dealers, brokers, individual investors and corporations or governments. Indices appearance was the result of the materialization of a need to market participants so that they can follow with a single product the overall development of a market. The main argument behind the creation of the stock market indexes was just the following: finding the possibility of using a single financial product that reflects the dynamics of several titles and showing closely the general trend of the market.

Financial innovation, especially in the derivatives transactions made possible indices trading. First to regulate trading indexes were Americans (Ciobanu, 1997, p 210) between 1982 and 1984. The most important advantage of index contracts is that they allow investors

as using a single financial product (sometimes resulting in a single transaction in futures or options) to buy or sell a basket of securities due to the composition of that index.

The phenomenon that made possible the emergence of financial derivatives is financial innovation, which creates new financial products (Stoica, 2006). These new products are considered exotic to when their trading will be accessible to a larger part of the participants, i.e. they traded volume will increase substantially. We therefore refer to innovations in products, not to system innovations, process innovations or others. From this point of view, the financial market has become increasingly attractive to investors, because the number and diversity of investment instruments for hedging, risk transfer, speculation, arbitrage, has risen.

Risk associated with exchange transactions is a very complex concept, and can manifest in various ways such as bankruptcy of the companies listed on the stock exchange, major changes in legislation relating to transactions in financial instruments crises (crashes) for actions, changes in monetary policy etc.. Risk exists in every field and is omnipresent. More broadly, it is likely to lose something. Transposed to the financial market the risk is the possibility that investors get less than they expected when they initiated a transaction. Often, the most optimistic of investors expect to achieve high profitability through their transactions with minimal risk taking, or in some cases even without risk. Unfortunately, this is very difficult to obtain, if not impossible.

Most decisions regarding the stock market are taken under risk conditions. The risk is at the core of the situation, and around which investment decision is built. Likelihood of the risk manifestation makes the investment decision becomes difficult to take. Each investor has its own risk assessment scale concerned to investments. Precisely for this reason, a risky investment for a certain category of investors can be considered by another's one with a lower associated risk. The most common method for evaluating a risky investment involves awareness of those involved in making the investment about the effects that may result from the occurrence of an undesirable event.

One of the features that any stock market you would not want to be associated with is that it can be easily manipulated. This can happen due to poor legislation in the field, but also due to incompetence of supervisors. Of course, the phenomenon is still very controversial. Some authors (Duțescu, 2008) considers that in any market in which the law of supply and demand works, it is possible and even likely to exist attempts that interfere and manipulate prices so that various market players, and especially the initiators of this influence, to benefit.

Regarding the formation of a fundamental theory that characterizes the financial markets, along the time, there were many points of view. Since the '70s, Eugene Fama conducted a few studies on this aspect of financial markets and their efficiency, followed by others such as Grossman Jensen or later. All of them have addressed an issue that is very interesting, demonstrating the efficiency of financial markets. Associated with financial market efficiency this can have two connotations (Bako D., 2006, p 68): from the perspective of investors efficiency is seen as a return of capital on transaction corrected by the costs associated with risk, whereas in terms of market analysts and its financial specialists, efficiency is analyzed based on the forms that it takes.

Efficient market theory is widely accepted by academics and people from research spectrum as applicable to the most important international financial markets, as validated by numerous empirical studies, which underpins the development of modern financial theory (Jacquillat & Solnik, 1997, p 45) . According to Jacquillat the concept of efficiency of financial markets has three meanings: the informational efficiency, the rational behavior of actors and the operating efficiency.

Originator of this theory, Fama states that: "An efficient market is just like the one in which there are a number of rational agents that maximize their profits, engaged in a constant competition and trying to predict the future course of action, for which current information is available almost freely for all participants. In an efficient market, competition among the many intelligent participants leads to a situation where, at any time, prices already reflect the effects of past information and expectations. In other words, in an efficient market, current price action will be at all times a good estimator of its fundamental value"(Fama, *The Behavior of Stock Market Prices*, 1965). Later, in 1970, the same author, Fama, completed the theory of efficient markets, saying that "an efficient market is a market where the price reflects perfectly and permanently available information." (Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 1970).

One of the fiercest critics of the theory of efficient markets is George Soros, who since 1987 has begun to promote and make known their financial markets theory, theory that considers much closer to everyday economic realities, and that he called a "theory of reflexivity". The whole concept of thinking that Soros uses in developing his theory is based on the ideas of his teacher, the London School of Economics, Karl Popper (Soros, 2008). Soros believes that the today's efficient market theory, that enjoys the most support from scientists, is false and misleading, and asserts that financial markets do not tend, in any case,

the situation balance. Reflexivity theory which he proposes is based on the relationship between thought and reality. Soros considers a subjective factor that intervenes in the investment process and gives it a key role. According to the theory of reflexivity, market participants may base their investment decisions not only on knowledge, because their subjective perceptions can significantly influence market prices.

Credit rating agencies play an important role in the global economy because they have great influence on the investment decision of market participants. Most of the times, even from the moment of issuance of securities, they associated a credit rating issued by one or more such agencies. Hence the importance of the CRA lies in correctly assessing companies. An incorrect rating, given for the purposes of undervaluation, makes that issue have no success among investors. It can thus be said that rating agencies provide an added value due to assessments made financial markets.

### **3. Modern stock exchange characteristics**

For analyzing the stock market as a whole, it would be interesting to approach the matter from several points of view. We found an interesting characterization of the major global exchanges depending on the evolution of their market capitalization from 1990 to 2010.

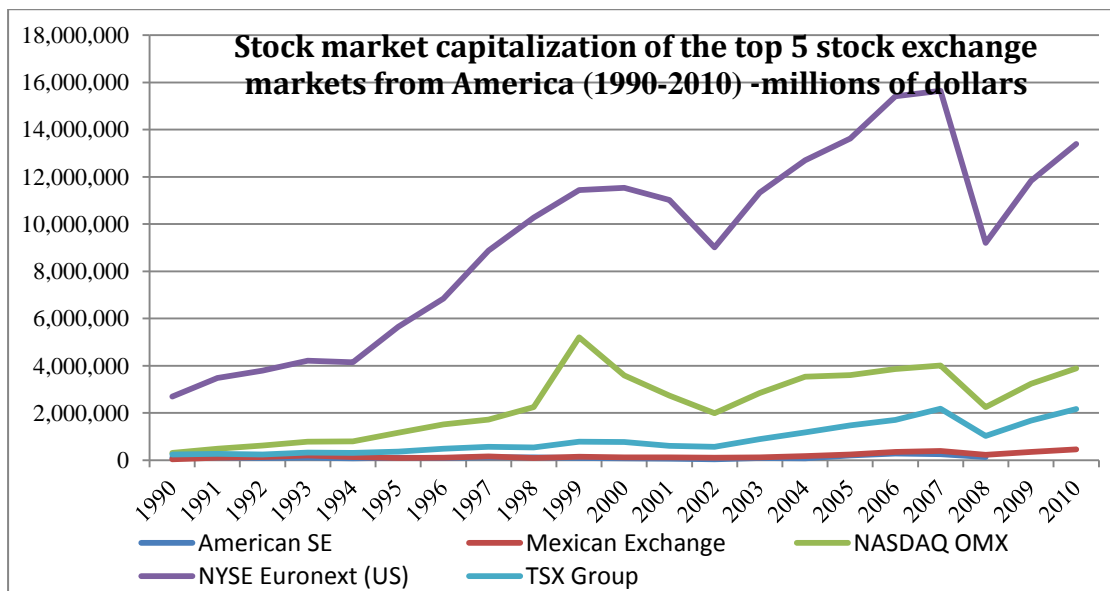
For each geographic area we chose to present the top five highest stock market capitalizations, respectively for the America and Asia-Pacific. For Europe, Africa and the Middle East in terms of stock market capitalization the presentation requires further study because mergers were made between the various stock exchanges in that time.

In the America, we noticed the New York Stock Exchange (NYSE Euronext) has always dominated this segment of the market capitalization of America (see diagram below). If in the 1990 the market capitalization of NYSE was almost \$2,700 billion at the end of 2010 its market capitalization reached almost 13,400 billion dollars, while the peak of the market happened in 2007 at the level of 15.600 billion dollars. We see from this how in 20 years the NYSE market capitalization has increased by almost 400%. But is this growth a legitimate one? We could find the answers to this question in the scale and momentum experienced by most equity markets around the world during 1990-2010 (of course taking into account the corrections from 2000 to 2002, respectively 2007-2009). But if we think further than that, we

must question what may have caused an increase of 400% market capitalization in 20 years? We could say, according to the market capitalization methodology of calculation that this increase could be due to massive listings or price increases already listed financial instruments, which is true.

Early '90s coincided with the boom in the IT business which was immediately listed on the stock exchange for a very simple reason: to obtain fabulous financing for business development. Basically, this financing is a loan given to investors by companies' owners who want to increase their profits from operations in the near future. The so-called guarantee for this financing consists only in the fact that the companies were operating in the IT field, and at that time, this represented the best guarantee for success, no longer needing anything from the companies so that investors have full confidence in their work. Therefore, due to enthusiasm of the market, stock prices of these companies started to grow hallucinating; creating a so-called snowball effect that involved the whole market and eventually led to what we find in the literature as the "crisis of the dotcoms".

**Diagram 1. Stock market capitalization of the top 5 stock market exchanges from America**



The source: the authors own processing based on data from the World Federation of Exchanges.

At least for these two reasons (generalized increase in prices and massive listings) the NYSE market capitalization has grown so much in the last 20 years. We must not lose sight

of the circumstances that have made changes possible in the two key factors, addressed earlier.

The second largest market capitalization stock is NASDAQ OMX, whose market capitalization was in the early 90s about \$310 billion, and at the end of 2010 it reached a level of 3,900 billion dollars. Unlike NYSE, Nasdaq reached its maximum capitalization in 1999 when tuition was about 5,200 billion dollars. So in 20 years (1990 to 2010) Nasdaq market capitalization increased by 1.100%. The two above mentioned reasons can be invoked and this time, the generalized increase in prices of listed securities and new listings, but in addition we can also add the stock market acquisition of Boston (Boston Stock Exchange) conducted by Nasdaq in 2007 and the acquisition in 2007 of the Swedish-Finnish, a financial company which controlled seven stock exchange markets in the Baltic, forming the NASDAQ OMX. In this case we can see how the crisis that began in the autumn of 2007 massively eroded Nasdaq value. TSX Group is the third stock exchange based on market capitalization, in the America.

If in the early 90s its market capitalization was of \$240 billion at the end of 2010, it's capitalization reached almost 2,200 billion dollars, so about 815% higher. Two of its subsidiaries serve the markets: Toronto Stock Exchange, the largest stock market value (senior equity market) and the TSX Venture Exchange dedicated to riskier stock market (venture equity market). TSX Group is a leader in trading on oil and gas sector.

Unlike the other two stock exchanges presented above, the market capitalization of TSX Group the end of 2010 was very close to the maximum value recorded in 2007, which means that its recovery in terms of capitalization has been made faster and in less time. Please note that many companies operating in the oil sector are traded on the stock exchange markets due to the rise in oil prices during the crisis (2007-2009), consequently the market capitalization has also increased.

From 1990 until the end of 2010, among the first three stock exchanges based on their stock market capitalization, there were no changes in the balance of power. Not the same can be said about the occupants of the 4th and 5th positions in this hierarchy: American Stock Exchange (AMEX) and the Mexican Exchange, which changed the balance of forces between them several times during the 20 years under analysis.

If in 1990 the market capitalization of the AMEX was just over 100 billion dollars and the Mexican stock exchange about 41 billion dollars by 2008 the relations between the two forces changed several times, and at the end of that year, the Mexican stock market

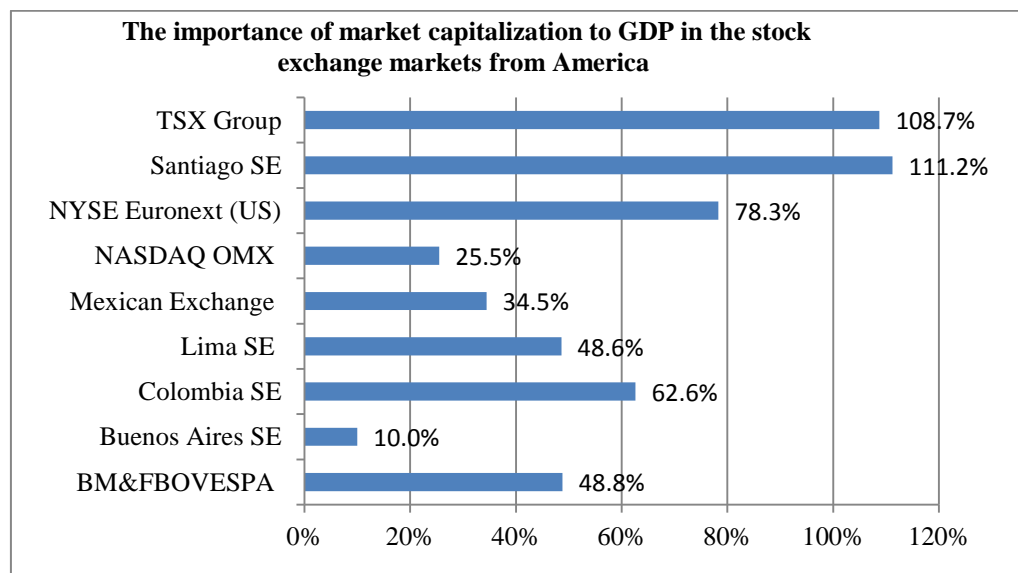


capitalization (about 235 billion dollars) far outrun AMEX market capitalization (just over 132 billion dollars). The reasons for this could be that, in addition to the previously mentioned ones, the acquisition of AMEX by NYSE Euronext took place in 2008 and during these years that the Mexican market was considered a developing one with great development potential that can be observed in the dynamics of its market capitalization duaring these 20 years.

We believe the analysis of the importance of market capitalization to gross domestic product of the countries in which they are located is very intersting. We calculated this factor as a ratio of the capitalization of each stock and the gross national product of the country in which the stock exchange market has its headquarters.

It can be seen from the next diagram as in the America there are two exchanges that exceed the threshold of 100%: TSX Group and the Santiago Stock Exchange. This means that these stock markets capitalization exceeds the GDP of countries (Canada and Chile). Of course, for the stock market in Chile this is not so difficult, as Chile had a GDP of 243 billion dollars at the end of 2011.

**Diagram 2. The importance of market capitalization to GDP in the stock exchange markets from America**



The source: the authors own processing based on data from the World Federation of Exchanges.

The lowest percentage of stock market capitalization to GDP belongs to Brazil, which has only 10% of the 435.2 billion dollars representing the country's GDP.

Changes that have occurred over the last 30 years in the financial market were due to a very large extent to the innovations in this field. It is a widely accepted assumption that financial innovations are responsible to some extent of the crisis. There are studies and empirical analysis showing that the financial market innovations are mainly due to changes in the consumer credit or mortgage (Den Haan & Sterk, 2010). When it comes to innovation in this sector, we think about the creation of new tools dedicated to trading and financial market corresponding to the diversified demands of investors. These new tools are used by investors to manage their portfolios more efficiently, but they also generate risks for those who use them. Many of the risks posed by these new products are difficult to fully assimilate and understand by investors or traders in the market. One of the traders on Wall Street recognizing that the traded assets for which he did not know the underlying asset on which it was built (McCullough & Blake, 2010), not mentioning the risks associated with such transactions.

Regarding the financial innovations of the 1980s, Yves Simon has identified 5 major causes of their occurrence (Simon, 1997, p 882):

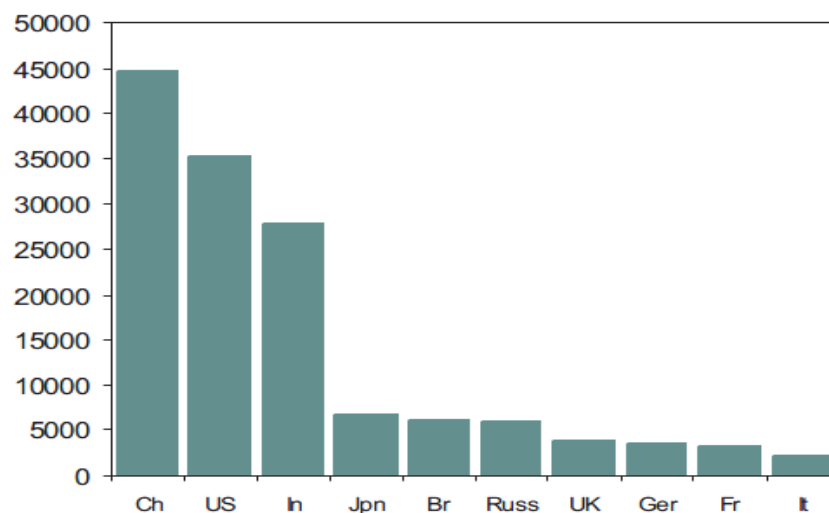
- Worsening constant variability of interest rates and exchange rates after the Bretton Woods agreement;
- Widening deficits for major industrial countries;
- Development of new telecommunications systems and information technology;
- Deregulation and competition, which had an outstanding contribution in the development of financial innovation;
- The contribution of financial researchers to build models for the evaluation of new innovative financial products.

And perhaps the most important issues relating to the stock world is the innovation and financial engineering. We have chosen to present their role in an ethical perspective, but without cornering the financial innovations and making them responsible for the financial crisis that has manifested globally. We recognize however, that some of the guilt belongs to the turmoil of financial innovation. We must not lose sight of the fact that they were created and developed by investors and financial institutions to meet the diverse needs of hedging. Regarding the opening of emerging markets, financial innovation has created new tools so that investors can make investment process risk transfer between different market participants.

Emerging countries are those whose economies are in a rapid growth phase (Simon, 1997, p 913). They have a higher capacity than developed countries to provide investors with opportunities to achieve higher profits.

We can say that emerging markets have brought more interest from investors in the financial market and the IMF forecasts will encourage trading in these markets as long as the forecast for these economies is for growth. The four BRIC countries, as called by Jim O'Neill: Brazil, Russia, India and China are the ones that dominate the global economy. Their importance is emphasized in several analyses of Goldman Sachs, who believes that by 2050, China will overtake the U.S. economy. Research conducted by Goldman Sachs (Goldman Sachs, *Dreaming with BRICS. The Path to 2050.*, 2003) predicts an evolution of major world economies in 2050, as follows in the below diagram.

**Diagram 3. Predictions regarding the most important economies in 2050**



The source: (Goldman Sachs, 2003)

U.S. economy will take the second place in the world, followed by India. Russian or Brazilian economies will seriously compete with the Japanese economy in 2050.

On the financial market and stock market investment case, many international investors have realized that they can not get as big profits by investing in mature markets as the investment in developing countries. They want to get higher returns, of course assuming additional risks such as volatility risk, liquidity and exchange rates that are significantly higher than in developed markets. Studies on BRICS economies are done by countless researchers showing that developing economies and their transition is virtually inevitable (NIST, 2011).

The strongest emerging, as the authors call them in a paper under the Romanian Academy (Oehler-Since, Ghibuțiu, Lianu, Miru, & Bratu, 2010), resemble in a series of features such as: massive natural reserves and the volume and diversity. Competitiveness is the most visible in industry, as the agriculture and consumer markets are more robust. Distinctions raised by the same authors refer to the provision of inputs and prevalence of various sectors in the national economy.

We consider interesting the analysis made on the development for large capitalization stock exchanges in the world in 1990 and by the end of 2010, and changing power relations between them this time. Mergers have been made many times that the balance of forces between the stock changed over time. Also in this chapter is notable that the stock exchange markets desire to achieve significant mergers or acquisitions but were doomed because their bids were too low in the face of giants.

#### **4. Stockexchange market as a generator of fictitious capital**

Largely, the speculative bubble refers to the situation where a lot of transactions are completed in large volumes of securities, far beyond their equilibrium price. The price at which transactions are concluded is not related to the intrinsic value of the real asset. We find in the literature different names of this concept (market bubble, bubble price, financial bubble), but they essentially refer to the same thing: trading assets at prices much higher than normal. Bubbles can be formed in any market, as long as on it are traded assets, in the real estate market, in consumer credit market, art and other paintings market, but the most common bubbles are in the stock market. This and due to the nature of this market: the trades are continuously and are associated with symbolic values, depending on the supply and demand for them.

Reasons that cause these bubbles are a challenge for both investors on stock market and for researchers in this field. We could find a causal training in business cycles, both in the national economy and in the global economy, and speculative trading, uncertainty and lack of rationality of the actors in this market. However, there is no universally accepted view with regard to the factors causing speculative bubbles.

Some voices from investment spectrum considered that speculative bubbles are determined by rising inflation, so we could identify between factors that cause inflation, the

factors that are causing those securities price increase over their fundamental value. From our point of view, the speculative bubbles have to do with an imbalance caused by a misperception gain opportunities to investors. Economic imbalance caused by their training translates into situations created artificial market, especially for short-term speculative bubbles (up to 10 years). The impact of speculative bubbles for longer term (over 10 years) is more severe, it can cause global economic crisis.

Since 2007, the whole world is facing with the worst financial crisis after the great stock market crash of 1929-1933. Although some voices argue that the crisis has ended (in 2012), the world continues to face its effects every day. We can find in specialized media information about the start of the financial and economic crisis, as set in 2008. We believe that the effective moment of the beginning of financial crisis is in 2008, but the events that paved the bubble burst can be identified in the early autumn of 2007 (end of August).

The crisis threatened the stability of many financial institutions, banks and even governments around the world, and the economic downturn and recession have been observed on all stock markets of the world. The major cause of the global financial crisis was represented by the real estate bubble burst in the United States in 2006. Of course, the causes of the global financial crises are complex and their origin can be found in various fields.

A quote from Heraclitus says that "nothing is eternal except change." If we extend this maximum on what happened in the financial markets worldwide, would mean that they need constantly changing, and constantly adapting elements to the changing needs of investors. The entire financial system must show great versatility and also an important skill to ensure stability. It should be found a perfect balance between innovation and constant desire to return to reality seen in terms of financial stability.

Paradoxically, the crisis began in the United States but U.S. stock indexes were not the worst affected by the depreciation. The most significant depreciations have been observed in stock markets in Europe or Japan, it may be due to the effects of internationalization activity or stock purchase of toxic assets came from U.S. investors in Europe or Japan (banks, financial institutions, funds or investors of any kind). The depreciations have not done that much felt in U.S. stocks because of the U.S. economy's flexibility and saving decisions on many banks adopted by the government (Schneider, 2010, p. 224).

Monetary authorities with the governments, quickly put up a recovery plan in order to restore confidence in the markets so that they can work under appropriate conditions. These

actions have long-term effects and may not be seen immediately in the market. It must however be borne in mind the idea that the funds necessary to restore an adequate financial order market is huge, one government or a single financial institution can not meet such a need for funds, as many resources would have, because the implications of the crisis effects are involved in territorial spread worldwide.

Moreover, mankind must draw some lessons from what has happened in recent years in the financial markets and regulators and to find through regulators the solutions that eliminate (or avoid) the future trading of such toxic assets that can generate similar effects as of the crisis in 2007.

## **5. Paradoxes of modern stock markets**

We may associate anomalies in trading financial instruments with the proof, in some cases, of inefficient financial markets. These can be identified best on developed financial markets the by academics and practitioners. Through their specifics, the existence of a stock market anomalies show either that such a market is inefficient or that there are inadequacies in respect of any asset pricing. While it has been shown that such abnormalities tend to diminish or even disappear, thereby reducing or even eliminating profit opportunities for investors who speculate on their trading (Schwert, 2003, p. 940). Stock market anomalies, especially those with a direct impact on the price of traded financial instruments, are likely to provide investors the possibility of achieving higher returns above average market returns, with a proper management.

From our point of view, anomalies encountered in financial markets respectively on stock markets, can be viewed from the perspective of time (calendar anomalies), in terms of interpretation posed by technical analysis (technical anomalies), in terms of assessment related to fundamental analysis (fundamental anomalies) or abnormalities related to other issues.

The best known calendar anomalies are weekend effect and January effect. But in addition we can talk about anomalies on holiday days, anomalies arising from the day of Halloween, quarterly abnormal effects within the same calendar month, Monday effect often seen in conjunction with the weekend effect, the effect of intraday trading (in one trading

day) or abnormalities seen in years ending with number "5". Each of these anomalies have been studied in detail in this thesis.

Many research on the stock market investments focused on finding the answer to the question whether historical prices can be used to predict future prices of listed securities. They created such complex ways to explain this. Thus, technical analysis is a method of forecasting price movements and market trends in the market by studying graphs (including both price and volume of transactions listed instruments).

Technical analysis tries, using historical prices and statistics in this regard, to predict future prices of financial securities listed on the market. The simplest techniques and trading strategies are based on a classical graphical analysis, which include the interpretation of straight trend of building or reversibility configurations, the lines that support the lines of resistance, moving average or gaps. A little bit more complicated technical analysis techniques require inclusion in the analysis of some indicators like: RSI, stochastic oscillators, moving average convergence-divergence or elements of the theory of Elliott wave, Fibonacci numbers and Gann graphics.

The size effect was studied first by Banz in 1981, studies conducted by him showed that the profitability achieved by small capitalization companies is higher than average return achieved by large capitalization companies, for market New York Stock Exchange (Simon, 1997, p. 425) The phenomenon has been studied by other researchers as: Ibbotson in 1984, Reinganum in 1981 or Lamoureux and Sanger or 1989, these studies refer to securities listed on the American Stock Exchange.

Capital market investments have raised at least the last two decades, a large investor interest due to their ability to generate high returns. Unfortunately, they can generate large losses as well. Since the 90's, scientists have addressed a new research field, neuroeconomics which study the covering risk perception by investors, quantify and determine its likelihood.

Neuroeconomics as a relatively new area of research that is located at the intersection of psychology in the economy, which also interferes with a branch of medicine, neurology. One of the few specialists in this field of applied neuroeconomics, Jason Zweig believes that the neuroeconomics applied to financial sector, as a high practical interest to understand the decisions intervening in the market. Numerous theories on decisions to invest in the stock market are put into difficulty, if we look from the perspective of neuroeconomy. This is because the investors decisions are very often irrational and inconsistent with these theories.

Such irrational behavior of investors can be generated by their personality, emotions, temperament, being an expression of their feelings.

Geert Hofstede defines culture as the collective programming of thought, which distinguishes between members of a group to other members. In a highly developed research, Geert Hofstede analyzes the cultural characteristics of individuals in over 70 countries and found five relevant dimensions which can be considered the factors that distinguish the cultural differences between countries. Thus, it talks about: gap power, individualism, masculinity, uncertainty avoidance and long term orientation. From our point of view, as described, respectively masculinity and uncertainty avoidance are dimensions that characterize the best investment environment in a particular country.

We tried to make some behavioral profile lines of brokers in the capital market from Romania. The brokers profile from Romania was determined on the basis of a questionnaire containing 34 questions on how they make investment decisions, investment characteristics that they made, investment preferences or on their character and personality. The questionnaire was distributed in February-March 2012, at all financial investment agents authorized on the Romanian market. The study results are based on 31 questionnaires completed by the authorized brokers on both markets in Romania (Bucharest Stock Exchange and Sibiu Monetary-Financial and Commodities Stock Exchange - Sibex) which were processed using SPSS version 16.0.

The role of brokers investment behavior is very important, especially in an economy where the stock market is just at the beginning. The modernity of a stock market, and also the modernity of a capital market, is given also by the brokers attitude towards investment process, the level of their qualifications, experience, personality or way of risk perception (Ciobanu & Sechel, 2012). From the study about investment culture of romanian brokers and from the wide variety of responses in the questionnaire, we can highlight a few lines of their profile. Thus, a broker in Romania is characterized by the following (Ciobanu & Sechel, 2012):

- The efficiency of his activity is good (70% of brokers) witnessing that they marked for their clients profits of less than 10% per year on average;
- It is prudent, conservative (58%), prudent (38%), moderate (45%), dynamic (35%) and aggressive (22%);
- His fundamental purpose is given by the clients portfolios increase in value (48.8%);



- He consider that a medium to high volatility in the market is consistent with its investment objectives;
- He has high knowledge on investments;
- Their investment decisions are based on technical and fundamental analysis reports made by specialized companies;
- He considers acceptable net yield from 3 to 15% / year;
- He considers himself a broker with average aversion to risk;
- The most commonly used instruments are shares, future contracts, speculative transactions and underused are bonds, options and CFD transactions, CDS, ETFs or other. Sometimes he uses hedging and arbitrage transactions;
- He doesn't trad on international markets, but only in Romania.

## **Final Conclusions**

Mutations in the recent years on the international financial markets led to significant changes in the entire global economy. We can say that most of the changes that have occurred on the global economy in recent years has been due to financial innovations. Under these conditions, stock markets should ensure and represent stabilizing factor in financial terms.

We believe that the most important element on which it can be build this much needed stability, is the credibility in the stock market of the participants in the transaction process. Stock market credibility derives from many factors, conditions, rules or regulations, but above all this one we believe that there is the morality of market participants. Only by ensuring a properly regulated environment and a system where the control function of the authorities are adequately represented, the stock exchange market will provide participants credibility to it.

Regarding the effect of gold demonetization in functioning of stock markets, we can say that the demonetization of gold and currency dematerialization are the elements around which the stock markets began the process of modernization all around the world, in 1980. Dematerialization of money was the impulse for financial innovations. If before these events

on stock exchanges were traded real assets (as goods), then the world passed to the idea of trading financial assets. The element that turned a lot of poor people into rich investors, and a lot of rich investors into poor people, is leverage which is a fundamental element for derivatives market.

Stock market indices and the transactions with them, appeared because of the participants need to trade a secure financial product which is able to reflect the market as a whole. From the analysis undertaken using data from the World Federation of Exchanges and the Bank for International Settlements, we showed that approximately half of derivatives transactions were concluded with futures contracts on stock indices.

An important role in the global economy and also in the financial markets have the financial rating agencies. Following these topics addressed here, we found that in most cases, from the initial price offer, the securities have a rating associated from the credit rating agencies. From here it is derived the role of financial rating agencies in the properly evaluations of the companies. The possible errors in assigning the rating determines the decrease of chances for success for the programs concerned.

There is a belief in investing process that says that investors are aware that they can get higher returns investing in emerging markets than in mature markets. We agree with this belief, we consider that in fact a truth, but we must not lose sight of the fact that in terms of investment in emerging markets risks are also higher.

In the last chapter of this paper we referred specifically to the existence of anomalies in trading financial instruments, which can show on one hand that there are times of market inefficiency, on the other hand the setting mechanism of the market price of securities may intervening factors particularly affecting supply and demand for the securities in question. We analyzed these anomalies in terms of winning opportunities that they create for market participants. These paradoxes, anomalies encountered in financial markets show that in practice can be identified phenomena that contradict economic theory. In this respect, the literature shows that these paradoxes tend to be minimalized in time and in some cases they disappear. From our perspective, these anomalies disappear determine the elimination of profit opportunities for participants who speculate trading securities based on them.

Regarding the investment culture in different countries of the world, therefore the various financial markets, we considered two of the proposed dimensions of Geert Hofstede, masculinity and uncertainty avoidance. We considered that those two are the most representative feature dimensions and which can characterize the investment environment in

the country. In this sense, we performed a comparison of masculinity coefficient determined by Hofstede for Romania, USA and Japan. As a result of this coefficient values, we concluded that Romanian culture is characterized by femininity rather than masculinity, at least in terms of our comparisons. A similar comparison was made using the coefficient of uncertainty avoidance calculated by Hofstede for the same three countries. We found that regarding to Romanian culture, it exhibits a high degree of uncertainty avoidance, people preferring rigid implementation of rules and laws to guide society as a whole.

In the final part of the work we have made a study on cultural investment brokers in Romania, using the questionnaire. Subjects were represented by securities agencies authorized to operate on the stock exchanges in Romania during February-March of 2012. The multitude and variety of responses gave us the opportunity to highlight a few lines of their profile. These relate mainly to the fact that they are satisfied with the performance of work done. Although the survey results we can deduce some speculation oriented brokers in Romania, they said in a 58% proportion that are conservative in adopting investment decisions. Inclination towards speculation is proved by the fact that they consider that a medium to high level of market volatility is consistent with their investment objectives. It should be noted that very few brokers in Romania are oriented for trading on international markets.

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