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Crisis in Romania

The main economic problem of humanity is reflected in the triptych: growth - development - crisis. The economy is defined by continuity, that economic activities are carried out through a chain of growth, development, stagnation, reduction of the processes and their results, taking place periodically changes of development directions of these activities.

Time has recorded several crises. The frequency of the economic blockages has increased, leading to a rhythm of a crisis every decade, or more often. After the Great Depression of the 1930s, followed the crisis from the Second World War, then followed the crisis from Vietnam War. The slow economic development and the rising prices were the essence of the 1970 crisis. Onset of the nineteenth decade is marked by an economic collapse, followed by an economic boom and prosperity. In the 1990s, the problems were the slow growth of productivity and real wages. The current financial crisis is one, started by the lack of liquidity, resulting in blockage and failure of several banks.

The crisis in the Romanian economy is the effect of more difficulties. The chaining and overlapping of these difficulties has occurred on the background of the crisis from the global economy. The decrease of production is interweaved with the rising unemployment. This however, is not the result of restructuring or renewal of the technology. The economic crisis also raises his moral crisis stronger and more comprehensive, which installs every day, at the level of entire population. Dramatic decrease of production, the huge increase of foreign debt, the continuous deterioration of living standards of the population, the widespread corruption, all are reasons of apathy of people who are disappointed, to lose any hope of a better future. These are the causes of many Romanians decision to leave the country, often permanently, and, unfortunately, in many cases they were experts (from various fields), which makes economic and social problems to persist or even to grow.

Crisis makes the development and implementation of a coherent economic, social and rational program to become a condition of survival, the only chance of salvation and settlement for an efficient operation of the national *economy. For such an undertaking is necessary to involve scientific research potential, also a responsible honest and persevering commitment of the entire human capital. But while the programs remain only at the stage of proposals (such as individual prosperity and welfare "or" ensuring the health of the population, if only we bring into question two of the objectives of National Strategy for Sustainable Development ") without being pursued and implemented, the opening out of the crisis remains at the stage of hope. After prolonged economic and social crisis in our country, there are expected periods of growth (organic) and development (sustainable).*

Assoc. Prof. Ph.D Ilie Murărița.

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THE IMPACT OF THE FINANCIAL CRISIS ON INDEBTEDNESS AND STOCK EXCHANGE QUOTATION – A CASE STUDY

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Abstract: This paper aims at making an analysis of the impact of the financial crisis on the Romanian company Albalact S.A., by using indebtedness and profitability indexes as well as stock exchange quotations, and taking into account the data provided by the financial statements of this company and the trend of its shares on the stock market during the period 2007-2009. It is seen that the crisis has influenced to some extent the earnings and, subsequently, the stock exchange quotation of the company.

JEL classification: G01, G32

Key words: financial crisis; indebtedness; stock exchange; capital structure

1. Introduction

In the Romanian economic environment, the final criterion of assessment of a company's efficiency, from the point of view of the shareholders and managers, is the return of equity. The latter must bring satisfaction to the shareholders' needs, taking into account the potential risk. For each category of financial sources, on the one hand, and for the whole amount of invested capital, on the other hand, there is a series of associated rates of return. Thus, the equity capital is in correlation with the financial rate of return, debts are in correlation with the interest rate, and the invested capital is in correlation with the economic rate of return.

The relation between the financial structure, indebtedness and economic efficiency is established by the financial leverage effect. Generally speaking, the financial leverage effect measures the impact of the financial structure on the firm's net profit and on economic efficiency. The financial leverage is calculated according to the ratio between loan capital (total debt) and equity, while the effect of financial leverage, by the formula $\left(ERR - i\right)\frac{Loans}{Equity}$).

The financial and economic crisis originates from outside Romania, and therefore an internalization process takes place within the economy and society of this country. The international financial crisis affects Romania through events such as the rise in the price of external financing, the sudden movements in the national currency and the reduction in the price of the shares sold on the stock market. At a microeconomic level, companies don't have the same outlet, as a result of the decrease in the demand for products and services, they have greater difficulties in obtaining loans for the financing of their activity (because of harsher conditions for taking out loans) and when they manage to obtain loans, financial expenses are higher, because of the increase in interests for the granted loans. Even in respect of the firms whose dependence on banks is not heavy, all these causes are sufficient to reduce the efficiency of the activity. This reduction of the activity triggers, in turn, a reduction in the stock exchange quotation for the company in question. The stock exchange quotation is obtained, as any other price, by comparing the demand (the number of investors who want to have that particular share and are willing to pay for it) with the offer (the number of shares issued by the company). When a company is expected to record losses, the value of the share drops, and when the company has had solid results over the last years, investors are willing to pay more.

2. Objectives

This paper aims at making an analysis of the impact of the financial crisis on the Romanian company Albalact S.A., by using indebtedness and profitability indexes, as well as stock exchange quotations, taking into account the data provided by the financial statements of this company and the trend of its shares on the stock market during the period 2007-2009.

3. Methodology

On basis of the financial statements for 2007, 2008 and 2009, posted on the website of the Bucharest Stock Exchange, we shall analyze the global indebtedness, the rates of return and the trend in the stock exchange quotation for the company Albalact S.A. This company had a positive value of profit during all the three years (even increasing in 2009 in comparison to 2008), took out both short and medium and long term debts and transactions with its shares on the stock market were not interrupted during the analyzed period.

We shall consider the interest rate (i) at the average value for the credit facility, according to the data provided by the National Bank of Romania for years 2007, 2008 and 2009. For simplification, we choose to make an annual average of the interest rates used by credit companies, posted on the National Bank's website, for new loans granted to non-financial companies, and we obtain a rate of 14.45% for 2007, 15.63% for 2008 and 15.22% for 2009.

4. Analyses

Pursuant to the analysis of the financial statements of the company Albalact S.A., we determined the following indicators of indebtedness and return:

Table no. 1

	2007	2008	2009
Global rate of indebtedness	40.88%	47.60%	51.22
Financial rate of return (FRR)	3.70%	0.66%	2.85%
Economic rate of return (ERR)	2.58%	0.48%	1.50%
Financial leverage effect	-8.21%	-13.76%	-14.41%

We can notice that **Albalact S.A.**, the analyzed company, recorded an increase in the rate of indebtedness between 2007 and 2009, partially because of the reduction of the economic and financial efficiency. The company’s new loans, which increased its rate of indebtedness by 7%, led to the reduction of the rates of return, and the financial leverage effect, already negative in 2007, decreased even more seriously in 2008. Subsequently, in 2009, the degree of indebtedness increased even more, debt representing more than half of equity and, even though rates of return increased slightly (due to the increase in the operating profit), the financial leverage effect still was negative, even in decline in comparison to the previous year. Even though a part of the newly taken loans are operating debts, the dependence on the banks is getting heavier, through financial debts, both on the short and long term. The company's reports show, for 2009, an increase of more than 50% both in short-term and long-term debts, due to the increase in the credit line and a new loan from BCR (Romanian Commercial Bank), in order to purchase the majority block of shares of another company.

The financial rate of return decreases in 2008 in comparison to 2007 and it does not have a satisfactory level, being far from the average value of the interest on the deposit facility (between 9 and 10% for the three analyzed years, according to the data provided by the National Bank), so that investments in the company for obtaining profit are not justified, it may even be expected that the shares of Albalact S.A. should be sold at very low prices.

The economic rate of return, also dropping, is by far inferior to the interest rate on the credit facilities. The firm cannot succeed in covering its financial expenses through the obtained economic efficiency, and the financial leverage effect is a negative one.

Moreover, the stock exchange quotation collapsed starting from the month of August 2007 until the first quarter of 2009 (when we can observe a slight increase), according to the data provided by the Bucharest Stock Exchange in the following chart:

Source: Bucharest Stock Exchange (http://www.bvb.ro/ListedCompanies/EmitGrafic.aspx?s=ALBZ)

Figure no. 1

We can observe, hence, how the stock exchange quotation of Albalact S.A. was influenced by the delicate situation of the firm. The poor economic performance, reflected in the decreasing rates of return, resulted in a net profit 5 times lower in 2008 than in 2007 (606,580 lei compared to 3,236,030 lei), which pushed away the investors, who preferred to invest in more profitable companies, whose economic efficiency was higher than the medium interest rate on the market. In 2009, the company's quotation had a somewhat increasing trend (which also materialized in an ascending profit). In order to overcome this situation it is recommended to use carefully own resources, still stable enough to eliminate the negative effects of an additional indebtedness, which would worsen the status of the firm and plunge it deeper into debt. Although, in essence, taking out loans can be an incentive for the activity of a firm, in this firm's case the economic crisis hit it severely, and the borrowed capital is not a solution. It is therefore recommended to use own stable resources, in order to increase the efficiency of the activity, so that the financial leverage can be re-launched later on and so as to benefit in the future from the leverage effect.

5. Conclusions

It can be seen, on basis of this case study, that the situation of a company clearly influences its stock exchange quotation. Poor economic performances drive investors away, whereas trends of growth attract them and determine them to invest in a certain company. Therefore, companies affected by the financial crisis will barely find support from their investors in these times of difficulties and will have to resort to other resources in order to recover and develop.

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A BRIEF ASSESMENT OF THE MONETARY SITUATION IN ROMANIA DURING THE FINANCIAL CRISES AND FACING THE EURO ADOPTION*

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Abstract*:* What is the lesson this financial crises has taught us, from a monetary perspective? One of the basic causes for this crisis has been abundant liquidity. Another cause has been non-performant loans granted and extended by banks to an unreliable clientele known for not being able to return these debts. Finally, these credits have amplified exponentially without many restrictions all around the globe and have been commercialized at unprecedented volumes. These are, briefly, the causes of the actual financial crises. All these can also be located in the area of monetary economics. From this perspective, the analysis of the effects and efficiency of the monetary policy strategy and instruments is essential. This paper aims to briefly present the efficiency of the monetary policy conduct in Romania. The context of the financial crisis is not the only one affecting the monetary segment of the Romanian economy. Thus, analysis is performed from the perspective of the Euro adoption, of the monetary convergence process and achievements.

JEL classification: E50, E52, E58

Key words: monetary integration, real convergence, economic crises, monetary policy

1. Introduction

Romania's economic aims and performance have been focused, at least during the previous twenty years on achieving the economic and monetary convergence needed for the EU accession. This has been mostly the reason for never-ending comparisons, setting benchmarks and targets. Envisaging these aspects and the recent economic and financial crises, we considered appropriate to briefly capture an accurate glimpse of the monetary situation in Romania confronted with the crises, with the inflation threat and massive capital inflow consequences. Monetary evolutions are analyzed in an inter-connected manner considering also the debut of the actual monetary regime – inflation targeting, and pointing out an inflationary projection on a short term.

* Paper achieved as part of the CNCSIS Contract - Human Resources – Postdoctoral research Code_110 „Romania and the Euro Adoption – a Complex Model of Monetary Integration"

2. Objectives

Essential aims of this paper are to point out recent monetary evolutions in Romania based on the monetary policy regime, its timing and implementing. These evolutions are to be analyzed by respect to recent developments of the financial crises, from the perspective of its determinants – in the monetary area, and not least by the perspective on the monetary integration and Euro adoption processes. Finally, we envisage pointing out the real performance of monetary policy instruments, measures and transmission mechanism. All this is based on a strong theoretical base in the field of monetary convergence provided by recent literature and described below, but also on statistic data provided by the Romanian National Bank and the National Institute for Statistics.

3. Methodology

In analyzing monetary convergence, we must consider the debate developed in the mid-1990s, when the first "wave" of EMU was in the making. At that time, most of the debate focused on three questions (see Angeloni and Dedola (1999)): (1) whether the prospective members constituted an "optimum currency area", in the sense defined by Mundell, Kenen and McKinnon in the 1960s; (2) if and how their monetary policy transmission differed; and (3) whether the diversity existing in the prospective currency area would permit a cohesive and efficient monetary policy decision-making process. We shall be using this as main methodological hypothesis. There may be a new path in investigating monetary integration and the efficiency of the monetary policy application. Does the convergence affect or reflect in any way on the aggregate income and living standards? An empirical model of real income convergence across countries has been used by Sala-i-Martin (1997) and it is also suitable for actual developments in NMS. Several other studies raised new questions on the convergence matter: Haan et al. (2004), an analysis of business cycle correlation analyses has been conducted by Fidrmuc and Korhonen (2005), Frenkel and Nickel (2002) set up a structural vector auto-regression model to identify and compare demand and supply shocks – as well as the speed with which economies adjust to shocks – between euro area countries and central and eastern European countries etc.

In emphasizing determinations between monetary aspects in Romania and the financial crises, we use the hypothesis of Reinhart and Rogoff (2008), according to whom, there may be a relationship between these synchronous, large capital inflows and external sovereign defaults, currency crashes, inflation crises and banking crises.

4. Analysis

As there is no centralized strategy for Romania's accession to the single European currency, and as the Nice Council recommended the candidate countries to adopt the most suitable monetary policy according to the specific condition in each country and in accordance to the rest of the economic condition, this project aims to offer certain orientation instruments. The choice of monetary policy in Romania has also been a rather debated and controversial subject as far as the inflation targeting strategy is concerned but also its timing and results. Since 2005 the Romanian National Bank chose the inflation targeting as strategy of the monetary policy after several years of targeting monetary aggregates. The recent economic developments generated by the financial and economic crisis, raised new question and challenges for the monetary approach in the Romanian economy. Monetary integration means foregoing the use of monetary and exchange rate policies for national purposes alone. In signing the Maastricht Treaty – that contains the institutional arrangements for the conduct of monetary policy in the European Economic and Monetary Union (EMU) – these countries agreed to immediately start taking into account the implications of such policies for other EU members; in the longer run, monetary integration means adopting the euro. Most NMS (new member states) have undergone a very rapid and deep transformation in all economic and institutional areas. First, all NMS have been able to achieve a high pace of nominal convergence in recent years. As far as real convergence is concerned, however, the record is more mixed and differentiated. Second, looking at more structural factors we find that, while trade integration with the other 15 EU Member States (EU15) has progressed quickly in recent years and is now quite advanced, convergence in output specialization to EU standards has been slow, especially if measured in real terms (excluding changes in relative prices). This may influence negatively the pace of real convergence. Third, there is also some evidence that a few NMS have a higher degree of business-cycle synchronization with the euro area. Hence, they may become less likely to be affected by radically different economic shocks. This, however, is not true for all NMS. Many NMS are quite advanced relative to the euro area in the process of labour market and institutional reform. Looking at central bank statutes, objectives, strategies and instruments, we find that good progress has recently been made in developing sound central banking structures. Our view is that the conditions for full monetary integration have still not been reached. A case-by-case approach to adopting the euro – based on country-specific conditions – seems natural.

In analyzing monetary convergence, we must consider the debate developed in the mid-1990s, when the first "wave" of EMU was in the making. At that time, most of the debate focused on three questions (see Angeloni and Dedola (1999)): (1) whether the prospective members constituted an "optimum currency area", in the sense defined by Mundell, Kenen and McKinnon in the 1960s; (2) if and how their monetary policy transmission differed; and (3) whether the diversity existing in the prospective currency area would permit a cohesive and efficient monetary policy decision-making process. The debate on European economic and monetary integration in the late 1980s and 1990s devoted a lot of attention to the convergence criteria which countries had to meet if they wanted to join EMU. Two important projects in this area are the Global Economic Model (GEM) maintained at the IMF (Laxton and Pesenti, 2003) and the New Area-Wide Model (NAWM) constructed at the ECB (Coenen et al., 2008a). These models and their offspring have been used in a variety of applications, including scenarios of global current account rebalancing (Faruqee et al., 2005), labour tax reforms (Coenen et al., 2008a), fiscal consolidation (Coenen et al., 2008b), structural reforms (Everaert and Schule, 2006) or globalization (Jacquinot and Straub, 2008).

The monetary policy analysis for an acceding country should go even further – to a new set of real convergence indicators for Romania on the basis of an appropriate monetary integration model (schedule and timing, monetary policy model, sets of criteria etc.). According to the ECB, the real convergence set of indicators used for the quantification of the progress of the candidates is based on growth, productivity and price level convergence. Also, the composition of the output is taken into account from this perspective – if the output composition differs internationally, sectorial disturbances tend to generate asymmetric country disturbances and asynchronous national cycles, since sectors have different cyclical properties and may even respond differently to monetary policy (Dedola and Lippi (2000)). The composition of output and employment tends to be closely related to the stage of economic development. International comparisons have shown that a higher level of development tends to be associated with a smaller share of agriculture in aggregate output and a larger share of services, whereas the share of industry typically has an inverted U-shaped relationship to per capita output, increasing first and declining later (Chenery and Taylor, 1968). The output shares can then be used to "benchmark" the degree of economic development, as recently done for central European countries by Raiser et al. (2003).

An empirical model of real income convergence across countries has been used by Sala-i-Martin (1997) and it is also suitable for actual developments in NMS. Several other studies raised new questions on the convergence matter: Haan et al. (2004), an analysis of business cycle correlation analyses has been conducted by Fidrmuc and Korhonen (2005), Frenkel and Nickel (2002) set up a structural vector auto-regression model to identify and compare demand and supply shocks – as well as the speed with which economies adjust to shocks – between euro area countries and central and eastern European countries etc.

The Romanian National Bank officially adopted the inflation targeting monetary strategy in august 2005. This is considered by literature as a flexible framework capable to offer the Central Bank a „constricted discretionarism" in performing a role where the nominal anchor is the inflation target. Also, this has been seen as the strategy where the monetary policy is connected to the long and medium time horizon without siminishing its ability of reacting to short term developments. Thus, inflation achieves conciliation between the responsibility imposed by the rigid rules, on one hand, and the flexibility allowed by the discretionary approach, on the other hand. These are the essential hypothesis of the Romanian National Bank in instating and applying the actual monetary policy strategy.

Policy regime choices & constraints for Romania could have been resumed as following1:

The need for further sustainable disinflation, incl. from EU convergence perspective; move from 8.5% to around 2-3% difficult, fraught with costs (non-linear sacrifice ratio, etc.)

Status quo (mix of monetary targeting with exchange rate interventions) no longer appropriate: weakening relationship between monetary aggregates and inflation

Exchange-rate peg based regime highly risky in light of convergence induced appreciation trend, move towards full capital mobility

Inflation targeting provides CB transparency & accountability, constrained discretion, should help anchor expectations, dominates above options in terms of robustness to shocks; but requires time for full effectiveness

The essential arguments in this respect can be summarized as efficiency in price stability. The previous lack of success of the monetary anchor has been mostly due to the instability and unpredictability of the money demand. Now, the main objective is price stability, the money mass is the intermediary objective, and the monetary base represents the operational aim of this strategy.

Previously, the Romanian National Bank used the disinflationary trends of the foreign exchange rate of the Romanian Leu in order to compensate the limited

[1] According to the Romanian National Bank

efficiency of monetary aggregates in stabilizing inflation. Still, the choice has also been based on the other transition countries experience in this field.

From the point of view of the monetary policy strategy choice, Romania had to follow theoretical aspects and considered the experience of neighboring countries such as Bulgaria who followed a different path - the currency board – only option available in aftermath of severe financial crisis & hyperinflation. Croatia in turn, chose implicit euroization (quasi-currency board), but we must not forget that it is the case of a small size economy, with resident inflows & savings, aftermath of war period, widespread euroization from beginning of statehood etc. The other new members - the Czech Republic, Hungary, Poland moved to inflation targetting and away from exchange rate-based configurations.

The final choice in inflation targeting regime in Romania has the folowing features2:

- CPI-based inflation target
- Target set as a midpoint within a band of ±1 percentage points- annual targets set for a longer time horizon (initially 2 years)
- Flexible interpretation of inflation targeting (mainly its co-existence with managed float)
- Joint announcement of inflation targets by the NBR and the government

NBR pro-active stance & transparency: decisions based on 8 quarters ahead inflation forecasts, detailed risk analysis in quarterly inflation reports, pre-announced policy meetings followed by statements, analyst meetings, press conferences.

This particular tailloring of the monetray policy stance has been accompanied by the capital account liberalization and has proved efficient during both increase and recession periods. Even thought, it can not be demanded to suprass the lack of macroeconomic stabilisation durring different periods, inconsistencies in the macroeconomic mix or the lack o economic growth. One must always remember that the monetray policy is merely an instrument and its transmission process and channels, even if sutable and performant can not replace a non-functioning economic mechanism.

Theoretical aspects and the economic reality have not been the only constraints of the transition to infaltion targetting. Further constraints came from a new perspective – the Euro accession process. Under these circumstances, the monetary policy had to be maintained at least until ERM2 entry and it must co-exist with an explicit exchange rate objective. That had already had proven itself rather problematic if we consdier the former Hungarian experience. This strategy was also meant to ensure a gradual fulfilment of the Maastricht criteria while supporting the real convergence process.

Apart from constraints the monetary policy stance has been envisaged by the Romanian Central Bank as to provide some monetary and exchange rate flexibility (for a limited time period) in order to further necessary and substantial structural adjustment and maintain motivation to carry out reforms in a timely manner and consolidate macro discipline. (Popa 2006)

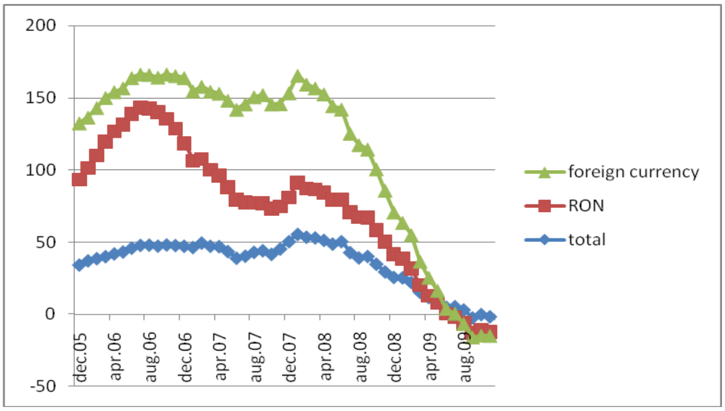
The issue of the equilibrium exchange rate has been a different problem and aim for the monetary regime capable to provide the possibility of setting the central parity based on a more accurate estimate after overcoming the peak in capital inflows.

The circumstances of the financial crises in Romania should be analyzed and considered in conjunction with the large capital inflows experienced by Romania since

[2] Also according to the Romanian National Bank

2005 – the year of the capital account liberalization. This has been an immediate and strict requirement of the Euro accession process, unlike the choice of the monetary policy. It has been a constraint and, somehow the monetary policy should have been the instrument generating equilibrium or compensation.

Generally, global adjustments are characterized by synchronous, large capital inflows in a great number of countries, followed by their relative reduction for the entire group. Usually, the number of countries facing large capital inflows simultaneously is relatively small. However, from time to time, simultaneous episodes of massive capital inflows occur in a relatively great deal of countries. Over the past few years, very many countries, Romania included, were faced with the capital inflows problem.



Source: computing based on INS and BNR data

Figure no.1 Credit inflow towards the private sector in Romania – annual real variation

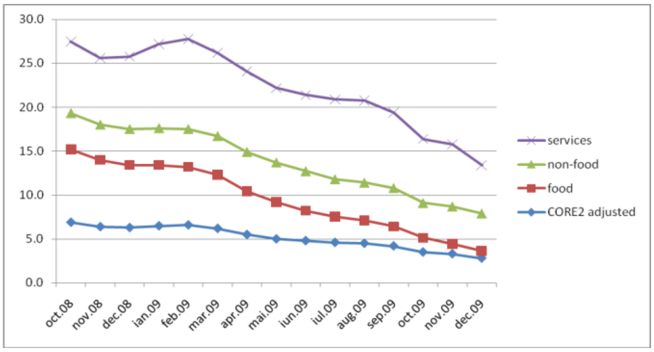
As recently pointed out by Reinhart and Rogoff (2008), there may be a relationship between these synchronous, large capital inflows and external sovereign defaults, currency crashes, inflation crises and banking crises. The authors defined the crises for each of the above-mentioned components and constructed specific probabilities of crisis emergence for the 1960-2007 periods in 66 countries. The probabilities were defined both conditional and unconditional on the episodes of heavy capital inflows. The final outcome is that, for low- or middle-income countries, the conditional probabilities for a crisis to emerge are significantly higher than unconditional ones.

The number of crises is higher around the episodes of large capital inflows. One may conclude, in practice, the ensuing magnitude of adjustments and financings is different from that seen in quasi-individual episodes of substantial capital inflows for a given period, followed by their reduction. This owes to the fact that, if synchronized crises occur in any of the cited components – sovereign debt, exchange rate, inflation and banking system –, synchronized recession episodes are likely to follow. Certainly, simultaneous resorting to external financing with a view to underpinning a great many anti-crisis programmes makes the resources to each country relatively less available and costlier than in the case where only a small number of countries use a given amount of resources. In addition, synchronized recession episodes could translate into greater individual recessions for the economies in which the export-oriented sector holds a sizeable share in GDP. Against this background, the difficulty in adopting a package of reforms and in securing external funding is bigger in the context of the quasi-singular episodes when a large capital inflow cycle ends. Romania took this into account at the time of asking for financial assistance from the EU, the IMF and other international financial institutions to cover the financing gap estimated for 2009 and 2010. (Isarescu, 2009).

Modern globalised economies have experienced such cyclic episodes before during the 1970’s, ‘80s and even ‘90s. Nevertheless they have been more or less accompanied by deep recessions and finally generalized economic crises.

One of the basic causes for this crisis has been abundant liquidity. Another cause has been non-performant loans granted and extended by banks to an unreliable clientele known for not being able to return these debts. Finally, these credits have amplified exponentially without many restrictions all around the globe and have been commercialized at unprecedented volumes. These are, briefly, the causes of the actual financial crises. All these can also be located in the area of monetary economics. From this perspective, the analysis of the effects and efficiency of the monetary policy strategy and instruments is essential. This paper aims to briefly present the efficiency of the monetary policy conduct in Romania. The context of the financial crisis is not the only one affecting the monetary segment of the Romanian economy.

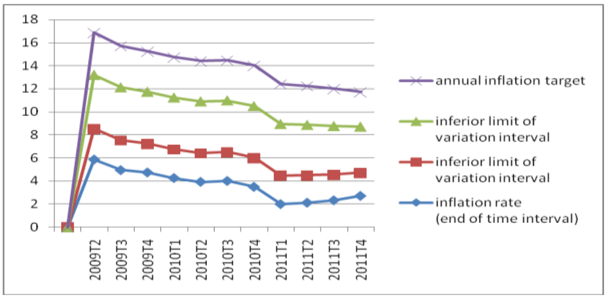
Many analysts believe that the monetary policy still owes a certain due in respect of the recession diminution. The out-put gap still over -7% seemed slightly bring justice to that idea. Even more, in its definition that is not influence by supply factors, inflation has decreased from 6.3% in December 2008 to 2.8% in December 2009 (Croitoru, 2010). This decrease is due both to the recession, but also to the prudence of the Romanian Central Bank in reducing the monetary policy interest rate.



Source: computing based on INS and BNR data

Figure no.2 Inflation based on CORE2 components

Even if many say that inflation is no longer a threat, 2010 has already brought new developments and new constraints for the monetary policy that has done so well so far. The expected economic growth foreseen under the influence of external factors and external economic recovery proves not to be as expected. Still inflation and interest rates have decreased and it is probable for new factors acting in diverting to show up. Under these circumstances, reaching the inflation aims of 3.5% for 2010 and 3% for 2011 remains a rather sensible issue.



Note: the width of the variation interval is 1 percentage point.
Source: computing based on INS and BNR data

Figure no.3 Inflation forecast

Once the global economy recovers, chances are that capital inflows increase. Globally, the economic and financial crises have corrected disequilibrium in a brutal way and correction to the countries current accounts have been only due to cyclical factors and most probable not stable or enduring. Even more, there have been no reforms aiming to prevent a re-built in un-sustainable deficits. The crises' factors are still present and for countries experiencing current account deficit, savings increase might generate a reversal. The liquidity has been also raised by banks injecting money on the market.

Inside the Euro area – our convergence aim – structural rigidities still prevent economic growth. This existed before. The new and yet unpredictable aspect is the financial crises in Greece. That could trigger the contagion effect through means of monetary policy. The EU, IMF and World Bank would hopefully produce enough trust in order to maintain stability, even if it is already known that the 146 bln. Euros that Greece needs would not be enough unless structural reform is undertaken.

Another implication of crises development can be depicted in the ROL exchange rate evolution. From this point of view, predictable effects could be found in an increase in inflation, accumulation of debt in foreign currency and a depreciation of international competitiveness.

As far as the interest rate is concerned, the key constraint and challenge for the actual stage of the monetary policy is achieving the inflation target while minimizing risks threatening financial stability. Thus, the actual monetary policy strategy is not all about reducing interest rates. Taking into account all these, the most likely scenario for the Euro adoption could be positioned in time for 2015.

5. Conclusions

Even confronted with rather difficult economic conditions and with an unstable and even un-coherent macroeconomic mix, the monetary policy has performed rather well, both in terms of real targets, but also in terms of substitution and prevention. The cautionary monetary policy strategy in the area of inflation targeting but also in exchange rate stabilization, have had positive results, even beyond expectations and beyond the general economic evolution. In other words, monetary performances have surpassed economic ones. All these can be depicted from statistical analysis, but also from the ever challenging convergence process with the Euro-zone. Facing the imminent Euro adoption, the monetary policy in Romania has been confronted with supplementary constraints. Accession timing is yet another. In real terms, a rather soon

Euro accession would mean giving up monetary policy before having ensured the necessary convergence and its sustainability, and the ECB monetary policy might prove inadequate for the actual status of the Romanian economy.

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INVESTORS PSYCHOLOGY AND THE HERD EFFECT ON THE FINANCIAL MARKETS

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Abstract: Human psychology is the key to understanding the world and also to understanding investment. Go against the crowd, against the specialist advices in the papers and in the end, you will be one of the few winners. This is what the "against the crowd" supporters tell us. The market will always give you the chance to play your card differently, the problem is: can you go against every one of our instincts? Are you strong enough as to take decisions against every impulse that you get from your body and your mind?

JEL classification: G11; F21

Key words: investment psychology, against the crowd, instinct, profitability, group behaviour

1.The impact of human emotions on investments

Emotions become our enemies when we take decisions on the market and in business in general. On a bull market (growing) we tend to buy excessively, almost blindly and to hear only what we are interested in hearing, out of the information that the market comes with. We instinctively want the price to grow, which is why we act like the bull, exposing ourselves even more to losses. On a bear market (decreasing), by contrary, doubt, fear and lack of confidence grow proportional to the decrease of the prices. Thereby, the investors tend to ignore the signals that announce a new growing tendency of the market.

Another problem that the derivatives especially raise, referees to that exaggerated optimism specific to people, optimism that makes the idea of short transaction and betting on price dropping extremely difficult. Therefore, short transactions seem very risky, because in some way they go against human nature. To be able to gain from a dropping market, the investors need, first of all, to give up their unconscious need of seeing the market grow on a medium and short term, which is obviously against human nature. But the truth is that a short position on a dropping market brings much more money and faster than a long position on a growing market. This happens because the bear market is commonly on a short term being propelled by the investors' fear, while the bull market has much slower moves until it gets to the top.

As a general rule, prices follow the markets trend that is why the most common method in investments is that of following the trend untill it finishes, taking into consideration that, according to the laws of movement, a market that has taken a certain direction, is more likely to continue on the same direction than to change it. So, the market will follow the trend untill it finds an equilibrium point or a reason to change its direction. Also the derivatives market is a market where "history always repeats itself":

it will always grow because of some rumors moving around and it will drop back again when the real information emerges; investors will either take a position too early or take the losses too far. The markets psychology has never really changed which determines history to repeat itself, the past representing an excellent map for the forecast of the future. This scenario is typical in the investors world: the so called"experts" come with statements like"nothing can stop this market" and the investors not only believe these statements but they also sustain them with their life-savings. As the prices increases the number of buyers also grows massively, untill the market gets to saturation. By then, the first ones to sell are the ones who will get the profit. The most important profits go to those who got into the market when prices were very low and sell now when they are approaching their maximum. But most of the investors bought sometimes on the way, most of them even when the prices were already high relying precisely on those expert advices in the media. The last ones will most definitely miss the maximum of the trend and will only start selling after the first category of investors, when the prices are already on a descending trend. Therefore, on the descending trend there are a lot of sellers but only a few buyers which determines abrupt decreases of prices, in a market that has become very illiquid and where most of the investors, in their panic, are willing to sell at any price. When prices drop to the point where it's worth it, the professionals come back into the market, buying from those who sell desperately to diminish their losses. This way, the market stabilizes itself again, prices start to grow and the same cycle starts again.

The first category of investors, which we talked about above, the ones who get profit out of their investments, fit into the category of those who go against the crowd, the investment theories being very much preoccupied these days of this investment method. But there still stands one question that needs an answer before it all:" If this theory of investing against the general trend really works so well, then why isn't it used by more investors?" The answer comes together with the second requirement of the efficient investments: you have not only to know the theory but also to apply it, without deviating from it, even when it's very tempting. The success of this strategy consists in always going against the normal reaction that the market induces you, against your own instinct which for 90% of the investors proves to be impossible.

Also it was proved that the most appropriate markets for this strategy of investing against the crowd are those with a very high liquidity and massive public participation. The hypothesis is based on the fact that, the bigger the number of unprofessional investors on a market, the more probable it is for the crowd to instinctively follows the general trend. Because of the reduced costs of transactions, the large number of computer owners and the wide internet access, the number of amateur investors on the market has grown a lot in recent years which makes the against the crowd strategy stronger than ever.

A very important segment of the latest books published on financial investments, consider the study of investor psychology much more important than on the spot market[3].The problem continues to be, the fact that investors can not properly apply the strategies and they are discouraged every time the market evolves a little bit, in a wrong direction. The central problem debated, refers to the overreaction of the

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[3] „Also called cash market. A market in which traded assets are delivered and paid for immediately (or within two or three days depending on local regulations). The price quoted for a trade on the spot market is called the spot price." (Financial Times lexicon definition - http://lexicon.ft.com/term.asp?t=spot-market)

investors to certain events on the market but also to the fact that this reaction is part of a set of parameters that can be studied and used in our favor, being both predictable and systematic. Studies show that the way people divide their investments in “good” and “bad” changes in time, these classifications leading most of the times to the overvaluation of the first ones and the underestimation of the others. Thereby, the “good” investments were the precious metals in the ‘70s, real estate in the ‘80s and everything related to the emerging Asian markets in the last few years. In respect to “bad” investments, a good example is that of pharmaceuticals in the USA which in 1993 reached the minimum price because of the general belief on the market that the new health system supported by the Clinton administration at that time, was going to depreciate the whole pharmaceutical industry. In the following years, the pharmaceutical industry turned into the leader of the financial markets. Also, another undervalued case it that referring to the IT industry in 1991-1992, only in a few years the companies in this industry managing to multiply its profits. The conclusion of all those who studied investors psychology is the same: the tendency of following the trend and the so called herd effect, causes a rush to happen, both at the market entrance and at the exit, many being knocked off in the jam.

2. The domino effect on the market

In 1876, President Rutherford B.Hayes, after he participated to the first telephonic conversation between Washington and Philadelphia, declared:”It is a great invention, but who would want to use it?” In 1943, Thomas J. Watson, founder of IBM, declared” I think there is a world market for five computers”. On June 3rd 1979 The American Institute of Architecture, was awarding the architect of the new arena built in town for excellence in architecture. The next day, the roof of the arena collapsed. Unfortunately the history of these kinds of predictions in economy and finance is not at all different.

The quantification of the investment risks and the ranking making, turned into a very good business in recent years. The companies that make these rankings, have become opinion leaders on the market, influencing the decisions of a large number of investors, either directly, through the investment fund that administrates their portfolios or through the advices of the consultants they work with. Even though the market is supposed to be ”efficient” and the investors continue to believe in the strength of information and opinion leaders, the statistics show that the highest profits go to the individual investors, most of the investment companies situating themselves below the markets average. The ”professional” opinions have proved themselves wrong every time the market passed through a crisis and the panic always got over the market when it made sudden moves against the general expectations.[4]

David Dreman, one of the supporters of the ”against the current investments”, offers a very conclusive example of the way the price for the shares of a company varies in time, based on the way that company or the entire industry is ”labeled” on the market. Thereby the shares of Compaq Computers lost 65% of their value between 1991 and 1993, going down from 9 dollars to 3 dollars per share. Only in four years time, in 1997 they were up again, this time at 79 dollars per share. The huge change in price, unacceptable in a market that claimed to be stable, was a consequence of the fact

[4] Dreman, D., (1998), „Contrarian Investment Strategies:the next generation.Beat the market by going against the crowd”, Simon & Schuster Publishing House, New York, p. 63

that in the beginning of the `90s, most of the specialists did not believe in the potential of the IT industry. So, the author tells us that, what is wrong in the investors behavior is their attitude towards experts and the tendency of underestimating their own opinions and analyses concerning the subject, in favor of the "expert opinion".

Herbert Simon, awarded with the Nobel Prize for psychology, has studied for many decades the human capacity of functioning like an information processor. The findings of his study show that humans only react at a certain part of the information they get, that is why receiving the same information they often reach different conclusions. Furthermore, he demonstrated through a comprehensive study that most of the time the experts in a field do not come with better forecasts than people with no contact with the field, by contrary some of them are below the average. Regardless of the chosen field, the analyst is bombed with a huge quantity of very hard to quantify information which takes him to misleading the public. In anxiety and uncertainty conditions, receiving too much information on the market, investors get to the point where they see any stereotype they want, ignoring much more important and obvious things.

Therefore, the investors tend to listen to the expert advices and to follow the investment decisions they recommend, reacting according to mass psychology, the way everybody does. This way we get to exaggerated reactions that produce the usual repeated and predictable errors.

3. The investors exaggerated reaction

The term „investors exaggerated reaction" is used in the strategy called „investing against the crowd", referring to the fact that investors repeatedly overestimate the potential of „good" shares and underestimate the potential of „bad" shares. Moreover they repeatedly extrapolate these positive or negative believes about the market, creating fix ideas about the future evolution of each type of shares.

The exaggerated reaction plays a role in every human activity, being also present on the financial markets. Exaggeration takes place in both directions, the consequences being equally devastating. As an example, the case of the abrupt fall of the emergent Asian markets in 1997 is very well known; the South Korean market got to the minimum of its last 10 years. The situation came as a consequence of the demand overcrowding on these markets, the losses most of the investors had then showing that no market is 100% safe and not even a „blue chip"[5] works always as expected. Exaggerating the positive trend of this market resulted in its congestion and a series of important losses when the trend reversed. In august 1982 investors and the media, were forecasting a market decline in the following period; this was just a few weeks before the highest market growth in history when the Dow Jones grew eight times. This time the negative feeling was not the one that prevented investors from taking advantage of this unique growth, most of them not being present on the market at that time nor having a position that speculated the drop of prices. The question that rises regarding these situations is: How should an investor react? Should he enter the market after the

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[5] A blue chip stock is the stock of a well-established company having stable earnings and no extensive liabilities.Blue chip stocks pay regular dividents even when business is faring worse than usual.The term is derived from casinos, where blue chips represent the greatest value among the many colours of chips.
source: http://en.wikipedia.org/wiki/Blue_chip_(stock_market)

sudden reversal of the market occurred or should he wait for the market to calm down? As difficult as it is to sit and watch from a distance as the market grows, specialists recommend it, as entering straight in the middle of the panic can have adverse effects mainly because the new trend may not last. The true specialists are already in the market when the trend shifts and are out before it touches the maximum.

The hypothesis of investors exaggerated reaction is based on a series of statements it supports:[6]

- „Good" shares bring profit below the markets average but the „bad" shares go beyond the average
- The unexpected positive movements on the market lift the value of the „bad" shares more that the value of the „good" ones
- The unexpected negative movements knock the value of the „good" shares much more than the value of the „bad" ones
- There are two distinct categories of unexpected market movements: *„the event trigger"* (positive movement on the „bad" shares and negative on the „good" ones) and *„ the event strengthening"* (unexpected negative movements on the „bad" shares and positive on the „good" ones). The first category causes much more significant price movements than the second one.

Thereby, even the smallest disappointment regarding the „good" shares will lower their price while positive news will have insignificant effects. With „bad" shares, things will happen the other way around, which means they are more profitable when we expect a growth than when we bet on a decreasing trend. Two researchers in the field, Werner DeBondt and Richard Thaler, asserted that extreme price movements are mostly followed by similar movements but in the opposite direction. Thus, the more important the price changes in one direction, the more important the adjustment that follows. The two, demonstrated through an extensive research that few companies managed to sustain an uninterrupted growth rate for long time in history. In the same time though, even less companies get to total extinction, almost any descendent trend having its chance to recovery.

What takes „good" shares to a high profitability rate and „bad" shares to a low rate is the magnitude of reactions on the market. The moment when the smallest or the highest possible price is touched, the chain reactions of the investors acts like a ground for the success of those who choose to invest against the trend. The most frequent error of the investors is the fact that they tend to see the existent trend like a standard, however extreme the situation may seem sometimes.

4. Conclusion

Trading futures or shares require more than mastering a system, understanding the market, understanding the functioning of supply and demand, economic theories, fundamental or technical analyses. A market study is also a study of human psychology so, self-knowledge and the capacity of analyzing both your own behavior as well as that of the group, represent necessary elements of the investors success. Especially on the future markets this capacity of understanding and predicting people's reaction in different situations is essential, because the futures price is very sensitive to any kind of change in the transactional behavior of the investors.

Psychology represents in the same time the reason for the high performance of some methods and practices as well as the reason for the poor performance of others, as proof that trading is not a science.

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6.		http://lexicon.ft.com/term.asp?t=spot-market
7.	***	http://en.wikipedia.org/wiki/Blue_chip_(stock_market)

OUTWARD FDI AND THE INVESTMENT DEVELOPMENT PATH IN ROMANIA

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Abstract: Outward foreign direct investment (FDI) represents the present way for Central and Eastern European countries reintegration in the global economy, coming next after foreign trade and FDI inflows liberalization. Analyzing the multinationals location factors, Dunning explains in his theories the relationship between a country's development level and its net international investment position. This relationship was recently empirically tested for some CEE countries. Since Romania is not concerned by these studies, we are interested on characterizing the outward FDI phenomenon in Romania in the light of Dunning's Investment Development Path theory. A series of indicators are used in this purpose, concluding that nowadays, Romania is situated in the second stage of IDP. More, we found that the IDP paradigm is generally applicable to Romania; the particularity consists in bigger growth rates for FDI inflows than for GDP in the first stages of IDP. Some policy implications are drawn at the end.

JEL classification: F21, F23, F43

Key words: multinationals, outward FDI; international investment position; IDP theory; descriptive analyses

1. Introduction

Foreigners' direct investments represent the next step for the economic reintegration of the Central and Eastern European region within the world economy, right after the foreign trade liberalization at the beginning of the 1990s and FDI inflows especially after the year 2000. Commercial liberalization was the first step at the beginning of the transition, accompanied by foreign trade' state monopoly removal and imports' protection measurement reduction. The new millennium brought along the FDI inflows as the most important engine of worldwide reintegration; within 1995-2001, the region's FDI supply raised from 40 to 160 billion USD, and as related to the GDP, it increased from half the world average to the world average value (Kalotay, 2004). Capital outflows haven't reached the stage of playing the same role as FDI inflows or commercial liberalization yet. This is because their value is still low (of only 60 billion USD in 2002), and strongly concentrated in a few countries: The Russian Federation, Hungary, The Czech Republic, Poland, Slovenia, Croatia and Estonia. Moreover, a great extent of the outflows was initiated by foreign subsidiaries placed within the countries and not by native companies; actually indirect FDI have represented the way to overtake new markets for EU (European Union) multinationals.

Our interest on this subject is motivated by the continuous process of CEECs (Central and Eastern European countries) reintegration in the global economy. Outward FDI might play an important role in the future reintegration process of CEECs and especially of Romania, coming next after foreign trade and FDI inflows liberalization. In this paper we have four main objectives: (1) to characterize the outward FDI phenomenon in Romania; (2) to establish the stage Romania is situated on the general path that links investments to the development level; (3) to identify the FDI particular aspects that make Romania to divert of the general path; (4) to outline some policy implications.

2. Theoretical contributions

The most important theoretical contributions on multinationals location factors are presented in the paper, and especially the eclectic paradigm and Investment Development Path (IDP) theory of Dunning.

A short review of the theoretical background on multinationals' placing determinants starts from the theory of comparative advantages, and continues with the product cycle theory, exchange-rate theory, internationalization theory, risk diversification theory, government stimulus theory and the theory orientated towards knowledge enhancement, while Liu, Buck&Shu (2005) get to the most realistic theories, like the eclectic paradigm and Dunning's IDP (Investment Development Path) paradigm.

Known to have been dominant up to 1990 and having improved even after 2000, Dunning's paradigm (OLI framework: O – ownership, L – localization, I – internalization), was introduced in 1958 and developed in the 1970s. According to this theory, a company's decision upon the level and the structure of foreign added-value investment activities depends on the advantages coming from ownership (O), localization (L) and internalization (I) (Brenton, 1998).

(O) If the possession of a product, a production process, patents, human capital, reputation, management skills, etc provides the investor with an advantage against his local competitors, he would invest abroad (these tangible and intangible assets provide the company with cost advantages and market powers sufficient enough as to compensate the abroad production cost). The competitive advantage may also derive from the company's capacity to coordinate the assets it possesses (or it may access) to some other assets out of the national borders, in order for it to get benefits as opposed to its competitors.

(L) The investor would decide to invest abroad if there are certain trade barriers – transportation costs, customs duties (FDI substitute exports in this case), if there exist cheap and abundant production factors (« efficiency seeking » -type FDI) and if this permits his access to a new market and new consumers (« market seeking» -type FDI). All these factors influence the company's decision to place its added-value activities outside its national borders.

(I) FDI are adequate if the company wants the internalization of its owned advantage (the product, the process) by creating a subsidiary rather than exploiting this advantage by licensing or cooperating with an independent foreign company. The internal trading costs and the market costs are analyzed. The specific characteristics of the transferred advantages/ knowledge and the transfer cost are determinant elements for the company's strategy. If the firm evaluates the markets' internalization for generating and/or using added-value assets to be in its interest, it would invest abroad.

Later on, Dunning added a fourth condition to these three ones: FDI have to be considered on the company's long term strategy. The acquisition of new strategic assets has become more important than the localization factors during the last years, characterized by an increase in the investments towards the developing countries (Nonnenberg Braga Jose Marcelo, 2004).

According to some other opinions, the localizing factors' importance is rising, as long as they improve the ownership advantages by encouraging their exploitation and development. Furthermore, the location factors may determine the firms' global competitiveness, influencing their survival chances (Galan, Gonzalez-Benito&Zuniga-Vincente, 2007).

All in all, the firm's strategy, itself influenced by the initial OLI configuration, determines the values and the structure of foreign investments by the changes it produces within the three forces, particularly for O and I.

The hypothesis of IDP theory are derived from Dunning's eclectic theory – OLI – considering that the localization advantages of a capital importer country develop into ownership advantages that further allow the capital export.

The IDP paradigm gives certain bench-marks for analyzing the capital outflows, establishing the relationship between the country's development level and its net international investment position. IDP theory (Dunning, 1981) states the existence of a relationship between the development level of a country (GDP per capita) and its net international investment position, further determined by subtracting the foreign capital inflows out of the capital outflows. It relies on the following hypothesis: as a country develops, the conditions for the native and foreign companies change, influencing the capital inflows and outflows; then, FDI impact upon the economic structure, leading towards a dynamic interdependence between the two of them.

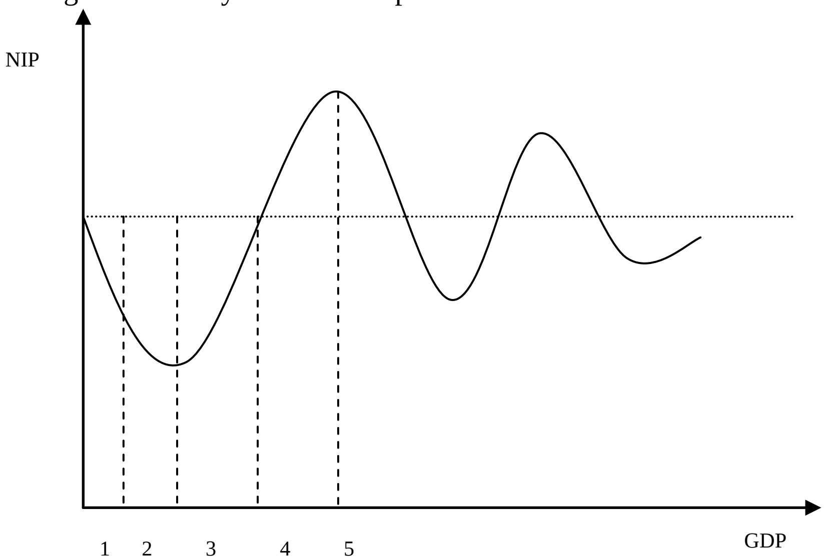


Figure no.1: IDP Stages adapted from Dunning&Narula

The path of the relation GDP-NIP is presented in the figure no. 1. The five stages are distinguished in the figure (Antoloczy&Elteto, 2002): (1) first stage characterized by insufficient localization advantages for the territory to represent an attractive destination for foreign capitals or for the companies to internationalize their activity, so that inward and outward FDI are almost inexistent; (2) second stage characterized by that fact that the local policies allow the development of certain localization advantages in order to orient foreign capitals towards the local market, while the capital export is still insignificant because of the lack in ownership advantages for the domestic companies; (3) third stage characterized by a diminished FDI inflow and an increased FDI outflow because of an improved competitiveness of domestic companies; (4) fourth stage characterized by the fact that the ownership advantages of domestic firms reinforce in a manner that the IDP curve changes its convexity and the country gradually becomes a net capital exporter. For the four initial Dunning stages, Dunning&Narula (1996) added a fifth stage characterized by strong intra-company foreign trade activities, convergent economic structures of different countries and balanced positions for the foreign direct investments.

Globalization brought along changes for the IDP paradigm, allowing the new industrialized economies (the most advanced developing countries), to accelerate their catching up process with respect to the developed countries. The implications of globalization upon IDP may be synthesized as follows (Lee& Slater, 2007): (1) globalization allowed the underdeveloped countries to take advantage of the new opportunities raised from unexplored markets or resources; (2) the companies that developed their technological capabilities and wisely invested in assets, have significantly contributed to the increase in capital export; (3) globalization facilitated strategic and organizational innovation within multinational companies, that managed to integrate themselves within the global business environment. It's widely accepted that a policy to attract foreign capital investments accompanied by an industrialized policy based on investments in education and technology, may improve the competitiveness of national companies, which accelerates the IDP through early capital exports. Transition countries represent, to a certain extent, an exception from the IDP hypothesis because, on one hand, the internationalization policy strengthened the authorities' control upon foreign affairs, and on the other hand, capital export wasn't determined by ownership advantages, but it originated in the localization disadvantages, revealed by the command economies. The developing countries are characterized by a delay in capital exports as related to the evolution of their GDP.

Dunning and Narula's theoretical contributions, followed by their further developments on investment flows' evolution between countries, haven't been left invalidated empirically.

3. Empirical contributions

The GDP-NIP relationship was empirically tested for some CEECs in the last few years, but the results are split.

Some empiric studies offer the required support in favor of the IDP theory, while others proved not to follow Dunning and Narula's framework strictly. Other studies offer contrasting results for the structural analysis. So, some countries verify the IDP model hypothesis or a joint theoretical development, like China, MENA region, USA, Spain, Hungary and some more developed Eastern-European countries. Then, there are countries whose NIP performances are above the average (above the expected level of a given development level), like Korea, the Russian Federation and Ireland, but the motivations are different. In Korea the situation is characterized by the domestic companies' capacities to accumulate and exploit their ownership advantages abroad, while the macroeconomic environment is left behind. The Russian capital export is related to the protection need against internal instability and „round tripping" speculative actions and it isn't due to its development level. In Ireland, although a certain relationship between NIP and GDP exists, the capital export isn't due to technological advantages as the IDP theory postulates, but it's due to managerial advantages. Some other countries, like Austria, have their NIP performances below the average (below the expected level of a given development level); still, the structural analysis (upon sectors and partner countries) leads to different results.

The research upon the analysis of FDI outflow from the CEECs are of recent date, being focused upon countries like the Czech Republic, Estonia, Hungary, Slovenia and the Russian Federation, the latter not following the region's trend. Kalotay (2004) analyzes the net investment position of seven countries from this region (Croatia, The Czech Republic, Estonia, Hungary, Poland, The Russian Federation and Slovenia), for the 1992-2001 period, all having significant capital outflows, and the results prove that these countries are in the second stage of the IDP framework. Moreover, a relatively strong correlation is found between their investment position and their per capita GDP. Still, the author gets to the conclusion that no GDP value may be related to specific IDP stages. According to Network Spread Index, the CEE multinationals find themselves at the beginning of a transnational expansion. IDP seems to be relatively adapted to the other countries in the region, but this doesn't necessarily apply for the Russian Federation. The Russian companies have at first been motivated to invest abroad because of their wish to diversify their assets, further protecting themselves against internal instability. Moreover, their experience in facing a difficult and unstable economic environment, proved to be an advantage on the international market. Kalotay is against some other authors' ideas that Russian companies built their exterior expansion strategy on the advantage of owning high technologies.

The author's main conclusion is that Russia, through its capital outflows, doesn't fit the theoretic model, while other neighboring countries follow the standard IDP framework, finding themselves in its second stage.

Svetlicic& Jaklic's (2006) paper focuses upon the EU integrated countries of the 2004 wave, thought to be the main capital exporters among the transition countries (excepting Russia). The share these countries have within the global capital outflow is still reduced (0.1% in 1990 and 0.19% in 2004, of the EU 25 stock), but their increase rhythm draws one's attention, proving that their internationalization evolves extremely quickly. This fact is explained by the globalization's impact and the limits pertained by reduced dimension markets, that determine the investors to direct themselves towards external markets. The internationalization is less determined by the specific advantages of the origin country, but it's more influenced by the advantages specific to the companies.

The transition's role, that of EU integration and foreign companies, of explaining the capital outflows, may be synthesized as follows:

- the socialist system, through its restrictions, encouraged abroad investments, tolerating them or even sustaining them by its policy;
- transition was initially accompanied by a discouraging policy of the capital outflows, then they were tolerated and finally stimulated moderately;
- EU adhesion impact is hard to be appreciated because of the relatively short time period ever since, but, this fact most likely stimulated the capital export, just like transition did. On the other hand, EU's successive expansions discouraged FDI flows within the Union, and on the other hand, they stimulated the investments of newly integrated states within other transition countries which were not members of the EU;

- the specific advantages of companies pertaining to newly integrated states, under transition, came up from the fact that the destination countries (previously socialist countries) weren't extremely different from the point of view of their institutions, politics, culture, business culture ("who knows who" type), that provided them with an advantage compared to investors coming from other environments. Some other specific advantages would be developed once the society shifts from being based on "who knows who" to one based on rules, while the host countries undergo transition.

The initial impact of systemic factors was appreciated by some authors to have been relatively stronger than the integration's effect and of strengthening the companies' specific advantages, process which usually takes longer.

SMEs not only have the opportunity to internationalize themselves like the big companies, but many times their only surviving solution are the foreign investments for realizing scale economies. According to the survey's results, SMEs that invest abroad follow market considerations, excelling into technological know-how, organizational flexibility, and close customer relations. The survey shows that 56.7% of the capital outflows of the five CEECs stand for investments of indirect investors; the bigger the capital inflow of a country, the more indirect investments within the total capital outflow.

Antaloczy& Elteto (2002) found out that in this region, Hungary is among the first countries where the capital export phenomenon got relatively larger than in the other countries, ever since 1997; that's why Hungary represents a good research subject, the authors' using both official data and questionnaire surveys.

The authors' surveys upon 22 Hungarian companies that export capital proved that:

- internationalization reduced the occupied workforce, but it increased its capitals, assets and sales, the exports and the number of subsidiaries;
- most companies have foreign participation, but are natively controlled;
- there's certain interdependency between the capital outflows and exports.

The Hungarian companies generally follow the internationalization stages, the most preferred investments being the acquisitions of productive sectors, trying to control the companies they invest into, for diminishing their risks. The reasons the Hungarian companies invest abroad are the ones mentioned by Dunning (1993) – the market's potential, efficiency reasons of cost reduction, strategic assets' acquisition for company growth, and resource abundance – also adding up the „tariff jumping" reasons, excessive tax avoidance by setting up an offshore company and the ones the investor (specialized on services) follows the client up on the international market.

The survey upon Hungarian companies proves that the source of their competitive advantage is their technological know-how, adding up to their organizational know-how and their marketing knowledge. The risks to be assumed by a company when internationalizing is divided into three categories: the ones associated to the company itself (lack of financing, personnel and information), the ones specific to the host country and the ones specific to the origin country. Among these, the Hungarian companies usually refer to the risks and the investment climate of the host country (Eastern European countries).

As a partial conclusion, the empirical studies on China, USA, Spain, Hungary or MENA region sustain the IDP theory, while those on Korea, Russia, Ireland or Austria do not sustain the IDP theory. Generally speaking, the empirical studies on CEECs found trends in inward and outward FDI that match with IDP theory, at least up to the present moment, when these countries already covered the first two stages.

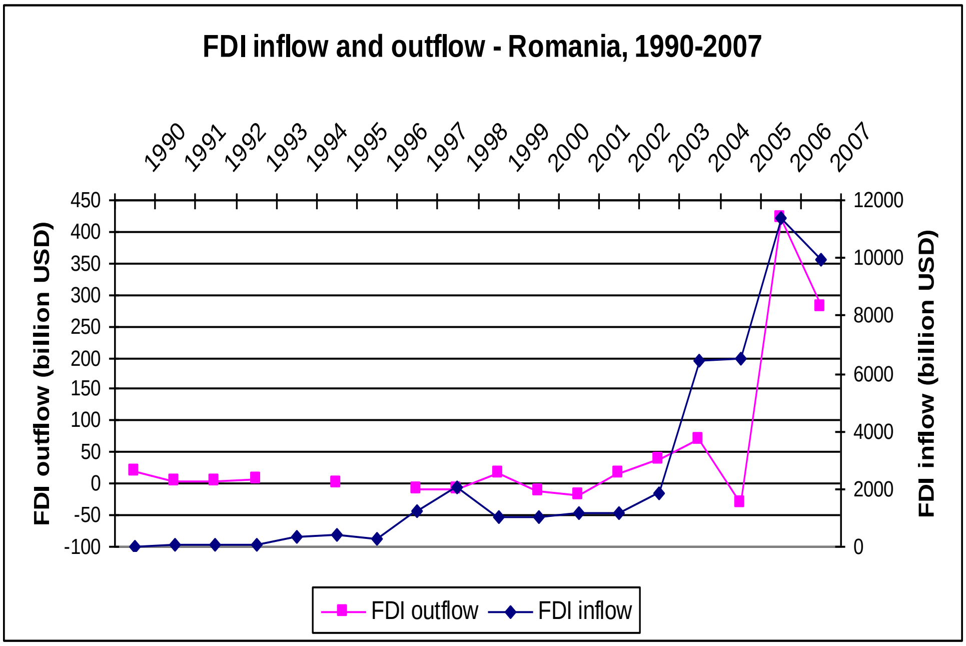
Nevertheless, at the beginning of the transition period, the determinants of outward FDI were not those theoretically postulated, but the limits/disadvantages in the origin territories or specific firms' advantages arising from better understanding the similar environments of post-socialist host countries. In the last years, the ownership and location advantages have greatly explained the growing trend of outward FDI.

4. Outward FDI in Romania

The research papers that investigate whether the IDP model may be applied for the European countries have not studied Romania's case yet, although Romania recently joined the EU and it has known uprising capital exports in the last years. The absence of these studies motivated us, once again, to study the IDP theory upon Romania.

Romania's capital outflows are still extremely low, cumulating less than 1160 billion USD (NBR, International Investment Position - 2007) ever since transition began. This fact allows us to anticipate Romania remaining as a net capital importer.

Romania's FDI inflow and outflow is shown as in Figure no. 2:



Source: Processing after UNCTAD

Note: The inflow and outflow FDI are presented in the figure on different scales, allowing seeing the big differences between the statuses of the two phenomenons.

Figure no. 2: FDI inflow and outflow – Romania, 1990-2007

The short history of Romania's capital export shows evolutions upon at least four trends: (1) the phenomenon developed after 2002, being statistically reported with the help of a methodology that's been improved overtime, by gradually including reinvested profits and intra-group credits, as well as capital shares; (2) the banking companies were the first to have extended their activities abroad, followed by the ones from the non-banking sector; (3) Romanian companies (other but banks) initially registered losses associated to external investments, but their activity revived shortly after; (4) reinvested profits and intra-group credits sustained the growth for the investments of foreign residents.

Comparing the few structural available data for Romania to the model of the CEE region, we may draw out some conclusions: (1) the banking sector's investments have been prevalent in the capital export for a long period of time; (2) investments are grouped in similar (Bulgaria) or less developed countries (The Moldavian Republic), neighboring countries having common traditions; (3) Romania's abroad investments are most probably determined by cost and scale economy reasons, while at the beginning of transition, they focused upon overrunning trade barriers. The last years' capital export structure on sectors focuses upon the non-banking sector, which makes Romania resemble Hungary's investment model, which, as we've previously proved, differs from the region's frame.

Table 1 show a stressed increase rhythm of capital exports for the last years (2006) as compared to the foreign capital inflow rhythm, and that anticipates their balancing on the long term and furthermore, their advancing for the IDP stages.

Table no. 1: Increase rhythms of capital inflow and outflow – Romania, 1991-2007

FDI Stock	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Inflow growth rhythm	439900	177,27	76,23	86,98	104,23	33,64	120,25	87,34	25,27
Outflow growth rhythm	32,22	-9,38	30,05	3,69	12,92	-0,75	5,26	7,33	6,19
FDI Stock	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	
Inflow growth rhythm	22,57	20,12	-6,59	56,27	68,39	26,17	58,34	42,78	
Outflow growth rhythm	-5,16	-14,47	23,76	44,38	31,25	-21,74	29,92	314,88	

Source: Processing after UNCTAD and IIP - NBR 2007 (growths reported to the previous years)

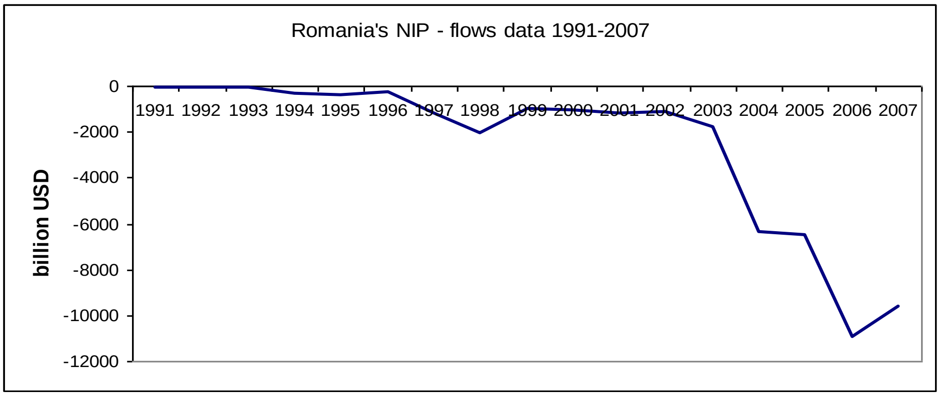
Romania still owns a relatively reduced share of the total capital export of the world, and of the EU as well (see Table 2). In terms of flows, the maximum values were reached in 1990 and 2003-2004, when Romania's capital export reached 0.007% of the global total. An important step is the year 2007, when Romania's share of the EU's capital export reached 0.011% (far from the 3.7% average of the 27 member states).

Table no. 2: The share of Romanian FDI within their worldwide and EU total

Romanian FDI outflow (stock)	1990	1995	2000	2005	2007
% Global Total	0.003	0.004	0.002	0.002	n.a.
% EU Total	0.008	0.009	0.004	0.003	0.011

Source: Processing after UNCTAD

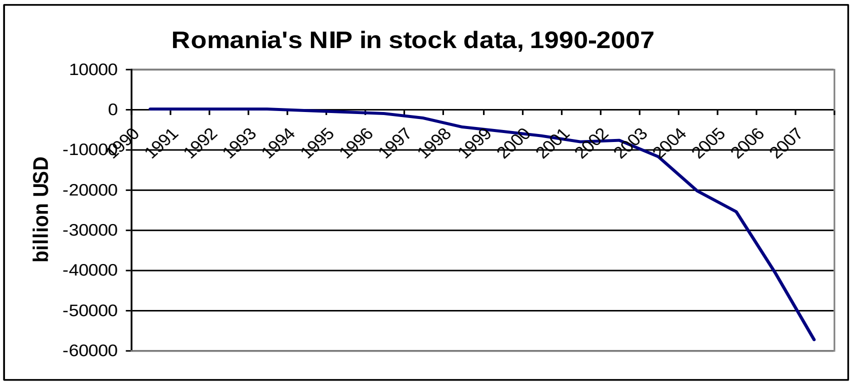
From the analysis of the net investment position's evolution (calculated in terms of flows) for the 1991-2007 period (see Figure 3), we may notice a drop off from -37 billion USD to – 9645 billion USD. The descending trend is almost constant, with a slight improvement in the 1999-2002 periods; starting with 2003, the first half of Dunning's "U" shaped function is becoming more visible.



Source: Processing after UNCTAD and NBR - 2007, data are in terms of flows

Figure no. 3: Romania's net investment position in annual data of flows

The very same trend results from the analysis of NIP evolution in terms of stocks (see Figure 4), and it's very obviously shaped. It's recommended to consider the stocks instead of flows, because the first ones include reinvested profits as well. NIP's values for the first two transition years are positive because of the capital export that generously outran the foreign capital inflows. This situation may be due to the foreign investments encouraged by the restrictive interior regime of the communist period and of the years that followed, which did not allow domestic investments or exports, and it may also be due to scarce FDI inflows related to the hostile regulations and environment. Having a positive value for the first two years (66 billion USD in 1990), NIP in terms of stocks progressively decreased up to -57000 billion USD in 2007. Although the trend slightly inversed by 2002, its general tendency stayed the same, deteriorating its net investment position.



Source: Processing after UNCTAD, IIP 2007-NBR, data representing stocks at current prices

Figure no. 4: Romania's Net Investment Position, annual data in terms of stocks

The NIP decrease during the 1990-2006 periods, outlining the first half of U shape function postulated by Dunning is presented in Figure no.4.

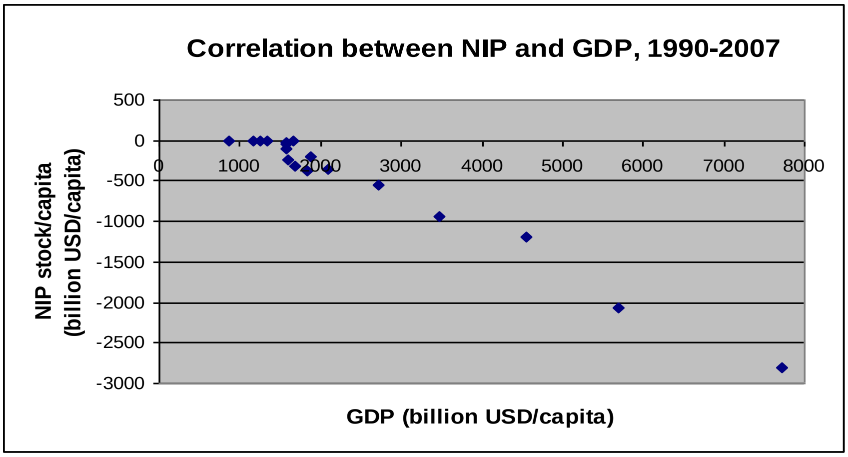
Our conclusion is that the follow up of the IDP theory stages is delayed in our country, because our economic growth actually rose after the year 2000. With no economic progress, the capital inflows were not very important and foreign investments were reduced even more, leading to a constant negative net investment position, a little bit below the zero value. The first stage of IDP was prolonged a lot, without showing any progress. Furthermore, the shift from the first stage to the second stage happened suddenly and not step by step as Dunning postulated. We may consider to have entered the second IDP stage just after the year 2000, as our GDP increased and FDI inflows as well. For this period, the capital export was rather low, with the exception of the year 2007.

We emphasized here that Romania covered the first two stages of IDP theory in the following manner:

- Stage 1 from 1990 to 1999, characterized by low FDI inflows and outflows, and constant NIP around zero;
- Stage 2 from 2000 to 2007, characterized by gross FDI inflows and low FDI outflows till 2007; NIP decrease suddenly.

So the cover of IDP stages was delayed in Romania in the absence of real economic growth till 2000; stage 1 was prolonged and stage 2 produced suddenly.

We further want to determine the correlation between Romania's GDP evolution and its net investment position, in order to verify if the IDP paradigm may be applied. The regression of per capita NIP in terms of stock and per capita GDP (current prices for the both) was modeled as follows:

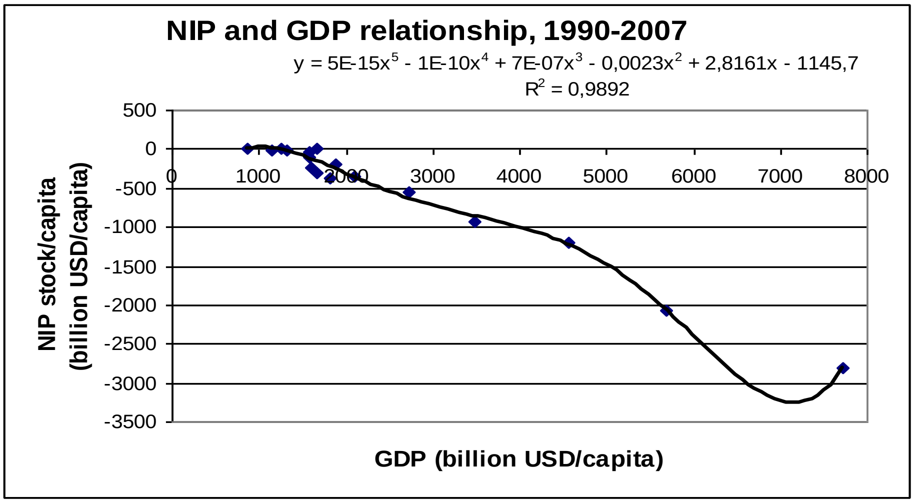


Source: Processing after UNCTAD

Figure no. 5: The correlation between NIP and GDP – Romania

As we may notice from the statistic cloud (Figure 5), the relationship between the GDP and the NIP looks relatively strong (R^2 is 0.98). Furthermore we're trying to determine the shape of the variables' function, considering the models used by the specialized literature.

The best graph, pointing out the best "U" shape, is the fifth degree polynomial (see Figure no. 6). We've anticipated these results, because other authors found the very same specifications as being suitable for less developed countries, allowing FDI inflows growth rates higher than the growth rates of the GDP, for the first stages of the IDP (see Divarci, Hisarciklilar, Kayalica& Kayam, 2005).



Source: Processing after UNCTAD

Figure no. 6: 5th degree polynomial of NIP and GDP

The graph and it associated trend point out the fact that Romania found itself at the beginning of the third stage of the IDP in 2007. Unfortunately the final data aren't available for 2008, so it's hard to anticipate the next years' trend.

5. Conclusions and Policy Implications

Romania follows the IDP framework, being situated in the second stage of IDP or in a transition period to the third stage at the most. Though, we have the evidence of existing particular aspects: the specific determinants of outward FDI at the beginning of transition, and a not gradual NIP decrease, neither being consistent with Dunning's theoretical contributions.

Even the 2006-2007 trends were optimistic in the light of outward FDI in Romania, in the actual global economic crises, the opportunities and the resources to invest abroad diminish significantly.

In terms of policy implications, we consider that in the actual context of the scarcity of international mobiles capitals, the public authorities should concern with domestic investment development, but also with external strategic economic interests protection.

The public support for ownership advantages development will bring domestic firms in the new stage of internationalization, and that will allow macroeconomic benefits.

A virtual cycle could arise because of the interdependencies between firms' ownership advantages development, internal and external investments and economic growth. Consequently, the public authority should actively interfere in the development of domestic firms' ownership advantages through educational system, trainings, R&D activities.

More, the outward FDI should be actively promoted by public institutions: assistance, finance, guarantees, and facilities.

Our general opinion is that a successful participation to the global world can not be achieved without FDI abroad!

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TAX COMPETITION VERSUS TAX COORDINATION IN THE EUROPEAN UNION

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Abstract: This paper examines the tax competition literature and attempts to draw out its implications for the debate on corporate tax coordination within the EU. Although corporate tax coordination, including tax rate harmonization, has been the subject of intense discussion in the European Union (EU) for many years, EU member states, for the most part, still operate independent and highly varied corporate income tax systems. Interest in tax coordination has increased recently, however, prompted in part by fears that tax competition among the increasingly economically integrated EU nations will over time significantly reduce the level of capital income taxation.

JEL classification: H2, H3, H7.

Key words: tax competition, fiscal competition, tax coordination, tax harmonization.

An issue of competition or tax harmonization within the EU is widely discussed in literature. Studies (Cnossen, 1996; Radaelli, 1999; Bond et al., 2000; Devereux, 2000; Gorter and de Mooij, 2001) reveal the existence of 27 tax systems related to each Member State, with particular national tax policy.

In this context, Member States agree, unanimously, for the following purposes of fiscal policy:

- to enable all categories of businesses, but also the population to benefit from the single market;
- to pursue the objectives set out in EU fiscal policy;
- to be consistent with other EU policies (environmental policy, labor policy, etc.).

Tax competition may arise between countries because of the existence of the 27 tax regimes and may have two sides:

- negative – competition is harmful and it is distorting the nature of the single market. For example, different tax policy could distort the companies' policy regarding investment, if they have subsidiaries and branches in different EU-countries;
- positive – it concerns the potential benefits for the population, such as reduced costs of public services provided by government.

For businesses and people in the Member States to benefit from the single market, the inefficiency of coexistence of the 27 tax regimes must be eliminated. The way EU influences the fiscal policy of the member states, in order to achieve its intended objectives, is the fiscal coordination that works and is compatible with the two principles of European integration:

- The principle of accepting fiscal policies of all countries, under certain conditions;

- Subsidiary - vertical relations between European institutions and national governments.

Tax coordination can be achieved by tax harmonization (convergence of national tax systems, with the purpose of assuring the working of a single economic and monetary market and to approach the welfare level in the EU), and also by removing all barriers to free movement within the single market of goods and services, of labor and capital. Interest in tax coordination has increased recently, partly caused by fears that tax competition between increasingly economically integrated European Union nations will reduce, in time, the revenues from taxes on capital. Indeed, in an extreme scenario, tax competition can generate a "race to the bottom", in which all countries come to abandon taxation of capital income, relying entirely on labor and consumption taxation. (Zodrow, George R., 2003)

Peggy Musgrave (1967) defines tax harmonization as a process of adjusting national fiscal systems in order to achieve common objectives. Chetcuti (2001) believes that harmonization is the process of removing the tax barriers and discrepancies between national tax systems. Tax harmonization does not appear as an optimal system with a single objective, but also a search of the best possible compromise between economic imperatives dictated by market integration and free movement, on the one hand, and autonomy of Member States regarding fiscal options, on the other hand (Tulai, C., Şerbu Simona, 2005) According to the authors, the harmonization process is not a simple exercise to align the practices of each State to the Community methods of taxation, to achieve uniformity; in fact, harmonization does not mean uniformity.

Tax harmonization is a comprehensive mechanism that can be done at several levels: adjustment of the tax base, of the tax rates and tax procedures; harmonization at all three levels mean a complete harmonization (difficult in practice). Europeans Opinions vary regarding the need for tax harmonization and the form it should take. Sinn (1990, p. 502) underlines the threat that an intense tax competition involves against the existing income redistribution systems. He argues that the most practical way to maintain the current level of redistribution, given the conditions of a high international tax competition – and thus to avoid a misallocation of capital among member countries, due to differential rates of taxation of company profits – is to "harmonize tax rates through collective agreements between European governments".

In a similar way, Tanzi and Bovenberg (1990, p. 185) highlights the negative effect of differences in corporate profit tax on capital allocation and the impact of fiscal competition in reducing public expenditure. They conclude that, in terms of corporate income taxation, "a certain symmetry between EU countries is needed". In this respect, the authors suggest the unification of tax bases, establishing a minimum tax rate, taking later into account additional coordination measures, including rates harmonizing.

Cnossen (1990) highlights the benefits of a tax variety, but nevertheless, he argues that "increased mobility of capital and financial innovation […] implies inevitably that all corporate earnings should be taxed at a relatively low, flat rate." He recommends a harmonized model of the Nordic "dual income tax" (Sørensen, 1994; Nielsen and Sørensen, 1997; Cnossen, 2000). In such a system, the labor income is subject to progressive taxation, while all income from capital is taxed at a diminished, flat rate (while the rates of taxation of capital income vary between Member States).

Frey and Eichenberger (1996, p. 339) argue that economists, politicians and various interest groups are generally in favor of tax coordination; they also say that "international fiscal policy remained unresponsive" to the idea that tax competition helps to reduce "political distortions", generated by the government tendency to over-allocate public services. Similarly, Genser and Haufler (1999, p. 345) conclude that the limited recommendations of the Commission Report (1997) should be implemented, but "it can not be inferred an express need to harmonize the tax systems".

Tax competition has manifested itself in recent decades, particularly through tax policies applied to:

- Significant reduction of tax rates (including income tax), to attract capital;
- Incentives and tax incentives (exemptions, deferrals, reductions, deductions for expenses) to attract FDI.

The first angle of which tax competition can be seen is the level at which it is carried out; from this perspective, we have:

- Vertical tax competition between authorities at different levels (federal, central or local);

- Horizontal tax competition between authorities at the same level.

Another criterion for classification of tax competition is the area of intervention, depending on where it can be:

• Tax competition on tax rates (the government decides to change tax rates to attract capital);

• Tax competition on tax base (the trend towards reducing the tax base by granting exemptions, deductions etc.).

With the elimination of barriers to free movement of capital and labor, the European Union illustrates best the role of tax competition. An example is Ireland; from the poorest country in the accession of the Community, in 1972, Ireland became one of the richest in just three decades. Clearly, one of the main factors behind this development was the EU and the significant support received over time. Unlike other states such as Greece, Portugal, Spain, which during the same period and under similar conditions have not experienced the same level of prosperity, reland has opted for a friendly fiscal policy, practicing the lowest rate of corporate income taxes in the European Union. She managed to attract a significant volume of foreign investment, while infrastructure needs were financed from European funds.

Table no. 1 Comparative economic development of Ireland (% of U.E. average – GDP/inhabitant)

Country/Year	1983	1993	1995	1997
Ireland	64%	80%	90%	100%
Portugal	55%	69%	70%	70,7%
Spain	71%	78%	76%	77%
Greece	62%	65%	64%	64%

Source: Eurostat

After the accession of Central and Eastern Europe countries to European Union, the scenario was repeated. Therefore, whilst the abolition of tax benefits for foreign investors, the new Member States were obliged to resort to reducing the levels of taxation, for both foreign and local investors. Major taxpayers in the EU budget (Germany, France, Italy) stood against this situation, saying that new Member States must increase their tax rates, and not generate unfair competition to countries with higher tax levels.

Also, countries with a more friendly tax regime have become targets of attacks by international organizations such as the International Monetary Fund or the Organization for Economic Cooperation and Development. In view of these organizations, tax competition between states will result in serious negative implications for income distribution. Under these conditions, both at EU level and internationally, arises more often the problem of signing multilateral agreements to prevent the emergence of the phenomenon of “tax dumping”.

Next, we refer to the basic model of tax competition. One of the early contributors to the tax competition literature was Oates (1972, p. 143), who noted that local governments, in competing for mobile capital, are likely to “keep taxes low to attract business investment” and that the result of such tax competition “may well be a tendency toward less than efficient levels of output of local services.” Zodrow and Mieszkowski (1986) and Wilson (1986) formalized this notion in models in which local government reliance on a source-based tax on capital income—e.g., the capital component of the property tax—resulted in under provision of local public services. The intuition behind this result is most clearly seen in the context of the relatively simple structure of the Zodrow- Mieszkowski (ZM) model, which is characterized by the following assumptions:

1. A large number of homogenous jurisdictions;
2. Perfectly competitive markets;
3. A Nash equilibrium in which each jurisdiction takes as fixed the after-tax return to capital and the tax rates set by other jurisdictions;
4. Fixed population and land in each jurisdiction;
5. Identical tastes and incomes for all residents of all jurisdictions;
6. A fixed national capital stock that is perfectly mobile across local jurisdictions;
7. A single good that is produced by capital and the fixed factor (labor/land) in each jurisdiction;
8. Government services that are “publicly provided private goods,” benefit only residents, have no spillover effects to other jurisdictions, and can be modeled as purchases of the single private good;
9. Two local tax instruments—a “property tax” that applies to capital income and a head tax;
10. Local governments that act to maximize the welfare of their (identical) residents.

Within this context, Zodrow and Mieszkowski (1983) show that, as the number of jurisdictions increases, interjurisdictional competition leads to abandonment of the property tax by all jurisdictions, coupled with sole reliance on head taxes. In small open economies, the ZM model yields a “race to the bottom”, all taxes on capital income being eliminated (Gordon, 1986; Razin and Sadka, 1991).

Wildasin (1989) estimates the magnitude of the inefficiency attributable to tax competition in the basic model when all jurisdictions are small. He notes that the tendency toward under-provision of public services attributable to tax competition can be offset with a subsidy to each of the local governments, provided by a higher level of government. The standard tax competition model thus suggests a potential role for tax rate harmonization in a union. Specifically, given the constraint on head tax finance, tax harmonization increases efficiency—that is, if all jurisdictions agreed to raise their capital taxes simultaneously, all would benefit from an increase in the level of public services toward the efficient level. At the same time, given the assumptions of a fixed national capital stock and identical jurisdictions, such a tax increase would have no detrimental effects on either the level or the allocation of capital in the union..

A wide variety of extensions of the basic tax competition model, all of which alter one or more of the assumptions listed above, have appeared in the literature. The basic tax competition model is characterized by (either small or large) homogeneous jurisdictions. Wilson (1991) and Bucovetsky (1991) extend the model to include “asymmetric tax competition” between large and small jurisdictions. Assuming that they are large enough to affect the after-tax rate of return to capital in the union, the larger jurisdictions tend to have higher equilibrium tax rates than the smaller jurisdictions, since the former are less concerned about tax-induced capital outflows. The resulting tax differentials cause an inefficient reallocation of capital from larger to smaller jurisdictions, and thus potentially strengthen the case for tax harmonization.

The basic tax competition model has only a single good and thus ignores interjurisdictional trade. Wilson (1987) adds a second good and finds that tax competition induces otherwise identical jurisdictions to specialize in production, with some regions choosing relatively low taxes, low expenditures and production of the capital-intensive good, while others choose relatively high taxes, high expenditures and production of the labor-intensive good. The resulting differences in individual consumption bundles are another source of inefficiency attributable to tax competition..

Baldwin and Krugman (2000) argue that agglomeration economies lead to spatial concentration of manufacturing and high-end services in advanced high income “core countries,” whose residents demand high levels of public services and support relatively high tax rates on capital income. These relatively high rates are sustainable because agglomeration economies create economic rents that can be taxed. Under these circumstances tax harmonization is undesirable, because low income, low tax countries in the periphery would lose their advantage in attracting capital for those activities not subject to important agglomeration economies, while the core countries would have to inefficiently reduce public service levels.

The basic tax competition model assumes that capital is perfectly mobile. However, many forms of capital are immobile in the short run, creating an incentive for governments to increase capital income taxes once an investment location decision has been made. As a result, governments may face an incentive to overprovided public services once capital is installed (Lee, 1997). Tax competition may limit this tendency, if firms have some flexibility in allocating production across facilities in competing jurisdictions (Janeba, 2000). Edwards and Keen (1996) construct a model similar to the basic tax competition model, but assume that state government officials act to maximize a function that includes both (1) the welfare of their residents, and (2) their own welfare, which is assumed to be directly related to revenues diverted to their own purposes – government “waste.”.

Certainly, tax competition is beneficial both for taxpayers and government. The taxpayers are operating in a tax environment that allows them to obtain higher returns and lower tax burden, while the state gains larger budget revenue due to the tax base growth. Also, tax competition requires public authorities to work in conditions of budgetary constraints (low tax rates) and therefore, to promote an effective tax administration. Moreover, businesses consider, in addition to the taxation, the tax administration capacity, which can be seen as being open or opaque to investors; latter claim more and more predictability, transparency, compliance with state law and economic development.

Governments of European countries have responded to increased competition by reducing the actual and legal tax rates. But while the EU 15 countries are promoting a more coordinated tax policy, without having too large discrepancies between their practices, smaller countries of Central and Eastern Europe, with less developed economies are more exposed to tax competition, and are required to sharply adjust their tax rates. This is obvious because, despite the fact that 15 EU countries have higher tax rates, the investment flows are directed into a larger volume to these countries. This means that other factors such as capital market development, cost of finance, economic and financial policy consistency etc. matter as far as taxation in decision making. In fact, despite efforts to close the tax system, competition will increase, taking into account the new emerging business methods. A number of multinational companies are producing services, know-how, departing from traditional production of goods. As a result, their assets are mostly intangible in nature and their activity is increasingly mobile, located in different countries, and therefore sensitive to differential tax rates. (Donath, Liliana, 2007)

In our view, there is no single solution to problems posed by either harmonization or tax competition within the European Union. We consider that an appropriate mix between the two is necessary, given the following::

- On the one hand, tax competition may lead to increased efficiency of public money and the limitation of non-productive activities, and secondly, it can lead to reduced revenue from taxes, and a downward effect of the quantity of public goods provided (thus lowering the general welfare)
- Tax harmonization in the European Union allows the creation of a consolidated tax base, with the following advantages: in multinational companies no longer have to deal with more national tax systems and, also, economic entities are not tempted to arbitration over the border in order to benefit from lower tax rates.

Currently, tax harmonization can’t be achieved in political terms, since the fiscal policy is available to the national governments.

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STRATEGIES TO IMPLEMENT CHANGE IN INSTITUTIONS WITH RESPONSIBILITIES IN NATIONAL SECURITY

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Abstract: The Romanian Constitution stipulates that "people's army will be subject only to guarantee the sovereignty, independence and unity of the state, territorial integrity and constitutional democracy. Under the law and international treaties to which Romania is party, the army contributes to collective defense in military alliance systems, and participates in the maintaining or restoring peace".

JEL classification: D73, H56, J50, J53, J88, M12, M54, Z13

Key words: change management; public organization; national security

1. Introduction

Knowledge and understanding of the causes that determine resistance to change are essential for finding the most appropriate means to reduce or even defeat the resistance. One of the most important ways to reduce human resistance to change is to involve them in planning their change by centering on their feelings over their own insecurities on their resistance. When people open facing each other, they have information in place of insecurity; they may participate in change rather than resist change. People must be given the opportunity to discuss and understand the nature of change and their own fears triggered by it.

Another way to reduce human resistance to change is addressed anxiety created by change. That requires that emphasis be put on finding sources of discomfort to people who fear change and the use or threat of sanctions as a means to persuade people to engage in change. In a process of change, given that habit, routines are sources of resistance to change behavior patterns should not be ignored work that has already been stated or "institutionalized".

2. Recognizing and understanding the need for change - choosing strategies

Communication is one way of reducing resistance to change. Resistance can be reduced by communicating with employees, helping them understand the need for change. This method is effective when the main cause of resistance is lack of information about individuals in the change process. Time and effort involved in this tactic are the main disadvantages of them, especially when the change affects a large number of people.

Handling is another way to reduce resistance to change. Distorting facts and making them seem more attractive by hiding some bad information or spreading false rumors to cause employees to accept change are examples of manipulation. This method is less costly, but risky if people will find that they were fooled, change agent credibility reducing to zero in this case. The first step in a process of change is the diagnosis or finding answers to questions such as "What changes are needed in the organization to ensure a more effective?" It often does not change that nobody wants. It happens many times to understand, looking after a change was made and he did not answer the real problems?

The organization is involved in a process of continuous interaction with its environment. In this environment, in addition to organization, there are other systems - suppliers, customers or end users - which affect organization and, in turn, are influenced by it. Within his organization may be perceived as having four components in interaction: tasks, organizational structures and systems, culture and people - members of the organization:

- Tasks formed primary component organizational system.
- Organizational structures and systems include: responsibilities and lines of subordination, information systems, monitoring and control mechanisms, job descriptions, formal systems of remuneration and awards, meetings structures, operating procedures, etc.
- Organizational culture refers to values, rituals, power sources, rules and loyalties of the organization, and non-formal system of reward or penalty, which determines how to act in that organization.
- People come with their different skills, knowledge, experience, personalities, values, attitudes and behaviors.

Necessary for the organization to adopt changes to survive in an environment increasingly is unpredictable. Organization should consider changing an opportunity as a help to grow and prosper. The changes are part of managerial and organizational life. They may be important to produce ever more frequently and may be decisive for the survival of the organization. Changes may offer different opportunities to persons involved: increasing professional satisfaction, improved working conditions, improve practices, efficiency, etc.

Favorable external pressure change may be due to factors political, economic, sociological and technological (PEST) exerted by the external environment in which the Organization. Other external pressures arising from supply requirements and market competitive conditions and changing conditions. Favorable external pressures change lies beyond the control of the organization. Positive internal pressures of change are often linked to external. These include: the need to increase productivity, improve quality levels, increase sales volume, improve services, increase the motivation of staff and maintain the organization. Internal pressures are favorable change in control of the organization.

There are three common approaches to generate positive internal pressures for change: top-down approach, bottom-up approach, expert services approach, each with different advantages and disadvantages. Essential components of this model are the tasks performed by the organization, organizational structures and systems, its culture and people working in it. In addition, the model highlights the need to identify shared collective vision within the organization and individuals (and groups) that may facilitate change.

Specifying what level of change, we can estimate the duration of its implementation process and the complexity and difficulty. Also need to consider our own responses to change and to determine the influence of attitude we have to change on our ability to manage it. We therefore seek to examine the forces that occur and can promote or hinder a proposed change. Thus, we find the forces that require a change must be strengthened and weakened the forces of rejection. Opposition to change is a common rejection of the forces. To reduce or remove them, there are several possible approaches.

Among the usual causes of opposition to change are narrow self-interest, misunderstanding and distrust, the differences in situation assessment, low tolerance to changes, pressures from peer groups, fear of change or stress associated with negative experiences related to change past. Among the approaches that may be adopted to reduce opposition include training and communication, participation and involvement, facilitation and support, negotiation and agreement, manipulation and cooptation or explicit and implicit coercion. Essentially, the focus should be on granting greater autonomy as middle management.

3. Establishment of methods and implementation stages of change

Given that resistance to change was defeated following proper implementation of change and feed-back permanently modulations generated factors that actually trigger. In this stage develop an action plan which should include clear procedures to implement change. They have adapted to the realities within the organization and facilitate the conduct of all actions that change draw.

Change strategies, applied individually or collectively, people are always adapted. Sometimes people speak and write as if "organization" is a tangible entity other than the people who compose it. In this respect, common words' organization has suffered a drop in sales or production levels. But the organization is an abstraction - not organizations change their behavior, although a change in organization structure or its processes can have an impact on organizational behavior. In fact, what appears is a group of people who consciously or unconsciously share the same common guidelines and decide to change their behavior. A strategy for producing change is always oriented towards influencing human behavior.

In consideration of collective behavior, it is important to operate a distinction between a group of people who are connected interactively to a system called "group" and a group of people who share certain values, but they are not related or specific interactions of the group (community). Millions of people who drive cars holidays are part of a collectivity, but not a part of a group. Change strategies for a group may be unenforceable if a general local. Although a group can be a powerful force in producing change is not always possible to change a particular group member is provided, and peer pressure is one method that can be used in an interconnected community. Therefore, a change strategy depends on the target of change - individual, group or community of people overall.

Because differences between the results of group meetings and lectures in which the results of the study subjects were involved due to the degree of involvement of people in question, the motivation to be part of the decision and the influence of reinforcement and support group decision. Upon completion of several studies, Lewin developed a model for analyzing planned change process. He referred to existing conditions as equilibrium (with some fluctuations) between two sets of forces: forces collapse, which maintains the status quo and driving force, which is oriented to change. He named this model the forces opposing the force field analysis. Force field model provides three basic strategies for change: increased driving forces; reduction constraint forces; forces driving growth and reducing constraint forces.

Ample evidence of research suggests that simply increasing the driving forces leading to an increased level of resistance and change can be maintained only if constant pressure is applied. Change occurs when the situation is "thawed", moved to another level, and then "refreeze" in the new position. Simply increasing the pressure appears to be suitable for the new level refreeze change. Most appropriate strategy is to reduce or eliminate constraints or even convert the forces driving forces of constraint.

Even those who are enthusiastic about the change they need the opportunity to opt out of the past. Institutions, rituals and traditions that help employees to accept change is worth the few hours it takes to make them exceed the threshold organizational change. Probably no one will be more important skill for managers in the future than to help people get accustomed to change.

4. Evaluation results of the implementation of change

Organizational transformation involving changes at three levels. A first level is the change of attitudes and behaviors of employees. The second level refers to change management system as a whole, while the last concerns the deeper layers of organization, systems of values, beliefs, affectivity community of employees, note that last level is the first two. Another feature of transformation is that organizational change is not confined to mere maintenance organization officials, but they concern the renewal of the organization as a whole. Organizational transformation means profound changes so while considering harmonization, adjustments and organizational shifts. Frequently, organizational transformation involving is making the organization as a whole and requires, in the opinion of many experts, the existence of a set of preconditions:

- Organization management must be committed to change;
- Every employee should be able to visualize what it looks like a good organization and what values are based;
- There are certain exogenous conditions in the environment that the organization faced problems can not be addressed and solved using the previous methods;
- Key people in your organization to support achievement of organizational changes;
- Managers and professionals making the change to be prepared and committed to a long process;
- Change the filmmakers are aware from the beginning that will be faced with "opposition" to change;
- During the change must be willing to learn from a large number of individuals;
- Most staff organization to be convinced of the need to make the proposed change;
- Organization is ready to call on any assistance and / or available and useful contribution change within and outside the organization;
- Provides access to the information involved in all phases of organizational change.

The organization is involved in a process of continuous interaction with its environment. In this environment, in addition to organization, there are other systems - suppliers, customers or end users - that influence the organization and, in turn, are influenced by it. Necessary for the organization is to adopt changes to survive in an environment increasingly unpredictable. Organization should consider changing an opportunity as a help to grow and prosper. Organizational development is the process of improving the effectiveness and welfare organization (well-being) to its members through planned interventions. This means:

- Increased effectiveness - achieving the goals and objectives of the organization
- Welfare of members - employee satisfaction with work and working environment
- Planned interventions - structured sets of activities in which selected groups or individuals engaged in tasks that are related directly or indirectly by improving organizational.

At the most general purpose of organizational development is the successful implementation of organizational change. It may derive from different specific objectives, such as developing plans to improve organizational structure of the organization redesign, achieving cultural change, increasing efficiency of internal communication, clarifying roles and responsibilities, fostering creativity and innovation, increase efficiency of decision processes, etc. Organizational development theories have origins in the behavioral sciences (particularly sociology and psychology) and management. They can be divided into two categories:

- Theories of change - trying to explain the dynamics of change and organizational improvement;
- Theories of implementation - are focused on specific intervention strategies aimed at inducing organizational change.
- The changes are part of managerial and organizational life. They may be important to produce ever more frequently and may be decisive for the survival of the organization. Changes may offer different opportunities to persons involved: increasing professional satisfaction, improved working conditions, improve practices, efficiency, etc. Within his organization may be perceived as having seven components (scenarios) in interdependence: strategy, structure, systems, management style, skills, personal values or organizational culture.
- Usually, several methods are used to create awareness disparity / gap between ideal and actual conditions, such as:
- Cognitive sounding. Most lectures, written materials and videos used in training programs using the direct orientation disparity for the listener, reader or viewer to engage in personal analysis and the change to the preferred direction (sounding cognitive). Managers, through their internal dialogue, self-study and is considered ideally situated somewhere below. Disclosure may not provide an accurate vision of it, may create a disparity that is not consistent with reality. That a CEO reads about a new tool of management (ex. creating teams, job enrichment or management by objectives) is usually reflected in a program to improve performance of the organization may not have really needed;
- Interpersonal feedback. Another method of creating disparity is to ensure that a person to obtain direct feedback, immediate, accurate and useful about his managerial style and performance from those with whom he interacted (interpersonal feedback). Feedback should reveal sufficient disparity so that you focus on the individual to change;
- Monitoring instruments and data collection. In practice, gather more intelligence-gathering tools that provide managers accurate data about their management style, performance and the impact they have on performance and attitudes of other members of the organization. Surveys are used to collect information about the organization - the discovery that the conditions are not optimal can create the need for change within organizations.

- Reports. Most reporting systems require an orientation disparity. If a report states that have a lower performance than the previous quarter and lower than expected, the disparity will create the energy needed to change.

5. Conclusions

Knowledge influences that change has had on efficiency are a social aspect to continue implementing the change. Managers who initiate such a complex process know very well that the change may involve a time after which the results begin to appear. They also know that arise during the implementation and other issues that were not expected to be resolved in time, otherwise run the process itself is questioned.

However, the team of experts dealing with implementation of change can make partial assessments, regular employees to strengthen the conviction that the mode of action veins good, but the implementation process is complex and lengthy response to these demands has emerged the second generation organizational development, organizational transformation known, differs substantially from the previous.

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IMPACT OF CULTURE ON GLOBAL MARKETING

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Abstract: This paper analysis the international marketing activities under the influence of cultural environments on different markets. The marketing mix concerning product, distribution and communication policy is expanding its significance where cultural values are involved. As methodological approach we analyzed each marketing policy taking into account the cultural variable that mostly affect their meaning.

JEL classification: M16, M30

Key words: culture, global marketing, marketing - mix

Culture is by definition conservative and resists to changes. Therefore, culture change seems paradoxical. But this phenomenon exists. It is true that, normally, any change in any lifestyle initially encounters more resistance than acceptance. The degree of resistance to new ideas differs in some cases; the changes are fully and rapidly supported, in others resistance is so strong that acceptance will never occur. The process of change and the responses are relevant to marketing people, because marketing efforts are more often much more than cultural innovation. Many are the reasons why culture is resistant to new ideas, techniques or products. First of all, the latter must be perceived as needs within the culture.

Beyond culture recognition, analysis and culture, harmonization between the company culture and the domestic market culture is required. This is based on matching the firm's corporate culture and the foreign partners and customers' culture. The common interest can be found in the preference for creative and innovative marketing tools. Regardless of company size, culture will dictate how to solve the dilemma of combining one's own culture with other cultures. In other cases, local culture must prevail. Using company culture may also include extensive use of the culture of its country of origin. In practice, cultural dilemma solution means, above all, respect for individuals and, in general, other cultures and adapting to local culture, if necessary. On the other hand, one must never lost sight of its own culture, both at the firm and country of origin level, and it is necessary to act with determination to alter the cultural change of target markets. The correct combination can be a powerful competitive tool.

1. The Policy of Product Standardization or Product Adaptation

A firm that deals with international markets has at its disposal four alternatives:

- selling the product without changes on international markets.
- modifying products for different countries or regions.
- developing new products for foreign markets.
- incorporating all differences in a single product and introducing a global product.

There are different approaches for implementing these alternatives. For example, a firm can identify only the target markets where products may be sold without modification or with minor modifications. A company can have in its line of products for various markets global, regional and local products. Some of these products developed for one market may be introduced later in other markets, including the market from where the global company originates.

Choosing a strategy of standardization or adaptation of products depends on numerous factors, presented in the following table:

Table no. 1 Standardization or adaptation

Factors that encourage standardization	Factors that encourage adaptation
Economies of scale in production	Different terms of use
Economies in research and development	Influences and government regulations
Marketing economies	Different consumption patterns
Economic integration	Local competition
Global competition	Legislative items

Source: Czinkota M International Marketing, Dryden Press, 1998
Ronkainen I.

The strategy of selling standardized products has been adopted by companies such as Coca Cola and Levi's thanks to the universal recognition of the brand. Although standardization of products is increasing, there are important differences in companies' practices, depending on the nature of products and the country where they are sold. Products like steel, agricultural equipment and chemicals are less affected in terms of culture and require fewer adjustments than consumer goods. Technology-intensive products are readily accepted worldwide.

Consumer goods require more adaptations, being influenced by cultural differences and economic conditions of the target market. There are numerous examples of global companies that have made some product adjustments according to the specific of foreign markets. For example, McDonald's has introduced rice-based menus in China, it brought the beer in Germany and the wine in France, and in Japan the character Ronald McDonald was called Donald McDonald to facilitate the pronunciation of the name by the Japanese people. Many companies may use a combination of standardization and adaptation strategies. For example, IBM produces more than twenty relatively standardized keyboards for personal computers to adapt to the linguistic differences in Europe.

Characteristics and Preferences of Clients

Products sold on foreign markets are influenced by the local behavior, tastes, attitudes and traditions in each market. The Coca Cola Company's attempt to sell Diet Coke product on the Japanese market was not successful because the Japanese do not consider themselves overweight and Japanese women do not want to admit they are dieters turning to products whose label specifies that. The company was forced to change the product name in Coke Light, and the promotion emphasized keeping in shape by consuming the product, and not losing weight.

Level of Economic Development

Buyers who come from developed markets demand sophisticated products, and buyers from less developed markets require simplified versions of products due to low purchasing power and conditions of use.

Competition

Adapting products to the specific of foreign markets is often required by the strategies adopted by competitors and the pressures exerted by them. For example, an American company producing medical equipment is manufacturing highly specialized products that are very difficult to imitate. As a result of this strategy, the company has achieved a growth by 40% in annual sales in Japan over a period of ten years.

Climate

Climate can affect all components of a product, some products, by their nature being more vulnerable to climatic conditions. The sale of chocolate products on markets where the climate is very hot may restrict companies' options. For example, Toblerone chocolate is sold only in stores with air conditioning and the company Nestle produced a special Kit Kat chocolate for Asia with a much lower fat content to determine the melting point increase. General Motors Company has experienced problems with several thousand Chevrolet cars sold in the Far East because they did not suit to a hot and dusty climate. The company was forced to add additional air filters to solve the problem.

Product features may require a policy of standardization or adaptation. Foods are the most sensitive to local tastes and habits. Durable consumer products are subject to a more homogeneous demand and predictable adjustments, such as for example, adjustments to different technical systems for video devices. Industrial products are the least exposed to cultural differences.

The *brand* of a product refers to a name, symbol, term or sign used to differentiate the firm's offer from that of the competitors. The brand is one of the elements that can be easily standardized and permit standardization of other elements of marketing, such as promotion. International company has at its disposal several options when choosing a brand strategy. Brands may be local, regional and global. Often, using local brands is imposed by the adaptation of these products to the specific of those markets or the impossibility of using regional or global brands due to negative connotations.

The *effect of country of origin* has a considerable influence on the perceived quality of a particular product. Some products have been successful in different markets, although the home country was perceived negatively. For example, tractors manufactured in Belarus and Russia has been accepted by European and American markets because of their reasonable price and their rigidity. The effect of country of origin loses importance as consumers become more informed and as firms use multiple production databases.

2. Factors Influencing the Choice of International Distribution Channels

Philip Cateora considers that the main factors affecting the choice of a particular type of distribution channel are the following "6C" - cost, capital, control, coverage, character and continuity.

Consumer characteristics underlie the decisions related to the design of the distribution channel in foreign markets. In the early stages of introduction of the product, the company can focus its efforts on the most attractive markets, with a further expansion of distribution. When the Kronenbourg brewery company entered the U.S. market, the distribution was initiated in New York City and then expanded to the metropolitan area.

Customers' characteristics can determine the distribution of the same product through different types of distribution channels. All equipment of Caterpillar Company is sold through an independent dealer network, except for sales made directly by the U.S. government and China. Another example of adjusting the distribution to clients' characteristics is the strategy followed by McDonald's in Japan. The company did not use the American model for locating restaurants in the suburbs because the segment of young people who walked in the central part of the city was more promising then the car owners in the suburbs, much more inclined towards traditions.

Culture refers to distribution culture, i.e. how distribution channels are structured and managed. The international company should consider in each market the distribution system and the relations between members of distribution channels. Many times the company must adapt to the structures existing in that market. For example, in Finland, 92% of the distribution of fast moving consumer goods is achieved by four chains of wholesalers, without their support a significant market penetration being impossible.

In the selection of the distribution channels, the different functions of the intermediaries are very important. For example, in Japan, retailers expect that producers accept the returned goods, even if the main reason is the drop in sales. Retailers also expect financing and a frequent delivery of products. Manufacturers in Japan focus on production and promotional activities, the intermediaries on logistics, financing and communication with manufacturers and retailers, and retailers focus on sale and promotional activities. Trying to change the local distribution systems is very difficult or even impossible in some markets. For example, the American company Toys'R U.S., which opened its first toy shop in Japan in 1992, had difficulties in persuading the Japanese toy manufacturers to sell products directly and not through a multitude of distributors.

A major part of the distribution culture in a particular market is the legislation that affects the distributors and agents. For example, legislation in some markets may require that foreign firms are represented only by firms 100% local.

Although decisions on the distribution vary from market to market, companies must be aware of the globalization trends of the distribution functions. Globalization of intermediaries is made directly or through strategic alliances. Companies like Toys'R in U.S., Marks&Spencer in Britain and Takashima in Japan have expanded both on developed markets and emergent markets.

Competition and distribution strategies used by competitors may have a great impact on the company wishing to enter a foreign market. The firm must employ a distribution approach different to that of competitors, in order to obtain a competitive advantage. In some cases, all available distribution channels may be blocked by local competitors, through contractual agreements or other modalities.

The *company's objectives* in terms of market share and profitability may result in choosing a particular type of distribution channel. Often, the objective linked to achieving a market share as larger as possible involves distribution of products through its own distribution network.

Product characteristics, the degree of complexity influence the choice of a particular type of distribution channel. For perishable products, specialty products requiring after-sales service and for many industrial products, the distribution channel is short.

Communication provides the information exchange essential for the operation of the distribution channel and supports the company in the transmission of objectives to distributors and in resolving conflicts. Communication is a two-way process which involves not only the transmission of information between the members of the distribution channel, but also a better understanding of the needs and objectives of each party.

3. Intercultural Communication

Integrated Marketing Communication **(**IMC) includes advertising, sales promotion, commercial fairs, direct sales and public relations. For most companies, advertising and direct sales are the main components of marketing communication. This section discusses in detail the other components of marketing communication, which were not analyzed in previous chapters. The goal of most companies is to achieve synergistic effects when sales promotion, public relations and advertising work concerted. However, the topic of interest of this chapter is the international advertising. The subject of the next chapter is sales management.

Sales promotion is a marketing activity that stimulates consumers and improves the efficiency and cooperation for the retailer or intermediaries. Coupons, demonstrations inside the store, samples, talons, gifts, advertisements, contests, sweepstakes, sponsoring special events like concerts and fairs (even doughnut parades) and exhibitions at the points of purchase are the types of sales promotion tools meant to form complementary items for advertising and direct sales in the promotional mix.

Sales promotion involves short-term efforts directed at the consumer or retailer, aimed at achieving specific objectives such as product testing or immediate purchase of the product by the consumer, consumer familiarization with the store, increasing retail promotional exhibitions, encouraging shops to store the product, supporting and increasing advertising and direct sales efforts.

In markets where it is difficult to establish a link with the consumer because of the barriers imposed by the media, the percentage of sales promotion budget should be supplemented. In less developed countries, sales promotion constitutes the main component of the promotional effort on rural markets or less accessible markets. In some regions of Latin America, part of the budget of advertising sales for Coca Cola and Pepsi Cola is spent on trucks especially decorated to travel frequently in outlying villages to promote their products. When such a truck stops in a village, a movie or other entertainment products can be run; the entry ticket is an unopened bottle of Coke purchased from the local dealer. The unopened bottle will be exchanged for a cold one plus a coupon for a new one. This promotional effort aims to increase sales and encourage local traders, which are announced before the arrival of trucks in order to store the product. This type of promotion concerns almost all rural traders. In other cases, rural shops receive free samples, they have their facade painted or receive inscriptions in the form of a clock with the purpose to promote sales.

The role of *public relations* (PR) is to establish harmonious relations with the press and other media to help companies convey their message to the public - consumers, public opinion and governmental regulatory bodies. Public relations consists not only in encouraging the media to launch positive stories about companies (like in the story of the Barbie Doll), but also to deal with rumors, stories and adverse events. Regarding events, the difference between advertising and public relations is an issue for the Supreme Court of the United States. Nike was criticized for poor working conditions in factories in Asia and responded to critics with paid advertising. The Court decided that the freedom of expression did not belong to advertising, and the civil association sued the company for false advertising. However, it seems that Nike has exaggerated and expanded the problem in public relations area too, going back to the Supreme Court.

At the end of the century, the increase of the amount paid for *advertising* at global level has slowed along with the global economy. Most estimates for the total expenditure for 2003 stand from 400 to 500 billion dollars. In Canada, the total estimated expenditure for the same period amounted to about $ 8 billion. An annual increase of 4 percent was estimated for 2006, but that of course depends on the rehabilitation of the global economy. In this difficult environment of the global economy, the advertising industry continues to be subject to considerable restructuring. Global advertising through mass-media is a powerful tool for cultural changes and is constantly subject to extensive research by various institutions. Even so, most experts in the field believe that only now we are about to understand some key issues raised by international advertising.

4. Conclusions

Looking to expand their activities abroad, companies engage in international marketing activities. Due to various cultural backgrounds of the markets companies must be aware of the different cultural settings and must be capable to master the culture. Therefore the marketing policies are changing in accordance with the cultural environment. The main contribution of this study is the analysis the impact of culture on marketing practices. Further research is needed to understand the impact of marketing techniques improvement on corporate return.

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ORGANIZATIONAL SOCIAL RESPONSIBILITY - STATE OF THE ART

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Abstract: This article clarifies the meaning of the concept of organizational social responsibility (OSR) by highlighting the contributions of both authors of literature and the main relevant international organizations. OSR is a controversial concept and an exciting subject that aroused the interest of many specialists, both theoretically and practically. Many authors and international bodies seek to establish a logical meaning of the concept of social responsibility, in order to facilitate its implementation in the activities of the organizations.

JEL classification: B59, M14, N00

Key words: social responsibility, economic responsibility, international organizations, social principles

1. Introduction

The article presents an analysis of the concept of organizational social responsibility (OSR). The evolution of the concept in time raised decisive moments that have defined OSR. Theoretical contributions of researchers in the field have gradually enlarged the understanding of social responsibility. However, the OSR is a relatively new concept for the management of organizations and is a highly debated topic by many authors (e.g. Bowen, 1953; Burlea Şchiopoiu, 2009, Campbell, 2006, Carroll, 2001, Jacquot, 2005; Windsor , 2001).

In the current economic environment, the social pressures on business have increased and the concern for the OSR is not manifested only by scientists. More and more international organizations shared their interest in the OSR- the Economic Cooperation and Development Organization, the United Nations, the European Commission, the Economic Development Committee, the World Council for Sustainable Development.

The structure of the article reflects a dual approach in defining the OSR. The first part presents the contributions offered by the OSR literature and the emergence of the term so far. In the second part, OSR elements are analyzed through the documents of international organizations concerned with social practices of organizations.

2. Theoretical literature on the definition of OSR

Nowadays, because of the economic and social globalization, the need for morality and for social responsibility of the organizations became more pronounced. OSR became an important part in the international economic affairs and it is considered an exciting subject that developed the interest of many specialists, both theoretically and practically. Some authors try to mitigate the disputes aroused by the conceptual approach of the term, seeking to establish a logical correlation between the activities of the business community and the exact elements of ethics and morality, found in the social sciences. The controversy on the OSR practice implementation designs organizations to facilitate implementation of various elements that define the OSR in their daily activities.

The first elements of social responsibility have appeared in the late '30s, with the contribution of Chester Barnard (1938) - The Functions of the Executive, who discussed a number of preliminary considerations on the cooperative systems and behavior of individuals within the organization and beyond. Two years later, in 1940, Theodore Krep, in his book, Measurement of the Social Performance of Business, tried to determine the impact of actions taken by companies on the areas of social interest. In the booklet to Accompany Training The Labour Dimension of CSR: from Principles to Practice for Global Copact in 2007, the beginning of OSR are considered to be in the "United States during the 1950s, but studies on the subject had already been published in the 1920s, as a consequence of the debate on the need for company managers to take into account not only shareholders' interests but also other stakeholders' interests."

However, Howard Bowen is considered by many experts (Burlea Şchiopoiu A., 2007, Gonda, J.P & Igalens. J., 2008) to be the "Father of Social Responsibility". In his book, "Social Responsibilities of the Businessman" (1953), Bowen expands business interests, ranging from a strictly economic responsibility, build on profit and loss, to the social responsibility that is based on systematic analysis of speech and human behavior. In the '60s, a number of american researchers such as Davis (1960), Frederik (1960), Eells, Walton (1961), McGuire (1963), Bolstrom (1966) continue to be concerned with the concept of social responsibility. Following Bowen's idea, they are trying to raise awareness about the impact of economic environment that businesses have on society. Thus, the concept of OSR extends it's area of understanding and embraces the notion of citizenship (Frederik -1960) and ethics (Eells, Walton 1961).

In 1970, Clarence C. Walton, in his book "Corporate social responsibility" links the term of SR to the meaning of voluntary responsibility of organizations, in line with the interests of the corporation. This explains the importance of relations between stakeholders, society and business.

An important role in the evolution of the concept of social responsibility of the organization belongs to M. Friedman, who had a skeptical attitude about the benefits of the OSR. In his book, "The Social Responsibility of Business is to Increase its Profits" (1970), he explains that the OSR serves the personal interest of managers, thereby it can reduce the profits of the shareholders. However, managers must adjust their policies in order to meet the increasing number of stakeholders (employees, customers, suppliers, subcontractors etc.).

The definition of OSR has developed a new dimension with the contribution of Archie B. Carroll, in 1991, which considerably broadened its scope of understanding. He defined four components of social responsibility: economic, legal, ethical and philanthropic (Carroll, 1991).

Economic responsibility reflects the basics of all business to seek profit. Organizations must commit to provide activities to maximize earnings to shareholders, to be more profitable, to achieve a strong competitive position and a high level of efficiency. A successful organization is one that consistently makes profit.

Legal responsibility refers to actions taken by organizations that need to be consistent with the laws and rules imposed by local and national authorities. Goods and services of an organization must meet minimum legal requirements when completed.

Ethical responsibility involves the activity of organizations to act in accordance with the needs of society and ethical standards. Organizations that have the role of good citizens in the society should act in a way that exceeds legal limits. Thus, in their work, organizations must demonstrate integrity and morality.

Philanthropic responsibility shows the benefit that voluntary and philanthropic actions of the organizations have on the society. Sponsorships, projects that help organizations improve the quality of life in the community, managers and employees involved in voluntary actions are examples of philanthropic responsibility of the organizations.

In the '90s, the definition of OSR was completed under the impetus of scientists and environmentalists, so new elements of moral, ethics (Donaldson -1991, Davis -1991 and Preston -1995) and environment (Jennings and Zandbergen -1995) were introduced.

After the year 2000, it can be discussed of the social responsibility strategy, through which organizations round out their marketing policies (Baron -2001) and seek a competitive advantage (McWilliams et al., 2002). The McWilliams and Siegel (2001) perspective, based on the supply and demand analysis and continued by Patrik M. Wright defined OSR as those situations when a company undertakes beyond the interests established by the law.

Campbell (2006) points out that there are several gaps in the definitions of OSR that were known until 2006: "the issue of doing harm has been largely ignored. He considers that there are companies that may do public service work or charities but also pollute the environment or persue discriminatory labour practices, showing by this example the blind spot in the literature.

OSR has followed two major stages. The first stage in the development of the concept is based on a simplistic definition, as presented by Bowen in 1953. OSR's role is, therefore, to increase the businessman's awareness regarding the needs of the society. The concept takes a complex scale in less than 40 years and it is structured in four levels. Thus, the second stage involves Carroll's contribution, who includes in the definition of the social responsibility two more elements, beyond its economic and legal platform: ethical responsibilities, through which organizations have to do the right thing and behave moral in the society, and philanthropic responsibility, which aims to improve the quality of life by contributions from private corporations as good citizens. Currently, the OSR is often confused with business ethics, corporate philanthropy, sustainable and ecological politics, social performance or corporate citizenship. The lack of a clear definition made the theoretical and practical development of the OSR. Therefore, the comparison between professional OSR studies and the understanding of its implications became an interesting dare.

Table no. 1 Theoretical contribution on the definition of OSR

Authors	Theoretical development of the OSR concept
Bowen H. R. 1953	Businessman's obligation is to comply with those policies, to take those decisions or to follow those lines of action which are desirable according to the objectives and values of the society.
Davis K. 1960	Business actions and decisions must be made on grounds beyond economic and technical interests of the company, at least partially.

Authors	Theoretical development of the OSR concept
Frederik W.C. 1960	Social responsibility is a civic attitude that includes not only human and economic resources but also the desire to use these resources in various social purposes, and not simply for personal or business interests.
Eells ; Walton 1961	OSR relates to issues that arise when corporate enterprises overshadow social and ethical principles that should govern the relationship between corporation and society
McGuire J. 1963	The idea of social responsibility implies that business is not only economic and legal obligations, but also certain responsibilities to society that extend beyond these obligations.
Bolstrom 1966	Businessmen should realize the impact that their decisions have on the society.
Walton C. 1970	Companies need to recognize, voluntarily, that they have other relations of responsibility beyond corporate responsibility.
Friedman M. 1970	Social responsibility behavior serves the interests of managers and, thus, reduces profits to shareholders.
Drucker P. 1984	Social problems can become economic opportunities.
Davis; Donaldson 1991	There is a moral requirement for managers to do the right thing, not to belittle how these decisions could affect firm performance.
Carroll A. 1991	Social responsibility of organization involves four dimensions: economic, legal, ethical and philanthropic. (Pyramid OSR)
Donaldson; Preston 1995	Emphasis should be on moral and ethical dimensions of stakeholder theory and business involvement in OSR.
Jennings; Zandbergen 1995	Institutions have an important role in establishing a consensus within a firm on establishing sustainable and environmental organizations.
Holmes; Watts 2000	Continuing commitment by business to behave ethically and contribute to economic development while improving their quality of life and their families and local community and society on a large scale.
Baron 2001	OSR use to attract socially responsible consumers called OSR strategy by which organizations provide a public good in conjunction with their marketing strategy / business.
McWilliams; Siegel 2001	The level of social responsibility of an organization can be determined by a cost-benefit analysis.
McWilliams et all. 2002	CSR strategies, when supported by political strategies, can be used as an organization's sustainable competitive advantage.
Campbell, J.L. 2006	Defining socially responsible corporate behavior involves specifying the type of corporate behavior with which we are concerned, of which there are many possibilities, such as how a firm treats the environment and its stakeholders. It involves comparing corporate behavior with some standard, such as those posed by the law or international organizations. And it involves distinguishing between the rhetoric and substantive behavior of firms.
Burlea Şchiopoiu, A. et all. 2007	OSR is the voluntary integration of the principles of economic, social and environmental activities to produce goods and provide services in order to enhance economic performance, social and environmental performance of an enterprise.

We believe that a clear conceptual distinction, accompanied by legislation in this area would help better implementation of the OSR in organizational culture and increase its transparency. The ISO 26000 standard guide, that is going to be published at the end of 2010, will enable a global acceptance of definitions and principles of the OSR and will be a powerful tool to help organizations move from good intentions to good actions.

Analyzing the elements above, we conclude that the definition of social responsibility focuses on how to manage the impact of basic business. Some authors advance this idea and highlights how far some companies go beyond the profit and the broader objectives of society. A key element is the fact that some managers considered that their organizations are not sufficiently prepared to pass the limits of the basic objectives and activists argue that companies have no legal obligation to take such initiatives. And this particular debate does not stop there. The emergence of modern corporations has created and continues to create many social problems. Thus, business must assume responsibility for solving them.

Some writers and analysts say that the OSR has a number of limitations and drawbacks (Barnett, 2005; Friedman, 1970). Social and moral issues are not feasible in economic terms. Corporations should focus on gaining profits for their shareholders and to leave social issues to others. Taking social responsibility to embrace this idea gives a competitive disadvantage to organizations.

However, business has changed considerably through increased stakeholder involvement and social action. Numerous major companies, generally multinational companies have demonstrated how they include the OSR practices in their daily activities, in a long term strategy. The best way an organization can show stability is to integrate social responsibility in their business practices in the short and long term objectives. Maybe it is not a process that can be achieved easily, but it is a criterion that must be addressed with utmost seriousness, and organizations will meet this trend will suffer in the future.

The President of the Unated States, Barack Obama, in his inaugural speech in January 2009, mentioned about "a new era of responsibility" (Barack Obama, 2009). Obama stressed the importance of mutual respect and common purpose beyond self-interest and indifference.

Many managers and stakeholders approved that implementation of the OSR is an expression of a long-term management strategy. This is a necessary condition to create and maintain a trustworthy image to investors and other stakeholders. Shaping a good reputation and showing transparency through social reports provide an undeniable competitive advantage for all the organizations (Zsolnai, 2006).

3. The contribution of international organizations in defining OSR

Nowadays, OSR is a highly debated subject. Globalization of the economy has increased the intensity of social need that is now reflected in many organizations. As a consequence, international bodies became more preoccupied about the social aspect of their activities.

Famous international organizations, the Organization for Economic Cooperation and Development, United Nations, European Commission, Economic Development Committee, World Council for Sustainable Development etc. and various foreign agencies -Cone Inc. USA, APCO Insight USA, Cherenson Group USA, Hallvarsson & Hallvarsson Sweden - gave valuable source of documentation on OSR and have taken several initiatives in the SR field, such as Global Compact and the Global Reporting Initiative.

Organisation for Economic Cooperation and Development (OECD) issued, in 1976, "The Guidelines for Multinational Enterprises", a code of conduct for companies to achieve global sustainable development, and had as an aim different social aspects, such as: human rights, environmental protection, consumer interests, corruption and competition. In 2000 it was published a revised version of "Guidelines for Multinational Enterprises". According to the "OECD Guidelines" organizations should consider the following elements:

1. contributing to the economic, social and environmental, upholding the principle of sustainable development.
2. human rights in all activities they undertake.
3. encouraging the development of local communities.
4. not to accept the waiver are not included in the local legislative environmental, health, safety, labor and taxation.
5. support and equitable principles and practices governing the company.
6. developing and implementing effective management systems to build a trusting relationship with the companies they serve.
7. promoting company values among employees through training programs.
8. not to discriminate and not to penalize individuals or institutions which notes the management team of the company's unfair practices.
9. encourage business partners to implement the "OECD Guidelines".
10. not to interfere unduly with the local political activities.

OECD Principles have been supplemented by the initiative of the Secretary General, Kofi Annan, to create a partnership between the United Nations and companies under the name of Global Compact in order to achieve global sustainable development, in July 2000. It is a network of United Nations agencies, companies, trade unions, business organizations, academic organizations, civil society organizations, government / administrative and aimed at empowering enterprises with the principles laid down, stressing the importance of human rights.

In his speech at the *UN Global Compact* Leaders Summit - in July 2010, the Vice-President Antonio Tajani stressed that the EU's ambition is to play a key role in promoting global OSR by the example provided by some countries. There was thus the importance of dialogue between business and unions and renewal of the EU policy on social responsibility in terms of transparency, in terms of company environmental, social and governance. Another aim is the application of United Nations Framework for Business and human rights and the ability to facilitate initiatives in various industries to meet different social and environmental challenges.

The *European Commission* defines the organization social responsibility as a "concept whereby companies voluntarily integrate social and environmental concerns in their business activities and interaction with stakeholders." Social responsibility of organizations is a part of smart growth strategy, sustainable and inclusive-Europe 2020. It can help form a pattern of competitiveness that Europe wants. This is the quintessential definition of business ethics, as it involves three aspects: economic, social and environmental standards, in order to create sustainable economic growth and stresses the importance of stakeholders. (Zolnai, 2006).

In March 2010, the European Commission has pledged to "renew the EU strategy to promote social responsibility of the organization as a key element in ensuring consumer confidence and long-term employees." The latest press the European Commission, published in March 2006, stresses the importance of OSR and causes business to take leadership in this area, seeking thus to promote volunteering as a concept OSR.

Committee for Economic Development (CED) deepens the concept of OSR, referring to three aspects:

• the first is the performance of the liabilities based on the organization's essential functions, namely production, employment and economic growth;

• the second is an extension of the first and includes the concept of responsibility, with a sensitivity to developments and expectations of society, taking into account environmental issues, social relations or information on customers;

• the third takes into account the responsibilities that arise and lead to environmental improvements, such as targets for employment for disadvantaged populations.

Social responsibility of organizations can be defined as how organizations introduce values and their behavior, expectations and needs of stakeholders - not only consumers and investors, but also employees, suppliers, communities, regulators, special interest groups and society, as a whole. OSR describes the company's commitment to responsible stakeholders, requiring organizations to manage the economic, social and environmental impacts of their operations to maximize benefits and minimize the disadvantages.

World Business Council for Sustainable Development in its publication, "Making good business sense"(2000), by Lord Holme and Richard Watts, defined OSR as a ”continuing commitment by business to behave ethically and contribute to economic development improving quality of life of workers and their families and the local community and society in general. "

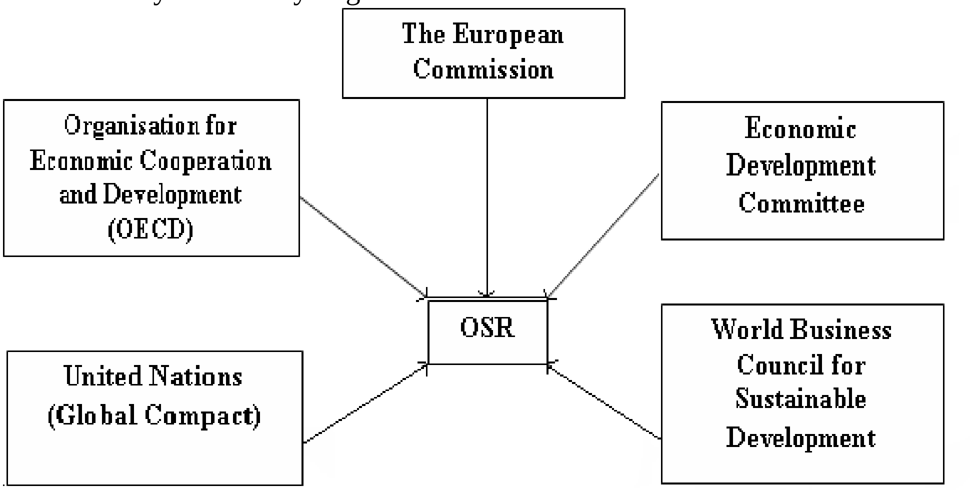

Figure no. 1 -The influence of the main international organizations in the definition of the OSR

Although some organizations use OSR as a strategy for manipulation of the consumers using the idea of ethics, the implications and the benefits that social practices have on society can not be disputed.

4. Conclusions

The concept of social responsibility of the organization had a controversial development. There are many opinions, definitions and objectives of social responsibility, but none has defined an internationally accepted definition so far. Against the backdrop of such developments, we can say that the social responsibility of the organization term does not support a universally accepted and not yet a final definition. The reason lies in the fact that the organization social responsibility is manifested in various ways, reaching different areas of a company. Facilitating the emergence of the concept, the economic business model in which the predominant feature was purely the obtaining of the profit, changed to a much larger business model that includes a partnership with social problems, namely the socio-economic model. The fact that OSR has become a strategy for organizations put a positive impression on the general quality of life by conserving resources and serving the interests of the society.

The complexity of the OSR notion has many attitudes about its benefits. Although there are many skeptics who do not believe the positive impact of the SR and consider it a competitive disadvantage, the impact brought by the social practice into the business world is impressive.

With the increasing importance of the OSR debate in the new millennium, the involvement of the international organizations has been growing as well. The international organizations play a promotional and leading role in the field of OSR and its implementation in the business world. They developed OSR guidelines and instruments that offer important solutions for organizations so that they can be involved in social aspects.

Many companies worldwide recognize the importance of active communication with NGOs and international organizations which have deep knowledge of OSR, and become more interested in holding stakeholder dialogues regularly and try to implement SR policies as a new management instrument. The trend towards socially responsible business

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OBJECTIVES AND SHORT-TIME PLANNING, STRATEGIC SOLUTIONS FOR THE ORGANISATIONS

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Abstract: The main goal of the article is represented by the goals as management elements but also as the nervous system of the managerial actions. The presence of the functional deviationism in organizations, the need of reconsidering the strategic planning, all these lead under economic and financial crisis to the need of elaborating a tool which should help the manager find an optimum combination between the limited resources and carrying out the objectives with a minimum cost.

JEL classification: M10, M11

Keywords: productive organizations, category goal system, short term planning.

Introduction

Peter Drucker considers concentration, more precisely the courage of the manager to impose his own decision in spite of the time and events regarding the major problems, as being the only hope in trying to become the master of time and events and not their slave (Drucker, 1999).

In order to elaborate a cycle of setting the objectives an effort is needed oriented towards a common list of expectations regarding the way in which the team should work and focusing to the clear definition and accomplishment of the objectives (the emergence of the actions and the emergence of the solution in order to carry out an entrepreneurial thinking).

Under the circumstances of the economic and financial crisis in organizations, there is behavior of concentrating the functional departments on their own goals, neglecting the general interests of the organizations, producing a real functional deviationism.

Therefore the functional departments achieve their own objectives but at the same time they cultivate the absenteeism, losing the final labour signification (for example, in the primary and secondary sectors of the national economy the final signification of labour is represented by the finite product and its way of accomplishment (Burlea Schiopoiu, 2008).

The lack of goals leads to taking some subjective decisions imposed under pressure, which will lead to the sacrifice of the important tasks.

This paper studies the categorical system of goals of the organizations both as a main tool of the short term planning but also as a solution of using, with a maximum efficiency, under crisis circumstances, the limited resources of the organizations.

1. The Goal in Management Theory

In the management theory the notion of objective is characteristic, and can be found in the definition of the management process as the framework of the phases and processes by which the objectives of the organization and their subsystems are determined, and also the resources and the necessary resources and labour processes necessary for their accomplishment and their executors, by integrating and controlling the labour of the staff using a complex system of method and techniques in order to fulfill the reasons which led to setting up that organization (Caprarescu, 1999).

The purpose of the management objectives is a priority in defining the management functions: prediction, organization, coordination, training, and control - evaluation.

The entire management system of the organization together with the organizational subsystem, the informational subsystem and the methodological subsystem gives priority to the objectives.

The essential component of the decisional system, the decision represents the action chosen in order to meet on or more goals. In choosing from the decisional variants one has to mention the objective of the decisional process.

There are some types of strategies and policies of the organizations according to different criteria of classification: according to the area, according to the degree of participation of the organization, according to the dynamics of the main objectives included, according to the type of objectives and nature of approaches or according to the nature of the vision, objectives and enclosed methods (Nicolescu & Verboncu, 2006).

One can notice the importance of the objectives in defining the types of strategies and policies. So according to the dynamics of the main objectives included there are recovery strategies with their main characteristics of setting objectives on the level of the ones carried out a few years ago, superior to the objectives from the previous period and are focusing on identical qualitative objectives or close to the ones from the previous period, focusing on improving the qualitative aspects of the activities of the organizations and development strategies and policies which set higher objectives than the previous ones, relying on a solid economic situation, assisted by a technical and commercial potential.

The informational system, its efficiency and rationalization is carried out taking into account all informational, managerial and economic requirements starting from the set objectives.

The organizational structure relies on the supremacy of the objectives; each organizational subdivision has to achieve certain objectives.

In order to fulfill the goals, the manager also makes use of the process and structural organization of the corporation which leads to setting the objectives.

The result of the process organization is represented by the *functions, activities, attributes and tasks,* necessary to carry out the framework of objectives of the organization.

Therefore, the functions (research-development, commercial, production, financial-accounting, staff) contribute to carrying out the 1st degree derived objectives, activities (components of the function) in order to accomplish the 2nd degree objectives, attributions (elements of the activities) to accomplish specific objectives, these attributions being further divided into tasks which lead to carrying out the individual goals.

The result of the structural organization is materialized in the *organizational structure*, its purpose being to meet the objectives.

In what the definition of the objects is concerned we have identified two historical stages in the development of the objectives, the first one being to make a pyramid of the objectives with five or six levels which consist of too many details and the second stage which offers more freedom to the operational manager which make up their own functional strategies, real action programs for the objectives of the organization.

2. The goals, the nervous system of the managerial action

The first operational component of the organizational strategy is represented by the fundamental (strategic) objectives. They have certain defining characteristics: are realist, mobilizing, comprehensible and stimulating (approaching the interests of the organization and stakeholders).

In practice, the optimum situation is that the manager also has defined objectives.

But the situation is rarely like this and the objectives are not defined through the management contracts or they are not relevant. The manager has to define these objectives. Competition and the desire to survive are the ones determining the manger and the organization to think continuously, to learn and to innovate in the organizational field. That is why, the manager has to elaborate an own method of setting the objectives.

According to their nature, the fundamental objectives are: economic profitability, maximization of the economic results, efficiency, and payment ability), technical and technological (re-technology), commercial (penetrating a market segment), managerial (redesigning the informational system).

The economic purpose of the economic operators is the maximization of the profit, the management and the functioning of the manufacturing organizations which is accomplished with the help of the economic leverage.

The fundamental objectives are quantitative or qualitative expressions of the purposes for which the organizations have been set up and are functioning. There are three approaches or models of the organization: neoclassical, managerial and behavioral. The neoclassical model considers that the organization has a single objective: the short term maximization of the profit. The organizational objectives of the managerial model (synthesis of the theories, transactional costs and signals) are besides profit maximization, the incomes from sales, the managerial utility, the rate of growth of the sales in order to maximize the long term profit etc. The behavioral model does not regard organization as a unique decisive centre, but as a system of centers of the groups of interests which make it up (political confrontation space of the different interests and the fight for power).

Peter Drucker (2007) considered organizations are bodies with a special purpose. Each one is good only for a single task and only this specialization gives them the ability to fulfill their task. If they are approaching tasks which are above their competence, values and specialized functions, negative dysfunctions may come upon themselves.

Organizations on a collective level represent society. It is useless to support as Milton Friedman thinks that an organization has a single responsibility: the economic performance. The economic performance is one of the responsibilities of the organization. An organization which does not obtain any profit at least equal with its capital costs is irresponsible from a social point of view. The economic performance is a basic responsibility because an organization cannot fulfill any other responsibility, cannot be a good employer, a good citizen, a good neighbor without being performing from an economic point of view.

There have been numerous attempts along time to identify the fields for which an organization has to set objectives.

There are objectives for the organizations from the productive field and objectives for the extra-manufacturing organizations.

In the manufacturing field and according to the field of the branch of activity each organization has certain essential fields for which it sets strategic objectives. One can identify some common fields for all organizations, irrespective of the profile and specificity as: profitability, market position, human resources productivity, innovation, organization (Burlea Schiopoiu et all., 2010).

In the field of profitability, the objectives may refer to increasing the profits, deadlines for the recovery of the investments, increasing the value for the share or increasing the rate of profitability (concrete formulations of the profitability indicators).

The expression of the objectives in the field of market position can be reflected in the following indices: market share, volume of sales, share of the advertising expenses in the total of expenses.

The field of innovation can also be predicted. If the improvement of the organization can be considered a goal, for example, the elaboration of a new organizational structure can be an objective. Besides the fields we made reference to, one can also take into consideration other fields according to the particularities of the organization and its priorities. Usually organizations combine specific objectives of different fields, obtaining combined objectives.

The most widely known list of key fields has been drawn up by Peter Drucker (2007, 1998) and refers to: market positioning, innovation, quality, productivity, physical and financial resources, profitability, managerial performances and development, performances and the attitude of the workers, public responsibility.

Generally objectives refer to viable growth indices of the labour productivity (5% reduction of the rebates), development productivity (increase by 20% of the turnover), and profitability (reduction by 7% of the costs).

The most relevant objectives for a productive organization due to the need of planning on a short terms are those objectives able to reunite the functional departments in common preoccupations.

After they are set, the fundamental goals (strategic) are the starting point in designing the categorical system (economic categories) which are focusing on all process and structural components of the organization: 1st and 2nd degree derived objectives (functions and activities are involved in their accomplishment), specific and individual objectives which regard the attributions and tasks. These derived objectives are transposed in indicators and the skills of the managers from all hierarchical levels to think and put into practice the gl0bal and partial policies of the organization.

Conclusion

The need of pointing out the participative dimension of the methodological-managerial system of the organization through the objective management in order to increase the functionality of the organizational management is a reality. Specialists with common objectives are also required.

The reduction of the resources of the organization under the circumstances when the fight for survival in the competitive field is uncertain and the risk doubles any decision of granting resources and this should lead to the unification of the preoccupations of the specialists, to reducing their preoccupation around the fundamental decision of the organizations.

The involvement of the specialists is made by their participation in setting the objectives and making the decisions, the discussion of the managerial-organizational problems, but also the interdisciplinary teams (there is a major change in the culture of the organizations and an increase of the involvement of the employees). A single authority should prevail, the one of knowledge. The value scale will be changed by using procedures and giving up the routine. The use of specialists is necessary because the dimensions and the complexity of the organization have increased a lot (the multitude of the political, economic, social, technical factors), and the fundamental process of the decision involves a lot of knowledge.

One does not have to question the resistance to change in organizations, and to generalize the idea of entrepreneurship.

The importance of the notion of objective becomes a priority for the organization. It is transposed in practice by the management through objectives. This objective represents the framework of all management processes and relations, of the principles generated by management of the general management principles, but also of defining the components of the management system; the management through objectives has a central place in the management of the organization, being a priority in all redesigning, modernization, efficiency and functional actions: methodological-managerial subsystem, decisional subsystem, informational subsystem and last but not least organizational subsystem.

If the manager has created from the first meetings their own method of setting the objectives one can talk in the organization about the emergence of all actions and the emergence of solutions (Burlea Schiopoiu, 2008).

Making a retrospective of the notion of objective in the management theory, the paper endorses the idea that the well-thought objectives of the organization represent the nervous system of the managerial thinking.

For an organization the operation objectives are given by ”the calculations of the producer” and they need a short term planning.

If the steps are to set, pursue and accomplish the objectives, the dissemination of the objectives should not be separated from the labour division and the managerial hierarchy if the pyramid structures are maintained. Irrespective of how many levels of objectives are, a special attention should be paid to the individual objectives, and the final accomplishment of these objectives will depend on them.

These belong to the area of operational management which should focus on the entire system of human and material resources and on accomplishing individual objectives. The lower levels managers are involved in daily operations and spend less time with planning rather than the medium and high level managers. This orientation to the operative problems leads to setting a short term planning horizon.

Therefore one has to pay the necessary attention to the interference of the management through objectives with the operational management.

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PERSPECTIVES ON BIOFUELS AND IMPLICATIONS FOR CLIMATE CHANGE: GRAIN AS FUEL OR THERE IS A LIMIT* ?

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Abstract: Countries, motivated by different issues (e.g. increases of the oil prices, greenhouse gas (GHG) emissions) promote the expansion of biofuels industry. In this context, it is important that the development of strategies that promote biofuels not to have undesirable consequences over aspects such as environment, the level of GHG emissions, food security, the prices of food products, the living standards of people in developing countries. In this paper, some aspects regarding the choice between using grain for food or for fuel will be discussed. Two opinions will be under debate. First, using biofuels can help in the transition process from conventional to alternative sources of energy. Secondly, using grain for fuel could be considered a wrong idea, if we have in mind that people from some developing countries don't have enough food and suffer from hunger. Also, we bring into discussion aspect related to biofuels and their connection to climate change.

JEL classification: O13, Q42, Q43, Q54

Key words: biofuels; grain; food; climate change; future implications

1. Introduction

In their attempt to stimulate biofuels production, countries take different measures, sometimes without considering other important issues such as food security, food prices increases which are just some of the most sensitive topics in the daily list of researchers, politicians, professionals.

In the literature, the topic of increasing global energy demand is discussed extensively and also different opinions arise especially because in the following years the energy consumption will continue to increase. These represent maybe one of the

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reasons why biofuels have an important role with implications for their possible development on a large scale. In the literature there are various debates related to biofuels as they rise several problems, starting with the effects that may occur as a result of increased use of water resources and land, and the dilemma 'food versus fuel' which brings risks and controversy. According to Braun and Pachauri (2006), biofuels include fuel sources that have been used for millennia, like fuel wood and charcoal, as well as newer sources like ethanol, biodiesel, and biogas, these new sources depending on natural vegetation, crops grown specifically for energy, or agricultural or other forms of wastes and residues.

Biofuels made from cereals are the main concern of this paper. This topic needs to be discussed more in the literature, especially from the point of view of the ethical issue on the use of cereals to produce fuel, knowing that some developing countries are confronting with serious problems to ensure the food reserve for the population. Starting from this aspects, first question that arises, without waiting necessary for an answer, is about the necessity to drive luxury cars with a full tank with fuel made from cereals and if this is somehow above the necessity of measures to diminish the hunger endured by people in various countries.

In different parts of the world, people are suffering from hunger, but there are other opinion sustaining that even if this situation exists, it is not related to the fact that there isn't enough food. The study of Earth Policy Institute (2010) shows that 107 mil. tons of grain used by US ethanol distilleries in 2009 were enough to feed 330 mil. people for one year. The study argues that, in the competition between cars and hungry people for the world's harvest, the car is destined to win, and even if the entire US grain crop were converted to ethanol, it would satisfy at most 18 percent of US automotive fuel needs.

According to United Nations (UN) site, one of the Millennium Development Goals is "End Poverty and Hunger" with one target referring to a reduction in half, during the period 1990–2015, of the proportion of people suffering from hunger. Currently, some research body of literature underline the problems of the world, facing with diminishing resources and unacceptably high prices of food, and in many cases, starvation.

In our days, the cereals are used also to produce biofuels, among its purpose of feeding people or animals. It seems that this is not at all a strange thing, since this kind of development exists in our 'normal' world. Some researchers' work shows that the increasing cereals demand may cause growth of grain prices and that biofuels' use does not contribute to a significant reduction of GHG emissions.

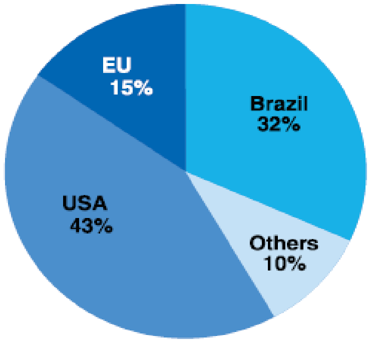
In September 2007 the world price of wheat rose to over $400 a tonne, the highest ever recorded until that moment, and earlier that year the price of corn exceeded $175 a tone, at the level of $150 a tone being 50% above the average for 2006 (The Economist, 2007). In the literature, researchers offer various point of view, such as: crops for fuel are replacing crops for food; increased use of cereals for fuel is causing the replacement of other types of crops with crops for fuel; biofuels release more GHG emissions than other type of fuels; the production of fuel from cereals may lead to poverty and hunger all over the world. In this paper we will review some aspects related to the idea above mentioned, namely if it is ethical to produce fuel from cereals when there are people in this world, in some countries, that suffer from hunger every day. We bring in the discussion the limit of this phenomenon, if it is one. We will address some questions related to the perspectives on biofuels and the implications for climate change. The objectives of the paper is to provide an overview of the main developments regarding biofuels production from cereals, and to underline issues related to implication of biofuels for climate change, considering the general context of regulatory framework.

2. Fuels from cereals: how does it look like today?

In 2000 around 15m tones of America's maize crop was turned into ethanol, in 2007 the quantity being around 85m tones. This country uses more of its maize crop for ethanol than it sells abroad, ethanol being the dominant reason for 2007 increase in grain prices (The Economist, 2007). The continuing increase in the price of staples in domestic markets remains a significant threat to food security and nutrition in the developing world (World Bank, 2010). The world is investing capital in projects for the production of biofuels and plantations of cereals crops for biofuels. The question that arises is if we use corn to fuel cars, should we really believe that food crises no longer exist?

Domestic staple food prices have experienced double digit increases in 2009, particularly in Sub-Saharan Africa, and also, regarding the global food prices, sugar prices rose 80% between January and December 2009 and rice prices rose 9% in December 2009. The following countries registered the largest increase in domestic price of maize for the period January - October 2009: Uganda (35%), Tanzania (23%), Kenya (16%) (World Bank, 2010).

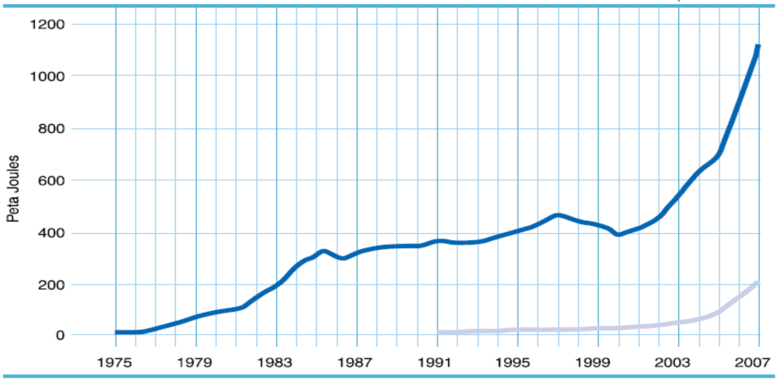
Most of the fuels produced from cereals are so-called first-generation fuels like bioethanol, biodiesel, biogas, and plant oils. Basic feedstocks used to produce these fuels are seeds, grains, or whole plants from corn, sugar cane, rapeseed, wheat, sunflower seeds or oil palm (United Nations Environment Program, 2009). The main producing countries for biofuels are USA (mostly producing ethanol from corn), Brazil (ethanol from sugar cane), and the EU (biodiesel from rapeseed).



Source: United Nations Environment Program (2009)

Figure no. 1 Proportion of global production of liquid biofuels in 2007

USA takes the leading place in biofuels production mostly due to the government policies, encouraged by legislative measures, including notably the 2007 Energy Security and Independence Act, which mandated the use of 36 bil. gallons, or 136 bil. litres of biofuels annually by 2022. The US ethanol industry has boomed in the last few years. There are now at least 200 ethanol plants in at least 27 states, almost all using corn as a feedstock (The New York Times, 2010). The world biofuels production is growing (see Fig. 2) mostly because of growing oil prices and the desire of the producers to diversify their energy portfolio.



Source: United Nations Environment Program (2009)

Figure no. 2 Global bioethanol and biodiesel production 1975 to 2007.
Note: blue line - ethanol; gray line – biodiesel equiv.

Recent researches on the subject of biofuels production and consumption is still far from any certain conclusion. Most of the studies give controversial answers to the question whether biofuels are our future or not. We can divide the views on the subject into two parts of negative and positive characteristics (see Table 1).

Table no. 1. Positive and negative characteristics of biofuels production and consumption

Positive Characteristics	Negative Characteristics
New markets for farm products	Factor of raising of world food prices
No net addition of carbon dioxide	Create additional threats for the forests
Create opportunities for second- and third-generation biofuels	Growing use of fertilizers and pesticides

Source: Own compilation from different sources.

The most important question concerning biofuels is that actually they are not as reducing carbon emissions as we used to think. Actually, burning biomass produce carbon – and even more then fossil fuels. But since during it's growth plants also absorb carbon - biomass becomes a zero carbon fuel (Grant and Clark, 2010).

Problems the world is facing now in climate change issues need solutions with doubtless effects. Since biofuels implications for climate change are still uncertain this subject needs more attention.

3. Biofuels and implications for climate change

After decades of food-overcharge, both producers and consumers are faced with a food economy marked by lack of food supply. The system focused on reducing costs and increasing volume, which grew fat one billion people and other one billion people are left to starve, and gives free rein to pathogens agents of food source to be transformed in global epidemic, now faces other problems, such as climate change (Roberts, 2009). The climate change will affect not only the poor countries but also the rich countries registering now a food over plus. All four dimensions of food security, namely availability, access, stability of supplies, food use (production and trade) will depend not only on socio-economic conditions but also on the climate. The climate change will have a major impact on food production, but also on trade flows, stocks, food subsidies policies. According to IPCC Reports, the increase of the average air temperature by 1-3 degrees Celsius will determine the increase in food production, but the increases above this level will lead to a reduction of food production. Also, an increased frequency of extreme events, such as droughts and floods, will negatively affect the crop yields, especially the agricultural areas at low latitudes.

Global warming is a global problem, yet nobody wants to pay to solve it. Everybody wants to take charge of the efforts of others, but it is in everyone's interest that the entire planet to act collectively to do something (Stiglitz, 2008). The resistance to change manifested by world countries will delay action to be taken globally, and therefore the problems to be solved at one moment at some point will become increasingly serious and difficult, and many of the solutions offered by experts from various fields will no longer be outdated, while the existing improvised solutions are not sustainable.

Climate change is one of the most pressing long term problems and also one of the most important factors influencing the development of future energy economy, climate change being a long term cumulative problem, the percentage of warming not being determined by the amount of CO_2 emitted in a certain year, but by the accumulation of CO_2 in the atmosphere for centuries (Roberts, 2008).

In the effort to take measures to overcome the effects of climate changes, some of them were more painful or destructive than other. In the attempt to mitigate climate change, governments of different countries sustain the biofuels production (ethanol and biodiesel), offering incentives and guarantee markets to producers and consumers, transforming biofuels production in billions of dollars market. According to IMF (2008), expansion of biofuels production in the US and Western Europe has pushed up food prices and boosted inflation. Poor food-importing around the world faced serious problems, central banks having limited solutions to ease monetary policy in response to recent financial turbulence. Thus, the macroeconomic policies should be design more carefully, so that to prevent chain negative reaction at macroeconomic level.

In the effort of cutting GHG emission from various activities through biofuels crops, some other more complex problems appeared on the way, related to the fact that not all biofuels are acting the same and some differences should be made in some cases. A range of biofuels crops being grown as alternative solutions to oil-based fossil fuels releases vast amounts of CO_2, as various studies indicate. In this way, biofuels crops instead to represent a solution to reduce the global warming, they contribute to it, not mentioning the indirect economic effect induced by increases in food prices and food crises.

It is time for countries to come with viable long term solutions to mitigate climate change, especially in agriculture, food production, energy production, as more researchers points out various issues regarding food crises. It is not the case to choose between environmental protection and food production, but to come with alternative solutions for both problems, such as alternative sources of energy (i.e. solar, wind, nuclear, hydroelectric, tidal power) or agricultural policies, and to address food security concerns.

4. General context of regulatory framework

In the following the legislation from European Union regarding biofuels is summarised, this part of the paper briefly describing the relevant documents.

4.1 European regulation and legislation regarding biofuels

Regarding biofuels, important aspects are underlined in the Communication COM(97)599 final, being mentioned that renewable sources of energy make a disappointingly small contribution of less than 6% to the Union's overall gross inland energy consumption, which is predicted to grow steadily in the future, being necessary specific measures in order to help increase the market share for liquid biofuels from 0.3% to a significantly higher percentage. Also, it is mentioned that energy crops need to be considered if the objective of doubling the renewable energies' share by 2010 is to be achieved. Total contribution for bioenergy production from crops by 2010 is estimated at 45 Mtoe, of this 18 Mtoe being in the form of liquid biofuels (including however liquid biofuels from non-energy crops) and 27 Mtoe as biomass for heat and/or power. The concerns related to the security of energy supply raised in COM(2000)0769 final mention an observable fact: Europe's growing future energy dependence. EU is extremely dependent on its external supplies, importing 50% of its requirements, a figure that will rise to about 70% in 2030. The mentioned document underlines that it is important to ensure the continuing and growing presence of biofuels and other alternative fuels in the fuel market.

Directive 2003/30/EC underlines that the Member States should ensure that a minimum proportion of biofuels and other renewable fuels is placed on their markets, and, to that effect, shall set national indicative targets. A reference value for these targets shall be 5.75%, calculated on the basis of energy content, of all petrol and diesel for transport purposes placed on their markets by 2010. Another document, Directive 2003/96/EC mentions that it is desirable to establish a Community framework to allow Member States to exempt or reduce excise duties so as to promote biofuels, thereby contributing to the better functioning of the internal market and affording Member States and economic operators a sufficient degree of legal certainty.

In the Communication COM(2006)34 final it is mentioned that although most biofuels are still more costly than fossil fuels their use is increasing in countries around the world and it estimates global production of biofuels to be over 35 bil. liters. Communication COM(2006)845 final stipulates that there is a particular need for GHG savings in transport because its annual emissions are expected to grow by 77 mil. tones between 2005 and 2020, three times as much as any other sector.

The Strategic Energy Technology (SET) Plan is aiming to accelerate the development of low carbon technologies and comprises measures relating to planning, implementation, etc. in the energy technology area. Communication COM(2009)519 final indicates that one of the EU key ambitions must be to develop a low-carbon economy and that investments over the next 10 years will have profound consequences for energy security, climate change, growth and jobs in Europe. Directive 2009/28/EC establishes a common framework for the promotion of energy from renewable sources. Also, it is mentioned that, with effect from 1 January 2017, the GHG emission saving from the use of biofuels and bioliquids shall be at least 50% and the Commission shall, if appropriate, propose corrective action, in particular if evidence shows that biofuels production has a significant impact on food prices. In its Renewable Energy Roadmap - COM(2006)848 final, the EC has proposed new targets for renewable energy in EU

(20% by 2020 - renewable energy's share of energy consumption in EU) and for biofuels in transport (10% by 2020).

In Communication COM(2009)192 final is mentioned that growth rates of green electricity have increased, Eurostat data showing a share of 15.7% for the EU in 2006, up from 14.5% in 2004. However, Commission analysis still suggests the 2010 21% target will not be reached without significant additional effort. Biofuels production progressed much faster in 2006 and 2007 than in earlier years, in 2007 the use of biofuels in road transport was 2.6% (8.1 Mtoe), and biofuels share grew by 1.6 p.p. in 2005-2007, compared with 0.5 p.p. (2003-2005).

4.2 The situation and legislation of biofuels in Romania

In the National Report on the Promotion of the Use of Biofuels or other Renewable Fuels for Transport in Romania (2009) it is specified that the use of biofuels and other renewable fuels for transport is being promoted with the aim of partially replacing petrol and diesel, contributing to achieving certain objectives such as: meeting commitments for the reduction of GHG, ensuring fuel security in a manner compatible with the environment and increasing the level of energy independence, promoting the use of renewable energy sources. Promoting the use of biofuels could create new opportunities for sustainable rural development, with the potential to open up new markets for agricultural products.

According to Government Decision 1844/2005 (which transposes the provisions of Directive 2003/30/EC) a minimum of 5.75% of biofuels or other renewable fuels should be in use by 2010, calculated on the basis of the energy content of all types of petrol and diesel used in transport. Government Decision 456/2007 foresees the gradual introduction of a minimum percentage of biofuels content in conventional fuels. This Decision sets down a calendar for the phased introduction on the market of a minimum percentage of biofuel content in conventional fuels: from 1 July 2007, diesel will contain a minimum of 2% in volume of biofuel and rise up to a minimum 4% from 1 July 2009.

Regarding biomass potential, in the National Report on the Promotion of the Use of Biofuels or other Renewable Fuels for Transport in Romania (2009) it is specified that the country has a total surface area of 91,843 square miles of which 62% occupied by agricultural land. Romania's agricultural lands break down into five classes of suitability. Regarding Romania's potential for production of biofuels, in the same National Report it is specified that the potential to supply the raw material necessary for: biodiesel, namely vegetable oil (sunflower, soya, oilseed rape) is approx. 500-550 thou. tones/year; bioethanol, namely for corn seed is approx. 390 thou. tones/year and for wheat germ approx. 130 thou. tones/year. Romania has a production capacity of approx. 400 thou. tones/year for biodiesel and approx. 120 thou. tones/year for bioethanol.

5. Food vs. fuel. Future implications

Countries around the world are investing in RD for other sources of energy, having in mind the reduction of imports of fossil fuels, to diminish emissions and pollution. According to Energy Information Administration (2007) total world consumption of marketed energy is projected to increase by 57% from 2004 to 2030, the largest projected increase in energy demand being for the non-OECD region. However, many research works stipulate that renewable energy represents only a partial solution to environmental problems facing mankind. We begin this chapter with a definition for food security, which represent the physical and economic access, at all times, to sufficient, safe and nutritious food to meet dietary needs and food preferences for an active and healthy life (FAO Glossary). Thus, food security refers to food availability and also to access to it. From the total number of hungry people in the world of 852 mil. in the 2000-2002 period, 815 mil. hungry people were in the developing countries, 28 mil. in the countries in transition and 9 mil. in the industrialized countries (FAO, 2004). This is happening in our days, when fuels are made from cereals.

To the question 'will crop production for biofuels compete with and drive out food production, thereby increasing food insecurity?', Braun and Pachauri (2006) conclude that energy crop production does not need to lead to increased food insecurity, new ways of combining food production with energy production being developed, food insecurity being a result not simply of a lack of food availability, but poverty. According to an article from The Economist (2007) quoting from Gary Becker (Nobel economics laureate at the University of Chicago), if food prices rise by one-third, they will reduce living standards in rich countries by about 3%, but in very poor ones by over 20%.

Another idea found in the literature is related to the fact that bioenergy developments offers opportunities but also risks, and that biofuels may contribute to rise in food prices with impacts on food security and environment. Ethanol accounts for some of the rise in the prices of other crops and foods too (The Economist, 2007). Biofuels lead to higher agricultural prices, affecting poor consumers. Braun and Pachauri (2006) believe that when the demand for biofuels increases agricultural prices, the competitiveness of biofuels will start to decline, and the price increases for cereals in 2006 may signal such a trend. The authors include in the energy crops maize, soybeans, rapeseed, and oil palm, many developing countries already grow or could grow these and other potential energy crops.

There are also ethical aspects related to the use of food crops to produce energy in a world where there are 860 mil. people undernourished, the malnourishment which occurs being a result of lack of access to food rather than global food shortage (Fraiture et al, 2008). The high prices of food products can lead to increased income of farmers, but could also obstruct the consumers' access to these products. According to Fraiture et al (2008), biofuels are promoted for energy security, economic, political and environmental reasons, and there are plans and policies in place around the world to increase biofuel production. If all national policies and plans for biofuels are successfully implemented, 30 mil. additional hectares of crop land will be needed along with 180 km^3 of additional irrigation water withdrawals. On the other hand, biofuels production brings disadvantages, starting with deforestation, ecosystem degradation, biodiversity loss, etc.

Despite all the grievances with regard to biofuels, the issue of 'food versus fuel' overshadow a more important one, concerning the demand and supply of modern food economy (Roberts, 2009).

The dispute regarding biofuels continues. While, on the one hand the production of biofuels is encouraged, on the other, there are some scientists warning about possible effects on global warming. Other specialists argue that more research is needed in the area, before being sure of the beneficial role of biofuels used on a large scale. According to this idea, if mankind will use biofuels on a large scale, many forests, lakes, swamps, etc. will be endangered, because of the need to be replaced by crops for biofuels production.

If most food economists and policy makers believe that food economy has more or less a self-correction capacity, the critics have a different point of view in the matter, arguing that precisely those technologies which imply that food economy is self-correcting on the contrary, they are destroying it (Roberts, 2009).

The demand for biofuels can be a mechanism for raising the level of a country development. On the other hand, focusing on using crops to produce biofuels and neglecting the production of food may worsen the existing problems related to hunger, as higher food prices can reduce the access to food, with consequences for health or well-being of the population.

Another stringent problem for the world countries relates to climate change. Parry et al. (1999) stated that in 2080, climate change will increase the number of undernourished by 55 mil. people, nearly all in Africa. The effects of climate change are studied especially in relation to forecasts regarding precipitation, temperature, concentration of CO_2 in the atmosphere, etc. Researchers used various methods and models to measure the effects of climate change. Stern Review (2006) shows that the scientific evidence is overwhelming, climate change being a serious global threat, demanding an urgent global response. It estimates that the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year if measures are not taken and if a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more, poorest countries being most vulnerable to climate change. But, the costs of action (reducing GHG emissions to avoid the worst impacts of climate change) can be limited to around 1% of global GDP each year.

6. Final remarks and conclusions

In this paper we had in mind to provide an overview of the main developments regarding biofuels production from cereals, and also to underline issues related to implication of biofuels for climate change, in the general context of regulatory framework. We took a short look over the points of view regarding the question of choice between using grain for food or fuel. We tried to examine both ideas, first using biofuels helps in the transition from conventional to alternative sources of energy, and secondly that using grain for fuel may be considered as bringing negative consequences for people in developing countries.

Climate change represents a challenge at macroeconomic level in all world countries particularly in poor or developing ones, being likely that climate change to influence the production and the productivity of various sectors. The new reality of the new century should mobilize the social and political community to take the appropriate measures not to exacerbate the effects of the climate changes and not aggravate the current environmental patterns (Surugiu and Surugiu, 2009).

Regarding the production of biofuels from grain, if there is a limit to it, maybe it's time for countries around the world to understand the negative effects brought by increasing fuel consumption and to rethink the biofuels production methods. Using biofuels pushes up the price of food on the world market, threatens overuse of scarce water resources and diverts attention away from other alternative sources of energy.

In the future, the world could find better solution for generating fuel and not necessary to use biofuels as a solution to limited oil resources. Biofuels could be just a temporary solution while scientists look for a better one, while on the other hand the population could be more responsible and begin to reduce the unnecessary fuel consumption such as for luxury cars and re-orient through other means of transportation, and to try to embrace a lifestyle that consume less energy, less of all the planet's depleting resources. The world population need to be aware on the necessity to reduce the energy consumption and to increase the efficiency of the activities.

Contemporary world is changing very rapidly, and so do the technology. It seems that the idea of alternative fuel source will lead to future research, when much less controversial fuels will be produced. Some improvements in this direction are already presented by so-called third-generation biofuels.

The most important thing is to orient political, technological, financial and all the other powers the world has to sustainable development that will logically result in the fuel production that gives the less damage to the worlds' weak points.

Biofuels are produced from crops that could also be used for food purposes. Regardless of biomass used for biofuels production, there are some influences on the land and other resources, with implications on production of agricultural products. Biofuels are a potential source of energy, but if these biofuels are effective in combating climate change it depends on the type of raw materials used, on the production process, on the changes occurred in land use, etc.

In this paper we have noted some of the consequences that may arise due to the use and production of biofuels widely, affecting the quality of the environment and food security, mainly because the production of biofuels consider the use of resources of which the food industry depends.

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THE INSTITUTION OF RELIGION AND THE ECONOMIC GNOSEOLOGY*

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Abstract: Since Max Weber, there has been a debate on the impact of religion on people's economic attitudes. Religion play a direct role over the individuals because it entails them to become elements of social aggregates that have internal patterns of organization and own goals, shaping with great power the individuals' choices and purposes. We consider religion an endogenous element in the theory of economic growth. The importance of societal ideas and preferences, moral beliefs and the confidence in a market system affect the economic process in various ways.

JEL classification: C01, O40, Z12

Key words: economic growth; religiosity; religious market model; Church attendance; belief in Heaven/hell

1. Introduction

There is a diversity of opinions in the economic, sociologic and philosophic environment between the role of religious institution and the associated morals and the process of economic development. The modern study of religion and economics begins with Adam Smith's well-known "An Inquiry into the Nature and Causes of the Wealth of Nations" (1776), where he postulate that the religious beliefs and specific activities are rational choices. As in any economic activity, people respond to religious costs, benefits and supernatural incentives in a predictable and rational manner.

We must take into account the fact that the process of economic growth is linked with a nation's culture, as important scholars like Huntington (1996), Landes (1999), Inglehart and Baker (2000) and many others have argued. Religion is the most important dimension of culture; it is for many of us a purpose itself. Religion is also often described as a "way of life".

According to Guiso, Sapienza and Zingales (2002), the Christian religions are more positively associated with attitudes conducive to economic growth than other denominations.

To define religion is not an easy task. For John Bowker (2000), religion is seen in various terms and elements: many emphasize the personal, others the social; some

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the beliefs, others the uses; some the structures, others the functions; some the private, others the public; some the mundane, others the transcendent; some the truth, others the illusion.

2. The economic approach of religion

One of the major proponents of the religious economy theory, Carl L. Bankston III, using the rational choice approach to religion, define religions and religious groups as ”firms competing for customers who make rational choices among available products”[7]. Using a liberal economic framework for analysis, Bankston is claiming that religions and religious groups’ popularity is dependent on the general laws of supply and demand.

Like almost all products, the specific denominations reinforce religious choices because religious goods are created by social collaboration. In this complex social process, these “groups of firms” intensify the belief that the things they create are to be desired. So, they redefine the human desires in terms of their religious products and new utilities. As Sherkat (1997) demonstrated, the religious preferences are stimulated and shaped through the cooperation action in the process of consumption of religious goods. As a result, these institutionalized corporations enhance the production of religious goods and services supply for feeding the higher demand. Bankston poses the idea that belief deals with ideology and extends beyond what one would typically define as a market good by stating that ”belief is produced and resides in communicated thoughts, the consumers of goods of faith can only become consumers by becoming producers, by participating in interactions of belief.”[8]

We consider religion an endogenous element in the theory of economic growth. The importance of societal ideas and preferences, moral beliefs and the confidence in a market system affect the economic process. Iannacone, Welch and Mueller, Dark, Smith and Sawkins are some of the economists and sociologists who take into consider these elements which shape the epistemological economy. For example, a religious affiliation is important, but very often it is a neglected force that strongly influences the attitude toward trade and immigration policies. At the same time, it is known the fact that different religious denominations create an interesting, but new “social” capital. All these created networks or some kinds of social organizations and interactions fostered by Churches are important as elements of social capital.

To simplify in a methodical manner the complexity of the concept, we understand religion based upon two different stages: first, as a set of beliefs in a supernatural or transcendental power(s) regarded as creator of the universe (religion as a symbolic expression); second, and we will primarily set off this approach, a personal or institutionalized system (religious market model with production and consumption of religious goods and services) based upon such beliefs, practices and worship (religion as a human action towards supernatural, funded on the cognitive, act, reduced anxiety, social, identity and compensatory functions).

Religiosity has an impact on economic outcomes partly because it accentuates the effects of affiliation to different religion denominations, partly because its generally positive influence on health and well-being can have positive effects for the

[7] Bankston, Carl L. III, Rationality, Choice and the Religious Economy: The Problem of Belief, Review of Religious Research, vol. 43:4, 2002, pp. 311

[8] ibidem, pp. 312

individuals' outcomes. As Smith, Waite and Lehrer noted, it is clear that the religiosity effects are in fact more complex because participation in religious activities is associated with benefits in various domains. For example, as stated by Hull and Bold (1993) an important function of the Church and religion, is the unintended function in the reduction of transaction costs. They stressed the fact that the institution of religion have created and maintained a series of rules of individual behavior, the result being the foundation of a strong property rights system and individual maximizing behavior through the enforcement of low-cost strategies like the faith in the existence of Heaven and hell.

2. Secularization, religious vitality and wealth

We know from the Weberian paradigm that the secularization hypothesis means that economic growth causes organized institution of religion to play a lesser role in politics and in social processes and although for members of a developed society to become less religious, an element measured by frequency of church participation and religious beliefs (especially in the existence of Heaven, hell and afterlife).

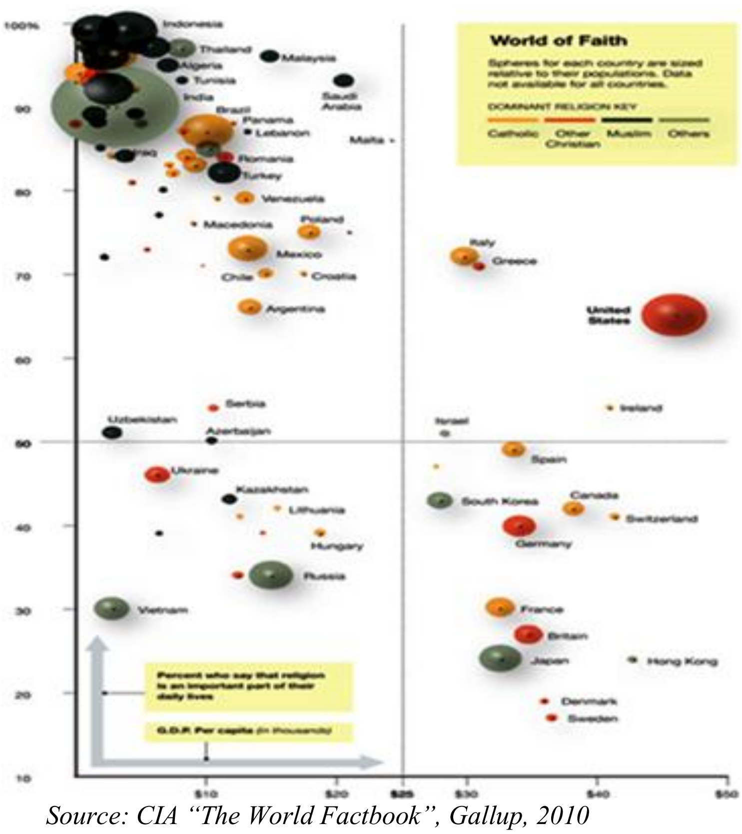
Some theories considered that pluralism decreased vitality, because undermines the concept of the "plausibility" of religion. Another theory developed by Finke and Stark (1988) states that there is a relationship between frequency of the religious activity (or rate of attendance) and religious pluralism. The secularization hypotheses based on the opinion that more religious pluralism makes the denominations more human and less transcendental are challenged by these new paradigms of "religious economies" or "rational choice", which states that pluralism, increases the vitality of religion's activity. In this idea, based on the supply side perspective, it was argued that the deregulation of religion increases religious activity by increasing the supply of religious goods (lannacone 1991, 1992; lannacone, Finke, and Stark, 1996) in order to respond efficiently to the specific demand.

Finke and Stark demonstrated a statistically significant positive correlation between pluralism and participation in U.S. cities. Other economists like Chaves and Gorski (2001) found a negative correlation between the analyzed variables**.** Also, Voas, Olson and Crockett (2002) showed that the statistical nature of the Herfindahl pluralism index produces a non-zero correlation of religious pluralism in correlation with the attendance (participation) rates, even if there is a substantive relationship between these elements. In contrast with the findings of Durlauf, Kourtellos and Ming Tan (2006), Robert Barro's model explains why there is also a positive relationship between the state religion and wealth. This opinion disagrees with Adam Smith's arguments - based on the observations on Anglican Church in England - that an established religion would promote monopoly and because monopoly means poor service, the result should be a decrease of religious adherents.

An empirical framework of Robert Barro and Joshua Mitchell combines the secularization element with the religious market model. The "Religion Market Model" represents the way by which a government influences the religious attendance or the extent of religious beliefs. Sometimes the government regulates the market through a monopolist religion, reducing the possibility of religion pluralism. In this case, the government may subsidize the religious sphere, influencing the total sum of formal religions. One example of this influence is the establishment of an official religion in a country. This model uses data like participation in formal religion (attendance at formal religious services or at personal prayer) and religious beliefs of certain kinds.

One very important finding demonstrates that pluralism makes the religion market (from the religion market model) more efficient and, therefore, makes people more religious. According to data from 1970, the countries with higher pluralism index (United States, Hong Kong, Germany, Netherlands, Taiwan or South Africa) demonstrate the secularization thesis, where the richest countries (in terms of gross domestic product per capita) are less religious, in terms of church attendance or various individual religious beliefs.

A recent empirical survey from Gallup in more than 100 countries emphasizes the secularization thesis and outlines the USA exception. Another countries, but in small proportions, tended to register strong religious believes with high levels of GDP per capita. For example, the Catholic Italy and the Orthodox Greece report higher percentage of respondents who say that religion is an important part of their daily lives with large rates of GDP per capita. Also, Ireland is a very interesting case: it has almost the same amount of GDP per capita (in thousands) as USA, but lower percentage of those who respond that religion is an important part in everyday life.



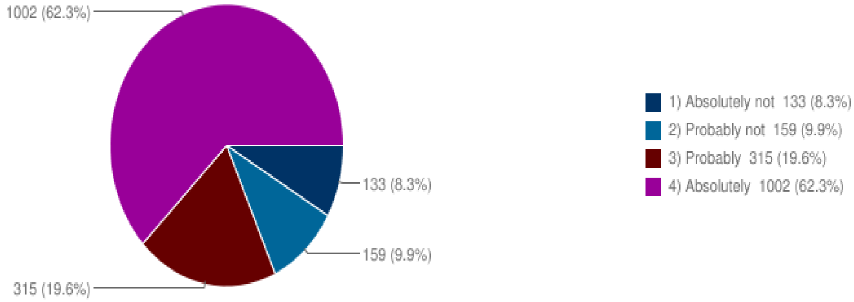
Source: CIA "The World Factbook", Gallup, 2010

Figure no. 1 The relationship between religion belief and individual wealth, based on the dominant religion

Bryan Wilson and Peter Berger have developed, on this groundwork, a theory that stresses a strong separation between Church and State, also a diminishing role of the religious market model. But some important scholars like Gananath Obeyesekere, Ronald Dore or Richard Gombrich considered the secularization model not a direct result of economic transformations and growth, but a consequence of rising income's inequalities and poor individual economic conditions. Another perspective is offered by prominent economists that relates the secularization thesis to a religious monopoly provider in a Smithian manner. In this direction, it was observed that religious pluralism is linked with efficient religious market (quality supply of religious goods and services) and stronger Church attendance.

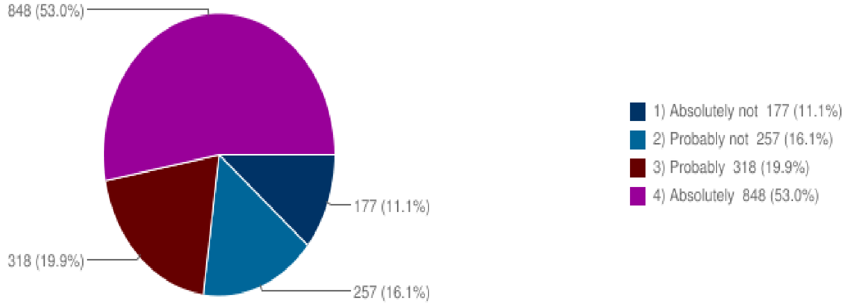
3. Theories about the relationship of Church attendance and religious beliefs in Heaven/hell with the process of economic growth

Barro and McCleary have analyzed the influences of religious participation and beliefs on a country's rate of economic growth. The religious beliefs include faith in God, hell, Heaven and after-life. As we can see in the next graphs, the percentage of those who believe in the existence of Heaven (62.3% from 1609 respondents) and hell (53% from a total of 1600 respondents) is pretty high, which demonstrates the truthfulness and accurate incentive of the research presented below.



Source: The Association of Religion Data Archives, Baylor Religion Survey, Wave 2, 2007

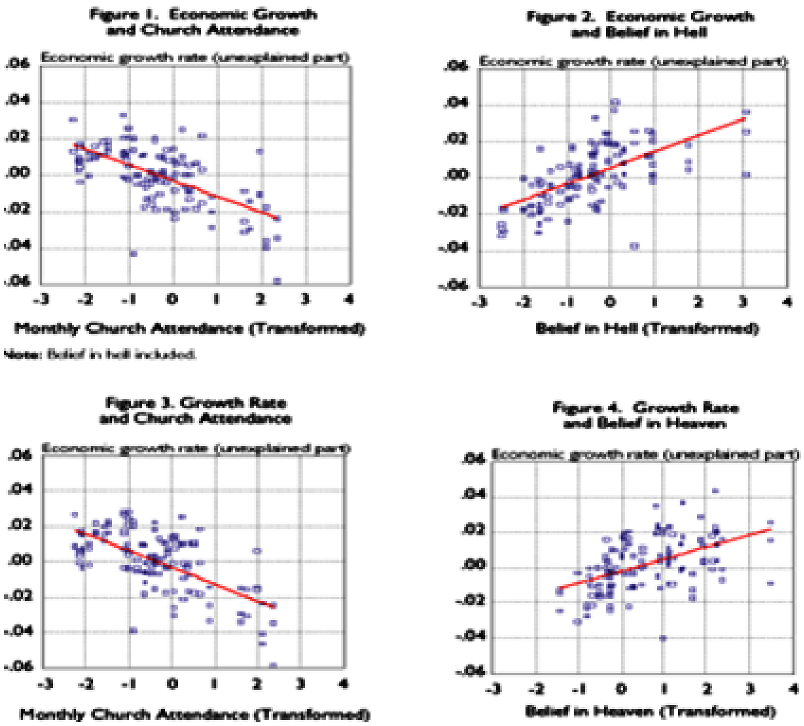
Figure no 2. Belief in Heaven



Source: The Association of Religion Data Archives, Baylor Religion Survey, Wave 2, 2007

Figure no 3. Belief in Hell

Robert Barro and Rachel McCleary find that religion may be important for the process of growth, having almost the same importance as the neoclassical sources of inequality (for example, the income differences) across nations. They demonstrated, using the statistical analysis, that the process of economic development is positively related to religious beliefs, especially those in hell and Heaven (the variable "monthly church attendance" is constant), and it responds negatively to religious attendance (the variables "belief in hell" and "belief in Heaven" are fixed). The inversely proportional relationship between the process of economic growth and Church participation's rate "combines the negative effect of the resources used up by the religion sector, the positive networking effects of religious congregations and the ambiguous influence of organized religion on laws and regulations."[9] These main findings of their research prove that the Weberian secularization thesis is pretty inconsistent.



Source: www.heritage.org, 2004

Figure no 4. The Relationship of Economic Growth to Church Attendance and Religious Beliefs in Heaven and hell

Another main finding of their research proves that, across the religions, the beliefs in heaven and hell tend to be highest for particular Christian denomination then the other faiths (excluding the Muslim, which manifest the best percentage). Also, the attendance at religious services is higher for some Christian denominations than for the other religions.[10]

These results are linked with Baylor Religion Survey, Wave 2 (2007), both in terms of religious rate of participation and beliefs in Heaven and hell. In this survey, 3543 respondents have offered the next statistics. In table 1, it is worth noted the fact that both the Protestant and Catholic faiths have the highest percentages of religious attendance rates (the religious attendance rates are expressed in terms of "once a month", "two to three times a month", "nearly every week", "every week" and "more than once a week").

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[9] Barro, Robert and McCleary. Rachel, Religion and Economic Growth, Milken Institute Review, April 2004, pp. 45

[10] ibidem, pp. 37

Table no 1. Religious attendance rate by Religion

Church Attendance	Protestant	Catholic	Jewish	None	Other
Once a month	8.40%	8.40%	7.90%	2.60%	4.60%
Two to three times a month	9.60%	11.00%	4.80%	2.20%	10.00%
Nearly every week	6.40%	5.10%	3.20%	0.70%	4.20%
Every week	23.30%	25.10%	7.90%	1.20%	15.50%
More than once a week	13.90%	3.10%	11.10%	0.20%	5.00%
Total	61.40%	52.70%	34.90%	6.90%	39.30%

Source: The Association of Religion Data Archives, 2010

In table 2 and 3, when it comes for the absolutely belief in Heaven (75.60% for Protestants and 62.90% for Catholics) and hell (67.4 % for Protestants and 48.4 % for Catholics) by religion, also these denominations obtained the biggest percentages. There is an exception for the Protestants' percentage of probably belief in the existence of Heaven (16.10 %), surpassed by the Jewish religion (25 %). Also, the probably belief in the existence of hell is low, only 17.1%.

Table no 2. Belief in Heaven by Religion

Belief in Heaven	Protestant	Catholic	Jewish	None	Other
Probably	16.10%	27.00%	25.00%	14.90%	26.00%
Absolutely	75.60%	62.90%	0.00%	10.90%	52.10%
TOTAL	91.70%	89.90%	25.00%	25.80%	78.10%

Source: The Association of Religion Data Archives, 2010

Table no 3. Belief in hell by Religion

Belief in hell	Protestant	Catholic	Jewish	None	Other
Probably	17.1%	30.6%	3.4%	12.5%	20.0%
Absolutely	67.4%	48.4%	0.0%	7.4%	41.1%
TOTAL	84.5%	79.0%	3.4%	19.9%	61.1%

Source: The Association of Religion Data Archives, 2010

Many institutional arrangements emphasize the fact that punishments and rewards play an important role also in providing incentives and in informal relationships. A research conducted by Brañas-Garza, Garcia-Muňoz and Shoshana Neuman (2008) is relevant in terms of the next conclusions: the positive and negative incentives have a major effect on religious practice (church attendance and prayer); the effect of the "carrot" (heaven) is much more pronounced than the effect of the "stick" (hell), because the expected rewards have stronger effects on the religious practice than the expected penalties.[11]

James Andreoni, William Harbaugh and Lise Vesterlund (2003) presented a complex model where the main conclusions were: first, the rewards alone play a relatively ineffective role towards the individual behavior; second, the punishments has

[11] Brañas-Garza, Pablo, Garcia-Muňoz, Teresa and Neuman, Shoshana, The Big Carrot: High Stake Incentives Revisited, Institute for the Study of Labor, 2008, pp. 8

an positive role in cooperation, because it help moving away from perfect selfish offers and test the elements of cooperation; third, in such an incentive system when there is a mix between rewards and punishments, it had a very strong effect in providing cooperation between the social actors, acting to complement one another.[12]

A model developed by Durlauf and Kourtellos (2006) finds no evidence that the degree of religiosity is quantitatively important to growth. In the same direction, this model stressed that beliefs in hell or heaven haven't a direct and strong relationship with the process of economic growth. Religion only affects economic outcomes mainly by fostering religious beliefs that influence individual traits such as thrift, work ethic, honesty and openness to strangers. These features, in turn, may make people more or less economically productive. If religiosity influences the willingness to work and to be competitive, so it might be an ineluctant factor. If it doesn't, the religion has no effect.

4. Conclusions

Using a liberal economic framework for analysis, it is claiming that religions and religious groups' popularity is dependent on the general laws of supply and demand. As it was demonstrated, the religious preferences are stimulated and shaped through the cooperation action in the process of consumption of religious goods. As a result, these institutionalized corporations enhance the production of religious goods and services supply for feeding the higher demand.

Robert Barro and Rachel McCleary find that religion may be important for the process of growth, having almost the same importance as the neoclassical sources of inequality (for example, the income differences) across nations. They demonstrated, using the statistical analysis, that the process of economic development is positively related to religious beliefs, especially those in hell and Heaven (the variable "monthly church attendance" is constant), and it responds negatively to religious attendance (the variables "belief in hell" and "belief in Heaven" are fixed). These main findings of their research prove that the Weberian secularization thesis is pretty inconsistent.

Another theory suggests that in an incentive system where there is a mix between rewards and punishments, it had a very strong effect in providing cooperation between the social actors. Again, a research conducted by Brańas-Garza, Garcia-Muňoz and Neuman (2008) stresses that the positive and negative incentives have a major effect on religious practice (church attendance and prayer); the effect of the "carrot" (heaven) is much more pronounced than the effect of the "stick" (hell), because the expected rewards have stronger effects on the religious practice than the expected penalties.

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GLOBAL ECONOMIC CRISIS AND ITS IMPACT ON THE WESTERN BALKAN COUNTRIES LABOR MARKETS

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Abstract: The global financial and economic crisis has serious impact of the Western Balkans countries. We focus on the labour markets and macroeconomic policies responses. Unemployment is rising sharply in the two most affected countries, Serbia and Croatia, and to a lesser extent thought at an already very high level, in Bosnia and Herzegovina. In the other Western Balkans countries the effects of the crisis in the labour market are less pronounced. We observed the four groups of macroeconomic responses to the crisis: monetary policies, fiscal policies, anti-crises packages and labor market and social policy measures. In addition, we analyze the effects on the labor market, distribution and social conditions of the most important measures of each group. We find that monetary and fiscal policies of the Western Balkans Countries have regressive impact on distribution and poverty. The Governments use the social policy measures to amortize their negative effects.

JEL classification: J21, E60.

Key words: labour market, Western Balkans, monetary policy, fiscal policy, social policy

1. Introduction

The global financial and economic crisis has serious impact of the Western Balkans countries. The main channels of the crisis were: trade shocks, lower remittances and lower foreign direct investments. As a result, credit growth decelerated and domestic demand shrunk. While the Western Balkans countries already exit from the recession, the economic prediction for 2010 is not optimistic one.

In this paper we focus on the labor markets and macroeconomic policies responses. Unemployment is rising sharply in the two most affected countries, Serbia and Croatia, and to a lesser extent thought at an already very high level, in Bosnia and Herzegovina. In the other Western Balkans countries the effects of the crisis in the labor market are less pronounced. In Macedonia, without any economic logic, during the recession the unemployment was lowered.

We observed the four groups of macroeconomic responses to the crisis: (1) monetary policies, (2) fiscal and budgetary policies, (3) anti-crises packages and (4) labor market and social policy measures. In addition, we analyze the effects on the labor market and social conditions of the most important measures of each group. We find that monetary and fiscal policies of the Western Balkans Countries have regressive impact on labor markets. The Governments use the social policy measures to amortize their negative effects. The findings of the paper could have important applications for the policy makers from the Western Balkans region.

The remainder of the paper is structured as follows. Section 2 provides analysis of the labor markets of the Western Balkans Countries. The effects of the macroeconomic responses to the crisis on the labor markets are examined in the Section 3. The Section 4 concludes with a summary of the main findings and implications.

2. Western Balkans countries labor markets

2.1 General remarks

Analysis of the potential impact of the global financial crisis on labor markets in Croatia, Macedonia, Albania, Bosnia and Herzegovina, Montenegro and Serbia was conducted for period third quarter 2007 – fourth quarter 2009.

According to the official results, Macedonia and Albania did not seem to suffer severe consequences from the crisis. Especially Macedonia marked positive effects on the labor market.

Bosnia and Herzegovina and Montenegro suffered some negative trends relatively late. The first sign of increase in unemployment was marked in last two quarters of 2009 for Bosnia and Herzegovina and the last quarter of 2009 for Montenegro.

Countries that were mostly affected by the financial crisis were Croatia and Serbia. Both firstly marked negative trends on the labor market in the last quarter of 2008. For Croatia is very likely to say it was effected by the crisis because it had positive trend on the labor market for previous period. Serbia on the other hand had difficult situation in the period before.

Table no. 1. Unemployment[13] in candidate and potential candidate countries

Country	2004	2005	2006	2007	2008	Forecast[14]	
						2009	2010
Croatia	18,0	17,9	16,6	14,8	13,2	10,0	9,8
Macedonia	37,2	37,3	36,0	34,9	33,8	35,6	36,1
Turkey	10,3	10,2	9,9	9,9	11,0	13,5	13,9
Albania	14,7	14,3	13,9	13,4	12,8	n/a	n/a
Bosnia and Herzegovina	43,1	44,7	44,2	42,9	40,6	n/a	n/a
Montenegro	22,3	18,5	14,7	11,9	10,7	n/a	n/a
Serbia	19,5	21,8	21,6	18,8	13,6	n/a	n/a

Source: EU Candidate and Pre-Accession Countries Economic Quarterly, European Commission, 2009, Q4

The slow-down in economic growth in the region only really began to be noticeable in the fourth quarter of 2008, since which time forecasts for growth in 2009, initially suggesting that the region would avoid the most serious consequences of the crisis, continue to be revised downwards. Revised forecasts by the IMF, released on

[13] Labor Force Survey, in % of workforce
[14] European Commission Forecast, ECFIN-D-1

April 24, 2009, suggest a shrinking in GDP for the whole region by at least 2 percent, except for Albania, which is forecast to grow by only 0.4 percent. Kosovo, not included in the forecasts, may have growth higher than this, perhaps as high as 3 percent, but still down on recent years. Croatia is forecast to be worst hit in 2009 with a GDP fall of -3,5 percent. After relatively high growth in 2007, the crisis will impact seriously, over at least a three-year period, with significant implications in terms of poverty and vulnerability and in terms of labor markets.[15]

General conclusion is that most of the Western Balkan countries were not severely affected by the global economic crisis. Exceptions are Croatia and Serbia. Yet, further periods need to be analyzed in order to determine if other countries will suffer the negative consequences, or if positive trends that implicate end of the crisis will arise.

2.2 Croatia

In order to determine the effects of the global financial crisis on the Croatian labor market, unemployment, employment and wage dynamics are analyzed for period starting from the third quarter of 2007 and ending in fourth quarter of 2009. General conclusion is that it is possible to determine a negative effect on the labor market caused by the financial crisis that begins from the fourth quarter of 2008.

Positive trend is noted from the third quarter of 2007 to the third quarter of 2008. In this period the unemployment continuously declines, the employment increases and the wages also increase. In the third quarter of 2007 the officially registered unemployment rate declined to 13,8% in August, down from 14% in July. Total employment grew 0,8% year-on-year in August. In the forth quarter of 2007 the officially registered unemployment rate further increased slightly to 14,5% in November, up from 14,3% a month before, largely due to seasonal factors. Growth of employment accelerated to 1,1% year-on-year in November. In the first quarter of 2008 the officially registered unemployment rate dropped to 14,7% in February, slightly down from 14,8% a month before. The total number of employed increased by 3,3% year-on-year in February. In the second quarter of 2008 the officially registered unemployment rate further declined to 13,2% in May, down from 13,9% in April. Total employment grew 1,1% year-on-year in April, bringing the average employment growth in the first four months to 1,8%. The last period of the positive trend is the third quarter in 2008 when the officially registered unemployment rate further declined to 12,3% in August 2008, slightly down from 12,4% in July. Total employment grew 0,8% year-on-year in July.

Regarding the wages, in the third quarter of 2007 the growth of average gross wages accelerated to 7,9% year-on-year-in July, up from 5,7% in June (real increase of 5,6%). The acceleration of real wage growth was broadly matched by rises in productivity, so that unit labor costs remained rather stable. In the fourth quarter of 2007 the growth of nominal gross wages accelerated markedly to 7,6% year-on-year in October, from 5,5% in September (real increase of 3,2%). In January 2008, the growth of gross wages accelerated to 7,4% year-on-year, which translates into a real wage increase of 1,2%. In the next quarter the growth of average gross wages accelerated to

[15] Stubbs P., Venancio M. (2009) ‘Compounding the Crisis? International Assistance in the Western Balkans’ European Perspectives – Journal on European Perspectives of the Western Balkans Vol. 1, No. 1, pp 27-52, October 2009

7,2% year-on year-in April, up from 6,2% in March or a real increase of 1,4% year-on-year. Real wage growth has thus actually declined due to higher inflation. The last period of the positive trend is third quarter of 2008 when the growth of average gross wages accelerated to around 7,3% year-on-year in July, or a real wage decline by 1% year-on-year.

Negative trend begins in the fourth quarter of 2008. With some fluctuations, the unemployment increases, the employment increases and the wages start to decrease. Especially the in the beginning of 2009 economic downturn starts to affect the labor market. In the forth quarter of 2008 the officially registered unemployment rate increased to 13,2% in November, from 12,9% in October, partly due to seasonal effects. In the first quarter of 2009 the officially registered unemployment rate stood at 14,4% in May, slightly lower than in April due to seasonal effects. Total employment declined by 2,7% year-on-year in May. In the second quarter of 2009 the officially registered unemployment rate increased to 14,8% in February, from 14,5% in January. Total employment declined by 0,3% year-on-year in January. In the next two quarters of 2008 the officially registered unemployment rate stood at 14,2% in August and total employment declined by 4,1% in the twelve months to August and in the twelve months to November, the number of unemployed had increased by around 20%, and the officially registered unemployment rate climbed to 16,1%. The number of employed declined by 5,4% in the twelve months to November.

Regarding the wages, in the fourth quarter of 2008 the growth of average gross wages slowed to 7,4% year-on-year in October, or a real wage growth of 0,6% year-on-year. In the first quarter of 2009 the growth of average gross wages decelerated to 4,6% or a real wage growth of below 1%, indicating that wage pressures have subsided in line with a shrinking economy. In the second quarter of 2009 average gross wages increased by 7,1% in 2008 or a real wage growth of around 1%. The third quarter of 2009 marks that the average gross wages decelerated to 3,4% in the second quarter of or a real wage growth of below 1%. In the last period of 2009 the growth of average gross wages decelerated further to 0,3% year-on-year in October, from an average growth of 1,4% year-on-year in the third quarter or a real wage decline of 0,9% year-on-year.

2.3 Macedonia

According to the official statistics for the observed period from third quarter of 2007 to the fourth quarter of 2009, the labor market in Macedonia apparently is not influenced by the global financial period. On the contrary, the labor market marks positive effects.

Regarding the unemployment and employment in the third quarter of 2007 unemployment continued to be high despite a solid job creation. In the first quarter of 2007, the number of unemployed was by about 5.000 persons (1,6%) higher than a year before, while the number of employed persons rose by some 20.000 persons (3,5%). This led to an increase in the labor force by 25.000 persons, or by 2,8%. As a result of this strong increase in the labor force, the unemployment rate declined to 35,8%. In the fourth quarter of 2007 the labor market situation continued to improve, albeit largely due to employment growth as in the first quarter of 2008. In all other quarters of 2008 the labor market situation continued to improve, the employment continuously increases and the unemployment continuously drops. This situation follows also in 2009. In the first quarter the employment increased by about 3%. The unemployment declined by 6%. Given the clear deterioration in the economic environment public spending seems to have been an important factor behind this favorable development. Compared to last year, about 28.000 new jobs were created. The main sectors with additional employment were public administration and construction (+8.000 employees each) and trade (+6.000 employees). At the same time, about 10.000 jobs were lost, about 5.000 jobs in manufacturing and around 4.500 in the area of communal and recreational services. In the second quarter of 2009 the unemployment rate increased from 33% in the third quarter to 33,5% in the fourth quarter. The rise in unemployment was of a similar magnitude in the fourth quarter of previous year and is thus most likely reflecting a seasonal pattern and not so much the impact of the global financial crisis. The positive trend continues in the third quarter, even though the level of unemployment is still very high. The forth quarter of 2009 marks good labor market situation. However, in some sectors, such as trade, a significant share of employment gains probably is due to a methodological change. Employment has increased by 3,7% year-on-year, and a drop in the number of unemployed by 2,3% is registered.

Wages also seem to follow the positive trend and are not affected by the global economic crisis. In the observed period nominal wages marked continuous acceleration from one quarter to another. In 2009, a large part of the increase is due to a methodological change, or switching from calculating wages on net term to a gross wage concept.

2.4 Albania

Positive trend follows Albanian labor market in the period of third quarter of 2007 forth quarter of 2009. Financial crisis does not seem to have an impact on unemployment, employment and wages.

Employment continued to grow slightly by 0,2% year-on-year during the second quarter of 2007. The unemployment rate continued to decline slightly to 13,5% in the same period. Long term unemployed represented 65% of the total registered unemployed. In the third quarter of 2007 the number of employed people increased slightly (0,1% year-on- year), also contributing to a decrease in the unemployment rate to 13,2%. After shrinking for three consecutive quarters, the labor force increased in end of 2007, mainly on account of an increasing number of workers in the nonagricultural private sector. The number of unemployed decreased to the lowest level of the recent years reducing the unemployment rate to 13% in the first quarter of 2008. Labor market conditions improved in the first three quarters of 2008. Employment continued to increase and unemployment rate decreased to 12,6%. Both employment and unemployment developed favorably on the back of the dynamic expansion of economic activity. In 2008, official employment increased by 2,9%, whereas the unemployment rate fell to 12,8%. Labor market conditions weakened in the first half of 2009, in line with the subdued economic activity. Employment growth decelerated to 0,7% in the second quarter following an increase of 3,6% in the first quarter. Following the declines recorded in the past years, the unemployment rate remained stable at around 12,7% in the first six months of 2009

Regarding the wages, average wages in the public sector increased by 15,4% in second quarter of 2007, and in the third quarter of 2007 they increased by 23,1%. Average wages in the public sector increased slightly in the first quarter of 2008 (0,4% quarter-on-quarter). Wage growth dropped significantly in the third quarter of 2008 after the ceased impact of the base effect of the regulation on reference wages, which became effective in June 2007. Contrary to 2007, wage growth in 2008 stayed below (nominal) GDP growth, allowing some catching up on previously lost price competitiveness. Wage growth in the first half of 2009 accelerated from 8,3% recorded in 2008. In the first two quarters, wages increased by 10% and 11,6%, respectively possibly reflecting the wage increases awarded to public sector employees.

2.5 Bosnia and Herzegovina

Bosnia and Herzegovina Labor market has certain impact from the global economic crisis in the last two quarters of 2009. The problem here is the discrepancy between the official unemployment reports and the data reported in the Labor Force Survey.

Available data for 2007 report that official unemployment increased slightly to 44,2% in June and that it was mainly the result of a labor market improvement. However, official statistics do not appear to reflect accurately the employment and unemployment levels in the country. The Labor Force Survey of April 2007 shows a reduction of the unemployment rate to 29%. For the first quarter of 2008, the official unemployment rate declined slightly to 42,9% in December 2007. The second quarter of 2008 reports that the official unemployment rate declined to 39,3% in April 2008, but while the trend appears to be correct, the magnitude of the decline is overestimated by a break in the series. The massive increase in the number of employees reported in January 2008 and afterwards appears to be determined by a change in the statistical sample used to estimate average wages in the RS and does not reflect accurately the evolutions on the labor market. In the Federation, where the statistical methodology remained unchanged, the unemployment rate declined to 44,8% in April 2008. The annual growth of the number of employees accelerated to 5,4% in April 2008, the largest increases being recorded in trade, constructions, financial intermediation and real estate. Nonetheless, the levels of registered employment and unemployment differ significantly from the results of the labor force survey. The third quarter of 2008 reports that the labor market dynamics have continued on a modestly positive trend: the official rate of registered unemployment decreased to 40,9% in July 2008. The newly released Labor Force Survey shows a major reduction of the unemployment rate to 23,4% of the labor force in May 2008. The fourth quarter of 2008 reports that the consolidated national official rate of registered unemployment further decreased to 40,3% in October 2008. Employment increased by 4,1% in the first ten months of 2008. The first quarter of 2009 reports that after an annual fall in 2008 of 6,3% on average, the number of officially recorded unemployed people started to increase in early 2009, as companies started to lay-off workers, especially in the manufacturing and mining industries. At the end of April registered unemployment was 2% higher than at the end of 2008. However, during the same period also employment increased by 2,4%, mainly in food and beverage establishments, retail and wholesale, the construction industry and the public sector, so that the rate of registered unemployment remained stable at 40,6%. The second quarter of 2008 reports relatively stable consolidated national official rate of registered unemployment for the last quarter 2008 and. Employment dropped by 2,9% in January annually. The third quarter of 2008 marks that the rate of registered unemployment increased in the first half of 2009 to 41,8% in July, revealing some impact of the economic crisis on the formal labor market. The last quarter of 2009 reports that the official rate of registered unemployment further increased in the third quarter of 2009 to 42,3% in October. Employment decreased in manufacturing, real estate, mining and construction. According to the final results of the Labor Force Survey 2009 unemployment increased to 24,1% in 2009.

Wages grow continuously until they slow down in the third and fourth quarter of 2009, when the effect of the crises started to take its toll.

2.6 Montenegro

Analysis of the labor market in Montenegro shows that the impact of the global economic crisis was felt for the first time in the fourth quarter of 2009. In previous periods the unemployment mostly declined, with some minor fluctuations. Employment also expanded. The wages continuously increased, both in nominal and real terms. A general conclusion is that until autumn 2009, no serious impact of the economic crisis was noted.

In the third quarter of 2007 (according to the Employment Agency), the unemployment rate fell to 11,7% by end- September. Since the beginning of the year employment has increased, notably in the services sector. In the forth quarter, or since the beginning of 2007 until mid-December the unemployment rate has decreased by 19%. After reaching a record-low level of unemployment at 11,7% in September, the end of the active tourist season was accompanied by a decline of the number of seasonal workers, raising the unemployment rate slightly to 11,9% by mid-December. In January 2008 employment expanded by 5,9% year-on- year. Meanwhile, the unemployment rate slightly fell to 11,8% by the end of March 2008. [2008 – 2] The statistical office produced in June 2008 its first quarterly Labor Force Survey. According to it, in the first quarter of 2008 the unemployment rate stood at 18% despite a still modest participation rate of 59,7%. By contrast, the unemployment rate recorded at the Employment Agency was of 11,8% for the same period, further decreasing to 11,4% end-May 2008. The unemployment rate continued to decline from the beginning of the year 2008 recording 10,6% end September 2008. The government adopted in September 2008 the midterm program for the promotion of employment and development of the human resources for the period up to 2011, with the aim of creating favorable conditions for building a competitive and dynamic knowledge-based economy. The unemployment rate slightly declined in mid December 2008 to 10,7%, against 12,2% a year before. In the first quarter of 2009, the unemployment rate declined to 10,3% at mid-June. The number of unemployed persons fell by 7% year-on-year, contracting by 3,9% since January. Employment grew by 5% year-on-year in May, moderating from the 6,3% growth recorded a month earlier. The labor force survey revealed that the unemployment rate reached 16,3% in the fourth quarter of 2008, down from 19.,% a year earlier. Employment expanded by 5,3% year on-year in February. In the third quarter of 2009, the unemployment rate increased marginally to 10,3% end-September from 10,1% a month before. So far the impact on the labor market has been very limited despite the large decline in manufacturing. Employment has been expanding in the latest months by some 5% year-on-year. The impact of the economic crisis on the domestic labor market was only felt in the autumn 2009, when the number of unemployed started to increase, from an historical low rate of 10,2% in August, to 11,3% by mid-December.

Average gross wages continuously increased in the observed period.

2.7 Serbia

The global economic crisis in the Serbian Labor market started at the end of 2008 and it continued in 2009. Yet, the situation was difficult the years before.

Labor market conditions remained difficult and employment continued to decline throughout 2007, as a result of continuing corporate restructuring and privatizations. Somewhat counterintuitive, the official number of unemployed persons also declined during the same period. However, this was caused primarily by the implementation of the new Law on Health Insurance and Health Protection in January 2007 which resulted in a transfer of about 90,000 unemployed persons from the registry of the National Employment Service to the registry of the Republican Health Insurance. The same trend remained in the fourth quarter of 2007. Employment declined, yet the number of unemployed persons also declined during the same period to a rate of 18,9%. Employment continued to decline during the first quarter of 2008 by 0,7% year-on-year, a trend which continued in April and May 2008. The unemployment rate increased to 18,6% during the first quarter and continued to rise thereafter. Labor market conditions have improved somewhat and employment grew by 0,2% year-on-year during the first quarter of 2008 and by 0,3% in July 2008, following a decline of 0,4% during the first quarter of 2008. The unemployment rate fell to 13,0% during the second quarter and to 12,6% in July 2008. Labor market conditions remained stable and employment grew by 0,2% year-on-year during the third quarter 2008, a trend which continued in October 2008 and November 2008. The unemployment rate declined to 12,5% during the third quarter 2008 but increased to 12,6% in October 2008.

Labor market conditions have started deteriorating and employment declined by -0,1% year-on-year during the fourth quarter of 2008. This trend accelerated in January and February 2009. The unemployment rate jumped to 14,1% during the fourth quarter and further increased in January and February. Jobs continued to be shed and employment declined by 8,1% year-on-year in August 2009, after a 7,8% drop in June 2009. October 2009, registered an increase in unemployment to 16,6% compared to 14,0% a year ago. In conjunction with this trend, both official and informal employment rates declined to 40,8% and 20,6%, respectively.

In third quarter of 2009 wages growth slowed somewhat but remained strong, Due to the continuing disinflationary trend over the same period, real wage growth slowed only slightly. This trend eased somewhat in July and August when gross nominal wages grew by 22,1% and 22,6% year-on-year, respectively and annual inflation rose to 5,9% and 6,3%, respectively. In the third quarter of 2007, gross wages grew by 21,7% year-on-year. Due to an acceleration of inflation, real wage growth slowed more pronounced during the same period. Wage growth continued to slow down during the fourth quarter 2007, but remained strong nevertheless. Gross wages grew by 19,8% year-on-year. Due to an acceleration of inflation, real wage growth slowed more pronounced during the same period. In January 2008, real wage growth slowed to 3,7% year-on-year but accelerated again in February 2008 to 8,3% year-on-year. Wage growth slowed to 8% during the first quarter of 2008 but re-accelerated in April and May. Wage growth remained high at 19,4% year-on-year during the second quarter 2008 and slowed somewhat to 17,2% in July 2008. Wage growth slowed to 17,9% year-on-year during the third quarter 2008, declining further to 14,5% in November 2008, after an upward surge in October.

Wage growth slowed to 15,1% year-on-year during the fourth quarter, declining further to 12.5% in February 2009. As the cost of living increase slowed less significantly, real wages growth decelerated to 6,2% year-on-year during the fourth quarter. The growth of the nominal gross average wage remained positive so far – at 6,3% year-on-year in August 2009 although it continued to decelerate from 10,1% in June 2009. Real wages growth was negative at -1,4% year-on-year in August 2009. The growth of the nominal gross average wage remained positive – at 5,2% year-on-year in November 2009, marking a deceleration from the high 10,1% in June 2009. Real wages growth was negative at 0,6% year-on-year in November 2009.

Table no. 2. Labor market

Country	Indicator	2005	2006	2007	2008	Forecast[16]		Oct 09
						2009	2010	
Croatia	Unemployment[17]	17,9	16,6	14,8	13,2	10,0	9,8	15,5
	Employment	0,8	3,3	3,3	2,5	-1,0	0,5	-5,0
	Wages	4,4	6,2	6,2	7,1	1,5	3,3	0,3
Macedonia	Unemployment	37,3	36,0	34,9	33,8	35,6	36,1	n/a
	Employment	4,3	4,6	3,5	3,2	-2,7	-0,5	n/a
	Wages	2,7	8,0	4,8	8,7	1,4	0,5	8,5
Albania	Unemployment	14,3	13,9	13,4	12,8	n/a	n/a	n/a
	Employment	0,9	0,2	0,2	2,9	n/a	n/a	n/a
	Wages	9,9	7,5	17,1	8,3	n/a	n/a	n/a
BIH	Unemployment	44,7	44,2	42,9	40,6	n/a	n/a	42,3
	Employment	0,8	2,3	4,4	2,7	n/a	n/a	-2,7
	Wages	6,1	9,6	9,8	16,6	n/a	n/a	4,0
Montenegro	Unemployment	18,5	14,7	11,9	10,7	11,3[18]	n/a	10,5
	Employment	0,6	4,5	3,7	6,3	n/a	n/a	4,1
	Wages	8,0	15,6	14,2	22,8	n/a	n/a	1,9
Serbia	Unemployment	21,8	21,6	18,8	13,6	n/a	n/a	16,6
	Employment	-6,7	-3,8	1,0	6,2	n/a	n/a	-8,3
	Wages	24,1	24,4	22,1	17,9	n/a	n/a	3,9

Source: EU Candidate and Pre-Accession Countries Economic Quarterly, European Commission, 2009, Q4

3. The effects of policy responses on the labor market

The macroeconomic responses to the crisis can be summarized in four groups: (1) monetary policies, (2) fiscal and budgetary policies, (3) anti-crises packages and (4) labor market and social policy measures. The analyzed measures were undertaken in the most of the countries.

3.1 Monetary policies

The global crisis significantly worsens current account deficits of the Western Balkan countries. Therefore, the primary goal of the Central banks was protection of the macroeconomic stability of the country. In order to stabilize the exchange rate the basic measure of the Central banks was ***increase of the reference interest rate.*** The effects of

[16] ECFIN Forecast
[17] Unemployment - In percent of total labor force, Labor Force Survey definition for annual data. Monthly data are based on official data on registered employment and unemployment
Employment - Annual percentage change, Labor Force Survey definition for annual data. Monthly data are based on official data on registered employment and unemployment
Wages - Annual percentage change; average gross wages (nominal amount in national currency)
[18] Real data, not a forecast

the increase of the interest rates were: (a) fall in private investments, (b) fall in consumption credit, and (c) fall in Stock Exchanges. These effects had negative impact for labor demand.

The second measure had the same goal as the previous ones. Central banks defend their currencies by selling a foreign currency reserves. This measure protect the living standard of the labor force, because is prevention from inflation. But, it has a negative impact for labor demand.

An important confidence building measure consisted in raising the level of guaranteed savings deposits. This measure was taken at the end of 2008 in most of the Western Balkan countries when they faced a confidence crisis in the banking systems with depositors withdrawing substantial amounts of funds. This measure had not direct influence on the labor market.

3.2 Fiscal and budgetary policies

The main fiscal policies that were undertaken by the Western Balkans governments were: increase of the VAT rate, increases in excises on oil and luxury products, and salary freeze in the public sector.

The increase of VAT directly influences poor people since the poor are likely to spent more of their income than a relatively reach person. It can be said that this measure is anti-poor.[19] In order to balance this effect, the VAT increase was combined with the progressiveness of increase in excises on oil and luxury products. The both measures had negative impact for labor demand.

The salary freeze in the public sector had negative and positive effects. It had negative impact on labor supply and standard of living. But, in the time of economic crisis more important was the positive impact. The salary freeze in the public sector protected the employment in the public sector.

3.3 Anti-crises packages

The Western Balkans governments were undertaken different anti-crises packages. The most frequent and important measures were: takeover of liabilities of loss makers, write off of penalty interest on social contributions, subsidizing interest rates on commercial bank credits to companies and investments in infrastructure projects.

The first measure, takeover of liabilities of loss makers is undertaken in order to prevent the job cut. But, it produced unfair competition on market with putting on better position the unsuccessful companies. Also, the second measure, write off of penalty interest on social contributions, had the same positive effect on the labor market on the short run. The negative side of the measure is erosion of the discipline in the system of social contributions.

The subsidizing interest rates on commercial bank credits to companies and public investments in infrastructure projects stimulated the investment activity in the country. Therefore, they had positive effects for labor demand.

3.4 Social and labor market policy measures

The social and labor market policies in the Western Balkans countries during the crisis remained to be seen by the policy makers as residual category and as a burden

[19] Confederation Fiscale Europeene (2008) presents analysis of the effects of VAT on the labor market.

on public expenditures.[20] The main measures from this group were: employment in public works, subsides apprenticeship programmes and SOS shops for the poor.

The first two measures, employment in public works and subsides apprenticeship programmes had positive impact on labor demand. But, it must be stressed that job creation by public works had only short-run influence. The opening of SOS shops, although as social measure had positive impact on the living standard of the poor, it had not influence of the labor market.

5. Conclusions

The labor markets of the most Western Balkan countries were not severely affected by the global economic crisis. Counties that were mostly affected are Croatia and Serbia. Both firstly marked negative trends on the labor market in the last quarter of 2008. Bosnia and Herzegovina and Montenegro suffered some negative trends relatively late. The first sign of increase in unemployment was marked in last two quarters of 2009 for Bosnia and Herzegovina and the last quarter of 2009 for Montenegro. Macedonia and Albania did not seem to suffer severe consequences from the crisis. Especially Macedonia marked positive effects on the labor market.

The monetary measures, ***increase of the reference interest rate and*** selling a foreign currency reserves, and fiscal policies measures, increase of VAT rate and increases in excises on oil and luxury products, with exception of salary freeze in the public sector, have negative impact on labor markets. The Governments use the anti-crisis packages and social policy measures to amortize their negative effects. The most of the measures have positive impact on the labor market only in the short run. The summary table of the policy measures and their impact on the labor market is given in the Table no. 3.

Table no. 3. Summarizing the policy measures impact on labor market

Measure	Impact on labor market
Increase of the reference interest rate	negative
Selling a foreign currency reserves	negative
Raise of the level of guaranteed savings deposits	neutral
Increase of the VAT rate	negative
Increases in excises on oil and luxury products	negative
Salary freeze in the public sector	positive in short run
Takeover of liabilities of loss makers	positive in short run
Write off of penalty interest on social contributions	positive in short run
Subsidizing interest rates on commercial bank credits to companies	positive
Investments in infrastructure projects	positive
Employment in public works	positive in short run
Subsides apprenticeship programmes	positive in short run
SOS shops for the poor	neutral

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AUSTERITY IN DIFFERENT COUNTRIES OF THE WORLD*

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Abstract: This paper presents the economic situation of twelve countries of the world (the USA, Russia, Great Britain, Germany, France, Spain, Portugal, Italy, Bulgaria, Hungary, Latvia, and Ireland) in the context of the world economic crisis. Are analyzed the measures adopted by each of these states and the effects of those particular measures on the economies. One of the common austerity measures – for the analyzed states – is the reduction of public expenses.

JEL classification: F44, F50

Key words: economic crisis; austerity measures; budgetary expenses; budgetary deficit; VAT

1. Introduction

The global economic crisis regards and affects all states of the world, no matter if they are great powers or just a state like any other. Below we present the measures taken by some states in this period of global economic crisis and their effects.

Analysis of austerity measures from different countries of the world permit to identify the effects of those particular measures on economies of those countries and permit to identify the austerity measures that are common to these countries analyzed.

2. Austerity measures and their effects

The United States of America: at present the official data are talking about a solid basis of the American economy improvement. It increased during the first quarter of the year by 3.2%, and analysts are expecting it to continue to grow, as far as exports and sales increased more than it had been expected.

The United States of America are now in a total different situation than one year ago. One year ago, economy collapsed, people spoke about the great recession which it could get in, drawing the whole world with. The Trade Department announced the increase of the sales and the obvious tendency of the consumers to regain their confidence in economy.

Russia is a special case, especially because in the 2000s it registered a yearly economic increase of a few percentages, based on the oil price increase. In the 2008, the

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federal budget was covered in proportion of 50% from the oil and gas revenues, another important factor being the exports of ferrous metals. The favorable context enabled Russia to get among the countries having the greatest gold and currency resources and it stays there to this day. Kremlin learned the lesson of the financial crash in 1998 very well, when over night, all the great private banks went practically bankrupt, the rouble rate collapsed three times, and the savings of the people vanished.

During the years of economic growth, the Russian government created a special fund, called the "Stabilization Fund", which counted in February 2008 156 billion dollars. At that time it was split into two categories: "The Reserve Fund" - 125 billion and the so-called "National Welfare Fund" - 32 billion dollars. The latter grew constantly. In the beginning of the crisis in Russia, that is around 1 September 2008, the reserve fund, made out of the oil and gas sales, had over 140 billion dollars.

Russian authorities said the anti-crisis measures would not affect the social obligations of the government, meaning the salaries, the pensions, the allowances and the expenses for the health and educational system. The first measures met by the Russian government were the massive financial injections for supporting the financial and bank sector and its setting free from the outperforming and debt-burdened banks, exactly in order to prevent a crash like the one that took place in 1998.

The reduction of the rouble rate by about a third was not instant, like in 1998, but gradual over a period of 5-6 months, which enabled the diminishment of the social impact and, on the other hand, it enabled a process of energizing the economy and first of all of the exports.

Russian economy began to improve in spring 2009, after the minimum oil price was exceeded.

By saving the bank system and by the anti-crisis measures, the most important thing was achieved, that is avoiding the social situation instability. In crisis conditions, the government had in 2009 budgetary expenses 27% higher than in 2008, whereas incomes decreased by 21%. Half of the budget was destined to the payment of pensions, salaries and allowances, to the educational system, health and apartment constructions, the figure being a fifth higher than in 2008.

Great Britain intends to reduce budgetary expenses by 7.2 billion euros. Among the measures announced: the V.A.T. increase from 17.5% to 20% and freezing the employment procedures in the public system.

With a budgetary deficit of 63£ billion this year, the UK is going through the most serious economic crisis since 1930. Even though this country came out of recession last year, the economic improvement is feeble. According to the data of the Office for National Statistics, there occurred an economic growth of 0.4% during the last three months of 2009, but during January-March 2010 the Britain economy grew by only 0.2%. The number of the unemployed reached 2.51 million during the first three months of 2010 - the highest unemployment level since 1994. The budgetary deficit gets close to 12% of the GDP, similar to the one in Greece, and the new conservatory-liberal-democratic coalition government have announced that their priority is to reduce it. The ministers diminished their own salaries by 5% and froze them completely for the next 5 years. Also, the budgets of some governmental departments could be reduced by 25%. £15 million a year will be saved by ceasing to pay salary bonuses to civil servants. People who own more than one property will have to deal with up to 50% higher taxes.

Germany will diminish the budgetary expenses by 80 billion euros in order to lower the level of the budgetary deficit, which represents 5% of the GDP this year. The recession of 2009 made German economy decrease by 4.9%. Among the austerity measures there were dismissed 15,000 budgetary employees and the unemployment allowance was reduced. The German government also supports the creation of a new tax, one for financial operations, at European level by 2012.

The ability to keep salaries under control and the high revenues from exports makes German economy very competitive in the globalization and international competition background; still not everything goes well in Germany's economy at present.

In **France** the situation is good, meaning that measures were taken from the very first months of economic crisis, more specifically, starting with October 2008. Just a month away from the bankruptcy of the American Bank "Lehman Brothers", did the state offer a 360 billion euros fund, 320 billion of it representing a state security, and 40 billion euros were put at the disposal of those bank institutions which wanted to consolidate their capital. The condition for the banks was very resolute: for this support, the banks bound themselves to unlock the credit market, so that the money could travel between the bank institutions, but also in order for the population to be able to take further loans.

In December 2008 it announced a 26 billion euros economy improvement plan. This money was destined especially for the automobile industry, one of the sectors most seriously affected by the economic crisis, as well as for the apartment constructions. A great support was provided to the small and very small enterprises, having less than 10 employees. For a whole year these enterprises were exempt to pay certain taxes, provided that they employed personnel for the minimum wages. The emphasis was put on investments, and less on promoting consumption. Nevertheless, there were also met certain measures for the people having modest incomes and the categories affected by the economic crisis, and later on certain amounts of money were invested for the youth, in professional training or re-orientation.

Presented as being a last anti-crisis measure, in December 2009 France launched a great loan of 35 billion euros on the capital domestic markets for financing some investments considered to be strategic for the next few years.

A medium and long term vision: investments in domains seen as essential are higher education, research, industry, continuous development and digital economy.

In France the GDP decreased in 2009 by 2.2%. This represented the most important recession after World War II. Starting with the second quarter of 2009, there was felt an economic increase.

The problem in France regards unemployment, which was highly enhanced. If in the beginning of 2008 this was 7%, in the end of the same year it was 8.5%, and in the end of 2009 - 10% - the greatest value in the last 10 years.

Spain - If we speak about the measures of reduction of the public deficit, which exceeds 11% of the GDP, we must mention the freezing of the pensions, the removal of the 2,500 Euros aid cheque for new-born children, the reduction of the civil servants salaries by 5%, the reduction by 15% of the salaries of the ministers, the reduction of the public investments by 1 billion euros for regions and for the town halls.

Portugal - The main issue of the Portuguese economy is the budgetary deficit, which reached 9.4% of the GDP last year while the external debt of Portugal is growing and growing, reaching now 85% of the GDP.

The plan of reducing the budgetary deficit consists of: the V.A.T. increase by 1%, reaching a maximum of 21%. The yearly revenue taxes will also increase. The Portuguese people will pay an additional tax between 1 and 1.5%, according to the revenues, and the companies which obtain wins over 2 million euros a year will pay a 2.5% overtax. In order to discourage families to get in debts, an overcharge will be created for the consumption credits, and the wages of the ministers, of the MPs and of the managers of the state-owned companies will be reduced by 5%.

Among the categories affected there's the one of the unemployed which find it more and more difficult to get a job and the unemployment rate already reaches an unbeatable record of 10.5% of the active population of Portugal.

Italy - Starting with the autumn of last year Italy adopted a set of measures in order to help the families and the companies affected by the crisis. In November 2009, the Bank Italian Association decided to meet a financial measure by which they wanted to support the families which were unable to pay their loans. Thus, starting with 1 January 2010 the ones who have problems in paying their monthly rates have the possibility to cease these payments for one year. The government in Rome is taking into consideration a set of measures, such as: the freezing of the civil servants' wages for one year, a further reduction of the ministry budgets and an enhancement of the fight against tax evasion. Italy stuck to its commitment of reducing the public deficit to 2.7% of the GDP in 2012, as compared to 5.3% in 2009. And it's not going to be an easy way to reach this target.

Bulgaria - The budgetary expenses have been reduced by 20%. The austerity measures comprise salary reductions of 10%, postponing the increase of the pensions and taxes for the luxury cars and properties. They gave up increasing the V.A.T. by 2-3%, as they had announced this spring. The deficit is mainly covered up through the tax resources, which decreased in just a couple of months from 4.1 to 3 billion euros. The government hopes to increase the revenues by fighting smuggling and by limiting the V.A.T. thefts.

Hungary - The government presented a programme for cutting the public expenses aimed at reaching a budgetary deficit of maximum 3.8% of the GDP: the salaries in the public system will be reduced by 15%, they won't make any new employment procedures during the next 2 years and the V.A.T. has been increased from 20% to 25%. The income tax was lowered to 17% and the social contributions paid by the employers were reduced in order to encourage companies not to make dismissals, but by the contrary, to offer new job opportunities, they removed the 13th pension - a measure expected to reduce the budgetary expenses by 160 billion forint (585 million euros), and the retiring age was set to 65.

In autumn 2008, Hungary was forced to make a 20 billion euro loan from the International Monetary Fund, the European Union and the World Bank, but starting with the end of the last year, the Hungarian authorities gave up accepting rates from this loan, as a result of the improvement of the situation regarding the financing of the country.

Unlike Latvia, which chose to reduce salaries, Hungary chose to increase the V.A.T. while freezing the salaries. The authorities in Budapest received 20 billion euros from the International Monetary Fund and the European Union, after the financial markets had closed their gates and the exports, as well as the internal demand, had decreased. The positive effects of the austerity measures have been seen in the evolution of some economic indicators, for instance the budgetary deficit, which in

2009 was 4% of the GDP, one of the lowest values of the European Union. Hungary's economy got out of the recession in the fourth quarter of 2009 and continued to grow even during the first three months of 2010.

Latvia imposed austerity measures aimed at minimizing the budgetary expenses by 10% of the GDP. Consequently, the budgetary deficit decreased from 12% of the GDP in 2007-2008, to 8% at present. The salaries of the employees in the public sector were reduced by 25% and in the future further reductions are expected. The wages in the private sector decreased even more, by about 30%. In the public system there 20% of the total number of employees was dismissed.

Latvia's economy has been deeply affected, both by the world financial crisis, and by the austerity measures, having been contracted by 18% last year and being expected to decrease by 4% until the end of 2010. In order to pay the costs of the crisis, the government in Riga demanded help from the International Monetary Fund, which offered them 7.5 billion euros. That was just the beginning of a long way full of austerity measures meant to reduce the budgetary deficit which, in 2008 reached about 12% of the GDP. The measures adopted were: the reduction of the salaries of the employees in the public sector by 25% and of those in the private sector by 30% and the reorganization of the budgetary system, which counts 20% less employees. The unemployment rate is around 23%, the highest in the European Union. The austerity measures had positive effects as well. Thus the decrease in consumption and in the sales was balanced by the decrease in the deficit from 12% to about 9% of the GDP.

The measures already applied in Latvia represent, according to Financial Times, "an example for Greece" and other European states. The economy of the Baltic state came out of the recession during the first quarter of this year, after having increased by 0.3% in comparison to the last three months of last year.

Ireland adopted in 2009 two austerity plans, one for 3 and another one for 4 billion euros. Among the measures met one could find: the reduction of the social allowances and a reduction of the salaries of civil servants by 5%-15%.

3. Conclusions

What the austerity measures met by the majority of the European states have in common, is the reduction of the public expenses and the attempt to increase the incomes. It is true that lower expenses mean reduced investments, that is a slow down in the recovering process of the economy in Europe.

The United States of America are on a vertical direction and in the midst of an economic recovering. A special case is that of Russia, which, after having reached the lowest level in what concerns the oil price, began to recover.

France met the first anti-crisis measures in the end of 2008, when the crisis had just begun and thus at present they are facing an economic growth.

Great Britain, one of the most important states and economies in Europe had to face a budgetary deficit of 12% of the GDP, which is really a lot. Germany, another power state in Europe, the economy of which is among the most powerful engines in the world, had a deficit of 5% of the GDP, which meant a lot for Germany but meant few in comparison to other states in the world.

Spain, Portugal, Italy, Bulgaria, Hungary and Latvia are the states which were badly struck by the crisis and which are still fighting to recover from it, they are in the stage in which they started to apply the anti-crisis measures: the reduction of the budgetary expenses, the freezing of the salaries, of the pensions, the restructuring of the public system, the increase of the V.A.T., the creation of new taxes and unemployment which is continuously growing.

The recovering from the economic crisis occurs in a different way in each state and region.

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THE ANALYSIS OF THE POPULATION'S PARTICIPATION AT THE FIELD OF AGRICULTURAL EDUCATIONAL IN ROMANIA AND IN THE OTHER EU COUNTRIES

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Abstract: The increased of the competitiveness in the agriculture sector, on the market of the European economy is driven by the implementation of the investments, both in the physical capital and in the human capital. In this sense, the education can be considered the most important form of the human capital. We believe that, the training and the achievement of new knowledge, skills and competencies of the population which is employed in the agriculture sector, may become important factors of competitiveness for agriculture. The formal education with the non-formal education and the informal education may be a considerable force to increase the competitiveness of agriculture, especially through the dissemination of knowledge and the providing advice.

JEL classification: Q10, I21

Key words: vocational education, apprenticeship education, post-high school education, foremen education, tertiary level education, educational field of agricultural profile

I. The participation of the population in educational field of agricultural profile (the tertiary ISCED levels) in Romania and in EU countries

We make the comparative analysis of the population's participation at educational field of agricultural profile in Romania and EU countries expressed by the number of graduates by the tertiary level (ISCED levels 5 to 6), 1998 year and 2007 year. Also, we analyze the participation of the population at educational field of agricultural profile in comparison with the other field of education expressed by the number of graduates - tertiary level, 2007 year.

a) The participation of the population in the educational field of agricultural profile - the tertiary level

The participation of the population in the educational field of agricultural profile expressed by number of graduates - tertiary level, is lower in 2007 year compared to 1998 year in all EU countries, excepting France (Table no. 1).

Table no 1 The graduates of the tertiary level education (ISCED levels 5 to 6) - educational field of agricultural profile, 1998 year and 2007 year•

as % of all fields

Current number	Countries	1998	2007	Differences
1.	Austria	4.4	2.2	-2.2
2.	Bulgaria	2.1	1.8	-0.3
3.	Czech Republic	5.4	3.9	-1.5
4.	Denmark	2.7	2.2	-0.5
5.	Estonia	4.6	2.1	-2.5
6.	Finland	2.2	2.1	-0.1
7.	France	0.4	1.5	1.1
8.	Germany	2.5	1.8	-0.7
9.	Hungary	3.9	2.6	-1.3
10.	Ireland	1.3	0.7	-0.6
11.	Italy	2	1.8	-0.2
12.	Japan	2.4	2.3	-0.1
13.	Latvia	2.2	0.8	-1.4
14.	Lithuania	2.3	1.7	-0.6
15.	Netherlands	2.4	1.5	-0.9
16.	Norway	1.3	1.1	-0.2
17.	Poland	2.8	1.7	-1.1
18.	Portugal	3.2	1.5	-1.7
19.	Romania	3.6	2.3	-1.3
20.	Slovakia	4.2	3.4	-0.8
21.	Slovenia	2.9	2.4	-0.5
22.	Spain	2.6	1.8	-0.8
23.	Sweden	1.5	1.2	-0.3
24.	United Kingdom	1.4	0.9	-0.5
25.	United States	2	1.1	-0.9

** the data for the school year 2006/2007; graduates data refer to 2007 year.*
Note: own calculations based on the eurostat data
Source: Eurostat, Education statistics, UOE (Unesco Institute for Statistics, OECD and Eurostat) data collection (educ_ilev)

• ISCED levels and fields of education according to the international standard classification of education (ISCED), 1997 year:

- ISCED level 5: first stage of tertiary education (not leading directly to an advanced research qualification), covering programmes of at least two years duration, divided between;
- ISCED level 6**:** **s**econd stage of tertiary education, covering programmes leading to an advanced research qualification (e.g. PhD or Doctorate), which are devoted to advanced study and original research and not based on course-work only.

In Romania, the participation of the population in educational field of agricultural profile, expressed by the graduates at tertiary level, recorded in 1998 year 3.6%, value which is higher compared to that recorded in many EU countries and lower compared with the other countries: Hungary (3.9%), Slovakia (4.2%), Austria (4.4%), Estonia (4.6%), Czech Republic (5.4%).

In our country, there is a reduction of the graduates, on the period 1998-2007, which registers a decrease of 1.3 percentage points, in 2007 compared to 1998.

b) The participation of the population in the educational field of agricultural profile•, compared with other educational fields, 2007 year

The participation of the population in the educational field of agricultural profile expressed by the graduates of tertiary education level (ISCED levels 5 to 6) registers the lowest level compared to the participation of population in other educational fields in the EU countries and in non EU countries (Table no 2).

Table no 2 The tertiary education graduates (ISCED levels 5 to 6), by fields of education, 2007 year*

% in all fields of education

	Education and Training field	Humanities and Art field	Social Science, Business and Law field	Science, Mathematics and Computing field	Engineering, Manufacturing and Construction field	Agriculture and Veterinary field	Health and Welfare field	Services field
EU 27	9.9	12.1	35.1	9.7	12.6	1.7	14.8	4
Belgium	15.4	12.1	30.6	7.6	10.8	2.8	18.7	2.1
Bulgaria	7.2	6.9	51.4	4.1	14.8	1.8	6.2	7.8
Czech Republic	16.2	8.4	30.9	8	16.9	3.9	11	4.6
Denmark	7.9	13.4	31.9	7.3	12.6	2.2	21.7	2.9
Germany	9.4	16.2	24.3	12.3	13.3	1.8	19.1	3.6
Estonia	10.7	10.4	35.8	10.5	10.6	2.1	10.9	8.9
Ireland	6.9	25.3	28.5	15.2	8.5	0.7	12.5	2.4
Greece	7.5	15.6	25.5	9.3	12.2	4.2	15.9	9.8
Spain	12.8	8.8	27.5	9.5	17.1	1.8	14.8	7.7
France	2	10.9	40.9	11.1	15.6	1.5	14	4.1
Italy	5.7	16.8	36.3	6.6	15.3	1.8	14.9	2.7
Cyprus	10.5	7.6	47.7	8.6	3.7	0.2	7.5	14.1
Latvia	13.7	6.2	55.7	4.7	7.1	0.8	5.8	6
Lithuania	14.4	7	42.7	5.8	15	1.7	9.8	3.6
Hungary	17.2	7.6	40.7	6.3	7.4	2.6	9.9	8.2
Malta	10.1	16	47.1	8	7.4	0	10.5	0.9
Netherlands	15.3	8.7	38.1	6.5	7.7	1.5	17.3	4.8
Austria	14.2	8.9	30.3	12	19.7	2.2	9.6	3.1
Poland	16.4	8.6	43	8.1	8.7	1.7	8.2	5.4
Portugal	9.3	8.5	28.3	10.7	16.8	1.5	19.1	5.8
Romania	2.3	11	49.2	5.2	14.5	2.3	12	3.4
Slovenia	8.9	5.9	49.7	4.4	12.6	2.4	7.9	8.2
Slovakia	15	5.1	28.1	8.7	14.7	3.4	18.9	6.1
Finland	6.9	14.7	22.7	8.8	19.9	2.1	19.3	5.5
Sweden	17.1	5.9	24.6	7.2	16.7	1.2	25	2.2

• expressed by the number of graduates - tertiary level

	Education and Training field	Humanities and Art field	Social Science, Business and Law field	Science, Mathematics and Computing field	Engineering, Manufacturing and Construction field	Agriculture and Veterinary field	Health and Welfare field	Services field
United Kingdom	11.2	16.1	30.7	13.3	8.5	0.9	18.5	0.8
Croatia	7.5	8.1	37.7	7	11.7	3.1	9.5	15.6
Yugoslav Republic of Macedonia	20.9	11.3	31.8	6.5	10.5	3.8	10.7	4.4
Turkey	15.8	6.3	40.2	8	13.6	4.3	6	5.8
Island	23.2	10.8	38.5	6.9	6	0.8	12.7	1.1
Liechten stein	0	2.7	65.8	0	31.5	0	0	0
Norway	18	9.8	27.6	7.5	7.4	1.1	24.5	4.1
Switzerland	10.5	7	38	8.5	13.3	2.1	14.2	6.4
United States	11.2	13.1	38	8.7	7	1.1	14.2	6.7
Japan	7.6	15.9	28.4	3.2	18.8	2.3	13.7	10.1

**the data for the school year 2006/2007; the graduates data refer to 2007 year*
Note:
ISCED level 5: first stage of tertiary education (not leading directly to an advanced research qualification), covering programmes of at least two years duration, divided between.
ISCED level 6: second stage of tertiary education, covering programmes leading to an advanced research qualification (e.g. PhD or Doctorate), which are devoted to advanced study and original research and not based on course-work only.
Source: Education in Europe – Key statistics 2007, no 37/2009

In Romania, according to the data from the table above, note that the participation of the population in educational field of agricultural profile – 2007 year, which is expressed by the number of graduates, is the lowest level, respectively 2.3%, compared with the participation of population in other fields of education: 11% Humanities and Art, 49.2% Social Science, Business and Law, 5.2% Science, Mathematics and Computing, 14.5% Engineering, Manufacturing and Construction, 12% Health and Welfare and 3.4% Services.

II. The participation of the population at levels of formal education – agricultural profile in Romania, during 1990 - 2009•

We analyze the participation of the population at the formal education of agricultural profile on educational levels in Romania, as follows:

a) high school;
b) vocational, apprenticeship, post-high school and foremen;
c) tertiary.

a) The participation of the population in the formal education of agricultural profile – high school educational level

At the high school educational level, we analize the participation of the population in the formal education of agricultural profile based on the resulting

• formal education takes place in the National Education System (schools, colleges and universities).

indicators: pupils enrolled per high school, graduates per high school and teachers per high school, which are reflected in Table no 3.

Table no 3 The participation of the population in the formal education – high school educational level

Indicators	1990/1991	2008/2009	Differences	
			Absolute	%
Pupils enrolled per high school - agricultural profile	1024	349	-674.4	-65.9
Graduates per high school - agricultural profile *	164	86	-78.1	-47.6
Teachers per high school - agricultural profile	44	37	-6.2	-14.3

** 2007/2008 year*

Own calculations based on the data from Statistical Yearbook of Romania, time series 1990 - 2008, National Statistics Institute

Source: Romanian Statistical Yearbook series for 1990 - 2009, National Statistics Institute

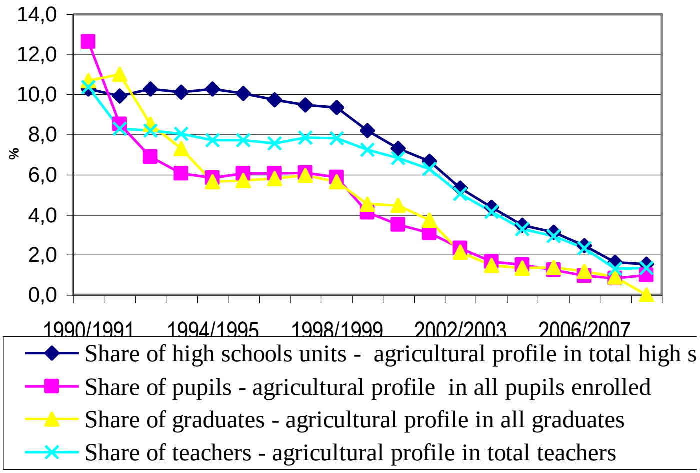
The resulting indicator **pupils enrolled per high school** - agricultural profile, in the reported period, records a 66% reduction trend. This trend occurs because there is a reduction trend of agricultural high schools by 82% and by 94% of the pupils enrolled. As a consequence, there is a trend of reduction by 48% for the indicator **graduates per high school,** in school year 2007/2008 compared to 1990/1991 school year.

Also, the indicator **teachers per high school** records a downward trend on the high schools' and the teachers' reduction background.

We analize, also, the participation of the population in high school educational level – agricultural profile based on the indicators:

- the share of high school units agricultural profile in total high school units;
- the share of enrolled pupils agricultural profile in total enrolled pupils;
- the share of graduates agricultural profile in total graduates;
- the share of teachers agricultural profile in total teachers.

The trends mentioned above are presented in Figure 1



Source: Romanian Statistical Yearbook series for 1990 - 2009, National Statistics Institute
Own calculations based on the statistical data from Statistical Yearbook of Romania, time series 1990 - 2008, National Statistics Institute.

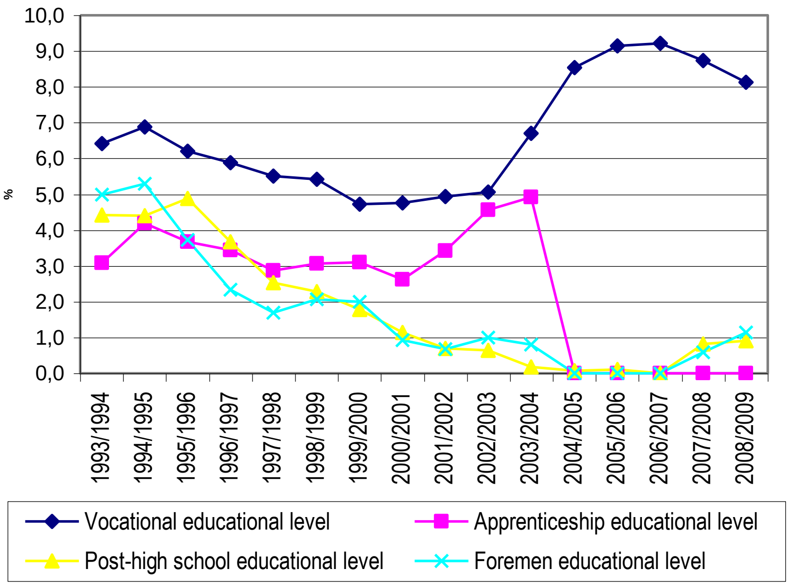
Figure 1 High school educational level – agricultural profile

The trends which are presented in Figure no 1 reflect the following: the share of high school units - agricultural profile in total high schools units registers a trend of reduction on the background of the reduction of high schools and the high schools - agricultural profile; also, the share of pupils enrolled at high school educational level - agricultural profile in total pupils enrolled at high school educational level registers a trend of reduction, during the period under review, due to continuous reduction of the pupils enrolled at high schools and of those enrolled at high school educational level - agricultural profile. As a consequence, the share of high school graduates – agricultural profile in total graduates high school registers a downward trend during the period analyzed.

The aspects mentioned above shows that the high school educational level - agricultural profile is characterized by an involution, because of the reduction of the quantitative factors: the number of high schools units, the number of pupils enrolled and the graduates.

b) The participation of the population in the formal education of agricultural profile – vocational, apprenticeship, post-high school and foremen educational levels

We analyze the participation of the population in the formal education of agricultural profile – vocational, apprenticeship, post-high school and foremen educational level based on the following indicators: the share of pupils enrolled - agricultural profile in all pupils enrolled on these educational levels. These indicators have different variation trends during the period examined (Figure no 2).



Source: Romanian Statistical Yearbook series for 1990 - 2008, National Statistics Institute
Own calculations based on the data from Statistical Yearbook of Romania time series 1990 - 2009, National Statistics Institute

Figure no 2 The pupils enrolled in educational levels (vocational, apprenticeship, post-high school and foremen) – agricultural profile in all pupils enrolled

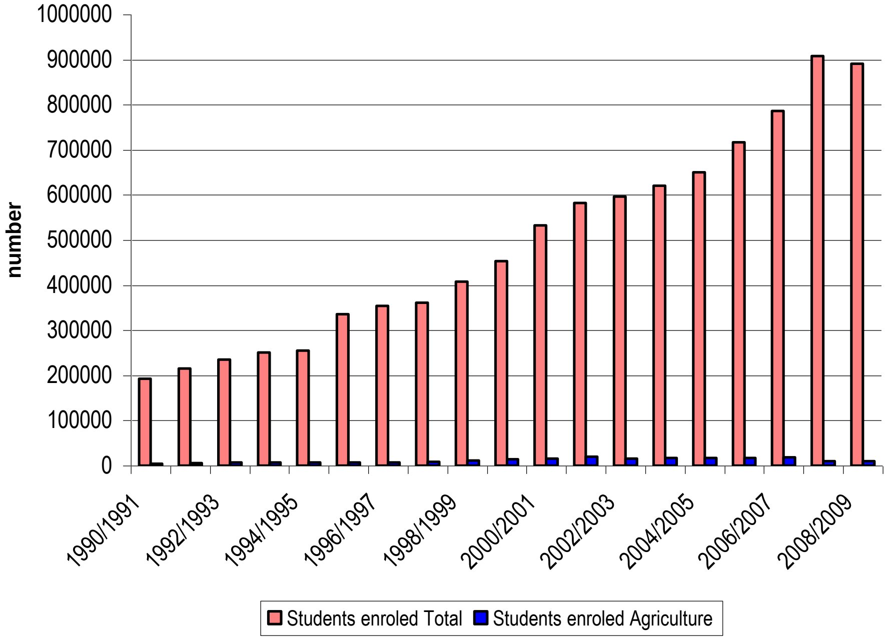
According to the data presented in Figure no 2, we see at the vocational educational level - agricultural profile a different trend of variation compared to that of the high school educational level.

We note a reduction trend registered of the pupils enrolled at the levels of educational apprenticeship, post-high school and foremen – agricultural profile, which has the effect the reducing of the share of the graduates - agricultural profile in all graduates on these educational levels.

The analysis of the above indicators reflects a sensitive participation of the population in vocational educational level and a reduction trend of population's participation at educational levels: apprenticeship, post-high school and foremen, agricultural profile.

c) *The participation of the population in the formal education of agricultural profile - tertiary educational level*

The students enrolled in the tertiary educational level - agricultural profile• record, during 1990/1991 - 2008/2009 period, a trend of weaker growth compared with that of the total. (Figure no 3). Thus, in 2008/2009 year, compared to 1990/1991 year, all students enrolled in the tertiary educational level represent an increase of 362%, while in the agricultural profile, there is a growing with only 97%.



Source: Romanian Statistical Yearbook series for 1990 - 2008, National Statistics Institute
Own calculations based on data from Statistical Yearbook of Romania time series 1990 - 2008, National Statistics Institute

Figure no 3 Tertiary educational level

• without specialized veterinary medicine

At tertiary educational level - agricultural profile, on the base of growing trend of the students enrolled, we observe that there is recorded a maximum of 20.057 in academic year 2001/2002 and a minimum of 4.858 students in the academic year 1990/1991.

In the private university education - agricultural profile, in 2008/2009 year, there is a number of 114 students enrolled, representing a 0.03% share of total students enrolled, and the graduates are in number 10, representing a share 0.02% of total graduates.

Conclusions

The issues examined above indicate that the specialists need - agricultural profile is on a variational trend with reduction tendency. The participation of the population at the education - agricultural profile is low in all educational levels, although the share of employment in agriculture sector has been and remains further at high level.

We believe that, the trend of growth in the number of pupils in vocational educational level and the number of the students may reflect in the dynamic of the economic activities in the rural areas, if this trend is accompanied by participation of population in the training courses in non-formal educational system.

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AGENT BASED MODELING AND SIMULATION IN ECONOMICS

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Abstract: Agent models yield quick and direct results. Their usefulness derives from the possibility to reveal emergent connections between the system's components, experience in regards to the system's knowledge detailed processes and identify possible results outside typical thinking range.

JEL classification: M15, M21

Key words: agent; modeling; simulation

1. Introduction

As the world is becoming ever more complex so too the systems with which to analyze it must constantly improve. Planning and management instruments must grasp its complexity. North – 2007 - believes that in the future all computer simulations will be based on agent-systems, which is logical due to the natural mode in which agent models represent business affairs. Many of the future optimizations models will be based on agents as well as, due to the flexibility of the applied algorithm in agent based optimizations but also to their applicability in solving real-time optimization issues.

Agent based modeling and simulation is a new method of grasping complex business behaviors. Agent modeling accounts for the system's entire behavior. Behavior rules of individual components are defined and then used to create an agent-based model. The model is afterwards executed to reproduce the system's whole behavior. The results consist of a "bottom-up" modeling approach which allows organizations to transform their knowledge of individual conduct to comprehend the system's results on a global level. The agent based model thus predicts these types of connections which link the behavior of individual components to the effects resulting from the system. Organizations which use such a model can determine which combinations of individual actions and influences yield positive results or lead to negative ones.

Lab models can also be used to explore the range of results that use to be expected from the systems but also to simulate potential profits from possible future actions. Agent models yield quick and direct results. Their usefulness derives from the possibility to reveal emergent connections between the system's components, experience in regards to the system's knowledge detailed processes and identify possible results outside typical thinking range. The results of the connections between the system's components will allow users investigate possible interactions and simulate potential interventions. Revealing the links between micro and macro level behavior leads to increases in business results –sales. Extending the view of managerial strategy by revealing the potential of unforeseen results allows businessmen make informed decisions.

2. Application based agent simulation

The development and simulation of agent models is applicable in many areas including the projection of improved systems for businesses and organizations, manufacturing operations, management of supply chains and stock networks, comprehension and interdependencies within institutions, such as assuring and reassuring, predicting consumers' reactions to marketing programs and other consumer market activities, projection of efficient markets, improving the efficiency of financial markets, increasing commercial profits, better managing of energy markets, restructuring electrical energy markets, improving company behavior, pedestrian traffic control and vehicle circulation, designing smart buildings or new community and information protocols for military and system's control.

Thus, on a virtual market for example, agents can represent investors' actions according to their own interests and interaction with other agents within the medium represented by that particular market. This allows the end users to study the implication of different decisions and strategies with the help of the simulation initially based on different states of the market. The results can then be interpreted through statistical analyses, data mining, logical analysis, thus utilizing one of the principal advantages of multi-agent modeling.

3. Modeling and simulation language

Swarm – Minar et al., 1996, *Repast* –Collier et, al., 2006, *JAS* – Sonnessa, 2004, and *Netlogo* – Wilensky 1999 are the most known modeling and simulation languages in the multiagent systems.

Usually a simulation language interacts with multi agent systems in the configuration phase. This means that basically, after the selection of the initial condition of the complex system, the observer becomes a spectator of the simulated evolution. If the estimate of the system's variables doesn't affect the result of the simulation, this leads to a correctly simulated model. In other cases though, alternative methods are necessary to resolve these issues. Such a method, called participative simulation –Resnick et al., 1997 accounts for a means to interact to these systems during simulation. Thus, during a participative simulation, each user can play the role of an individual system and can witness the behavior of the system as a whole. Such virtual mediums promote cooperation, coordination and negotiation between agents controlled by the pre-established behavior models –projected by the next user and due to being human-oriented can follow certain goals. The emergent behavior of the model and it's relations with the human user can render the dynamic of the simulated system more clear.

4. Principals of agent modeling

Agent modeling is based on a repetitive construction process. It begins with an initial description of the behavior of individual components or that of agents and the sustaining data. This description is later converted into a functionality model executable with the supplied data. The resulted model is carried out and the initial results are examined. The definitions of the behaviors are then updated based on the initial results, and the model is re-executed. This constant refining process is then continued until the model reproduces both the behavior and the results of the targeted system. When the types of behavior are analyzed, the resulting model is completed and can be used to respond to different real business questions.

Agent based modeling and simulation is used for a variety of practical purposes in business to increase the expert's comprehension skills of the micro-level behavior and the use it at a macro-level or to extend the applicability area of future possibilities needed to be considered in the decisional process when working with fast-changing circumstances. Few haven't pondered the question what would happen if we knew what would occur if…? Who wouldn't write a list of possible future scenarios to cope with situations? Why does this happen? Even with the most precise models, surprises can come from many directions, including from unforeseen interactions and unexpected changes. In many cases, one of the most important sources of difficulties is the human mind itself.

Agent based models can be built over time, in easy steps. Each development stage ads new capabilities to the model and extends the range of business and questions that can be answered. Its phase structure allows it's usage by the end of each stage encourages constant feedback. This feedback renders the development both dynamic and focused. Thus the model can be rapidly adapted to the ever changing business needs and the gained experience on the developing model of the previous step can be instantly applied for the next model development. Applying knowledge discovered during model development is beneficial to future stages, because agent modeling intentionally implies learning about the system's data that is to be modeled and would amplify its benefits. Even more, because the user regularly receives feedback the managers' development is always assured on the right path to success.

The success of a simulation is thus measured by how close and accurate it mimics the simulation model from the real system. From this perspective, agent based simulation models succeed in reproducing through their structure real systems. Each participant of the real process or system can be represented in the agent model through an agent which simulates its real behavior independent of others. One of the essential characteristics in these simulations is the ease with which it accomplishes its validity. The user can simply express a few ideas by writing lines of code in a natural language and then the simulation can begin. During its progression the user can observe certain predefined interesting variables and can make decision. Recent works have allowed display representation in real time of the results of the simulation in 2 dimensions – RePast, JAS, Netlogo. The improvement of this possibility is currently attempted by representing it in three dimensions – Cacciaguerra et al. 2004. Recently, the latest Netlogo version promotes another form of three dimensional representation –Wilensky , 2005. However, there are limits due to the possibility of emergent complex agent behaviors in any agent simulation. There are two possible causes. The simplicity of the given agent based model is the first. It is doubled by the reductionism of each type of model. Such a limit is able to affect the accuracy of the results because it is common knowledge that the easier the model, the more it shifts from the system represents. In fact, it is very difficult to describe the exact behaviors of the model due to the intrinsic complexity of the interactions between the social participants. Thus in order to allow some degree of freedom, certain random steps are introduced which determine a lesser precise analysis. In these cases, a full description of the agent's behavior isn't possible because of the law of physical indifference of their interaction. Not all interactions can be accounted for, some being evident while others remain hidden and from that position instilling unexpected behavior changes to the agents within those obscure interactions.

A second reason is linked to limited computing power. Regular software can't handle large quantities of data in a short period of time due to their processing methods –sequential not parallel. In this case, when forced with a typical problem of physical simulation, the lack of time can't resolved in the short duration of the simulation, thus rendering complex model experiments impossible. Furthermore, the analysis of physical systems is easier than that of social ones due to rigid restrictions and the obligation to prove statements that are behind them. Thus it is fairly difficult to implement agent models able to generate new and emergent behaviors. Still, by reducing the imperativeness of the statistical precision of model results, efficiently described difficulties, at least in part, can be overcome. For this it is very imperative that agent based models to be able to interact between them fast and on time in the virtual medium.

5. Conclusions

Modeling and simulation, done properly, provides a way for the analyst to discover the world and create new knowledge may be of practical importance to the efficient functioning and survival of a business. Each agent individually assesses its situation and makes decisions based on a set of rules. They may perform various activities related to systems that are, for example to produce, consume or sell.

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ASPECTS REGARDING THE PLACE AND ROLE OF THE EMPLOYEES ON THE LABOUR MARKET IN ROMANIA FOR THE LAST TWO DECADES

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Abstract: The employees represent a very important segment of the labor market and its dynamics depends on the development level of a country. In order to highlight the place and role of the employees on the Romanian labor market our paper starts with the analysis of the employment structure by professional status, in the last two decades (1990-2009), continues with highlighting the existing differences between Romania and the member states of the European Union and ends by analyzing the relationship between salary-earning work and the development level of a country. By means of this paper we want to draw the attention on the atypical character of the changes in the employment structure in Romania by professional status, manifested through the extremely high share of the self-employed as well as of the contributing family worker, to the detriment of the employees.

JEL classification: E24, J21

Key words: labor market, professional status, employees, self-employment, economic development

1. Introduction

The assessment of the processes and tendencies that appear on the labor market can be achieved taking into consideration a series of structural elements such as: sectors and fields of activity; professional status; way of property; time worked, etc.

Professional status **in employment**- the situation of an employed person, depending on the way of achieving income from his activity [5], represents a criterion depending on which the performance of using labor resources and the level of security of the income earned by working are assessed. According to the national statistics there are the following categories of employed people by professional status: employee, employer, self-employed, contributing family worker, member of an agricultural holding or of a non-agricultural co-operative.

The dimensions of these categories can characterize the dynamics of the labor market as well as the dynamics of the socio-economic development at a regional and national level.

The employees constitute a very important segment of the labor market, a segment where the supply is really confronted with the demand for salary-earning jobs. The tendencies registered in this market segment, regarding the number and structure of employees, by sex distribution, residence environments or sectors and types of economic activity, as well as by salaries are major guides which can explain some tendencies in other social spheres of interest, such as the evolution of the income levels and structures, the demand, the access to certain social services, etc, and finally they can explain the level of economic development of a country.

The employee status pertains to the big industrial and services productions, with special protection and rights, but having also obligations [3]. The other categories imply a high risk and insecurity level, being characteristic to the agricultural sector and the small entrepreneur. Therefore, any movement of employment from the agricultural sector to the one of industry and services entails an increase of the population with an employee status, with small risks and high social protection, but also with a corresponding decrease of the other categories.

2. Objectives and Methodology

In order to highlight the place and role of the employees on the Romanian labor market we aim to analyze the structure of the employed population by professional status in the last two decades, to pinpoint the existing differences between Romania and the other EU member states as far as salary-earning work expansion is concerned. Furthermore, we want to highlight the necessity of increasing the share of employees out of the total employment in Romania, because from the income security and social protection point of view, the employee status on the labor market is by far superior compared to the other categories (self-employed, family worker, etc), and an expansion rate of salary-earning work is specific to a high level of economic development.

In order to reach the objectives set the methodology used was, mainly, the statistical one (*descriptive methods*) this being used for the statistical data processing and manufacturing, data offered by National Institute of Statistics and Eurostat on the structure of the employed population by professional status.

In order to study the intensity of the relationship between employment by status (expressed by indicators – the share of employees out of the employment total and the share of self-employed out of the total employment) and the economic development level (expressed by GDP per capita) for the member states of the European Union, in 2009, and for Romania between 1990 and 2009, we have applied *the correlation coefficient of Pearson*. In statistics, the value of the correlation coefficient varies between +1 and -1. When the value of the correlation coefficient lies around ± 1, then it is said to be a perfect degree of association between the two variables. As the value goes towards 0, the relationship between the two variables will be weaker. The plus sign shows a direct relation (as the independent variable increases also the dependent variable increases) and the minus sign indicates an inverse relationship [2]. In order to highlight the causality connection between employees and self-employment, on the one hand, and economic development, on the other hand, we have used the *linear regression analysis.*

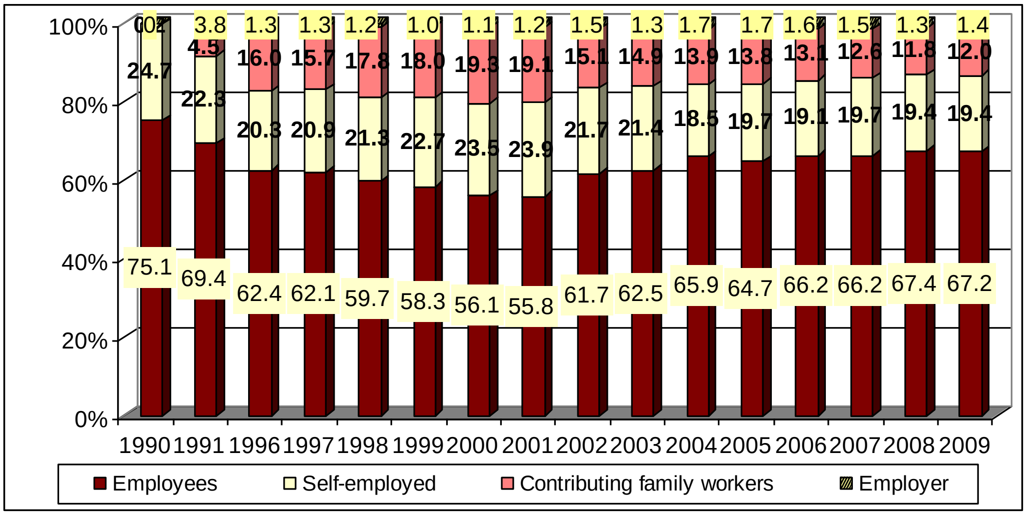
3. Analyses

The changes emerged in **the structure of the employed population** according to professional status are significant for the period when, in Romania, profound politic, social and economic transformations happened.

Form the analysis of the data in figure no.1, it results that, for the period between 1990 and 2009, the following significant changes happened:

- The continuous decrease of the share of **employees** out of total employed population between 1990 and 2001 by 19.3 percentage points (p.p), at the same time with the reduction of the number of employees from 8156 thousand people to 5825,5 thousand people, meaning by 28.4% [5]. In the period of economic growth 2002 – 2008 both the share of employees out of total employed population and the number of employees had an ascending trend, but the annual rhythm of growth was insufficient to recuperate the loss suffered in the first decade of transition. Based on the reduction of the industrial activities affected by the economic crisis, 2009 came for Romania with a new reduction at the level of the employees, thus only two thirds of the employed population were employees (67.2%), and a third was made up of those whose status was of self-employed, contributing family worker, employers. The reduction of the foreign markets because of the economic crisis in the main partner countries of Romania (Italy, France, Germany, etc.), the reduction of the loans given by commercial banks to economic agents, as a result of the prudent norms imposed by the National Bank, the diminution of the construction activity, which led to decreases of production in the related industrial activities and many other causes determined the reduction of industrial production and therefore also the reduction of the number of employees.

- The emergence on the labor market, after 1990, of some new socio-professional categories, such as: employer, self-employed, contributing family worker.
- The reduction of the share of **employers** out of the total employed population by 2.4 p.p., form 3.8% in 1991 to 1.4% in 2009. In the Report [4], it is shown that the entrepreneurship hope was tempered during the 20 years period. Approximately 1% of the population is defined nowadays as “employer”, but only few of them are “businessmen” with high incomes. Most of them have “self-earned” incomes, reduced and insecure, often joining the poor people category, as a result of the economic shocks.



Source: Own calculations based on data from ILO, Eurostat

Figure no. 1. Employment structure, by professional status in Romania, between 1990 and 2009 (%)

- The share of **self-employed**, including member of an agricultural holding or of a non-agricultural co-operative was maintained in the 18.68% - 24.7% value interval.

The data in annex no.1 show that Romania ranks as second when it comes to self-employed, after Greece, country where 21.5% of the employed population has this status. Among the five countries we also find Portugal (17.4%), Italy (16.7%) and Poland (14.7%).

Self-employment is in the literature related also to the notion of entrepreneurship and in such cases it may be considered as a very positive and innovative type of economic activity [1]. But the self-employed status can be seen as the only solution for survival, as a consequence of the situation that no other form of employment is attainable. Many of those eliminated from the salary system or who did not have from the very beginning employment opportunities became “un-employed” people or employed at the limit of the formal labor market, exposed to fluctuating and small incomes [4].

In order to interpret positively the high value of self-employment, in Romania, we have to take into account if this type of employment is in the agricultural or non-agricultural sector. The economic theory and practice proves that the share of employment obviously depends strongly on the level of development of the economy, as it is much higher in the agricultural sector. The higher value in Romania, as compared to the EU countries, can be explained by the fact that the most own-account activities are in agriculture, this activity having a higher contribution to the GDP compared to other countries. We mention in this context the fact that Romania is the EU country which ranks first as far as agriculture is concerned, when it comes to the aspect of the employed population in this sector (27.8% in Romania as compared to the 5.6% EU average) as well as when it comes to the aspect of contribution to the GVA (7% in Romania compared to the 1.7% EU average).

In countries like Greece, Portugal, Italy where the self-employed has a high value, self-employment emerges first of all in the services domain, followed by industry and agriculture (the share in agriculture decreased once with the economy’s development). Studies show that the development level and the structure of the national economy represent explanatory forces, significant from a statistical point of view, for the level and structure of the self-employed in each country [7].

From the statistical analysis based on the data regarding the share of self-employment out of the employment total and GDP per capita at the level of the 27 member states of the European Union it is noticed that in 2009, between the two variables there is an inverse relationship, but of a low intensity. This situation is statistically highlighted by the reduced level of the correlation Pearson calculated coefficient (-0.257), fact which confirms the fact that in the countries where the GDP/capita is high, self-employment is lower.

- The share of the **contributing family workers** out of total employed population, increased from 0.2% to 19.3% in the first decade of transition to the market economy (1990-2000), only to have a descending evolution in the following period, reaching the value of 11.8%. The evolution of the contributing family workers number is worrying, which for two “restless” decades registered increases from 21.7 thousand people to 1109.22 thousand people.

Romania is the first country in EU when it comes to the share of contributing family workers (12%) being followed at a considerable distance by Greece (5.8%) and Poland (4%). Compared to the average value recorded at the EU level (1.6%), the contributing family worker in 2009 Romania has a share of 7.5 times higher (see annex no.1).

This explains to some extent why the poverty rate is higher than in the EU. The high share of unpaid workers and of those who are self-employed, to the detriment of salary-earning work, determines in Romania the existence of the higher work poverty rate in EU, 17% respectively (compared to the 8% EU average), followed by Greece (14%), Poland and Portugal (both having 12%), according to the data offered by Eurostat. According to the study [6], in Romania, the poverty rate estimated for the self-employed is ten times higher than the one estimated for the salary-earning employees (40.8% compared to 3.9%). The self-employed represent more than a quarter of the poor population (29.6%), most of them being farmers (21.6%), category that is confronted with the highest poverty risk.

From the security and social protection point of view, considering that the share of employees out of the total employment number was diminished and that the share of unpaid workers increased, we can state that the labor market in Romania recorded a regress regarding the level and security of incomes earned by working.

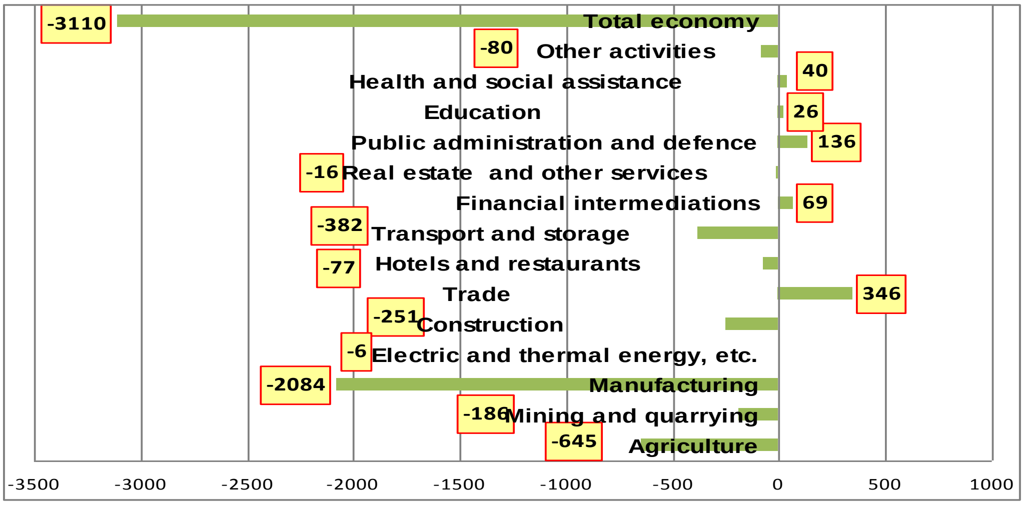
The analysis of the evolution of the employees in Romania by activity of national economy, between 1990 and 2008

In Romania one of the biggest employment problems, and not only, is the reduction of the number of employees as well as their share in the employed population. Although in the developed countries, with a functional market economy, the tendency is one of expansion of the salary-earning work, in our country there is an atypical situation having extremely dangerous socio-economic effects. Between 1990 and 2008, the reduction of the number of employees at the level of the entire economy happened because of the changes in the total of employees, in the different fields of activity. Thus, from the analysis of the data in figure no. 2, it results that for the analyzed period, **in *agriculture***, the number of employees diminished annually, having an annual average rhythm of -32.3 thousand people, reaching in 2008 the number of 117 thousand people, by 645 thousand people less than in 1990. Things went so far that in 2008, in agriculture, there were only 15.4% out of the number of employees existing in 1990. Far worse is the fact that only 4.8% of the employed population in agriculture is represented by employees, the rest entering the occupational categories, with small and insecure incomes, at the subsistence limit.

The cost of privatization of the big state-owned enterprises implied, among others, also the fact that a lot of employees were made redundant. Thus, the biggest employees reduction is recorded in ***industry*** (-2276 thousand people), where there was a decrease in 2008, as compared to 1990, by 59.2%. The manufacturing industry proves to be the greatest looser of salary-earning jobs, i.e. 2080 thousand jobs [5].

The changes that took place in employment in industry were caused by a multitude of factors that acted differently from one period to the other. The main diminishing factor of the number of employees was the drastic reduction of the industrial production as compared to 1989[21], the profile and technique nature of production contributing to a certain extent to this. Therefore, in the economic activities based on highly labor intensive technologies, the reduction of the production volume had as a consequence the higher decrease of the staff number.

[21] Industrial production was reduced during the first years of transition having a very high annual rhythm, as follows: in 1990, as compared to 1989, it was reduced by 23.7%, in 1991, as compared to 1990, by 22.8%, and in 1992 by 21.9% as compared to the previous year.



Source: Own calculations based on data contained in the Statistical Yearbook of Romania, NIS, 2009

Figure no.2 The evolution of the average number of employees by activity of national economy, between 1990-2008 (thousand people)

Together with the industry, also the **construction** activity is confronted with a reduction of the number of employees between 1990 and 2008, by 35.7% respectively. It is worth highlighting that starting with 2002, in the context of the "estate boom" which appeared in Romania, this activity managed to create jobs, salary-earning ones, recording 130 thousand more employees in 2008 as compared to 2002.

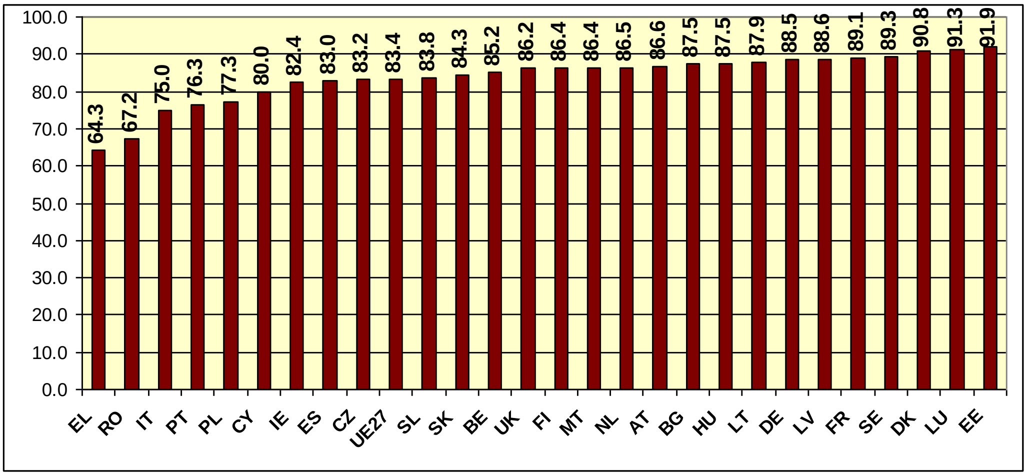
As compared to the primary and secondary sector, the ***services sector*** records an employee increase by 62 thousand people. Although, broadly in the services sphere there is a positive balance of jobs, in 2008 as compared to 1990, there are certain activities in this sector where additional jobs occupied by employees are created (+617 thousands) and others where job losses are recorded (-555 thousands).

Therefore, the major decreases of employees in the primary and secondary sector were balanced off, only to a certain extent by the increases of employees in activities in the tertiary sector.

Thus, in 2008, as compared to 1990, the most salary-earning jobs emerged in the activities of: trade (+346 thousands, an increase of 68.1% respectively); public administration and defense (+136 thousands, an increase of 170% respectively), financial intermediations (+69 thousands, an increase of 181.6% respectively), etc. Significant employee reductions in the tertiary sector are to be found in the following activities: transport, storage and communications (-382 thousands, a decrease of 52.8 % respectively), hotels and restaurants (-77 thousands, a decrease of 39.5 % respectively), etc., according to figure no.2.

Against the background of losing an impressive number of salary-earning jobs and the decrease of the share of employees out of the employed population, in 2009, Romania ranks on the last but one place as far as salary-earning work is concerned, there being only 67.2% employees out of the total employed population, the rest of 32.8% being represented by the other occupational categories.

The comparative evaluation of the salary-earning work in Romania with that in the member states highlights a strong difference, from the developed countries as well as from the counties which stepped at the same time with Romania on the long path of transition from the centralized economy to the market economy, according to the data in figure no.3. Thus, in Romania the share of employees out of the total employed population, in 2009, is by 16.4 (p.p.) lower than the average registered in the European Union (83.4%) and by 24.4% p.p. lower than the maximum value registered in a EU country (Luxemburg – 91.3%).



Source: Own calculations based on data from Eurostat

Figure no.3. The share of employees out of total employment (%), in EU, 2009

The only country in EU which records a smaller value than the one registered in Romania is Greece (64.3%). The reduced share of employees in Greece is explained by the existence of a higher share of employers (8.4%) as compared to Romania where the employers represent only 1.4% of the employed population. On the other hand, as compared to Romania, Greece has a more reduced share of family workers (5.8%), thing which positively affects the level and security of these people's incomes.

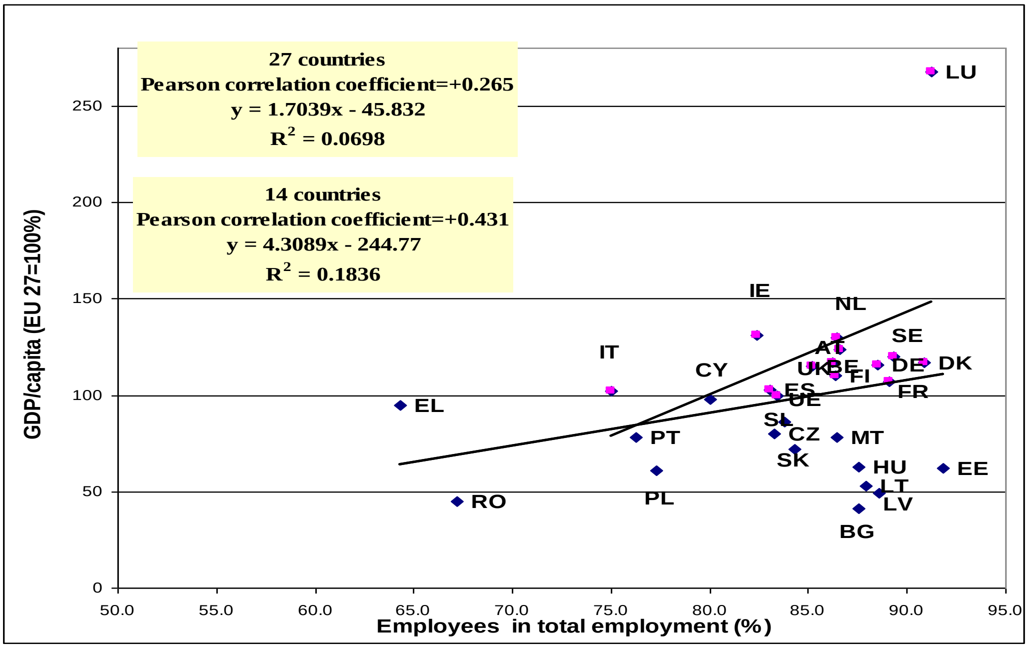
The correlation between salary-earning work and economic development

The analysis of the data in annex no.1 and figure no.4 highlights that in the countries where the GDP per capita is over the EU average there is a high or very high employment expansion rate. In these countries most of the employed population benefits at least theoretically of a status with lower risks and a higher social protection (these being possible if we also take into consideration the material support – a high GDP/capita level), as compared with the self-employed and family worker.

The economic theory states that between the GDP per capita and the employees' contribution to the GDP's formation (the share of employees out of the total employment) is set by a rule of direct relationship [3]. From the statistical analysis based on the data on GDP/capita and the share of employees out of the employed population in the member states of EU, in 2009, one can notice that between the two indicators there is a direct relationship, but very weak and statistically insignificant (the Pearson correlation coefficient calculated for 27 countries = +0.265).

However, if we analyze the relationship between the 14 EU countries that have a GDP/capita level over the EU-27 average (100%) then we notice a stronger direct relationship (Pearson correlation coefficient=+0,431), fact which highlights that in these developed countries a bigger part of the population has a job with a higher social protection. Moreover, the higher value of the coefficient of determination (R^2)

calculated only for the 14 developed countries compared to the one calculated for the 27 countries ($R^2_{14countries}$>$R^2_{27countries}$) reflects the existence of a stronger direct relationship between the countries with a higher development level and the expansion rate of the salary-earning work.

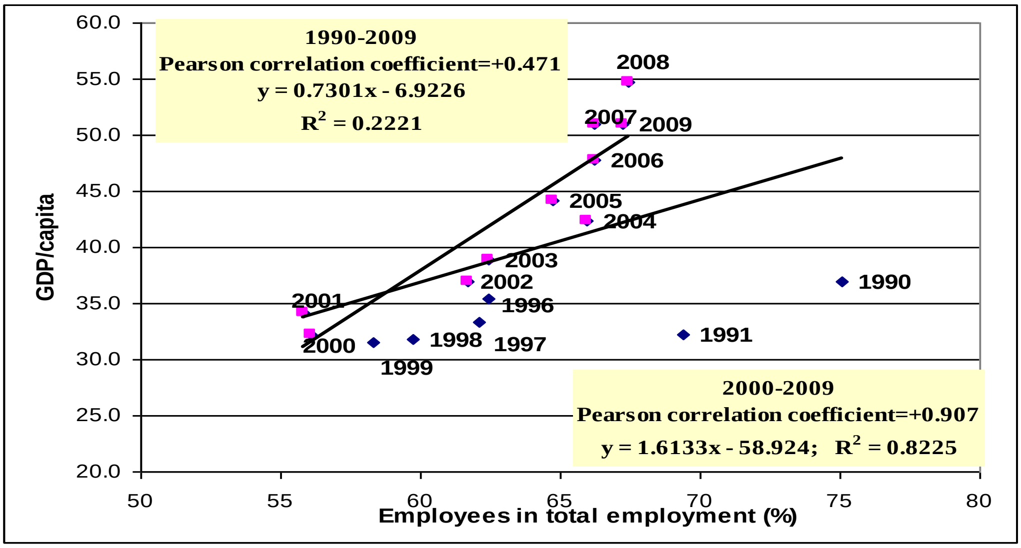


Source: Own calculations based on data in Annex 1

Figure no. 4 Correlation between the share of employees out of total employment and GDP/capita, in UE 2009

In Romania, between 1990 and 2009, between the share of employees out of the employment total and GDP per capita, there is a direct correlation, of medium intensity, confirming, also at the level of our country, the direct relationship between the level of development and the level of salary-earning work (Person correlation calculated coefficient =+0,471).

It is worth mentioning that in the last decade (2000-2009), when both the real GDP/capita and the expansion rate of the salary-earning work increased considerably (by approximately 60% GDP/capita and the shares of employees by 11 p.p.), one can identify much stronger relationship between the two economic variables (Person correlation calculated coefficient = +0,907), according to the data in figure 1. Also in the last decade one can notice that the level of economic development, meaning GDP/capita, was influenced by the expansion rate of salary-earning work in a proportion of 82.25%, fact highlighted by the high value of the coefficient of determination (R^2=82,25%, which means that 82,25% of the total variation in *y* can be explained by the linear relationship between x, see figure no.5).



Source: Own calculations based on data in Annex 1 and figure no.1

Figure no. 5 Correlation between the share of employees and total employment and GDP/capita, in Romania, 1990-2009

4. Conclusions

As far as the structure of the employed population by professional status is concerned, Romania registers a particular situation among the EU member states, with an extremely powerful economic and social impact, characterized by numerous asymmetries, first of all due to the extremely high share of self-employed as well as contributing family worker and implicitly to the reduced share of employees.

From the economic-statistical analysis carried out based on the real data registered in Romania, concerning the correlation between salary-earning work and economic development, it is noticed that the economic theory is confirmed, according to which the development level and the structure of the national economy represent explanatory forces for the level and structure of salary-earning work, there being a direct relationship between GDP per capita and the share of employees out of the total employment.

We consider that the consequences of the decrease in the number of employees and the increase of the other category of employed people in Romania are to be found on the level, structure and security of the income, on the capacity of saving, investing respectively, on the system of social insurance and education, on forming budgetary incomes, in other words on economic development.

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Annex no.1

Countries	Employees	Employer	Self-employed	Family-worker	GDP/ capita	GDP/ capita (Romania)[1]
UE-27	83.4	4.5	10.4	1.6	**100**	37.0 (1990)
BE	85.2	4.5	9.1	1.3	115	32.23 (1991)
BG	87.5	3.5	8.0	1.0	41	35.41(1996)
CZ	83.2	3.7	12.4	0.6	80	33.34 (1997)
DK	90.8	3.8	4.9	0.4	117	31.83 (1998)
DE	88.5	4.8	6.1	0.6	116	31.52 (1999)
EE	91.9	3.7	4.2	0.2	62	32.24 (2000)
IE	82.4	5.6	11.2	0.8	131	34.14 (2001)
EL	64.3	8.4	21.5	5.8	95	36.88 (2002)
ES	83.0	5.7	10.3	0.9	103	38.93 (2003)
FR	89.1	4.4	5.9	0.6	107	42.35 (2004)
IT	75.0	6.7	16.7	1.6	102	44.21 (2005)
CY	80.0	5.3	12.4	2.3	98	47.78 (2006)
LV	88.6	3.7	6.2	1.4	49	50.90 (2007)
LT	87.9	2.5	7.9	1.7	53	54.73(2008)
LU	91.3	2.8	5.2	0.6	268	51.0 (2009)
HU	87.5	5.3	6.7	0.4	63	
MT	86.4	4.3	9.2	0.1	78	
NL	86.5	3.8	9.3	0.5	130	
AT	86.6	4.7	6.5	2.2	124	
PL	77.3	4.1	14.7	4.0	61	
PT	76.3	5.4	17.4	0.9	78	
RO	67.2	1.4	19.4	12.0	45	
SL	83.8	3.4	7.4	5.5	86	
SK	84.3	3.4	12.1	0.1	72	

FI	86.4	4.1	9.0	0.5	110
SE	89.3	3.8	6.7	0.2	120
UK	86.2	2.8	10.5	0.3	117

Source: Own calculations based on data from Eurostat; [1] *expressed in thousands lei constant prices (1990)/capita, calculated based on data from the Romanian Statistical Yearbook, 1990-2008 time series, National Institute of Statistics, 2009*

INTEGRATION OF THE SELECTED SEE EQUITY MARKETS: COINTEGRATION APPROACH

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Abstract: The purpose of this paper is to examine the integration of selected Central and Eastern European equity markets for the period of January 2nd, 2005 to December 30th 2008. The cointegration tests according the Johansen methodology suggest: (1) existence of multilateral integration between selected SEE equity markets, and (2) existence of multilateral integration between the group of selected SEE equity markets and the leading European equity index (FTSE).

Error Correction Model is developed to deals with the long-run equilibrium relationships, while providing the possibility of short run divergence. The model allows finding the lead-lag relationships between market indices, or how the turning points in one series precede turning points in the other.

These findings have important applications for investors. Integration of the markets implies that there are fewer opportunities to diversify portfolios within the examined markets. The investors should focus more on diversifying across sectors or across regions.

JEL classification: C32, G15.

Key words: cointegration; error correction model; equity markets; SEE

1. Introduction

In regional and international investment activities, portfolio managers and investors are in continuous search of models that represent the connection and causality between equity markets. These models provide a better approximation of the equity markets co-movements and enable better evaluation of securities. In addition, international portfolio diversification is an excellent opportunity to minimize risk.

Cointegration refers not to co-movement in returns, but to co-movements in equity prices. If spreads are mean-reverting, equity prices are tied together in the long term by a common stochastic trend, and then the prices are cointegrated. Cointegration methodology developed by Engle and Granger (1987) and Johansen (1988) is the most popular approach for investigating common trends in multivariate time series, and provides a sound methodology for modeling both long-run and short-run dynamics in a system.

Cointegration is a two-step process: first any long equilibrium relationships between prices are established, and then a dynamic correlation model of returns is estimated. The error correction models (ECM), so called because short-term deviations from equilibrium are corrected, reveals the Granger causalities that must be presented in a cointegrated system. Thus cointegration may be a sign of market inefficiency (Alexander, 2002).

This paper contributes to the existing literature in the way that there is no other study investigating the financial integration between Macedonian equity market and the other SEE equity markets.

The remainder of the paper is structured as follows. Section 2 provides a brief literature review, focusing on financial integration. The methodology and the data are examined in the Section 3. Empirical results are presented in Section 4, while Section 5 concludes with a summary of the main findings and implications.

2. Literature review

There are various studies that provide evidence of the international equity markets cointegration. But, most of them point out that the arbitrage opportunities are limited.22 However, in the lead-lag relationships, the studies show that U.S. equity markets have leadership on the international capital markets.

King and Wadhwani (1990) and Koch and Koch (1993) using the VAR model found that there is a growing regional interdependence of the equity markets. Dickinson (2000) using the cointegration methodology shows that there is a long-term relationship between equity markets. Korajczuk (1995) found that the degree of integration between the developed markets is higher than the emerging markets.

Voronkova (2004), and Gilmore, Lucey and McManus (2005) investigated the causality between German equity market on the one side and the Polish, Czech and Hungarian equity markets on the other side. Both studies come to the conclusion that the process of integration of the CEE countries leading to greater integration of their equity markets with those of European Union.

Many studies such as Fama and French (1989), Ferson and Harvey (1991) and Jagannathan and Wang (1996) stressed that the degree of the national equity market integration depends on the extent of real and financial sector convergence with other economies. In addition, Erb, Campbell and Viskanta (1994), and Ragunathan, Faff and Brooks (1999) show that the equity markets integration tend to be highest in the periods when countries are in recession.

There are several studies that examine the degree of integration between equity markets from SEE countries and equity markets from the European Union or the United States. Dadić and Čenić (2006) explore bilateral and multilateral integration between equity markets from selected SEE countries and the German equity market. Their results indicate that there is a multirateral integration not only among equity markets of the observed SEE countries, but, there is an evidence of multirateral equity market integration between the entire group of observed CEE equity markets and German equity market. Erjavec and Cota (2007) analyzed the impact of the European (DAX30 and FTSE100) and U.S. indices (DJIA and NASDAQ) on the main Croatian equity market index (Crobex). They found that U.S. indices have a stronger influence on the Croatian index than European ones.

3. Research sample

[22] The studies are: Karfakis and Moshos (1990), Kasa (1992), Smith, Brocato and Rogers (1993), Corhay, Tourani and Urbain (1993), Clare, Maras and Thomas (1995) and Masih (1997).

The paper aims to investigate the interdependence between the selected developing equity markets from South Eastern Europe (SEE). The selected markets are: Slovenian, Croatian, Serbian, Macedonian and Bulgarian. Also, the UK market is included in the analysis, as one of the leading European equity market. These markets are presented by their main indices: SBI20, CROBEX, BELEXline, MBI10, SOFIX and FTSE, respectively.

The data were obtained from the recorded weekly closing prices of the selected indices, for the period January 2nd, 2005 to December 30th 2008.

4. Research and methodology

The examination of the interdependence of the equity markets demands the application of Johansen methodology. It employs a power function with better properties than the Engle-Granger method (Kremers, Ericcson and Dolado, 1992), and has less bias when the number of variables is greater than two (Johansen and Juselius, 1990). The following stages are employed:

A. Application of the Augmented Dickey-Fuller test and Phillip-Peron test to test the stationarity of the data. It is noted that a variable is considered stationary when the mean, as well as the variance of the series remains stable during time. The above tests reveal whether a unit root is present and thus, the time series in non-stationary.
B. The second stage is cointegration analysis to test the presence of long-run equilibrium relationships in following cases:
   - between the selected equity markets from the CEE region;
   - between the Macedonian equity market and UK equity market; and
   - between the selected equity markets from the CEE region and UK equity market.

Cointegration measures long-run co-movements in prices, which may occur even through periods when static correlations appear low. Cointegration tests allow to determine whether stock prices or indices of different national markets move together over long run, while providing for the possibility of short-run divergence.

C. Existence of the cointegration allows implementation of the error correction model (ECM). In the third stage, the ECM is build. The ECM is a dynamic model for first differences of the $I(1)$ variables that were used in the cointegrating regression. Thus, if log prices are cointegrated and the cointegration vector is based on these, the ECM is a dynamic model of correlation in returns (Alexander, 2002).
D. The last stage of the analysis is examination of causality by performing pair wise Granger Causality tests at all pairs of the equity indices included in the sample. This test is used to determine whether time series X affects time series Y. More specifically, it is suggested that X Granger-causes Y, not in the sense that if we make a structural change to one series the other will change too, but in the sense that turning points in one series precede turning points in the other.

5. Empirical results

The investigation of cointegration is based on the methodology of Johansen. The aim is to determine whether a group of nonstationary series is cointegrated or not.

Therefore, the first step is to test each series for the presence of unit root, which will show whether the series are nonstationary.

Table no. 1 presents t-values and p-values of two stationarity tests, Augmented Dickey-Fuller test and Phillips-Peron test. It can be seen that for the two specifications of each test, with trend and without trend, the p-values (shown in parentheses) are larger than the 5% level of significance. This means that the null hypothesis is accepted for the time series of each equity index, individually. The null hypothesis states that a series of weekly log values of the index has a unit root (the series is nonstationary).

Table no. 1: Tests of stationarity applied on weekly log values of the equity indices

Equity index	Augmented Dickey-Fuller test		Philips-Peron test	
	t-value (only intercept)	t- value (with intercept and trend)	t-value (only intercept)	t-value (with intercept and trend)
S&P500	-0.632	0.153	-0.752	0.530
FTSE	-1.314	-0.541	-1.323	0.052
SBI20	-0.904	2.089	-0.903	1.008
CROBEX	-1.320	1.372	-1.572	1.553
BELEXline	-1.284	0.759	-1.603	1.569
SOFIX	-0.593	3.474	-0.875	2.425
MBI10	-2.755	0.906	-2.406	0.141

Nonstationarity is a prior condition for cointegration. In addition, all observed series should be integrated of the same order. Therefore, the Table no. 2 presents the two stationarity tests (Augmented Dickey-Fuller test and Phillips-Peron test) applied to first order differences of equity indices weekly log values. For the two specifications of each test, with trend and without trend, the p-values (shown in parentheses) are lower than the 1% level of significance. This means that the null hypothesis is rejected for the time series of each equity index, individually. The first order differences of the weekly log values of each equity index are stationary.

Because the stationarity tests provide evidence that all equity indices are I (1) process, the cointegration tests according the methodology of Johansen can be implemented. The ultimate goal of cointegration is to determine the presence of common stochastic trends in the data and to use these trends for dynamic analysis of the correlation of returns.

In the first case the cointegration between selected CEE indices (MBI10, SOFIX, BELEXline, CROBEX and SBI20) is examined. The results of Johansen tests are shown in Table no. 3. According to p-values, the null hypothesis is rejected for all $r \leq 1$ with a significance level of 5%. But, the null hypothesis that $r \leq 2$ can't be rejected (the corresponding p-value equals 0.6984). Therefore the conclusion is that there are 2 cointegration vectors in the system. This result is evidence of cointegration between Ljubljana, Zagreb, Belgrade, Skopje and Sofia equity market.

Table no. 2: Tests of stationarity applied on first order differences of equity indices weekly log values

Equity index	Augmented Dickey-Fuller test		Philips-Peron test	
	t-value (only intercept)	t-value (with intercept and trend)	t-value (only intercept)	t-value (with intercept and trend)
S&P500	-8.114	-8.349	-14.351	-14.596
FTSE	-8.228	-15.101	-14.776	-15.128
SBI20	-5.001	-5.207	-13.833	-14.030
CROBEX	-7.217	-7.703	-14.480	-14.976
BELEXline	-4.094	-4.756	-10.512	-11.470
SOFIX	-4.753	-5.288	-11.871	-12.379
MBI10	-7.399	-8.103	-13.202	-13.579

Table no. 3: Tests of cointegration between SBI20, CROBEX, BELEXline, MBI10 and SOFIX

Number of cointegration vectors	Eigen value	Test statistics (Tr)	5% critical value	*p*-value
0	0.192025	91.96650	69.81889	0.0003
At most 1	0.155869	49.74816	47.85613	0.0328
At most 2	0.052535	16.19751	29.79707	0.6984
At most 3	0.027296	5.512432	15.49471	0.7522
At most 4	0.000165	0.032599	3.841466	0.8567

Note: The test use critical values of MacKinnon, Haug and Michellis (1999).[23]

The result that observed CEE indices are cointegrated implies that there are two linear combinations of the five equity indices which force them to have a long-term equilibrium relationship, although in short them they could recede with each other. Also, the result implies that the indices returns are correlated in the long term. Therefore the conclusion for the investors would be that in the long run it is not important does the diversification is done by the portfolio which is consist of all five equity indices or by the portfolio of only one index. However, in the short term these two portfolios differ significantly. The portfolio which is composed by all five equity indices has greater potential for higher returns.

Second case of interest is cointegration between MBI10 and one of the main European equity indices - FTSE. Table no. 4 shows that the null hypothesis is rejected for $r \leq 0$ at the 5% level of significance. The null hypothesis is accepted for $r \leq 1$ (corresponding p-value equals 0.1033). Therefore, the conclusion is that there is only one cointegration vector. This means that MBI10 and FTSE are cointegrated. Long-term movement of the MBI10 is determined by the FTSE. However, it must be said that

[23] Cointegration testing is done in EViews. EViews use the critical values of MacKinnon, Haug and Michellis (1999), which differs from those of Johansen and Juselius (1990).

cointegration between these two indices is weaker than the previously observed among the group of CEE equity indices.

Table 4: Tests of cointegration between MBI10 and FTSE

Number of cointegration vectors	Eigen value	Test statistics (Tr)	5% critical value	*p*-value
0	0.078597	18.86152	15.49471	0.0149
At most 1	0.013313	2.653685	3.841466	0.1033

The third case examines the cointegration between selected CEE indices (MBI10, SOFIX, BELEXline, CROBEX and SBI20) and FTSE index. The results are presented in the Table 5. The null hypothesis of r ≤ 2 can't be rejected (the corresponding p-value equals 0.3982). It means that there are two cointegration vectors between the observed groups of equity indices.

Table 5: Tests of cointegration between SBI20, CROBEX, BELEXline, MBI10, SOFIX and FTSE

Number of cointegration vectors	Eigen value	Test statistics (Tr)	5% critical value	*p*-value
0	0.198865	99.40770	69.81889	0.0000
At most 1	0.162611	55.50591	47.85613	0.0081
At most 2	0.068115	20.36746	29.79707	0.3982
At most 3	0.031637	6.399285	15.49471	0.6483
At most 4	0.000171	0.033936	3.841466	0.8538

The existence of cointegration between the observed equity indices indicates that there are relations of long-term equilibrium. Based on this it is possible to build a error correction model (ECM). The ECM model for the CEE indices has the following form (it is only present the equation where dependent variable is MBI10):

$$\Delta lmbi10_t = c_1 + \sum_{i=1}^{m_1} \phi_{1i} \Delta lmbi10_{t-1} + \sum_{i=1}^{m_2} \phi_{2i} \Delta lsofix_{t-1}$$

$$+ \sum_{i=1}^{m_3} \phi_{3i} \Delta lbelex_{t-1} + \sum_{i=1}^{m_4} \phi_{4i} \Delta lcrobex_{t-1}$$

$$+ \sum_{i=1}^{m_5} \phi_{5i} \Delta lsbi20_{t-1} + \gamma_1 z_{t-1} + \gamma_2 z_{t-2} + u_{1t}$$

Where $lmbi$, $lsofix$, $lbelex$, $lcrobex$ and $lsbi20$ represents logarithms of weekly values of correspondent equity index. The variables in the model are included as a first order differences. The length of time lag is determined by the Wald tests. Table no. 6 shows that significant are the second and third time lag. This means that the influences between the equity markets are transmitted with a delay of two and three weeks. The model contains the error correctors (z_1 и z_2) that allow deviations from long-term equilibrium to be corrected through a series of short-term adoptions:

$$z_1 = lmbi10 - 1.570 lbelex - 1.428 lcrobex + 1.102 lsbi20 + 2.613$$

$$z_2 = lsofix - 7.051 lbelex - 1.860 lcrobex + 17.617 lsbi20 - 3.640$$

Table no. 6: Wald tests

Time lag	$\Delta lmbi10$	$\Delta lsofix$	$\Delta lbelex$	$\Delta lcrobex$	$\Delta lsbi20$	Joint
1	5.710865 (0.335)	8.482461 (0.131)	7.156102 (0.209)	4.090049 (0.536)	5.784529 (0.328)	39.98684 (0.029)
2	10.50784 (0.062)	6.231260 (0.284)	0.406941 (0.995)	9.356772 (0.095)	6.803443 (0.235)	45.14879 (0.008)
3	9.620772 (0.087)	30.55800 (0.001)	26.57750 (0.001)	18.87985 (0.002)	18.74126 (0.002)	66.90907 (0.001)
4	5.517287 (0.356)	11.37665 (0.044)	7.175685 (0.207)	3.139614 (0.678)	3.591475 (0.609)	33.60466 (0.117)

Table no. 7: Estimated values of ECM

	$\Delta lmbi10$	$\Delta lsofix$	$\Delta lbelex$	$\Delta lcrobex$	$\Delta lsbi20$
c	0.004306	-0.001930	-0.000302	0.000164	8.17E-08
$\Delta lmbi10(-2)$	0.079844	-0.068171	0.048968	0.049507	0.033440
$\Delta lmbi10(-3)$	0.096419	0.031552	0.063492	0.021130	0.001504
$\Delta lsofix(-2)$	-0.016948	0.183731	0.019105	0.065647	0.033925
$\Delta lsofix(-3)$	0.155796	0.049517	0.182242	0.112402	0.135545
$\Delta lbelex(-2)$	0.201212	0.121338	0.070994	0.140375	0.115147
$\Delta lbelex(-3)$	0.282488	0.184239	0.132655	0.045339	-0.118790
$\Delta lcrobex(-2)$	-0.152308	-0.022119	0.012659	0.145951	-2.10E-06
$\Delta lcrobex(-3)$	-0.262641	-0.004410	-0.085967	-0.088465	-0.140460
$\Delta lsbi20(-2)$	-0.052414	0.067285	-0.006813	-0.010505	-0.092895
$\Delta lsbi20(-3)$	-0.012423	0.253227	0.078597	0.248154	0.194304
$z_1(-1)$	-0.120117 (0.028)	-0.001995 (0.022)	-0.056284 (0.017)	0.015077 (0.021)	-0.022413 (0.015)
$z_2(-1)$	0.014154 (0.005)	0.000642 (0.004)	0.007855 (0.003)	-0.002767 (0.004)	-0.005861 (0.002)

Estimated values of the coefficients of the ECM model are presented in Table no. 7. In addition, the corresponding p-values are shown in parentheses. Based on the model results can be drawn a conclusion about the dynamics of the observed equity markets. Statistical significance of estimated coefficients of disequilibrium term (γ_1 and γ_2) provides information whether the corresponding dependent variable in equation is endogenous or exogenous. Because all p-values of estimated γ_1 and γ_2 are statistically significant can be said that they are endogenous, which leads to the conclusion that each equity market is the receptor of the influences from the other observed markets.

Granger causality tests are presented in the Table no. 8. Their aim is to determine how the volatility of MBI10 returns are caused by the volatility of the other equity indexes returns. Obtained p-values show that Granger causality (in the sense that turning point in one series precedes the turning points in the other) for the volatility of MBI10 returns are volatility of BELEXline and CROBEX returns. This result is evidence that there is direct influence of Belgrade and Zagreb equity market on

Macedonian equity market. The other two equity markets (Ljubljana and Zagreb) have not direct influence on Macedonian (correspondent p-values are higher than 0.1).

Table no. 9 shows the opposite case, i.e. how the volatility of MBI10 returns influence the other equity indices, separately. The reported p-values implies that the volatility of MBI10 do not have direct influence on the volatility of other equity indices (all p-values are higher than 0.1).

Table no. 8: Granger causality tests, dependent variable $\Delta lmbi10$

Independent variable	Chi-square	p-value
$\Delta lsofix$	1.822229	0.4021
$\Delta lbelex$	7.112214	0.0285
$\Delta lcrobex$	5.253345	0.0723
$\Delta lsbi20$	0.098851	0.9518

Table no. 9: Granger causality tests, independent variable $\Delta lmbi10$

Dependent variable	Chi-square	p-value
$\Delta lsofix$	1.756410	0.4155
$\Delta lbelex$	3.533309	0.1709
$\Delta lcrobex$	0.964898	0.6173
$\Delta lsbi20$	0.800394	0.6702

Table no. 10: Granger causality tests

Dependent variable	Chi-square	p-value
$\Delta lsofix$	11.23634	0.1887
$\Delta lbelex$	17.22489	0.0279
$\Delta lcrobex$	15.41757	0.0515
$\Delta lsbi20$	17.10914	0.0290

Granger causality tests provide other important information about the linkage between the observed equity markets. The second row of the Table no. 10 presents the joint impact of all observed equity indices on the Sofia equity index. The p-value (0.1887) suggests that MBI10, BELEXline, Zagreb and Ljubljana have no direct influence on the volatility of SOFIX. Opposite conclusion can be drawn in the other three cases. There is direct influence of the group of observed indices on BELExline. The same is with the CROBEX and SBI20.

6. Conclusions

This paper investigates short and long run relationships among five SEE equity markets and one developed European market during the period of January 2nd, 2005 to December 30th 2008. The existence of long run co-movements between the observed markets is estimated with the Johansen methodology. The equity market integration in the selected SEE countries is verified. These findings imply that long-run investors who diversify their portfolios across SEE equity markets should expected rather short-run modest portfolio gains, given the volatile behavior of portfolio returns to market shocks.

There are many factors that influenced the process of equity market integration of SEE countries and EU: (1) potentially higher returns offered by equity markets in transition countries; (2) entry of old EU member countries banks into banking systems of SEE made these financial markets more integrated; (3) significant FDI inflows from old EU members to SEE countries; and (4) liberalization of capital flow barriers in CEE countries which allowed easier flow of capital across borders.

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