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CEE COUNTRIES ON THE WAY TO EMU - A GENERAL OVERVIEW

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Abstract: *This paper aims at pointing out the evolution in real and financial plans in order to adhere to the EMU, using a comparative approach, on the example of Romania, the Czech Republic, Poland and Hungary. The main results of the study are the following: the four countries have made notable progress in the years preceding the current crisis; however, considerable efforts are still needed in order to comply with the euro zone, in terms of living standards, economic structure, degree of openness of the economy, etc.; refer the financial convergence, directions are needed to increase the financial intermediation and financial depth in Romania and Poland, the Czech Republic and Hungary recording slightly more favourable indicators. On the other hand, central banks, except the Polish one, should significantly improve the transmission mechanism of monetary policy upon the financial and real sphere.*

Keywords: real convergence, financial convergence, economic and financial crises, EMU

JEL Classification: E20, E40, E58, E60

INTRODUCTION

In order to adhere to the Economic and Monetary Union, the candidate countries must fulfil a number of criteria that highlight nominal convergence with the euro area. However, it should be noted that the reference values of the five convergence criteria (price stability, sound public finances, the convergence durability, exchange rate stability) do not necessarily reveal the state of "health" of the financial and economic climate, which is why it requires a deeper analysis of the characteristics of economic and financial systems.

The importance of an analysis of the effective capacity of states to adopt the single currency derives from the continuous transformations taking place in the financial and economic texture of the countries, under the influences of internal and external factors (such as the current economic and financial crisis), but also of their readiness to give up to the monetary policy autonomy, in the context in which countries such as Romania and not only may still need high flexibility in the use of monetary policy interest rate and exchange rate as adjustment factors.

This article uses as example the study of the economies of the Czech Republic, Hungary, Romania and Poland, taking into consideration the past political regime, similarity of the economies and the conduct of monetary policy.

A specialized study which addresses the four countries that are the subject of this paper is made by Ganev (Ganev et al., 2002) that raises the issue of the monetary policy transmission mechanism on the real economy in countries after a decade of transition, highlighting the vulnerabilities of economies and overloading monetary policy of the Central Bank.

From another perspective, Marie-José Rinaldi-Larribe (2008, p. 283) stresses out that in the last few years, Hungary, Poland and the Czech Republic "appear to have converged more quickly towards the euro area business cycle, which would tend to indicate that they are ready to join the euro area".

In terms of empirical research, specialized studies most often examine the Czech Republic, Hungary and Poland. For instance, in the example of the above states, Darvas (2012) examine the monetary policy transmission mechanism on macroeconomic variables using time-varying coefficient vector auto regressions and highlights the fact that the effects of a shock to the monetary policy is transmitted the fastest in Poland and not much later than in the euro area.

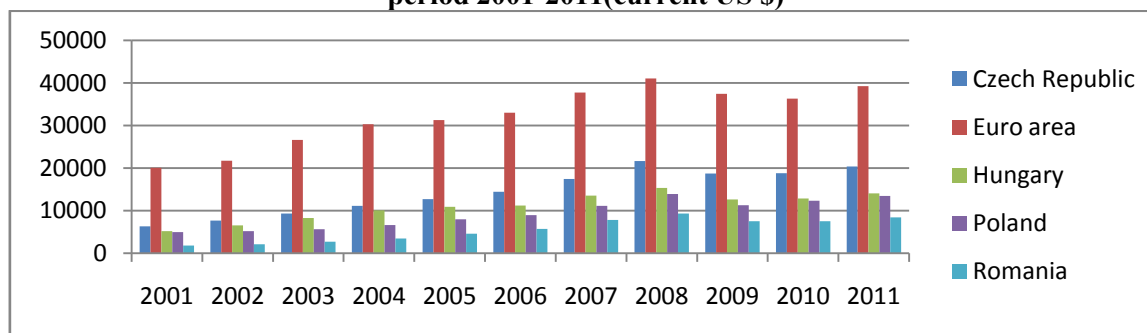
If we consider the implications of the recent economic and financial crisis, in the light of the adoption of the euro in Poland, Hungary, Romania, the Czech Republic and beyond, in the framework of *The Adoption of the Euro in the New European Union Member States: Repercussions of the Financial Crisis*, Allam (2009, p. 33) points out that while the financial crisis has increased the attractiveness of euro zone membership as it is perceived to be a 'safe harbour' in a stormy sea, the currency depreciation and slowdown in economic activities make it more difficult for the new EU Member States to comply with the Maastricht-criteria." This paper presents the following structure: part one is devoted to the analysis of the convergence in the real plan of states chosen for study, and the second section is dedicated to the convergence in the financial sphere. The paper ends with some conclusions and future directions on the research topic.

1. CONSIDERATIONS ON REAL CONVERGENCE IN THE CZECH REPUBLIC, HUNGARY, POLAND, ROMANIA AND THE EURO AREA

Joining the Monetary Union requires the fulfilment of a series of nominal convergence criteria to which reference is made below, but we must stress that the foundation of the convergence must come from the real sector.

Considering the convergence in the real sector, one of the indicators most commonly referred to, is the evolution of the gross domestic product per capita, represented in Figure 1.

Figure 1 - Evolution of GDP per capita in the Czech Republic, Euro area, Hungary and Poland, in the period 2001-2011(current US \$)

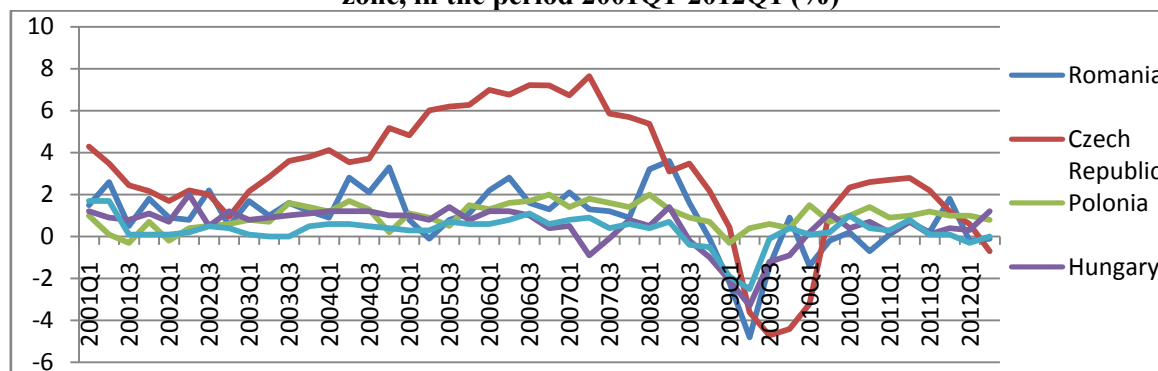


Source: Data processing, <http://datamarket.com/>

As it can be seen in Figure 1, the four countries have made notable progress from one year to another during the period considered, especially Hungary and the Czech Republic. It should also be noted the negative evolution of GDP per capita in the context of the recent crisis in all states. However, the gap of living conditions compared with the euro area is a significant one, registering the largest value in the case of Romania.

On the other hand, as seen in Figure 2, the overall trajectory of growth rate of the real GDP in the euro area is similar to that recorded in the case of Romania, Hungary and Poland, except for the Czech Republic. At the end of the reference period the latter subscribes in the previously mentioned trend. Moreover, the highest level of correlation relative to the actual rate of increase in the GDP in the euro area is recorded in the case of Romania and Hungary, namely 0.69%.

Figure 2 - Evolution of real GDP growth rate, in Romania, the Czech Republic, Hungary and euro zone, in the period 2001Q1-2012Q1 (%)



Source: Data processing, <http://www.tradingeconomics.com>

If we consider the structure of the economy in light of the contribution to the value added to the gross domestic product, in Table 1 we observe a high degree of similarity in terms of contribution of the services sector, which is in a continuous development. As an element of

differentiation in Romania the contribution of agriculture to the value added of the gross domestic product is much higher than in the euro area.

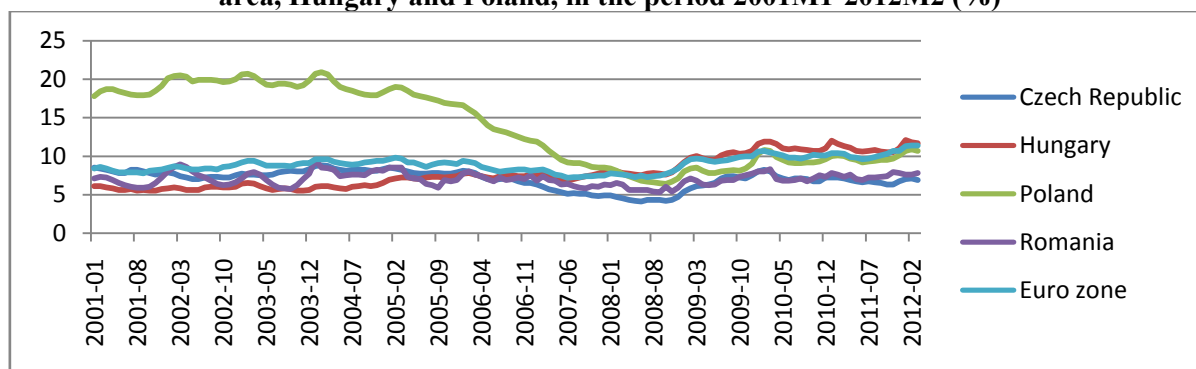
Table 1 - Evolution of sectoral value-added as a share, in the Czech Republic, Romania, Euro area, Hungary and Poland, in the period 2009-2011 (% of GDP)

Country/ Economy	Agriculture			Manufacturing industry			Non-manufacturing industry			Services		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Czech Republic	3	3	2	27	25	23	12	13	14	59	60	60
Romania	9	7	7	22	21	22	14	4	4	55	68	67
Poland	4	5	4	18	17	16	14	14	14	65	65	66
Hungary	4	8	4	22	22	22	8	8	8	66	66	66
Euro area	1.5	1.5	n.a	16	15.5	n.a	24,5	26,5	n.a	74	72	n.a

Source: Data processing, *The Global Competitiveness Report 2009-2010, 2010-2011, 2011-2012*, <https://members.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf>, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf, http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf

Another indicator of major importance in the real sector concerns the human factor, namely the unemployment rate, with the evolution shown in Figure 3. It should be noted that in the period before the subprime crisis, the unemployment rate has been on a prevailing downward trend (printing a very high level in Poland). If the level of unemployment from the four countries before the crisis converged to the value of the euro area, after the start of the subprime crisis it registered an upward trend, remarking the highest level in Hungary and the lowest in the Czech Republic.

Figure 3 - Evolution of unemployment (not seasonally adjusted data), in the Czech Republic, Euro area, Hungary and Poland, in the period 2001M1-2012M2 (%)



Source: Data processing, <http://datamarket.com/>

In the same approach, but from another perspective, that of labour costs, the general labour cost per hour has grown and is well below the level in the euro area, the lower level being outlined in the case of Romania, both at the beginning of the analysis period and at the end of it.

Table 2 - Labour cost per hour (for enterprises with 10 or more employees), in the period 2008-2011 (€)

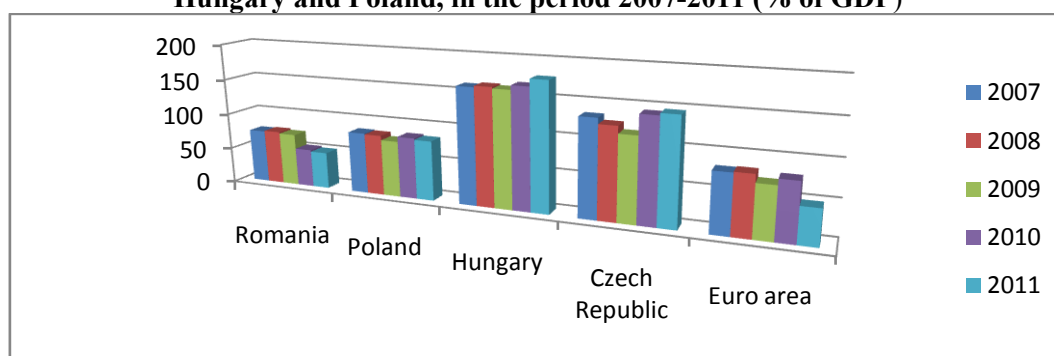
	2008	2009	2010	2011
EU-17	25,8	26,5	26,9	27,6
Czech Republic	9,3	9,3	9,9	10,5
Hungary	7,9	7,3	7,3	7,6
Poland	7,5	6,4	7	7,1
Romania	4,1	4	4,2	n.a

Source: Processing data,

[http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Labour_cost_per_hour_in_euros_\(for_enterprises_with_10_or_more_employees\),_2008-2011.png&filetimestamp=20120424085138](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Labour_cost_per_hour_in_euros_(for_enterprises_with_10_or_more_employees),_2008-2011.png&filetimestamp=20120424085138)

A sensitive issue in the context of joining the euro area is the exchange rate regime closely linked to the degree of openness of the economy. In this respect, states with the highest level of degree of openness of the economies are the Czech Republic and Hungary and at the opposite pole, Romania and Poland (see Figure 4).

Figure 4 - Evolution of openness degree (exports + imports), in the Czech Republic, Euro area, Hungary and Poland, in the period 2007-2011 (% of GDP)



Source: Data processing, <http://data.worldbank.org/>

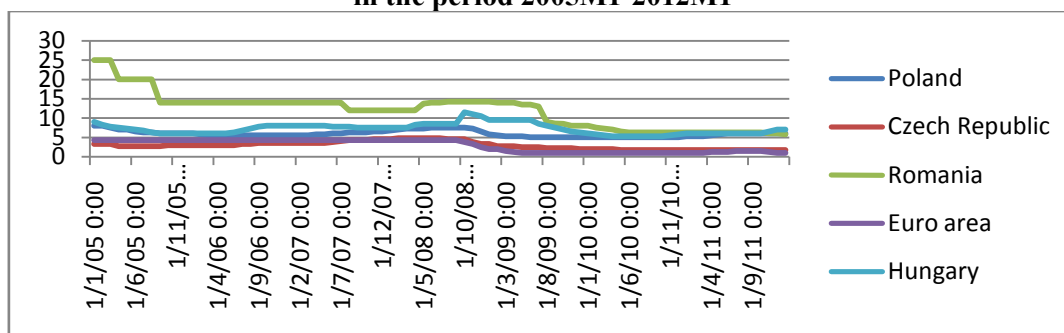
Therefore, in view of the above, the four countries have made notable progress in the real sector in the years that preceded the current crisis. However, considerable efforts are still needed in order to comply with the euro area rules, in terms of living standard, economic structure, degree of openness of the economy, etc., especially amid the effects of the recent economic and financial turmoil.

2. CONSIDERATIONS ON FINANCIAL CONVERGENCE IN THE CZECH REPUBLIC, HUNGARY, POLAND, ROMANIA AND THE EURO AREA

One of the main elements on which the accession to the euro areas entails is giving up to monetary policy autonomy in matters of drafting and implementing it. In this sense, the task of establishing the monetary policy interest rate is transferred to the European Central Bank.

Naturally, before joining the euro area, monetary policy interest rate differential should be one as low. Over time, there was an alignment of interest rates with the monetary policy interest rate of the European Central Bank in the states concerned but most significant is specific to Romania (see Figure 5).

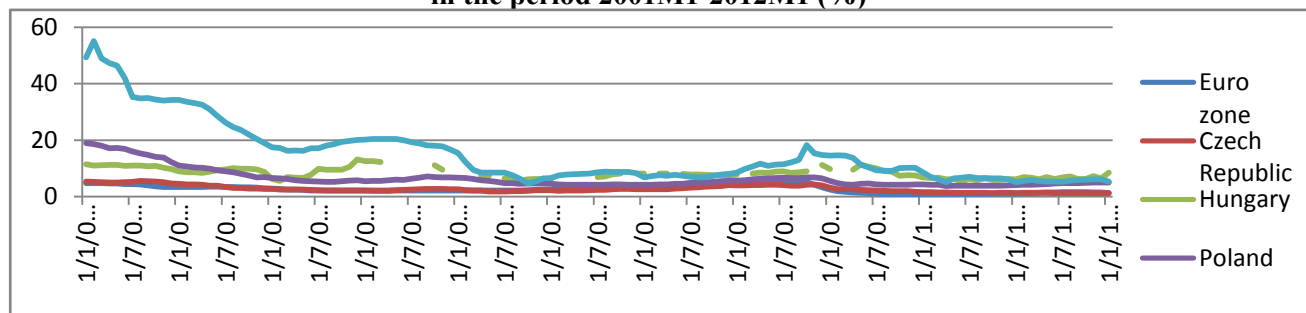
Figure 5 - Evolution of central bank interest rate, in Poland, the Czech Republic, Romania, Euro area, in the period 2005M1-2012M1



Source: Data processing, <http://www.ecb.int>, <http://timetric.com/>

It is also important to observe the evolution of three-month interest rate on money markets, highlighted in Figure 6. A similar trend to that of the monetary policy interest rate has been observed also in the case of the three-month interest rate which registers similar values in the euro area and the Czech Republic, the larger gaps being recorded in Romania and Hungary.

Figure 6 - Evolution of 3Month Interest Rate, in the Czech Republic, Euro area, Hungary and Poland, in the period 2001M1-2012M1 (%)

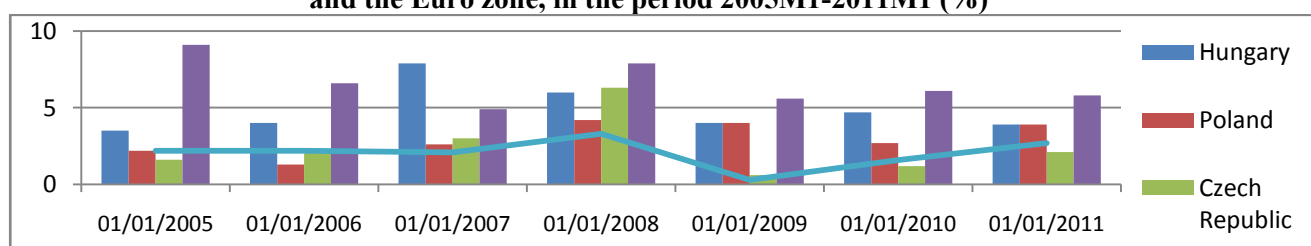


Source: Data processing, <http://datamarket.com/>

The highest correlation with the 3-month interest rate in euro area is registered by the Czech Republic, namely 0.83%, followed by Poland with 0.52%. On the other hand, the correlation with the 3-month interest rate in euro area in Romania is 0.43% and 0.37% in Hungary.

The importance of alignment with the monetary policy interest rate of ECB derives from its ultimate objective, ensuring and maintaining price stability. Therefore there is a need of alignment also at the level of inflation. As it can be seen in Figure 7, the analysed countries consolidated a disinflation trend, especially Romania, which is expected in 2012 to record an inflation rate in line with the proposed target. Also, is worth mentioning the fact that the inflation level in the Czech Republic is below to that recorded by the euro area.

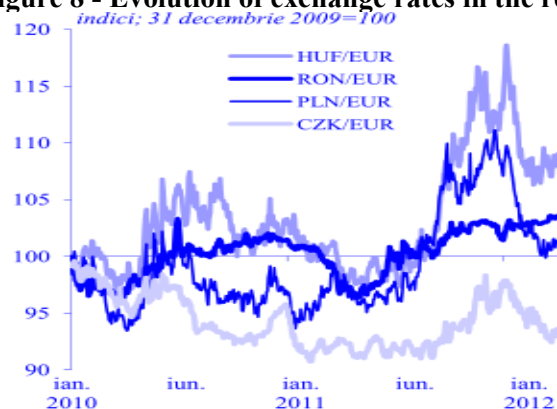
Figure 7 Evolution of annual average inflation rate, in Hungary, Poland, the Czech Republic, Romania and the Euro zone, in the period 2005M1-2011M1 (%)



Source: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsieb060> Data processing,

Another major issue in view of the accession to the euro area is renouncing to the national currency. Of course is desirable that the price of the single currency at the time of the adoption to be favourable, but especially sustainable for the concerned country. It is worth mentioning that, during the period January 2010-January 2012, the greater volatility in exchange rates has been registered by the national currency of Hungary, at the opposite pole being the Romanian RON.

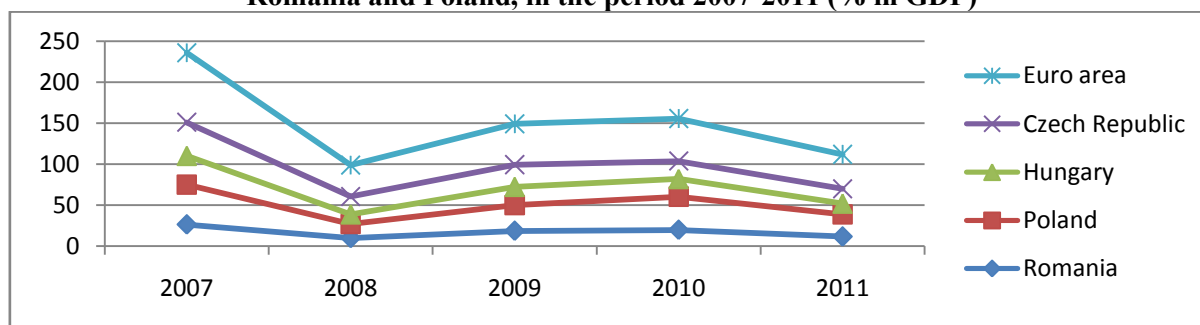
Figure 8 - Evolution of exchange rates in the region



Source: *Report on inflation*, p. 29, www.bnro.ro

Another aspect of financial convergence concerns financial depth. In this sense, all four countries recorded a level of market capitalisation below the level of the euro area. Therefore, consistent efforts are needed to reduce this gap, particularly in the case of Romania (see Figure 9).

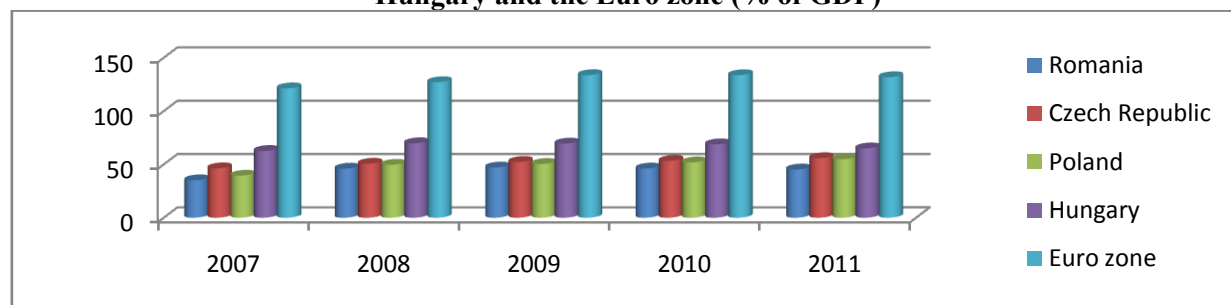
Figure 9 - Evolution of stock market capitalisation, in the Czech Republic, the Euro area, Hungary, Romania and Poland, in the period 2007-2011 (% in GDP)



Source: Data processing, <http://www.tradingeconomics.com/>, <http://data.worldbank.org>

Another chapter where Romania has the largest gap among the analysed states is financial intermediation, which is approximately three times lower than in the EMU and two times smaller (see Figure 10) than in Hungary.

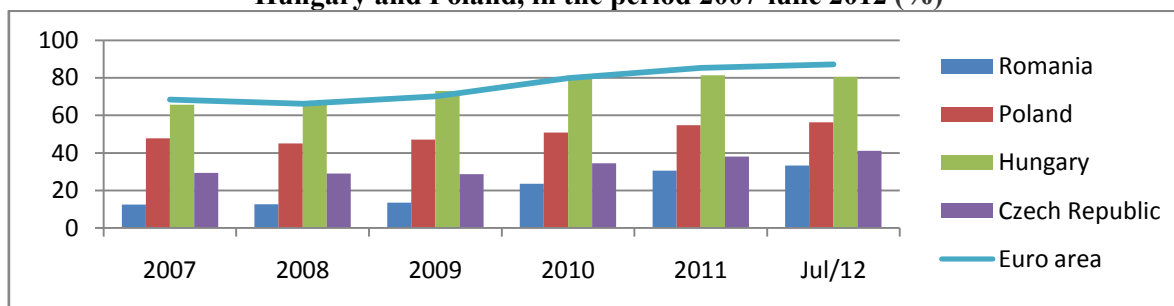
Figure 10 - Evolution of domestic credit to private sector, in Romania, the Czech Republic, Poland, Hungary and the Euro zone (% of GDP)



Source: Data processing, <http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS>, <http://www.tradingeconomics.com/euro-area/domestic-credit-to-private-sector-percent-of-gdp-wb-data.html>

As regards the situation of public finances, on the level of government debt outlined in Figure 11, despite the reference value of 60% of GDP, the euro area and Hungary are beyond that level which recorded the smallest value in the case of Romania. However, it should not be omitted the significant increase of this indicator during the last few years amid the current economic and financial turmoil which raises the problem of sustainability.

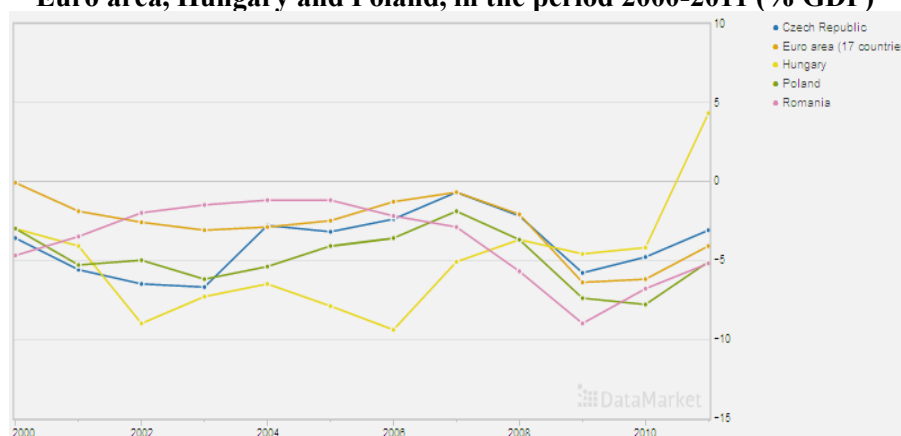
Figure 11 - Evolution of government debt to GDP, in the Czech Republic, Romania, the Euro area, Hungary and Poland, in the period 2007-iulie 2012 (%)



Source: Data processing, <http://www.tradingeconomics.com>

If we consider the situation of the government deficit presented in Figure 12, one can observe a recovery in the case of Hungary (the only one that even recorded a budget surplus) and Romania, the Czech Republic registering a deficit close to the reference level of 3% and lower than that of the euro area.

Figure 12 - Evolution of general government deficit (-) and surplus (+), in the Czech Republic, the Euro area, Hungary and Poland, in the period 2000-2011 (% GDP)



Source: <http://datamarket.com/>

Therefore, is worth noting that there is a strong need to evaluate the sustainability of public finances and to raise the level of financial intermediation in order to strengthen the monetary policy transmission mechanism over financial and real macroeconomic variables.

CONCLUSIONS

This paper sought to outline a general overview over real and financial convergence in four economies - Romania, the Czech Republic, Hungary and Poland, compared to the euro area.

In terms of convergence in the real sector, unlike the Czech Republic and Hungary, Romania must submit the most consistent effort in order to align itself to the level of GDP per capita from the euro zone.

Regarding convergence in the financial plan, directions to increase the financial intermediation and financial depth are strongly required in particular in Romania and Poland, the Czech Republic and Hungary recording slightly more favourable indicators.

On the other hand, central banks covered by this study showed favourable developments in interest rates in line with those in the euro area, in particular the national banks from the Czech Republic and Poland. Moreover, the central banks, except in Poland, should significantly improve the transmission mechanism of monetary policy upon the financial and real sector. Also, considering the fact that the advantages of low volatility of the national currency obtained by central banks can be easily removed by tensions in the political scene, it is necessary to unify the efforts of all institutions in order to get an adequate mix of policies favourable to sustainable development in all plans.

It is also worth mentioning the fact that the values of some indicators reflect only in a certain proportion the actual nominal and real convergence, a more detailed analysis being absolutely necessary. For instance, presently, the downward trend of strong inflation level is largely the result of deficit in demand amid the current crisis, and the level of public debt, although below the reference value of 60%, may mask a reduced degree of sustainability.

Overall, in the four countries, the evolution in the real and financial plans was favourable during the period before the recent crisis and after. Thus, there are good premises for future adoption of the euro area in the countries considered, but consistent efforts are still imperative.

In term of future research directions, considerable attention should be focused on the advantages of monetary policy autonomy and the opportunity of CEE countries to join the euro zone in the context of the sovereign debt crisis.

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EVOLUTION OF INSOLVENCY REGULATIONS IN ROMANIA

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Abstract: *The financial situation of a firm represents a knowledge that is necessary for all stakeholders because they all need to have information about the capacity of the entity to be profitable. The purpose of the study is to examine the evolution of insolvency regulation throughout the years by concentrating on the changes made in laws. The peculiarities of insolvency law influence the way in which the companies cope with their financial difficulties. The number of insolvent companies and the rate of insolvency are values that show the differences between countries and give the possibility to realize a comparison of the regulations in order to establish the aspects that need improvements.*

Key words: insolvency rate, insolvency law, Romania, Eastern Europe
JEL classification: G33, K41

INTRODUCTION

The financial crisis has caused more and more companies to be unable to pay their current debts. This is due to the lack of necessary amounts. In a situation like this, the only measure that it is able to determine the fate of such an undertaking is the *insolvency procedure*, which will be completed in the reorganization of the company or in the liquidation of this one and the payments of its debts.

Although the accounting of liquidation operations of a company is carried out following the principles of the financial accounting, the operation itself is one that presents a much higher complexity than the operations in the current accounting. The accounting related to the liquidation of a company has many particularities. Only when thinking about the causes that may determine a company to declare bankruptcy and liquidation, can we see the complexity of the phenomenon. The liquidator, as the person who will handle the management of the company in a liquidation procedure, must have extensive knowledge and skills, not only about accounting, but also about law, especially the commercial law. Only a specialist in the field may organize the liquidation operations, so that by carrying it, the rights of the debtor and those of the company's creditors are secured.

Through liquidation it is desired *to obtain the best solution for the ending of the contractual relations in which a debtor is involved.*

Having that in mind, since the adoption of the first regulations in the field, Law no. 64/1995 on judicial reorganization and bankruptcy, a long time has passed and we may consider that insolvency is no longer a new area of research in Romania. This area has grown over the pass years and, although it had a relatively late start, it has adapted to the Romanian economy.

However, even in the context of major changes, *insolvency is a relatively new term in Romania, compared to other EU countries.*

Insolvency and bankruptcy are still dishonourable estates for debtors in Romania. They are willing to do everything they can to be relieved by this situation. In fact, insolvency is the one that allows a debtor to defend its property and business. Even when the state conducts multiple actions to recover its debts, insolvency provides this option.

Insolvency and bankruptcy are actually recovery solutions. However, the efficiency of these procedures will strongly depend on the moment when declaring insolvency or bankruptcy proceedings and on the entity that introduced in court the request for opening of the procedure. Although Law no. 64/1995 was repealed by Law no. 85/2006 regarding the insolvency procedure and the latter had suffered several changes and additions, the proceeding has a few points that can be improved in order to cover the deficiencies of the current application. Anyhow, law enforcement under the current economic condition is very important.

The areas that over the time have been the most vulnerable to bankruptcy proved to be: wholesale and distribution, retail and construction.

Trade was mainly affected in the past years by the consumers' orientation to supermarkets, while the construction sector had difficulties due to drastic reduction in demand, stoppage of projects and suspension of ongoing investments due to lack of funds and the occurrence of problems in process of the recovery of debts from the partners.

1. INSOLVENCY IN NUMBERS

The number of bankruptcies achieved in 2010 in Romania had an 18% increase, compared to 2009.

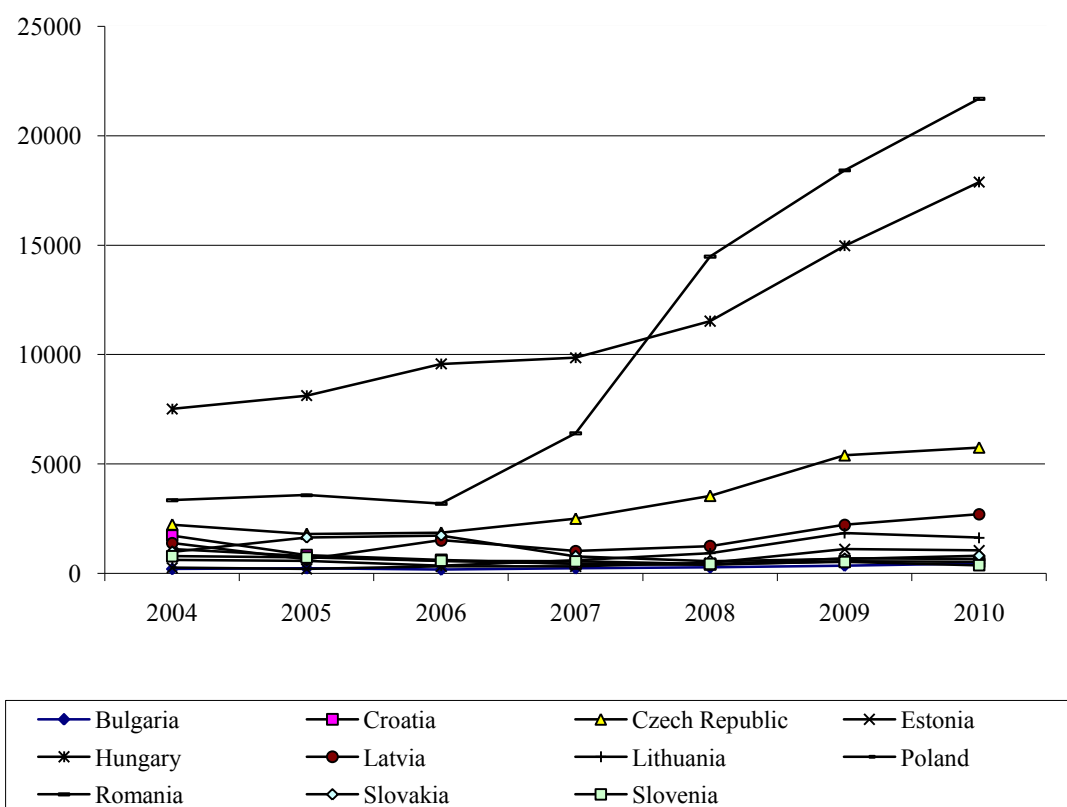
According to Coface Romania, at the ending of 2010, 10 377 firms were in general insolvency procedure and 5 104 firms and 702 companies were insolvent. Moreover, 5.482 companies were in bankruptcy, and 27 in judicial reorganization, leading to a total of 21.692 companies in various stages of insolvency proceedings.

However, this numbers reflect better the position of Romania, if we were to compare them to other countries. In this sense, we developed a comparison with the eastern European countries.

Data for the countries from Easter Europe included in this study was provided by Coface Central Europe Holding AG.

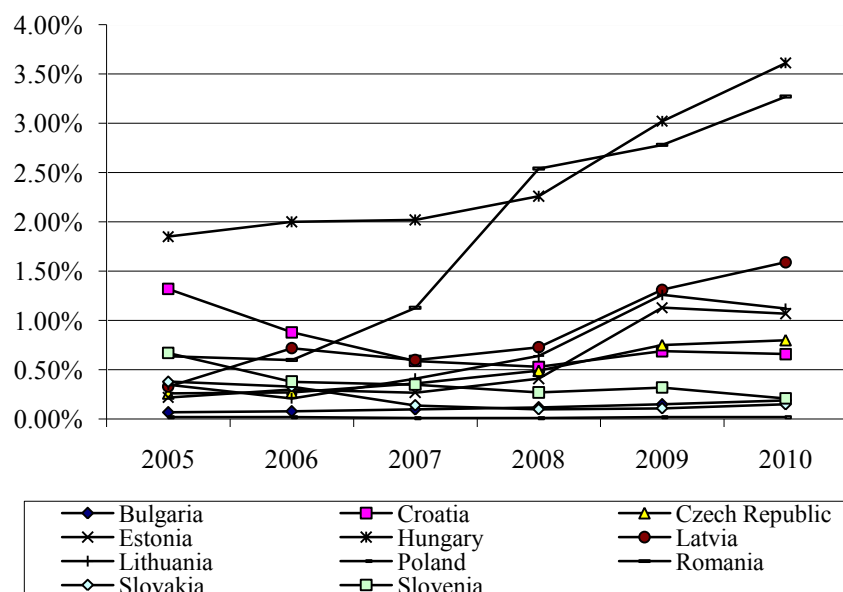
Just by looking at the number of insolvent companies in Eastern Europe we can see that Romania is not in a good position. And with the numbers from 2010 this situation has not changed. Since 2008, Romania is the country with the highest number of companies that are in a state of insolvency. This aspect would not be a negative one if it would be in correspondence with a low insolvency rate as it is in France.

Figure 1 - Evolution of number of insolvent companies in Eastern Europe (2004-2010)



As we can see from Figure 2, the insolvency rate has high values (over 2,5% in the last three years). In 2008 Romania had the highest insolvency rate from the compared countries.

Figure 2 - Evolution of insolvency rate in Eastern Europe (2004-2010)



Romanian insolvency rates are usually lower than the ones for Hungary, but we can expect worst future situations for Romanian companies. This is because the evolution of the number of insolvent companies and the evolution of insolvency rate show a higher total variation for the period 2004-2010. This would be translated into higher percentages of variation in the next few years.

2. EVOLUTION OF THE INSOLVENCY LAW IN ROMANIA

Currently, the legal framework regarding the insolvency of companies in Romania is essentially defined by Law no. 85/2006 regarding the insolvency procedure, which sets the rules to apply when a company is unable to pay its liabilities. Another act that regulates on the insolvency state is Law no. 31/1990 regarding companies. The latter establishes rules for the dissolution of companies in a separate chapter (Title VI, Chapter I, "Dissolution of companies", art. 227 – art. 237) and the liquidation of companies in a separate title (Title VII "Liquidation of companies", art. 252 - art. 270).

2.1 Romania until 1989

The regulation of bankruptcy was made gradually in Romania. The term “bankruptcy” appeared for the first time in the Romanian legislation in 1817, in the Carafea Code and then in the

Calimachi Code. Both of them handled for the first time the problem of “falit bancrutar”. In 1840 Romania adopted the first comprehensive law of bankruptcy, “Condica pentru Comercia”, that mostly was a translation of the previously dispositions on bankruptcy of the French Commercial Code (Onofrei, 2007).

The Romanian Commercial Code, adopted in 1887 on the Italian Commercial Code model, presented the bankruptcy institution in Paper III, entitled "About bankruptcy". According to this act, the bankruptcy represented an enforcement procedure on the property of a trader. The establishment of bankruptcy was done either at the request of debtors or creditors, either ex officio, and the procedure is done with the involvement of courts, a syndic judge and the creditors.

During the period of “social realism” (1947-1989), due to states’ control on a company's accounting system, the law regarding bankruptcy was not implemented, although it remained in force.

2.2 Insolvency law over the past 20 years

1990 and the new political system led to the adoption of Companies law and the need to apply the Romanian Commercial Code on dissolution and liquidation.

Thus, the reforms that occurred after the events of December 1989 brought new elements to this area, although the reorganization and bankruptcy law (Law no. 64/1995) appeared only in 1995.

The introducing of the Law no. 64/1995 regarding judicial reorganization and bankruptcy actually represented the introducing of a new legislation in this field in Romania. This law replaced the Commercial Code orders on bankruptcy.

This law was modified multiple times, through different normative acts. Thus, reorganization and bankruptcy procedure has changed continuously. Changes were made at short periods of time (almost every year).

The Romanian legal framework on bankruptcy procedure has improved significantly following the adoption of Law no. 85/2006 regarding the insolvency procedure, which took effect after the publication in the Official Gazette on 21 July 2006 (“new law”). This new law, which replaced Law no. 64/1995 on judicial reorganization and bankruptcy, lays down new mechanisms to shorten the proceedings, in order to accelerate the reorganization of those in financial difficulties (judicial reorganization procedure), or to end their existence and save the creditors rights (through bankruptcy procedure).

The new law states that the parties involved in insolvency proceedings are called in court, whether it is a judicial reorganization or bankruptcy. The summons is published in the Bulletin of insolvency proceedings. This bulletin is a procedural tool introduced by the new law to avoid common shortcomings of citation procedure provided in the Civil Code. Based on the principles of the new law, once the summons is published in the Bulletin, the citation procedure is considered properly made and the judge may continue with the case. The benefits of the intermediation made by this bulletin are highlighted mainly when a large number of creditors have to participate and also when the procedure requests the summoning of each party to all hearings. As such, many unwanted delays that could occur, to the detriment of the interests of creditors, are removed through a rapid resolution of the case.

Another novelty brought by the new bankruptcy law is the simplified procedure. The simplified procedure can be applied to certain categories of debtors (for example, when debtors that do not have any assets, when debtor's administrator cannot be found or when the debtor has declared its intention to enter directly into bankruptcy and be removed from the companies register). Under the simplified procedure, a debtor shall be regarded as being bankrupt, without the possibility of a judicial reorganization (which is normally the first stage of insolvency proceedings). The new law significantly increased the competence of the creditors and also the syndic judge's duties. For example, it is noted that the syndic judge may control the procedural facts only in legally terms rather than taking into account the opportunity of activities (especially when it comes to the control of the judicial administrator or the liquidator's activity).

In addition, the judges can no longer certify the sale contracts regarding the lands or buildings owned by the debtor, which are concluded by judicial liquidator through public auctions. Such contracts are subject to authentication by a public notary.

Law no. 85/2006 brought other novelties like: the impossibility of reorganization of a debtor whose appeal on the state of insolvency was rejected; the protection of the debtor who requested the procedure, giving him the possibility of reorganization; the introduction of penal sanctions for the offense of simple bankruptcy (failure to submit an application for the opening of insolvency proceedings on time); the use of any method for the sale of goods if it has the creditor's approval; organizing specialized departments for the tribunals; undertaking the liquidation fund by UNPIR (National Union of Insolvency Practitioners In Romania), harmonization with the European regulations; the possibility of a creditor to request the insolvency of a debtor, if he has a claim of just 10 000 RON, instead of 30 000 RON.

CONCLUSIONS

During the transition period, insolvency was related to restructuring and privatization. The two processes, made state enterprises enter into competition with the market ones, calling for responsibility of management to make decisions that maximized the benefits. Currently there is a tendency to favour liquidation, on the expense of judicial reorganization. This situation may change if the legal system would become more efficient, and administrators and syndic judges would have more powers. These premises would provide greater confidence in the judicial reorganization. However, the reorganization should not be applied to companies that are not likely to become viable. An effective insolvency process provides an effective exit mechanism for non-viable businesses and a solution to recover the viable ones. Stiglitz has defined as a central role of bankruptcy institution in the modern capitalist economies the encouragement of reorganizations, considering that a company is more valuable having activity than if its operations are closed (Stiglitz, 2009). However, European insolvency laws are orientated to bankruptcy (Couwenberg, 2001).

Even with the new regulations, in Romania, there are still gaps in their implementation process. An unconsolidated legal system, a commercial legislation often ambiguous, an involvement of the State which excluded the public sector from the bankruptcy proceedings and increasing state aid favours a difficult bankruptcy procedure. State aid should be directed to encouraging neglected areas, namely research and development or training.

Therefore, as important as the definition of insolvency legislation is, a greater importance has the need to improve the implementation of the legal system.

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CLIMATE CHANGE AND VULNERABILITY OF THE ARCTIC ELDERLY: AN ASSESSMENT FROM HUMAN RIGHTS POINT OF VIEW

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Abstract: *There are increasing challenges among the elderly in the Arctic region. Global warming due to climate change is one of the major reasons for these challenges. Because of climate change temperature in the region increases, which results in rapid melting of sea ice causing various environmental, social, cultural and economic problems. Population in the region suffers from these problems where elderly people are the most vulnerable. Climate change has already affected the elderly lives in different ways, such as, by physical, social, political, cultural and psychological ways. These have serious consequences in terms of human rights of this vulnerable group of people. However, the elderly people's human rights issues have not been adequately researched in the context of this region. The goal of this paper is to present elderly related human rights issues, particularly the rights that are affected due to climate change in this specific region.*

Keywords: elderly, Challenges, climate change, human rights, Arctic region, vulnerable

JEL Classification: Q5, R11

INTRODUCTION

The elderly* people are the fastest growing population all across the world (Mégret (a), 2011, p. 34). It is expected that this growth will be drastic in the future. The former UN Secretary General Kofi Annan stated at the 2nd World Assembly on Ageing (Madrid, 2002), "The world is undergoing an unprecedented demographic transformation. Between now and 2050, the number of older persons will rise from about 600 million to almost two billion. In less than 50 years from now, for the first time in history, the world will contain more people over 60 years old than under 15" (CESCR General Comment, 1995). As a result, elderly people's concerns are likely to rise gradually in all across the world. The Arctic region will not be an exception in this regard. According to the predictions of the Finland Demographic Statistics, the number of people with age of 65 will increase over 600,000 by 2030 (Patosalmi, 2011, p. 1). Another source also support that at present, people under 15 years constitute about 18% of the total population and those over 65

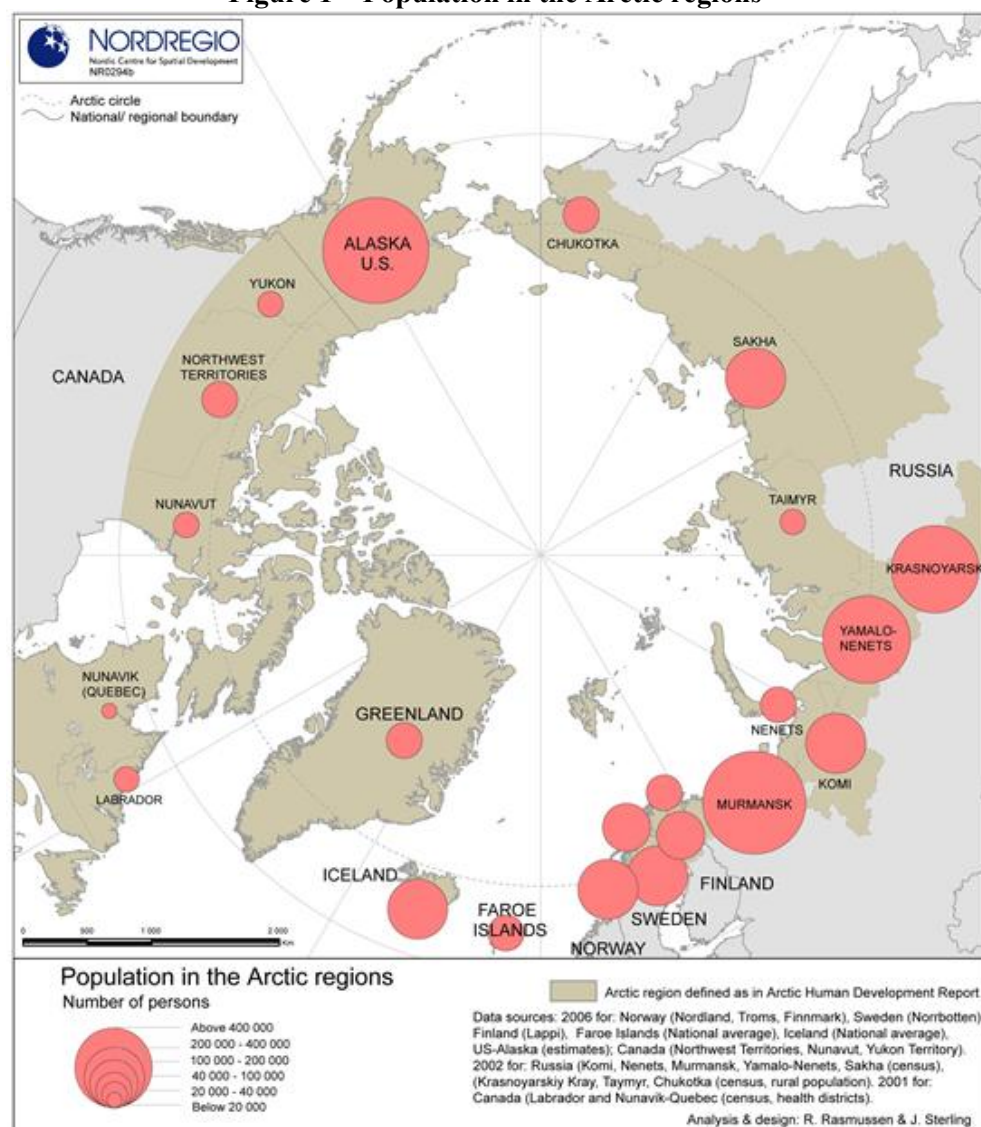
* Elderly" in this proposal refers to "elder persons", "old people", "senior persons" including "elderly men and women". Since in Finland, in different research the age from 65 has counted as an elderly person, I will also take that age as my reference.

years some 15%. The number of people aged 65 years or over will grow by about 400,000 (e.g. by over 50%) in the next 20 years (Järvelin, 2002, p. 1).

The Arctic faces huge challenges in the event of global climate change. The effect of climate change is significant on marginalized people all over the world. As marginalized people the elderly population suffers from various problems due to the adverse consequences of climate change. On one hand climate change strengthens existing vulnerabilities (World Development report, 2010), and on the other hand it is also linked to inequality (Cameron, 2011, p. 2). Climate change motivated indirect effects also include mental and social stress which is related to loss of community and culture (Parkinson and Berner, 2009, p. 84) putting psychological pressure upon particularly the elderly people who belong to such community. Since climate change in the Arctic occurs twice faster compared to other parts of the region (Hassol, 2004, p. 12), the elderly people in the Arctic are likely to suffer the most by the climate change related consequences. The Arctic Climate Impact Assessment (ACIA) was issued in 2005, which was the first inclusive scientific assessment of climate change in the Arctic. The assessment came up with ten significant findings. Out of these, findings 8, 9, and 10 are particularly relevant in the context of the Arctic people.* These findings speak about community, culture, economy, health and well-being of the Arctic people in which the elderly people's concerns are well placed. These concerns significantly affect particular aspects of human rights of the region's elderly population. It may be argued that human rights-based assessment of climate change is of particular relevance in the Arctic as far as current approaches activate human rights rhetoric in the interests of perceiving inclusive system for mitigating climate change (Humphreys, 2008, p. 11).

* See: Findings 8, 9, 10 are: Indigenous communities are facing major economic and cultural impacts; elevated ultraviolet radiation levels will affect people, plants, and animals; multiple influences interact to cause impacts to people and ecosystems, Arctic Council 2005. Arctic Climate Impact Assessment Scientific Report, (Cambridge University Press, 2005), 863-960.

Figure 1 – Population in the Arctic regions



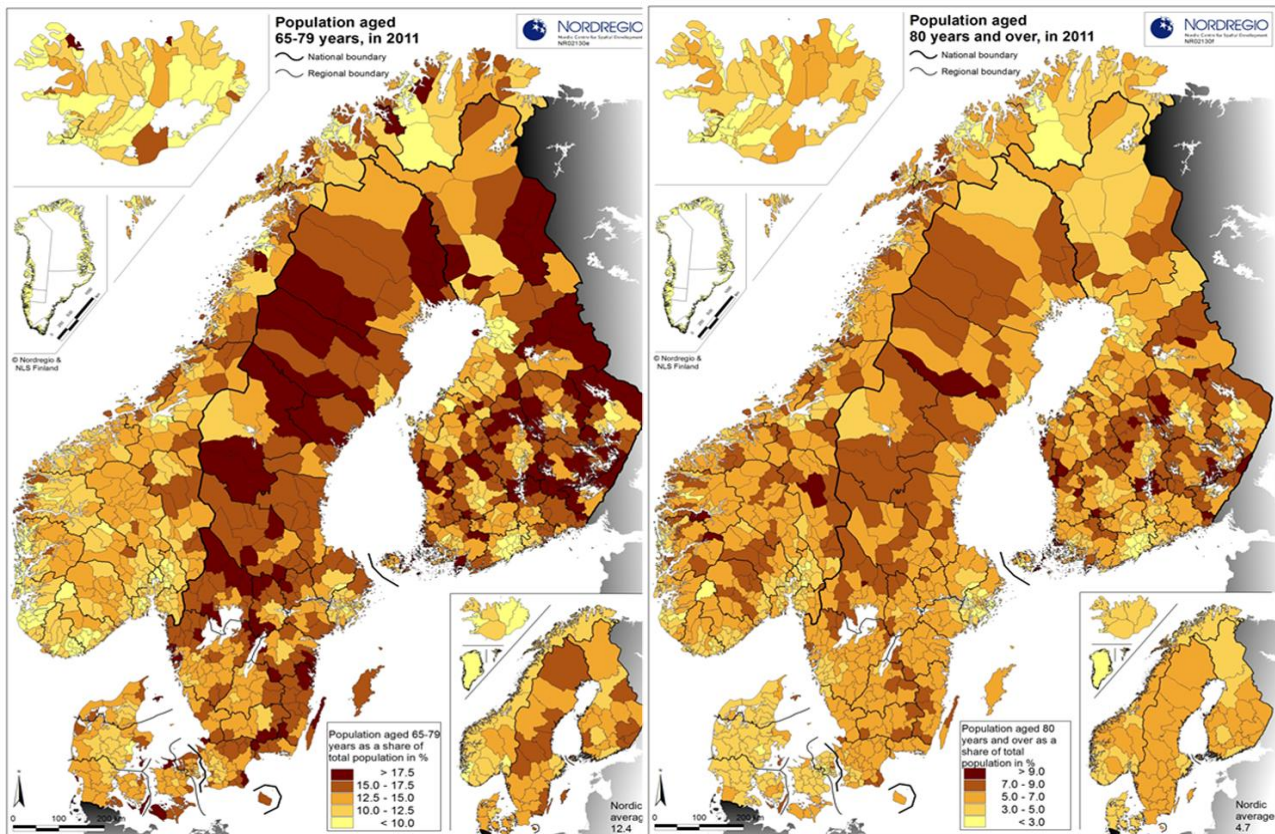
Source: Nordregio at www.nordregio.se.

While the debate over comprehensive human rights for elderly has started in recent years, and scholars argue more and more on elderly human rights to take seriously (Doron and Apter, 2010, p. 586; Butler, 2002, p. 152), there is no such particular development regarding all inclusive elderly human rights. The rights of elderly persons have not yet attracted international legal attention as there is no specific instrument exclusively addressing elderly people's human rights (Fagan, 2002). The reference to this assertion can be found also in the statement of the African Commission on Human and People's Rights (Yeung Sik Yuen, 2008). However, there are a number of international and regional instruments that address particular aspects of human rights applicable to the elderly population. They include aspects of human rights generally applicable to all as well as to a particular group of people, such as to children, people with disability, women, migrant workers,

indigenous people etc. The elderly human rights may be deduced from these instruments. Yet it is suggested that an inclusive research on the necessity to protect elderly human rights required (Mégret (a), 2011, p. 38). The Human Rights Council Advisory Committee in 2009 has also come up with similar conclusion. It is particularly important in the Arctic context, and precisely in the context of elderly people of the region, since vulnerability of elderly people from the human rights perspective has not been properly addressed elsewhere. The aim of this paper is not to examine any legal violation of human rights or any legal remedy to be provided where there is a violation of human rights. Rather, it intends to address the challenges of the elderly population of the Arctic region, resulted from climate change, and to integrate human rights aspects associated with such challenges. The aim therefore is to show how climate change consequences affect elderly people's human rights in this particular region.

This paper thus addresses three important issues in this context. First, it examines how elderly people are affected due to the climate change in the Arctic, specifically in the Nordic Arctic. The aim is to show how elderly people in this region affect differently than that of the other region. Second, it delineates the particular provisions embodied in the human rights instruments applicable to the elderly people of the region. Third, it examines how the climate change related consequences affect the region's elderly population, particularly from the perspective of human rights. The methodology used for this paper is the reviews of extensive literature, which include: scientific articles and monographs, relevant international and regional legal instruments, the reports and statements published by the United Nations and other international and regional institutions as well as informal discussions with scholars and stakeholders.

Figure 2 – Population aged 65-79 years and 80 years and over, in 2011



Source: Nordregio at www.nordregio.se.

1. IMPACT OF CLIMATE CHANGE ON THE ELDERLY POPULATION IN THE ARCTIC REGION

The Arctic consists of the northern parts of eight nations: Norway, Sweden, Finland, Denmark, Iceland, Canada, Russia, and the United States (Alaska) (Hassol, 2004, p. 5). The region is inhabited by almost four million people. They include local people and recent arrivals, hunters and herders, city dwellers etc. These inhabitants are encompassed of different proportions of indigenous and non-indigenous peoples (Parkinson, 2008, p. 156; Hassol, 2004, p. 6). Among all these inhabitants elderly people are significant in number. Despite that fact that challenges posed by climate change affect the entire portion of inhabitants in the region, the elderly people are particularly vulnerable. While aging itself or turning age 65 does not make a people vulnerable, socio-cultural elements as well as physiological conditions exacerbated by the negative impacts of climate change create greater vulnerability (Filiberto et al., 2010, pp. 19-25). As mentioned, climate change contributes to major challenges in the region; it greatly affects the overall socio-economic, cultural, environmental and infrastructural aspects. The distinct groups of people in the Arctic,

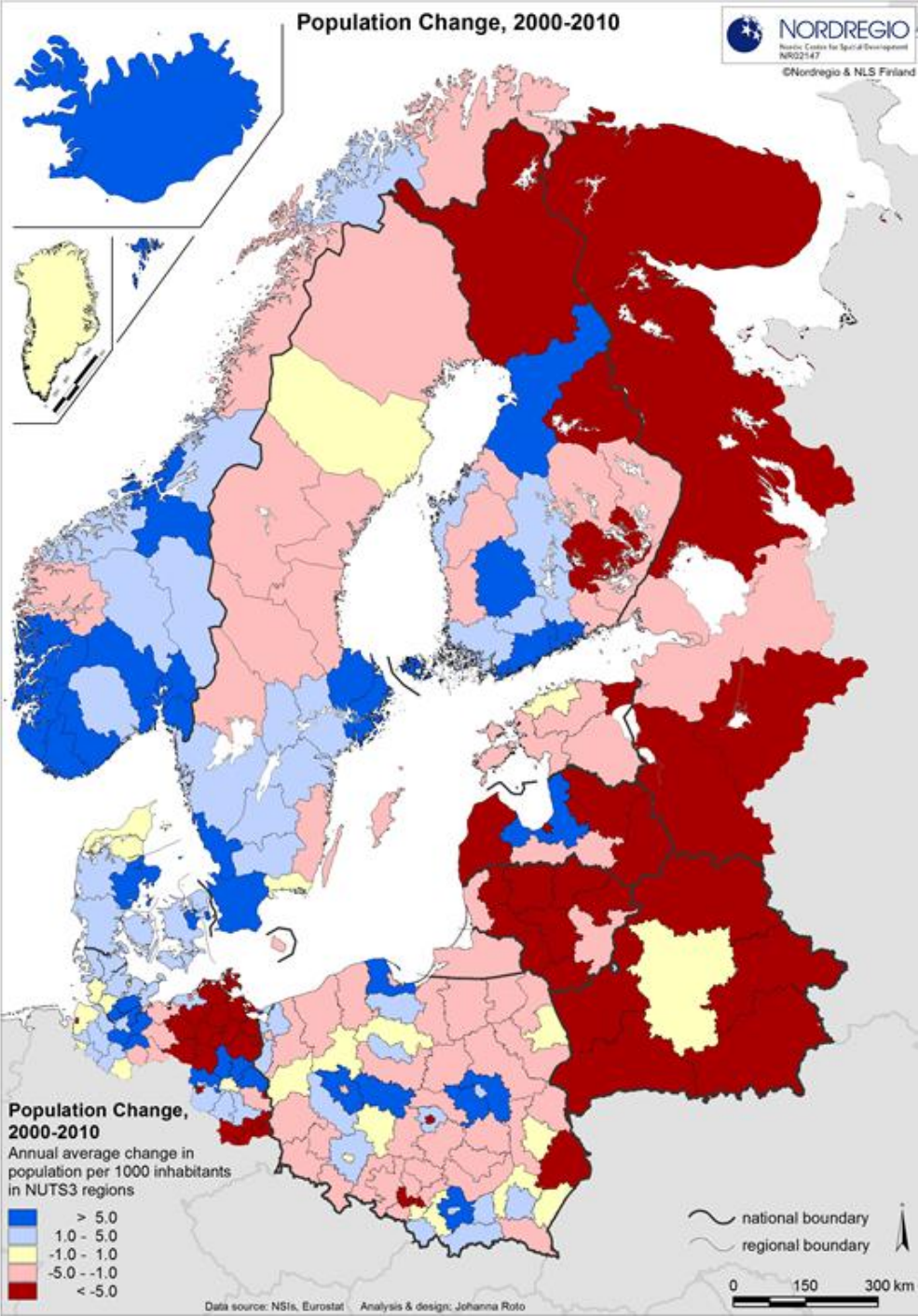
especially in its remote regions, already survive with little public support, poor economic infrastructure and poor means of communication services. The population in the region to a great extent suffers from access to community health and acute care systems, which are minimal and poorly supported in these distant areas. These factors, when combined with the adverse consequences of climate change, create a complex social situation contributing to distracting economies, abolishing livelihoods, undermining development and exacerbating discriminations between the sexes (UN Population Fund, 2009, p.1). In many cases such changes encourage migration of the young people to the urban areas outside the region leaving their elderly generation behind, which results in isolation for the region's elderly. Even though climate change has both positive and negative impact to the Arctic communities, it poses distinct challenges from both social and economic perspective (Rasmussen, 2009, p. 525). The following sections highlight the instances of the effects of climate change on the region's elderly people.

1.1 Social and Economic Effect

As far as the elderly people are concerned, one of the major problems in the region is population decrease, in particular the decrease of young people. Because of the poor condition of living and livelihood, unpredicted economic sustenance and the lack of available local and traditional resources, the region's young people migrate for better opportunities in the urban areas. The elderly people in most cases are left alone in the region. For the elderly losing of family tie and suffering from social bondage with the loved ones contribute to psychological stress upon them. In addition limited movement capacity obstructs them from being engaged in other social activities. Moreover, unavailability of adequate social networks and limited access to social gatherings make them feel even lonelier. The overall consequence results in isolation and helplessness. The elderly people of the region feel themselves worthless, which finally may turn to psychological problems. On one hand social isolation, and on the other hand chronic diseases linked to old age, together would cause greater risk to the region's elderly (Haq and Kohler, 2008, p. 19). Moreover, the elderly who are in one way or another engaged in economic activities face multifaceted difficulties. To mention one example, in the workshop entitled "Barents International Political Economy: Governance and Gender" held at the Arctic Centre in the University of Lapland on 15 December 2010, it was mentioned that climate change has negative impact to the elderly women's life. Especially economically they become vulnerable. The elderly women, who come from Russian border to do business in the open market in Kirkenes (Norway), suffer from a greater economic risk

because of unpredicted weather causing no business benefits. However, they have to pay in advance for the permission to the authority for a specific duration of the business function. This situation really affects elderly people’s social and economic life. As a result, the elderly people suffer from narrow and restricted social lives.

Figure 3 – Population change, 2000-2010



Source: Nordregio at www.nordregio.se.

1.2 Health related affect

The affect on health is the most obvious consequences of climate change. The impacts vary from place to place due to regional differences in climate change as well as variations in health status, psychological and social characteristics, and adaptive capacity of different populations (Geller and Zenick, 2005, pp. 1257-1262). Temperature rise causes significant higher mortality risk of the elderly in the Arctic (Costello and Abbas et al., 2009, p. 373). Extreme cold and longer wet environment bring other health problem such as, hypothermia, bronchitis, pneumonia among elderly and children (Guide on Climate Change & Indigenous Peoples, 2009, p. 11). In this regard an interesting discussion has been held recently in the 10th Annual Research Seminar entitled “Science-Policy Interface – Societal Impacts of Arctic Research”, organized by ARKTIS Doctoral Programme of the Arctic Centre in the University of Lapland from 15-16 March 2012. Professor Birgitta Åhman, a keynote discussant in the Seminar, mentioned that extreme hot could be better than extreme cold for the elderly in the Arctic region.

Due to aging, functional changes such as, reduced gastric acid production, changes in respiratory function, decline in blood flow, decline in pulmonary excretion, neurological degeneration can be evidenced among the elderly. Climate change accelerates these functional changes affecting particularly the elderly (Geller and Zenick, 2005, p. 1259). Physical isolation, lack of fresh water, energy insecurity, and increased prevalence and virulence of infectious diseases become apparent (Guide on Climate Change & Indigenous Peoples, 2009, p. 22). Rural Arctic residents in small, isolated communities with a fragile system of support appear to be most vulnerable because of little infrastructure and marginal or non-existent public health systems. In addition, social and economic disadvantages limit the capacity of the elderly to avoid the negative health impacts of climate change.

1.3 Health implication due to food consumption

Climate change in the Arctic effects availability of traditional food, especially in the distribution of fish and wildlife. As a result significant changes occur with major health implications. Decreases in commercially important species, such as salmon, are likely to create economic hardship and health problems associated with reduced income in the traditional small communities (Parkinson, 2008, p. 161). Because of lack of traditional food, the region’s population is forced to rely on imported western food, which on one hand is expensive, and on the other hand,

is known to increase the risks of cancer, obesity, diabetes, and cardiovascular diseases among these people.

1.4 Cultural effect

In the Arctic, the cultural dimension of the local and traditional community plays a significant role in their livelihood. The indigenous and local communities of the region rely on traditional activities for their livelihood. Traditional livelihoods fluctuate from rotational agriculture to hunting, gathering, trapping and coastal and marine fishing. Traditional knowledge used to play an important role both in traditional activities and in maintaining the traditional culture. The elderly people are the holders of such traditional knowledge. Because of climate change overall ecosystem in the Arctic is changing rapidly causing traditional knowledge unpredictable. As a result, today traditional activities are in many cases undermined children (Guide on Climate Change & Indigenous Peoples, 2009, p. 11). It should also be noted that indigenous women in many parts of the Arctic region are treated as the custodian of the traditional knowledge and cultural practices, especially with respect to the maintenance of biodiversity and environmental sustainability (Dankelman, 2010, p. 146). The total impact of climate change on indigenous women is the erosion of their world views, culture and identity which are intricately woven in their relationship to their land and resources (Dankelman, 2010, p. 148). The loss of traditional plants, as well as decline of traditional knowledge in their conservation, reduces the opportunity for the future generations to learn and practice traditional health, biodiversity conservation and protection, and food security knowledge (Guide on Climate Change & Indigenous Peoples, 2009, p. 81). From the elderly perspective, climate change contributes to uncertainty in prediction based on traditional knowledge, which make them suffer from the respect from the younger generation as the knowledge they bear is no more as accurate as it used to be.

1.5 Psychological affect & loss of identity

Mental health of the elderly is also likely to be affected by climate related changes in the Arctic. Population dislocation and community disruption may negatively affect village habitability. Lack of social networks, loneliness, and extensive isolation combined with physical incapability due to old age diseases are likely to psychological affect the elderly population of the region. Loneliness makes the elderly easily feel frustrated and mentally ill (Haq and Kohler, 2008).

For elderly, identity is an important issue. As climate change in the Arctic disrupts the social and cultural structure significantly, the identity of the people of this specific region is under a risk. As mentioned earlier, the region is inhabited by a significant number of indigenous peoples; the ethnic cultural identity is the core of their survival, which is being disrupted as a consequence of ongoing socio-cultural changes caused by rapid climate change. Consequently, the elderly people become even more frustrated as their community identity suffers from a risk of disappearing.

2. REFERENCE TO ELDERLY RELATED HUMAN RIGHTS IN LEGAL INSTRUMENTS

There are a number of available human rights instruments. These instruments can be distinguished as international as well as regional systems. The United Nations (UN) adopted instruments, when combined together, present international human rights system. They constitute international bill of human rights, which includes six documents (Gudmundur, 2010, p. 150). They are: Universal Declaration of Human Rights (UDHR), International Covenant on Civil and Political Rights (ICCPR) and its two Optional Protocols, and International Covenant on Economic, Social and Cultural Rights (ICESCR) and its Optional Protocol. While UDHR is only a non-binding declaration, the other instruments are binding upon the ratifying states. In addition to the UN system, there are also other regional human rights systems, such as African system, European system and Inter-American system. Each of these systems has its sole set of human rights treaties and regulatory appliances. Each of these regulatory appliances determines the current status of elderly rights within these various frameworks. There are also other human rights instruments targeting specific groups of people, such as Convention on the Elimination of all forms of Discrimination against Women (CEDAW Convention), Convention on the Rights of Persons with Disability, Convention Relating to the Status of Refugees, International Labor Organization (ILO) Convention No. 169 concerning Indigenous and Tribal Peoples, the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) etc. These instruments also refer to some of the rights that are applicable to elderly people.

2.1 UN Human Rights System

Several of the provisions embodied within the framework of UN system are applicable to the elderly people. The UDHR, for example, referred to a number of provisions, which are of elderly

relevance. Even though it provides no binding obligation upon states, many of its provisions are later incorporated in both ICCPR and ICESCR. For example, article 25(1) of the UDHR states: “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control” (UDHR. 1948). These rights can also be found particularly in the ICESCR. A number of the provisions therefore are directly linked to elderly people. These provisions are embodied in articles 3, 6, 9, 10, 11, 12 and 13 of the ICESCR. Whereas a number of ICCPR provisions are also relevant in the context of elderly. Article 6, for example, asserts that every human being has the inherent right to life, and no one shall be arbitrarily deprived of his life, which includes among others the elderly people. Article 27 addresses protection of minority culture, which includes protection of culture and cultural lives of the indigenous and other ethnic minorities. The article is applicable for the elderly belonging to these indigenous and ethnic communities. More relevant provisions on elderly rights are however found in ICESCR, which are summarized here.

Article 6 guarantees right to work which gives individual to live with personal freedom and dignity. Right to work also includes earning for livelihood and decent work condition. While at the old age people may suffer from various health related problems, it may be likely that they may be arbitrarily sacked even before the retirement age. If such a situation occurs, it brings a serious hardship for the elderly, especially in the remote region like the Arctic. It is also a fact that because of the old age, it is also difficult to keep the job running. By virtue of this article, among others, the elderly people are guaranteed a secure work or other alternative arrangements in case such security cannot be guaranteed.

Article 9 is the only article in the ICESCR explicitly applicable for the protection of elderly people’s rights (ICESCR, 1966 General Comment 6). The article addresses right to social security. The right to social security is essentially an important right, particularly when a person is not able to secure an adequate standard of living through work, due either to unemployment, old age or disability (Wiik, 2001 in Eide, 2003). Right to secure work and right to social security are therefore interconnected. A gender dimension can also be linked here, and relevant to elderly rights regarding non-discrimination. Article 3 conceives equal rights of men and women in the enjoyment of economic, social and cultural rights. According to the Committee on ESCR (Treaty monitoring body of the ICESCR), the spirit of Article 3 has been meant to inspire equal rights by way of having men with house hold responsibility, which would eventually contribute to reduction of

discrimination (ICESCR General Comment 20). An old age inequality is seen in the pension benefits in the cases where women who take care the family at home contributing less to the social security system, and thus, receiving less pension benefits at the end.

Article 10 is relevant as far as protection of family life is concerned where elderly care is an essential part of maintaining family life. States are even required to provide financial support to family members caring for the elderly at home.* Other relevant provisions include article 11 concerning right to an adequate standard of living including adequate food, water, shelter, clothing and housing, and to the continuous improvement of living conditions; article 12 referring to right to physical and mental health and; articles 13-15 referring to rights to education and the enjoyment of culture. These latter rights outline two views on how states should approach the education rights of the elderly: firstly by facilitating educational program for the elderly and; secondly, by taking efforts to pass on elderly people's knowledge and experience to the young generations as part of right to education (Pinzón and Martin, 2003, p. 973).

2.2 Human Rights Targeted to Particular Groups

The UN System of human rights is applicable generally to all. There are however mechanisms available for the protection of human rights of particular groups. Several of the instruments have so far gained fundamental significance in the observance of human rights to the targeted groups. The instruments with particular importance for the elderly rights include: the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW Convention) of 1979, the International Labour Organization (ILO) Convention No. 169 concerning indigenous and tribal peoples, the Convention on the Rights of Persons with Disability of 1975 (Disability Convention), the Convention Relating to the Status of Refugees of 1951 (Refugee Convention) and the UN Declaration on the Rights of the Indigenous Peoples (UNDRIP) of 2007. In all these instruments there are a number of articles that are either directly or indirectly linked to elderly people. CEDAW Convention, for example, in its article 11 (1) (e) clearly mentioned the need for elimination of old age and disability related discrimination between men and women. There are many other provisions which in one way or another applicable towards the elderly rights, such as general non-discrimination rights (article 1 and 2), non-discrimination related to participation in public and

* See: General Comment 6, para. 31. On the basis of article 10, paragraph 1, of the Covenant and recommendations 25 and 29 of the Vienna International Plan of Action on Ageing, States parties should make all the necessary efforts to support, protect and strengthen the family and help it, in accordance with each society's system of cultural values, to respond to the needs of its dependent ageing members.

political life as well as in decision making (article 7), and non-discrimination related to health, economic and social benefit (article 12 and 13) etc.

A number of articles embodied in the Disability Convention are applicable to the elderly people. The clear reference to elderly people is found in both articles 25 regarding access to health service and in article 28 regarding adequate standard of living and social protection. In addition other provisions, such as equality and non-discrimination (article 5), women with disability (article 6), accessibility (article 9), right to life (article 10), right to live independently and inclusion in the community (article 19), right to habilitation and rehabilitation (article 26) and right to work and employment (article 26), right to participation in political and public life (article 29) as well as in cultural life (article 30) have direct bearing with the enjoyment of the rights belonging to the elderly people. Among the others, the Refugee Convention referred social security rights at old age (article 24), both ILO Convention 169 as well as the UNDRIP embodied several provisions which are applicable to the elderly indigenous peoples.

2.3 Region Human Rights System

In addition to the UN initiated human rights mechanisms, there are other available regional systems that guarantee the protection of human rights in the region specific context. Such regional systems are, for example, European human rights system, Inter-American human rights system as well as African system of human and peoples' rights. The European regional system is composed of the Convention for the Protection of Human Rights and Fundamental Freedoms (known as the European Convention on Human Rights ECHR) of 1950 and of several Protocols which amended the Convention framework. The ECHR entered into force in September 1953. For the better implementation of human rights provisions the Convention established the European Court of Human Rights (ECtHR), the judgment of which is monitored by the Committee of Ministers of the European Council. Inter-American human rights system is composed of a number of instruments of which the significant ones are: American Declaration of Rights and Duties of Men of 1948, American Convention on Human Rights of 1969, the Protocol of San Salvador (Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social, and Cultural Rights) of 1988, Inter-American Convention on the Prevention, Punishment, and Eradication of Violence Against Women of 1994 and Inter-American Convention on the Elimination of All Forms of Discrimination against Persons with Disability of 1999. The African human rights system has distinctive features when compared with the ones previously mentioned. The most distinctive

feature is its recognition of collective rights. It viewed individual and peoples' rights as linked. The system is composed of, among others, the African Charter on Human and Peoples' Rights (commonly known as Banjul Charter) of 1981, and which entered into force in 1986, the African Commission on Human and Peoples' Rights established in 1987 and a Protocol to the Charter adopted in 1998 in connection to the creation of the African Court on Human and People's Rights, which came into force on 25 January 2005. These regional systems, to the extent they guarantee the protection of fundamental human rights; also guarantee the protection of rights of elderly people.

3. ANALYSIS OF THE HUMAN RIGHTS EFFECT ON ELDERLY IN THE ARCTIC

The impact of climate change will affect the rights of certain vulnerable groups disproportionately. Among others, these vulnerable groups include aging population and the persons with disability (Lankford, 2009, p. 436). In the Arctic, as mentioned elsewhere in this paper, the affect of climate change is drastic; and the resulting consequences affect the rights of the region's elderly population who are the most vulnerable group. They suffer from the effective protection of human rights. This section addresses how specific human rights of the elderly are affected in the Arctic because of the adverse consequences of climate change.

The right to life: The most fundamental of all the human rights is right to life, which is affected by numerous ways as a consequence of climate change (Lankford et al., 2011, pp. 12-14). Climate change has been increasingly threatening livelihoods and food security of the vulnerable groups, including indigenous peoples (Anton and Shelton, 2011, p.18). In the Arctic people living in the coastal areas as well as the indigenous communities are at greater risks. Changes in ice and snow jeopardize the lives of these communities since their food sources are threatened. The elderly people of these communities as the most vulnerable group are the ultimate victim as far as their right to life is concerned.

Right to food: The right may be argued as interconnected to right to life. The impact of climate change has great influence to the availability and accessibility of food. Vanishing of high alpine floras which are the sources of food and medicine are affected because of climate change. Climate change contributes to unavailability of sufficient food as well as high food prices, which results in food insecurity. On the other hand climate change caused contaminated food provides greater health risks. As a result both the right to health and right to life are threatened, which affect the region's elderly population.

Right to health: Numerous health effects caused by climate change pose a greater risk for the Arctic elderly. Their old age physical health is exacerbated by the introduction of other invasive diseases, which is resulted from climate change. At the same time climate change related consequences also affect the health care facilities. There are four main aspects involved concerning the health care facilities to guarantee right to health, which are: availability, accessibility, acceptability and quality. It is far from the case that the region's elderly, particularly the elderly people living in the country side are effectively safeguarded by this right. The negative influence of climate change limits these aspects of health care facility in the Arctic. It is stated that the right to health in the context of climate change will demand wide-ranging measures, by raising importance to protecting vulnerable individuals and communities (Anton and Shelton, 2011, p. 19), including its elderly by virtue of, for example, article 12 of the ICESCR as well as article 17 of the San Salvador Protocol concerning right to special protection at old age.

Right to protect family life: Right to have protected family life has strong influence to the Arctic's elderly people. In a study conducted by Rasmussen Ole Rasmussen, (2009) noted that younger women from the north are increasingly moving to the urban areas. The decline of the number of younger women poses a risk for elderly since they are mostly taken care of by the younger women at family. Consequently, they are deprived of their right to protected family life enshrined in article 10 of the ICESCR.

Right to Culture: Culture constitutes the identity, especially for the Arctic people who are composed of, among others, groups of indigenous and coastal population. Maintaining identity and practice of culture is guaranteed in a number of human rights instruments. The adverse consequences of climate change affect this aspect of human rights in general. Losing culture and cultural identity is significant for the elderly as they suffer from the loss of community customary norms and values as well as confidence in their traditional knowledge. In the Arctic elders, for example, can no longer predict, the weather using their traditional knowledge (Henrikson, 2007, p. 22). Effect of climate change makes such knowledge unpredictable. These issues of culture and cultural identity are the core of their existence. Since in the Arctic traditional communities they are the custodian of traditional culture and traditional knowledge, loss of culture due to climate change challenges causes mental and psychological distress to the region's elderly population.

CONCLUSIONS

Elderly people's human rights issues are becoming noticeable at the point of raising awareness, creating ethical demands for action and constructing coalitions (Cameron, 2011, p. 22). In the Arctic context however the mention on elderly human rights is hardly seen. This paper therefore roughly endeavours to show how climate change related consequences affect the lives and livelihood of the Arctic elderly population. The particular focus in this context has been placed on the human rights perspective. The elderly as the most vulnerable group in the region, as shown in this paper, are affected by various ways which have particular impact on human rights, such as right to life, right to health, right to access to food, health, family life, culture etc. The paper addressed these human rights concerns in order to show the vulnerability of the elderly people in terms of the enjoyment of their human rights. This paper therefore suggests some recommendations that may help the elderly to cope with the challenges they face. For example, the elderly people's participation in tackling climate change related problem can be developed. In this way they could contribute to problem solving mechanisms where they may involve in the policy making functions. Local authority of the region should give more concentration to ensure the safer, healthier communities for elderly people. The situation of elderly people of the region will be improved if elderly themselves, relevant stakeholders and academia work together, which will invent a national policy framework to improve the quality of life of older people. This collective effort would facilitate to tackle the impacts of climate change to the elderly lives in this region. Moreover, the elderly people have enormous spans of experiences to draw upon in the above mentioned problems. Traditional knowledge of indigenous people, for example, should be more recognized and respected in the national and international level.

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TOURISM AND REGIONAL DEVELOPMENT – THE CASE OF ROMANIA *

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Abstract: *The policies regarding regional development in the last years took tourism more and more into account, as a strategic sector for the assurance of a dynamic economic growth of regions with an important tourism potential. Consequently, we intend to analyse the implications of the North-East Regional Development Agency in the development of Romanian tourism in the present socio-economic context, both at regional and at national level.*

Key words: regional development, tourism, North-East Regional Development Agency, Romania

Jel Classification: M19, O22, R19, R58

INTRODUCTION

Regional development is a wide circulation syntagm which spread rapidly by the so frequent use of this new concept, from the present language to the political speech, due to the fact that it means an important change, involving a new terminology to describe the new realities.

The theory of sustainable development offers the basic conceptual frame for the theory of regional development. The author Douglass C. North criticises the perspective of Edgar Hoover and Joseph Fisher (1949), who see regional development as a phenomenon on several stages (quoted by Casey J. Dawkins, 2003). He states that, in the present modern era, regional development has appeared from the sustained efforts of the capitalists who exploited the resources of a region in order to satisfy the needs from the consumption market, and not from the step-by-step progress of the subsistence economy.

According to the Law no. 151/1998 concerning the regional development in Romania (Law no. 151/1998), the main objective of the regional development policy is as follows: diminishing the existent regional unbalances by stimulating balanced development, by quick recovery of the delays in the development of the unfavoured areas as a result of historical, geographical, economic, social, political conditions, and preventing new unbalances.

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The new law of the regional development (Law no. 215/2004), enacted in 2004, defines the regional development policy as follows: *„the ensemble of the policies elaborated by the Government through the institutions of central public administration, by the local public administration authorities, and by the specialised regional organisms, after consulting the socio-economic partners involved, with the purpose to assure the lasting and balanced economic and social development of the geographical areas grouped in the development regions, to improve Romania's international competitiveness, and to reduce the present economic and social unbalances in our country and in the European Union member states”*.

The definition offered by the Organisation of Economic Cooperation and Development (OECD) – (http://www.mmuncii.ro/pub/.../images/...organizatii/prezentare_OCDE.pdf, accessed on the 1st of February, 2012) for regional development underlines the main characteristic of the concept, which is that of a general effort to reduce regional disparities by helping economic activities generating workplaces and wealth.

According to Pop (Pop et al., 2006), regional development has the purpose to give an impulse and to diversify economic activities, to stimulate investments in the private sector, to contribute to the decrease of unemployment, and last, but not least, to improve life standard.

Another definition concerning regional development belongs to Mateoc-Sîrb (2010), who states that regional development can be regarded as *„the process by which a community becomes more responsible for problems or for its own potential, succeeding in the meantime to better organise and plan its own resources”*. Regional development implies the use of resources – local ones, but also the ones obtained from the national or international environment – in order to increase the general competitiveness of the territory, to increase the degree of adaptability of production and functional components to the necessities of structural adaptation, and, last but not least, to reduce the unbalances among different components of the structure of national area (Jula, 2002).

1. REGIONAL DEVELOPMENT IN ROMANIA

After the political changes from December 1989, the preoccupations for regional development started to extend quickly. In a short time, several nongovernmental organisations appeared, following the Western Europe trend.

The first regional development theory appeared as a necessity of the times when economic development was insufficient. According to Dumitrica (2012), the regional development theory

appeared both from the efforts of the economists, and of the ones responsible with planning, the objective being to understand and to characterise the processes of regional development.

During its evolution as a state, Romania met regional economic and social disparities. In the context of Europe's economic and political changes, but also Romania's, after 1989 the founding of a new conception and of a new policy concerning regional development was necessary, and already started to develop. Romania's regional development policy is nowadays an important component of the Government Program. This policy is defined in agreement with the new concept developed by the European Union, being a stage of the process of adhesion to the European structures (Ungureanu and Mateoc-Sîrb, 2009).

In Romania, the regional development theory is the basis of the elaboration of regional strategies and policies, which means that understanding the regional development concept is an essential condition in order to adhere to the European Union (Buruiana, 2009).

In order to apply the regional development policy, eight development regions were created on the whole Romanian territory.

The development regions are not administrative-territorial units; they do not have artificial personality, being the result of a free agreement between county councils and local councils. They are as follows (European Institute of Romania, http://www.ier.ro/documente/formare/Politica_regionala.pdf, Regional development policy, series Micro-monographs – European Policies, p. 45, accessed on the 4th of February, 2012): the North-East development region (component counties: Bacau, Botosani, Iasi, Neamt, Suceava, Vaslui), the South-East development region (component counties: Braila, Buzau, Constanta, Galati, Tulcea, Vrancea), the South-Muntenia development region (component counties: Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova, Teleorman), the South-West development region (component counties: Dolj, Gorj, Mehedinti, Olt, Valcea), the North-West development region (component counties: Bihor, Bistrita-Nasaud, Cluj, Maramures, Satu-Mare, Salaj), the West development region (component counties: Arad, Caras-Severin, Hunedoara, Timis), the Central development region (component counties: Alba, Brasov, Covasna, Harghita, Mures, Sibiu) and Bucuresti-Ilfov development region (Bucuresti municipality, Ilfov county).

Regional development should correlate and integrate tourism among the other local economy components (Avramescu, 2005).

At present, the Regional Operational Programme ROP 2007 - 2013 (REGIO) is one of the Romanian operational programmes agreed upon with the European Union, and a very important instrument for the implementation of national strategy and of regional development policies. It is

applicable to all eight Romanian development regions (The Ministry of Regional Development and Tourism, <http://www.mdrl.ro/index.php?p=205>, accessed on the 5th of February, 2012).

One of the priorities of the Regional Operational Programme implies the capitalisation of the existing tourist resources, as well as of the ones not yet introduced in the tourist circuit (tourist resources – historical, cultural, natural), and the development of the main types of tourism, with the identification of market niches, creation of new workplaces, increase of the revenues from tourist activities, and also creation of income sources in isolated, extremely beautiful areas.

The balanced development of tourism on the entire area of the country can contribute to the economic and social development, which could lead to the improvement of life quality and of life standard. Tourism could become a basic component of the national economy, determining important changes from a territorial point of view, therefore contributing to the development of the regions left behind, or lacking other resources.

Consequently, regional development is a process by which the conditions and factors influencing the community are meant to change so as, after these changes, the community could obtain high life standards.

2. PROMOTING REGIONAL DEVELOPMENT ORGANISMS IN ROMANIA

The institutional structures promoting regional development policies are at a **national level** – The Regional Development National Council (RDNC) and The Regional Development National Agency (RDNA), and at a **regional level** – The Regional Development Council (RDC) and The Regional Development Agency (RDA).

Consequently, at regional level the main institutional actors are:

The Regional Development Council, regional deliberative organism, with no artificial personality, constituted and functioning on partner principles at the level of The Development Regions, with the purpose to coordinate the elaboration and monitoring activities deriving from the policies of regional development (Regulation of organisation and functioning for the North-East Regional Development Council, published in the Official Monitory 987/27, Oct. 2004, art. 1, paragraph 1).

The Regional Development Council has the following attributions:

- It analyses and decides the regional development strategy and programmes;
- It approves the regional development projects;

- It presents to the Regional Development National Council propositions concerning the realisation of the Regional Development Fund;
- It approves the criteria, the priorities, the allocation and the destinations of the resources of the Regional Development Fund;
- It supervises the use of the funds allocated to the regional development agencies;
- It supervises the observance of regional objectives (Law no. 151 from 15th of July, 1998 concerning regional development in Romania, published in the Official Monitory 265/1998, art. 6, paragraph 2).

The Regional Development Council coordinates the Regional Development Agency, which functions in each Development Region. The Regional Development Agency existing in each development region is the executive organism of The Regional Development Council.

The Law no. 15/1998 for regional development established the institutional frame of the regional planning in Romania with the specific objective of reduction of the unbalances of economic development in the whole country. In order to attract investments, the country is divided in eight regional development agencies (http://www.mdrl.ro/_documente/tourism/studii_strategii/masterplan_partea_2.pdf, accessed on the 20th of May, 2012).

The Regional Development Agencies (RDA) are constituted as non-governmental, non-profit organisms of public utility, with artificial personality, functioning in the field of regional development. They are partners with The Ministry of Regional Development and Tourism, responsible with the elaboration of Regional Development Plans, as basis for the elaboration of The National Development Plan, and then for the approval by The Government of The National Development Plan. They have the role of authorities implementing the measures established within the priority of the National Development Plan concerning regional development. RDAs elaborate the regional development strategies and programmes, and, after their approval by The Regional Development Council, and then by The Regional Development National Council, they have the role of their implementation.

The Regional Development Agency has the following attributions (Law no. 151/1998 concerning regional development in Romania, and the situation of the unfavoured areas, Autonomous Administration, Bucuresti, 1999, p. 8):

- It elaborates and proposes to The Regional Development Council (from that region) the approval of The Regional Development Strategy, regional development programmes and funds administration plans;

- It assures the application of the regional development programmes and of the funds administration plans, according to the decisions adopted by The Regional Development Council, with the observance of the present legislation;
- It identifies the areas with problems within the development regions;
- It assures the technical speciality assistance to the natural or artificial persons, with public or private capital, investing in unfavoured areas;
- It sends to the National Authority for Regional Development from The Regional Development National Fund the financing propositions of the development projects approved;
- It attracts financial sources from The Regional Development Fund;
- It administrates The Regional Development Fund with the purpose of the objectives provided in the regional development programmes;
- It is responsible for the correct administration of the funds allocated.

The Director of The North-East Regional Development Agency is appointed after an examination, and is relieved of function by The Regional Development Council.

The financing of the expenses of organisation and functioning of The Regional Development Agency is assured by The Regional Development Fund, their level being approved by The Regional Development Council (http://eufinantare.info/po/agentii_regionale.html, accessed on the 10th of February, 2012).

These institutions had, from the beginning, the duty to cooperate for the elaboration of a development strategy at national and regional level. This strategy was based on the analysis of the economic situation, which allowed the formulation of principles and objectives on medium and long term, with the establishment of priorities. The strategies elaborated from 1998 up to present have started, indeed, from economic and social analyses, have stated objectives and measures considered of priority, but they have not stated the financing sources, and the necessary resources (human, material, financial, informational), and the ones available which could be used (Mihaila, 2009, p. 14).

It is obvious that at regional level, each RDA identifies the regional priorities, consequently acting for the elaboration and implementation of the programmes. According to the authors Ionescu and Toderas (2007), regional disparities should be eliminated, first at national level, then at community level.

The Law no. 315/2004 concerning regional development in Romania states that The Regional Development Agencies are Intermediate Organisms for The Regional Operational Programme specific to the period 2007-2013.

The Ministry of Regional Development and Tourism, as a Management Authority, delegates attributions to The Regional Development Agencies, as Intermediate Organisms, with the purpose to implement The Regional Operational Programme. These attributions have a major impact on the absorption of structural funds in Romanian development regions. Among the main attributions delegated are: information, advertisement, and *help-desk* (point of information and support for applicants and beneficiaries); development of project portfolio; participation in the process of project evaluation and selection, signing contracts with the beneficiaries; monitoring and checking the implementation of projects financed through ROP 2007-2013 (<http://www.fonduri-structurale.ro>, accessed on the 10th of February, 2012).

3. THE IMPLICATIONS OF NORTH-EAST REGIONAL DEVELOPMENT AGENCY IN THE DEVELOPMENT OF ROMANIAN TOURISM

3.1 Implications at regional level

Starting with 1999, North-East Regional Development Agency was established as Implementation Authority for components of the PHARE Programmes Economic and Social Cohesion (ESC) 1998, PHARE ESC 2000, PHARE ESC 2001, PHARE ESC 2002, PHARE ESC 2003, PHARE ESC 2004-2006, and as Contracting Authority for programmes financed by the Romanian Government (North-East Regional Development Agency, http://www.adrnordest.ro/index.php?page=PROGRAMMES_PRESENTATION, accessed on the 30th of May, 2012).

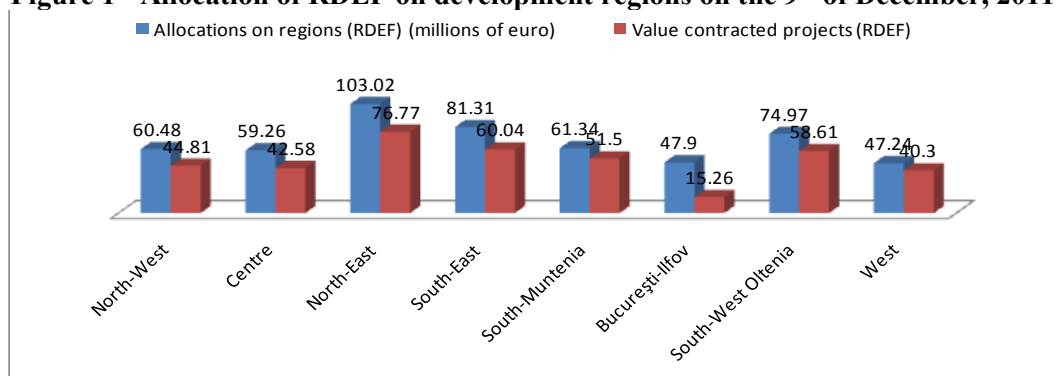
If the first projects implemented were oriented towards supporting the Small and Medium Enterprises (SME) sector, human resources development and tourism, gradually the development programmes diversified, including support of direct investments in micro-enterprises and SME, development of educational and business infrastructure, support of social services.

As an Intermediate Organism for The Ministry of Regional Development and Tourism, The North-East Regional Development Agency (http://www.inforegionordest.ro/documente/adrnordest/buletin/pdr_nord_est_2007_2013.pdf) administrates the funds allocated to the region, in the field of infrastructures of transport, tourism, business support and services, social services and urban development. In what concerns regional projects, the agency acts as a leader or partner in wide projects with the purpose of socio-economic development of the region as a whole.

At regional level, The North-East Regional Development Agency involved itself in a series of projects with the purpose to capitalise the economic resources of North-East Region. One of the

operational programmes intending to support Romania's development is The Regional Operational Programme, known as REGIO. This programme is applicable to all eight development regions of Romania. REGIO's purpose consists in "support and promotion of local lasting development" in Romania's regions (Butnaru and Timu, 2011). After five years from its start, The Regional Operational Programme 2007-2013 registered a good development in what concerns the implementation in North-East Region. Axis 5, Lasting development and tourism promotion, from ROP, finances projects in three fields of intervention: Field no. 5.1 - Restoration and lasting capitalisation of the cultural and historical patrimony, as well as creation/modernisation of the related infrastructures, Field no. 5.2 - Creation, development, modernisation of specific infrastructure for lasting capitalisation of natural resources and for the increase of the quality of tourist services, and Field no. 5.3 - Promotion of the tourist potential, and creation of the necessary infrastructure with the purpose of increasing Romania's attractiveness as a tourist destination. The budget allocated to Axis 5 represents 15% (Butnaru and Timu, 2011) of the total allocated to the Regional Operational Programme. In what concerns the funds allocation for Axis 5, Lasting development and tourism promotion, fields no. 5.1, and 5.2, respectively, we can notice in fig. 1 that most of the funds were distributed to the North-East Development Region, with a maximum of 103.02 million euro of the total of 559.28 million euro allocated to tourism from the Regional Development European Fund (RDEF). From this it absorbed approximately 75% (until December 2011), which is due mainly to the fact that The North-East Development Region is the poorest region of the European Union. The South-East Development Region was situated on the second place from the point of view of the quantum of funds allocated for tourism component. On the background of the importance granted to tourism, under the aspect of the volume of accessed funds, we notice their relatively balanced distribution in territory.

Figure 1 - Allocation of RDEF on development regions on the 9th of December, 2011

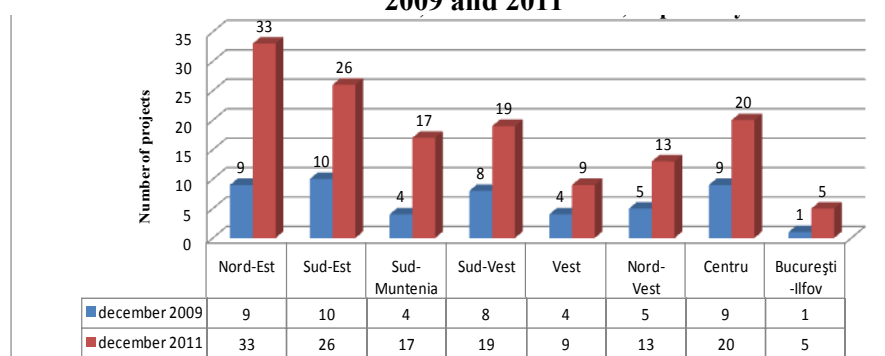


Source: Processed according to *ROP Implementation Stage on 30th of May, 2012*, Official site of the Ministry of Regional Development and Tourism

From the data presented by ROP Intermediate Organism, The North-East Regional Development Agency, it results that this operational programme registers in 2009 an adequate rhythm for implementation in North-East Region, which is demonstrated by the nine projects contracted.

The chart below indicates, by the 33 projects contracted until the 31st of December 2011 that the North-East Region was on the first place in the country concerning projects contracted in the field of tourism.

Figure 2 - Number of projects contracted on development regions in the field of tourism in December 2009 and 2011



Source: Processed according to *ROP Implementation Stage on 30th of May, 2012*, Official site of the Ministry of Regional Development and Tourism

3.2. Implications at national level

At the national level, in the interval between 2007 and 2011 The North-East Regional Development Agency was involved, together with the other RDAs in nine REGIO projects. Many of these projects have the purpose of lasting restoration and capitalisation of the cultural patrimony, as well as development and modernisation of tourism infrastructure.

By the implementation of the project „*Modernisation and extension of accommodation structures and of related utilities within the tourist complex Pelican, Murghiol - Tulcea*” (http://www.mdrt.ro/userfiles/plati_por/5_2.pdf, accessed on the 5th of July, 2012) it is intended to diversify the services offered by the accommodation structures and the related utilities within the tourist Complex Pelican, as well as to improve the services offered. At the end of the implementation period, the Complex could offer to the tourists over ten new standard structures of three stars (as compared to one star, the present classification). This will lead to the extension of the yearly functioning period of the Complex (to approximately eight months per year, as compared to

five months during the last years), and to the attraction of new segments of tourists (companies, big groups of agencies and tourism operators, foreign tourists).

Another REGIO project has the purpose of „*Rehabilitation of the old historical centre of Arad municipality*” (<http://www.civar.ro/rezumatProiect>, accessed on the 5th of July, 2012) through the lasting rehabilitation and capitalisation of the cultural-historical patrimony. The project will contribute to the saving and regeneration of patrimony objectives for Arad, and will transform the county from a mainly transition destination to a tourist destination.

The project „*Circuit of North Transylvania medieval fairs - Karolyi Castle from Carei, Karolyi Castle (Fortress) from Ardu*” (<http://www.nord-vest.ro/galerie-foto/Circuitul-targurilor-medievale-din-Transilvania-de-Nord---Castelul-Karolyi-din-Carei-Castelul-Cetatea-Karolyi-din-Ardud--eID31.html>, accessed on the 4th of July, 2012) has the general objective of lasting capitalisation of the cultural and architectural patrimony in North Transylvania, implicitly the increase of tourist attractiveness of the region by optimum capitalisation of regional resources. The results of the project seem to be of great impact: reintegration in the tourist circuit of a cultural and architectural patrimony of national value, optimum correlation and capitalisation of cultural, historical and architectural regional resources, increase of the number of tourists in the region, creation of a regional tourist brand, urban revitalisation, local economic development, and tourism lasting promotion.

The objective of the project „*Rehabilitation and extension of tourist infrastructure in the town Rupea*”

(http://regio.adrcentru.ro/Document_Files/COMEvenimente/00000843/nvp_xv_Prezentare20REGIO%20Cetatea%20Rupea.pdf, accessed on the 30th of June, 2012) had the purpose to stimulate the economic development of the area by the capitalisation of tourist, cultural, historical and natural potential. The project also has four specific objectives: lasting restoration and capitalisation of the fortress, as well as modernisation of the infrastructure related to the access to the monument, development of tourist potential of the area, average increase of the yearly number of tourists with over 5%, and extension of the tourist season with more than three months per year.

CONCLUSIONS

Tourism is present in our lives, and it emphasises, by its content and role, a different field of activity, a basic component of the economic and social life, for a growing number of countries from all over the globe.

In Romania, after 1989, along with the transition to the market economy, different changes affected tourism in particular. Consequently, people sought solutions to revive this field of activity, by the elaboration of development policies and marketing strategies.

Therefore, for the European Union, tourism represents economic activities with strategic character. In what concerns our country, Romania engaged itself by signing the agreement of adhesion to EU. Consequently, the adhesion is an impulse for the development of Romania's economic and cultural patrimony. The period between 2007 and 2011 brought changes in the Romanian tourism in what concerns the accommodation capacity, the number of tourists' arrivals and check-ins, which registered higher values as compared to the period previous to the Regional Operational Programme 2007-2013.

The analysis shows that the main beneficiaries of European funds in tourism from the North-East Region are local public administrations, county councils, city halls, and private beneficiaries.

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THE MAIN FEATURES OF THE FLOWS OF FOREIGN DIRECT INVESTMENTS IN ROMANIA

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Abstract: *A distinctive characteristic of The Global Economy over the last few decades has been the rising rate and the impressive increase in the Foreign Direct Investment (FDI globally). Due to the potential role that foreign direct investments may play in accelerating the growth rate and re-shaping the economy, many developing countries are seeking such types of investments that can multiply the efforts being made towards the growth of their economy. The purpose of this research is to analyze the flows of foreign direct investments in Romania between 2003 and 2010. The results of the research highlight the negative balance between the trade balance and the enterprises with FDI in 2007-2010, due to the financial crisis, to the fragile budget balance, due to the low competitiveness of the imports, the low quality of the Romanian products and the macroeconomic risk determined by the rate of inflation, the unemployment and the instability in the exchange rate.*

Keywords: foreign direct investment, growth economy, development

JEL Classification: E22, F14, F43

INTRODUCTION

Occurring in the world economy since the period of the great geographical discoveries, the direct foreign investments have been perceived, in the last few decades, as a veritable explosion in the international transactions, which has generated a surprising number of studies and analyses. The investments, with the participation of the foreign capital, are controversial, although, it is generally recognized that they have a certain preponderance of positive functions, especially at the level of the macro systems (the national economy, the geographical areas, etc.).

In Romania FDI contributes to the growth formation of the capital, in particular in the private sector and, at the same time, they have a beneficial role in putting into value the qualified manpower through the creation of new jobs. FDI constitute leverages for consolidation of international ties and the economic interdependence. This creates competitive advantages given by the volume of the exports on the world market, as well as the ability to generate drive effects on the adjacent industries (Anghel, 2002).

1. THE CHARACTERISTICS OF FDI

Foreign Direct Investments are defined as the Long-term investments made by one enterprise in another enterprise which functions within another national economy (OECD, 2008). Also, according to UNCTAD (1999), FDI is defined as a long-term investment by a dominant company in its country of origin, in a subsidiary, a controlled enterprise or sector of an enterprise in a foreign host country. It includes the equipment, the land used and/or investment capital (a percentage greater than 10% of the total holdings of a company), capital for re-investment (which may come from the retained-undistributed profits of a controlled company or from inter-company loaning), and debit transactions (long-term loaning or other loans) between the enterprise and its subsidiaries.

Kirkilis, Nikolopoulos and Pantelidis (2009) show that multinational companies under foreign direct investment are now the most dynamic factor in economic globalization. The internationalization of the production process, with the establishment of subsidiaries of the same parent company in different countries and the cross-border transport of goods and inputs, deepens the integration of the global market. At the same time, these transfers of goods and inputs are carried out within the global network of the parent company. Thus, they replace the markets and their distributional role with the internal system of management, decision-making and resource allocation of the multinationals.

Foreign Direct Investments have become one of the most important factors in modern-day economies, since they first began to appear in a global context at the beginning of the 20th century. It is interwoven with the existence of Multinational Companies, while, historically the increase in the number of the latter, worldwide, coincides with the general establishment of FDI as a method of funding their operations.

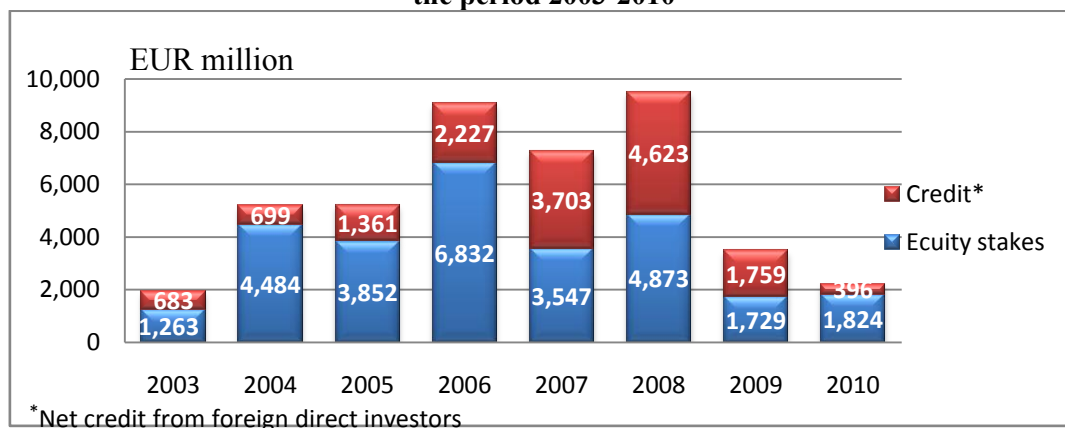
FDI include the transportation, beyond national borders, of a package of productive resources/inputs. These inputs may be either intangible (know-how, marketing, etc), or physical (share capital, raw materials, etc.). The transfer of inputs/resources occurs without the intervention of the market, that is, it takes place between two companies which are linked by ownership (Joong - Wan, 2003).

2. THE FLOWS OF THE FOREIGN DIRECT INVESTMENTS IN ROMANIA IN THE PERIOD 2003-2010

The investments in Romania recently allowed the ranking of this country in the statistics that analyze the flows of foreign direct investments in the South-East Europe, ranking it on notable places sometimes. Other statistics that relate to Romania in the perspective of membership of the European Union, points it somewhere to the medium volume of the direct investments attracted. The factors that led to the advent of the direct investments in the period 2003-2010 have been represented by its position in Europe, by the availability of the material and human resources, and last but not least, by the low wage costs. The largest volume of the foreign direct investments was attracted by Bucharest, followed by the counties from Transylvania and Wallachia, and at the opposite pole there were the counties Vrancea, Galați, Tulcea, Constanța and Brăila, where the highest rate of unemployment is recorded.

In the period 1990-2011, the volume of FDI has risen relatively rapidly in Romania, on one hand, due to their almost non-existent level during the beginning period of transition and on the other hand, to the relatively large profit opportunities that the foreign investors have been able to valorise in Romania, either through the Greenfield investments, or through purchases (mergers and acquisitions) or portfolio investments on emerging capital markets.

Figure 1 - Trends in the FDI flows in the form of participating to the capital and credit in Romania in the period 2003-2010



Source: www.bnr.ro

Under the conditions of the Government programs and strategies of economic and social reform insufficiently grounded as a strategic vision of the priorities in time, of the privatization of the inefficient and effective assets or of various types of privatizations in sectors, the most part of

the FDI are focused on the privatisations of the effective assets, with the state remaining loser. On the other hand, the type of the greenfield investments that would be meant a „de novo” training for the private sector in Romania, were less practiced and agreed to by the foreign investors, whereas they would have cost a management and economic-financial effort larger than buying at a low price for the active investors, in service of the State or with minimum effort, that could be made functional.

Table 1 - The flows of the FDI in Romania in the period 2003-2010

FDI FLOWS	2003	2004	2005	2006	2007	2008	2009	2010
FDI flows - total								
Eur million	1,946	5,183	5,213	9,059	7,250	9,496	3,488	2,220
percentage change from previous year	60,6	166,3	0,6	73,8	-20,0	31,0	-63,3	-36,4
FDI flows with no significant privatisation operations **								
Eur million	1,805	3,503	4,413	6,860	7,250	8,623	3,488	2,220
percentage change from previous year	48,9	94,1	26,0	55,4	5,7	18,9	-59,6	36,4

**more than Eur 10 million

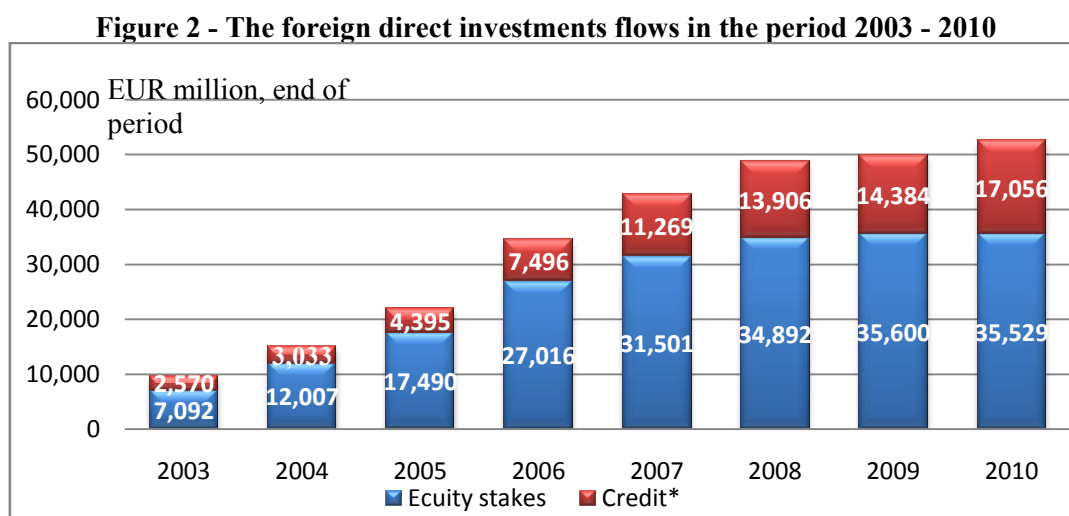
Source: www.bnr.ro

The annual FDI flows in the form of the loans and the equity holdings in the period 2003-2010, in Romania (Table 1) had a development characterized by the following sub periods: - 2003-2006, when the total annual flows of FDI increased from 1,94 billion euro to 9,05 billion euro, due to the major privatizations in Romania of the banking and industrial sectors (the petroleum and the petro chemistry, the metallurgy, the construction machinery); - 2007-2008, when the privatization in the banking sector and in the field of energy and utilities continued, the year 2008 being the peak year of FDI, with a volume of 9,49 billion euro; - 2009-2010, the annual total volume of FDI decreased dramatically compared to the previous years, reaching to 54,54 billion euro in 2010, as a result of the impact of the financial and economic crisis.

An analysis of each year in part leads to the following conclusion: the year 2003 registered a value of investments of about 1950 million. Increasing the value of the foreign investments in Romania exceeded by the year 2004 when the level reached 5183 million. In 2005, an amount roughly equal to that of the previous year. In 2006 the number of FDI increases, reaching 9059 million Euros, but the highest value being registered in 2008. The year 2007 attracts investments of 7250 million in Romania; this number was lower than in the previous year, but higher than in the previous years of the period considered. In 2009 the investments are half, compared to 2008 and in 2010 a decrease in the flow of FDI is noted, the loss is due to the financial crisis. High values of the foreign direct investments in Romania in 2006-2008 can be explained through the fiscal policy

adopted by the Government. The highest growth of the investments is in 2004 when they have a value of 2, 6 times higher compared to the year 2003.

During the 2003-2010, starting with the year 2008 with the economic and financial crisis, a balance of accumulated FDI with very small increases. The participations in the capital in the years 2009 and 2010 remained practically at the same level (Figure 2). The volume of the loans has increased, which indirectly leads to the conclusion that, in this period, the foreign firms have reduced the substantial or even ceased their net incomes from the investments made, some being strongly affected by the loss.



Source: Foreign direct investment in Romania, BNR, 2010.

We note that the foreign direct investments did not achieve a leap of the productivity, nor did they make the Romanian economy an innovative player in the European market, because the foreign capital flows were not targeted to those sectors of the economy that produced sustainable economic growth, but by the speculative sectors such as the real estate and the retail.

The period 2003-2010 is characterized by a domestic demand more than by the internal offer of goods and services (gross domestic product). During this period, Romania has applied a set of economic policies which focused on reducing the domestic demand in order to reduce the gap between these two fundamental parameters of the general economic equilibrium.

On December 31st 2010, the final balance of the FDI was 52,585 million euro, more with 5,2% than of the ending balance of FDI in 2009, representing a rate of less than 50% in relation to the size of the GDP in the same year from Romania. The shares to the social capital (including reinvested profits) of the enterprises with FDI was 35,5 billion the euro in 2010, meaning 67,5% of the ending balance of FDI.

Table 2 - The foreign direct investments stock in 2003-2010

FDI STOCK	2003	2004	2005	2006	2007	2008	2009	2010
Total								
Eur million	9,662	15,040	21,885	34,512	42,770	48,798	49,984	52,585
percentage change from previous year	...	55,7	45,5	57,7	23,9	14,1	2,4	5,2
Equity stakes (including reinvested earnings *)								
Eur million	7,092	12,007	17,490	27,016	31,501	34,892	35,600	35,529
percentage change from previous year	...	69,3	45,7	54,5	16,6	10,8	2,0	-0,2
Credit**								
Eur million	2,570	3,033	4,395	7,496	11,269	13,906	14,384	17,056
percentage change from previous year	...	18,0	44,9	70,6	50,3	23,4	3,4	18,6

* in 2008, 2009 and 2010 equity stakes are consolidated with the net loss

** net credit from foreign direct investors

Source: Foreign direct investment in Romania, BNR, 2010.

Throughout the period 2003-2010, the shares of FDI to the capital, including the reinvested profits in Romania increased 5 times, while the volume of the loans increased 6,3 times, which means a greater need of the subsidiaries discography, particularly during the years of crisis, but also the additional interest of parent company to achieve net revenue from the interest on the financial market of Romania, are relatively high when compared with those of the origin country or in the other countries.

In 2010, the net flow of FDI was 54,54 billion euro, of which: 1,82 billion euro (meaning 82,2% from the net flow of FDI) the net holdings of foreign direct investors in the capital of enterprises with FDI. The net credit of 396 million euro received by the firms with FDI from direct foreign investors in 2010, including within the group represented a rate of 17,8% in the net flow of FDI.

The most important results of the economic policy focused on the Romania's access to the foreign markets of the capital in favourable conditions of the interest, the health of the public finances, by strictly budget deficit and improving the degree of completion the collection of the revenue, the financial reform, so that the financial policy should become a stimulating factor of the economic growth, of the macroeconomic stabilization and the enhance of the economic growth.

CONCLUSIONS

The foreign direct investments (FDI) bring their contribution to the growth. They create employment and optimize the allocation of resources, the technology transfer and stimulate the trade.

Doing business in Romania requires an economic freedom and a friendly taxation for the entrepreneurs, including to the foreign investors. GDP per capita, the labour productivity, the exports and the average salary in Romania are among the lowest in the European Union. The accession of Romania to the European Union has brought about an improvement in the business environment in Romania, thus becoming an attractive target for foreign investment.

Foreign direct investments can have an important function in the economic restructuring and recovery on a sustained increase in Romania. At the same time, they can play a significant role in the restructuring of the enterprises and the institutions that have an effect on them. Foreign direct investments are spread out across all the sectors of the economy, and investors come mainly from Europe. Romania attracts foreign investors because of the low wage costs and well-trained workforce. Multinational companies can use their already formed links to import and export products in and from Romania, in this way the Romanian economy increases in the world economy. The potential of the investment of Romania was always attractive to the foreign investors. With the changes of the legislation of Romania and the beginning of the reform of privatization of State-owned companies in various industries have resulted opportunities for penetrating the Romanian market, starting with the year 1997.

In the recent years, there has been an upward flow of investments in Romania, which could mean that our country is on a path of increasing. Of course, the effects of the recession have had a negative impact on the foreign investments, which were down by almost half compared to the so-called boom and Romania has a record in 2007 and 2008. However, the flow of the foreign investments, in addition to the positive effects, produces the widening disparity among the developed regions of Romania.

Whereas, in the past few decades, between the countries of the world there is a red-hot competition for creating the most favourable conditions for attracting FDI, the world experience shows that the improvements in the investments climate is the main condition for attracting foreign investors.

FDI represents an important part of any country's economy development and the functioning of its market economy principles. They have a great importance for the strengthening of the economy of the countries in transition and the integration of this category of countries into the world economy. Using FDI, the process of modernization of the national economies takes place, in particular for those in transition, through the implementation of the advanced technologies, the know-how, the equipment, the most powerful of the new standards of quality, by switching to a higher type of the economic growth.

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THE ANALYSIS OF THE COMPETITIVENESS OF ROMANIAN EXPORTS USING CONSTANT MARKET SHARE METHOD^{*}

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Abstract: *Romanian exports represented, lately, a major engine of economic growth. However, only a deep analysis of these can reveal the factors that contributed to their competitiveness. Indicators that capture the changes in market shares provide the most accurate picture of the concept of competitiveness of exports. They are found in the literature as a method of constant market share analysis, method developed by H. Tyszyński in 1951.*

Keywords: exports, competitiveness, market share, structural effect, competitiveness effect

JEL Classification: F14, F15, F16, F40

1. THE CONSTANT MARKET SHARE METHOD

The changes in market shares of exports may be the consequences of two phenomena: competitiveness effect and structural effect: **variation in the relative market share (VRC) = competitiveness effect (CE) + structural effect (SE)**

Where:

VRC - percentage change in the share of exports of a country (or area) in the context of world exports in a given period of time. Indicator may take the percentage values between $-\infty$ and $+\infty$, positive ones indicating a rise in the importance of the economic sector of the country seen in world exports.

CE - gains or loss of market share in global exports, though they would be due, exclusively, variations in the market shares of the exports into their trading partners' imports. Values are expressed in percentage form, and are between $-\infty$ and $+\infty$. Positive one indicates an increase in the market share due to the increase of competitiveness of the sector concerned.

In turn, the impact of structural effect (SE) consists of:

- **The initial geographical specialization (GS)** - identifies the losses or gains in market share in global exports, given that they would be due exclusively, variations to the dynamics of the target markets for exports. The range of values that can be taken is between $-\infty$ and $+\infty$. Positive values

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indicate a good positioning in the most dynamic export markets at the beginning of the range.

- **Initial product specialization (PS)** - shows the gains or losses in terms of market share occurred due to the specialisation in sectors whose world demand is dynamic. Values are between $-\infty$ and $+\infty$, corresponding to the positive orientation of the production for export, at the beginning of the interval analyzed, to products whose world demand is dynamic.

- **The effect of adaptation (EA)** – resilience of production for export to changes in global demand. Can take values between $-\infty$ percentage and $+\infty$.

There are four different situations in which the effect of the adaptation (EA) takes positive or negative values:

EA > 0 – market share of exports increase as part of a growing target markets;

EA > 0 – the market share of exports falls within a target market in decline; EA < 0 – the market share of exports is growing at a declining target markets; EA < 0 – the market share of exports falls within a target market on the rise.

2. THE CASE OF ROMANIA

Market share variation gives us the dynamic image of the competitiveness of exports. This method offers the possibility of identifying the extent to which each component contributes to the change in market share.

Table 1 - Analysis of competitiveness of exports by way of consistent market share

Sectors of activity according to the SITC Rev. 3	2002-2006			2006-2010		
	EC (%)	ES (%)	ET (%)	EC (%)	ES (%)	ET (%)
fresh food	0.1277	-0,0238	0.1039	0.1605	0,091	0.2515
processed foods	0.0853	-0,028	0.0825	0.3228	0,0502	0.3730
Wood products	0.0146	0,0174	0.0320	0.0365	0,0163	0.0528
textiles	0.1457	0,0366	0.1823	0.0230	0,055	0.0078
chemicals	0.0575	0,073	0.1305	0.0786	-0,0128	0.0658
leather	-0,0054	-0,0025	-0,0079	-0,0364	-0,0311	-0.0675
metallurgy	-0.0257	0,0386	0.0129	0.0305	-0,0228	-0.0077
Non-electrical equipment	0.1285	0,028	0.1565	0.0377	-0,0035	0.0342
IT Equipment and Supplies	-0,0391	-0,0122	-0.0513	1,8458	-0,8297	1,0161
electronic Components	0.2238	0,0244	0.2482	0.0618	0,005	0.0668
clothing	-0,0187	-0,0085	-0.0272	-0,0761	-0,0100	-0.0861
Other manufactured	0.0758	-0,0118	0.0640	0.0277	-0,0056	0.0221

minerals	-0.0427	0,0618	0.0191	-0.0686	0,0093	-0.0593
Transport equipment	0,2023	0,0969	0,2992	0,2113	0,0232	0,2345

Source: processing by the International Trade Center, Trade Performance Index 2006-2010, available at <http://legacy.intracen.org/appl1/TradeCom/TPIC.aspx?RP=642&YR=2010>

* The total (ET) and effect Competitiveness (EC) are processed from data provided by ITC reports and Structural Effect (HE) is obtained from own calculations, the amount of indexes C1.b, C1.c and C1. d, indices taken from the same report.

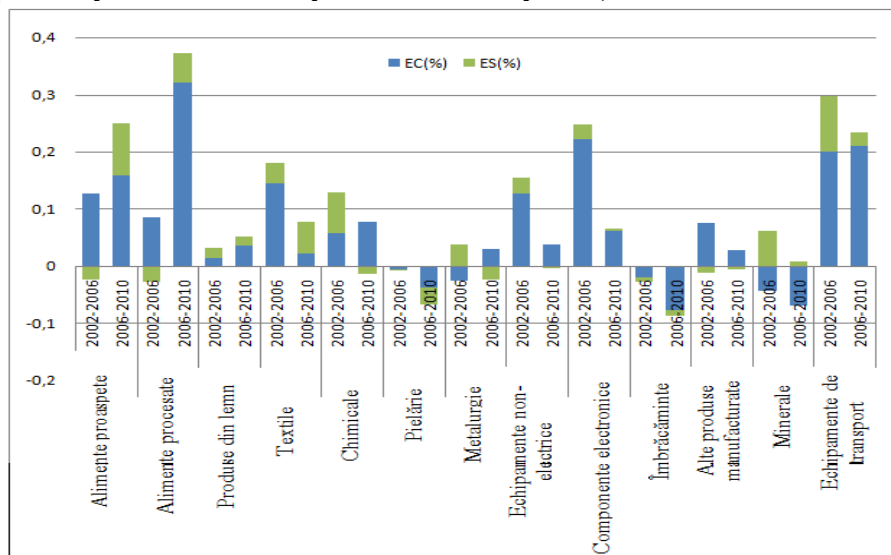
Based on data from Table 1, in Figure 1 we surprised valued amendments for the intervals 2002-2006 and 2006-2010. Decomposition of variance of market share is achieved at the level of two major components, the effect of competitiveness and structural effect, sectors of activity as defined in the SITC Rev. 3. There were represented 13 of the 14 sectors of activity, except for IT equipment and consumables, its tremendous growth requiring a separate approach.

The purpose of the analysis is to capture the proportions in which those two effects contributed to the overall performance of exports. The figure is based on a calculation of the indicators of competitiveness in Table 1.

For a clearer representation, we will replace the projected market share, with the total effect (TE), the effect of competitiveness will be denoted by the EC, where:

$$\text{The total effect (TE)} = \text{effect of competitiveness (EC)} + \text{structural Effect (ES)}$$

Figure 1 - Development of the competitiveness of exports (Method of constant market share)



Source: primary data International Trade Center (www.intracen.org), own calculations in accordance with Table 1

Obviously, for both periods taken into account, the effect of competitiveness (EC) is dominant, increasing the relative market shares being due it.

Structural Effect (ES) recorded negative values in the six sectors during the period 2002-

2006, and thereafter the seven sectors in the period 2006-2010. At the level of total exports for the whole period 2002-2010, ES has a marginal influence; its values are low compared to those of the EC.

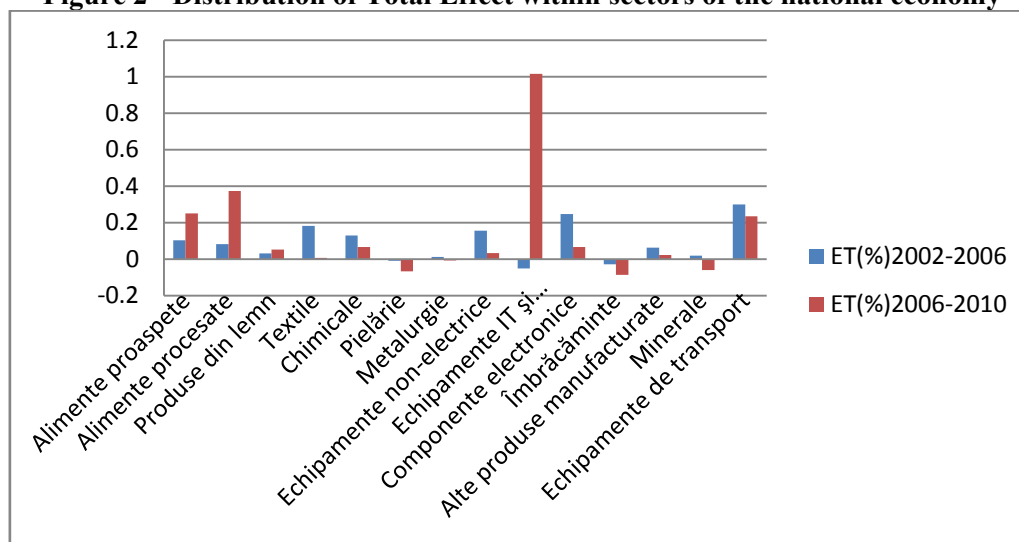
Therefore, the factors that determine the competitiveness effect and competitiveness through price and non-price, decisively influenced market shares variations in exports within the framework of global exports.

From the point of view of the two types of quantification of competitiveness, price and non-price, level of the former is given by the real effective exchange rate (REER), while non-price competitiveness include qualitative factors contributing to product differentiation (innovations, C&D) (Simonis, 2010).

During the period 2002-2006, 9 out of 14 sectors recorded positive effect of competitiveness in comparison with the period 2006 to 2010, when their number increased to 11. The two sectors that pass from negative to positive values of the EC are *IT equipment and consumables*, and *metallurgy, steel construction*.

To highlight the total effect (ET), we make the analysis in Figure 2, this time including the IT sector, and consumables.

Figure 2 - Distribution of Total Effect within sectors of the national economy



Source: own estimate by ITC (www.intracen.org) and Table 1

Between 2002 and 2006, 11 of the 14 sectors recorded positive values of ET, while in 2006-2010 recorded a fall in the number of sectors with positive evolution, at 10. The only sector where the relative market variation share becomes negative in the second period analysed is the ore sector.

Its negative evolution is caused by declines in both the EC and ES.

By far the most spectacular evolution of ET are recorded for sector of IT equipment and consumables, which is a change from a negative value (-0,0513) for the period 2002-2006, to the highest value recorded (1,1061) between 2006 and 2010, compared to other sectors.

In view of the dynamics of the IT equipment and supplies industry, we will refine its analysis in order to track the evolution and how the EC and ES have contributed to high values for ET in period 2006.

Table 2 - The Decomposing the variation percentage market share of exports of IT equipment and Consumables for the period 2002-2010 (%)

	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010
Market share in global exports for end of range	0,06	0,08	0,18	0,32	0,39
Total effect (ET)	-0,0513	-0,0120	0,2911	0,9179	1,0161
Competitiveness effect EC	-0,0391	-0,0197	0,4301	1,3523	1,8458
Structural effect (ES)	-0,0122	0,0077	-0,139	0,4344	-0,8297
Geographical specialization	0,0321	-0,0069	-0,0246	-0,0108	0,0033
Specialization on products	0,1597	0,1292	0,1374	0,1398	-0,0109
The effect of adaptation	-0,2041	-0,1146	-0,2517	-0,5634	-0,8221

Source: processing on International Trade Center Trade Performance Index 2006-2010 (www.intracen.org)

Survey of the influence of FDI on the indicators of competitiveness requires a peek at subsection. Thus, the meaning of SITC Rev. 3, IT equipment and consumables consists of:

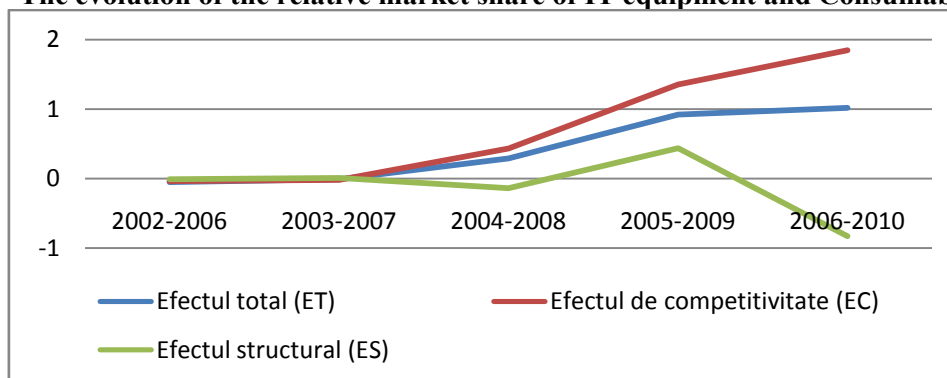
1. Office machinery;
2. Automatic data processing equipment;
3. Parts for office machines;
4. Television receivers;
5. Radio frequency receivers;
6. Audio equipment;
7. Equipment and telecommunications equipment components.

Of the seven subsections, the one that concerns us is the ultimate explicitly, that of *equipment and telecommunications equipment components*. The importance is given first, of the largest share in total exports sector (average over 90% according CRCI), and secondly, that these exports were made almost entirely of MNCs, namely Nokia.

The value of total effect (TE) show a sharp transition from -0.0120% in 2003-2007, to + .291% in 2004-2008. Therefore the decisive year for the change is 2008. Without any coincidence, in 2008 the company Nokia launches production and export of mobile devices and components from Romania.

The values of the effect of competitiveness are changing radically for the better (-0,0197 to + 0, 4301), since the Nokia starts exports of manufactured products in Romania, 2008 and continuing until 2010. At the same time, the effect of structural evolution continues to record a negative, from 0, 0077% in the period 2003-2007 to 0, 8297% in the period 2006-2010.

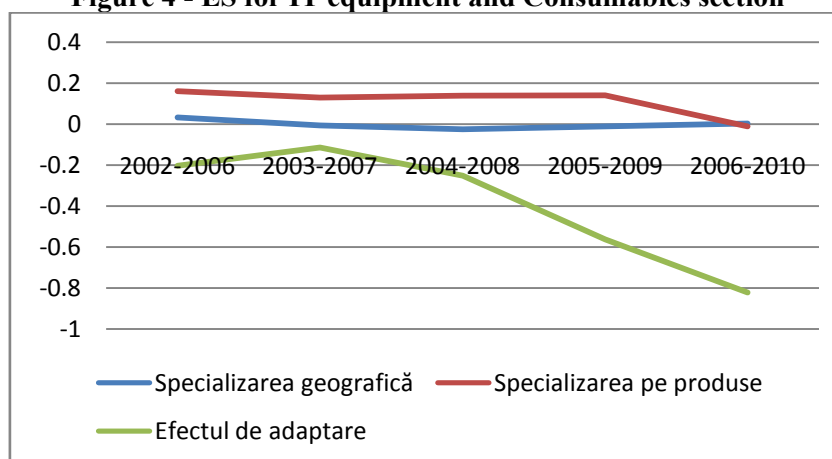
Figure 3 - The evolution of the relative market share of IT equipment and Consumables section



Source: own estimate by processing the data offered by the International Trade Centre, Trade Performance Index 2006-2010 (www.intracen.org)

In this section, increasing of the total effect is carried out exclusively on the basis of the effect of competitiveness, higher net values of it (even when compared to TE) out by negative structural evolution of the effect. Since 2009, ES becomes strongly negative, ET ceiling increase, even with a further increase in EC.

Figure 4 - ES for IT equipment and Consumables section



Source: own estimation after data processed in Trade Performance Index 2006-2010 (www.intracen.org)

The negative evolution of ES is the main cause of low values recorded in the adaptation

effect. Figures provide a response to the decision of Nokia to relocate production in Romania, strictly in terms of competitiveness.

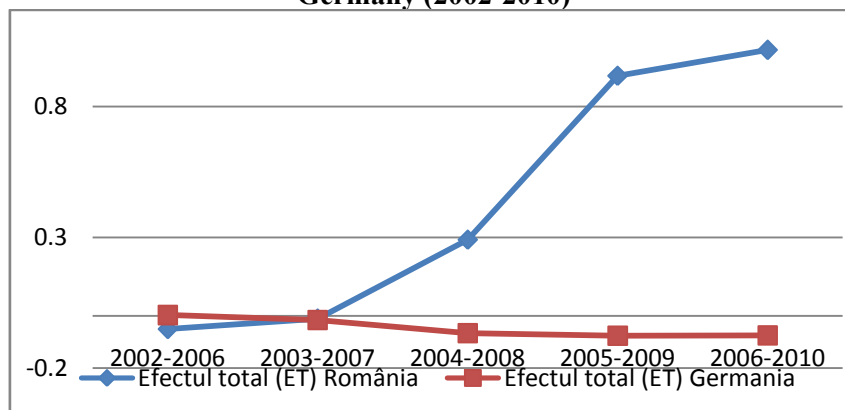
Thus, by establishing production facilities in Romania, in early 2008, Nokia relies on price-competitiveness, hoping that reduced costs of labour to achieve significant savings reflected in product prices. In Figure 3, we see increased ET, based, for the most part, on the EC. However, with time, salary adjustments in their upside, affect the EC, since 2009 its slope decreasing.

On the other hand, the strategy of targeting the production of mobile phones in Romania was uninspired, addressing only the medium without stakes and high-tech segment, the smartphones. Contrary to the effects of the financial crisis, the market reacted irrationally; high-tech sector is more dynamic than the medium. Without insight this trend, Nokia lost on the effect of adaptation values and its slope is negative.

Under these conditions, for the competitive effect to counteract the negative effect of adaptation, adjustment is required in the sense of increase it. The decision to relocate production to Asia comes on that line, lowering production costs, thus increasing the amount of the effect of competitiveness.

Nokia has relocated to Romania from Germany, therefore, the transfer of production capacity in Romania (2007-2008) should produce simultaneous effects, but opposite in the two economies. Effects should appear on the line of evolution of relative market share in global exports of corresponding sector business activity of MNC.

Figure 5 - Developments of ET appropriate to *IT equipment and supplies* sector for Romania and Germany (2002-2010)



Source: Trade Performance Index for 2006-2010 (www.intracen.org)

ET values for Romania registered a significant jump from -0.012 to 0.2911 in the decisive period 2007-2008. The same interval corresponds to the most significant reduction, relative to the

entire period, for the ET value for IT Equipment and Supplies industry in Germany (from -0.016 to -0.0665).

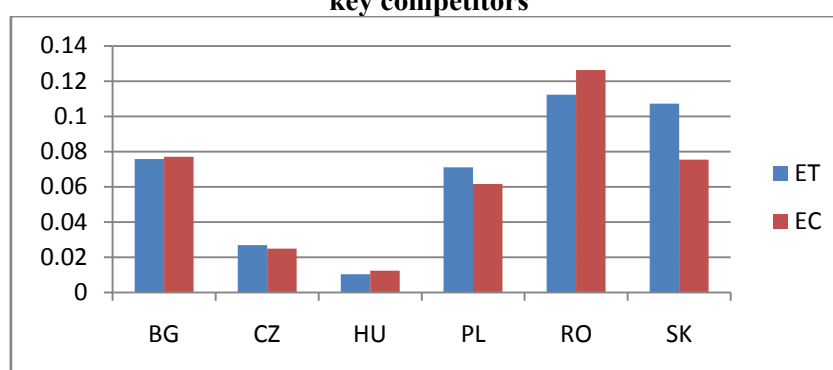
Of course, the amplitudes of ET values in the two economies are very different; the impact (in terms of competitiveness of the whole sector) of the entry of Nokia in Romania is much higher than for its departure from Germany. The difference is given by the competitiveness of other industries that make up the IT equipment and consumables.

In Romania, the entrance Nokia has made a clear difference between section *equipment and components of telecommunications equipment* and other parts of the sector. This is not the case in Germany where the share of industry activity corresponding with the Nokia sector in total exports is offset by exports of other industries, his departure affecting in a much lower the overall competitiveness of the sector.

In conclusion, while retaining the general trend of exports, increasing the total effect, appropriate to sector of equipment and components of telecommunications, is carried out, for the most part, on account of the effect of competitiveness. The main determinant comes of FDI line, by relocating the production of mobile phones and accessories by Nokia.

A more complete picture of the competitiveness of Romanian exports may be obtained by comparison with its main competitors. In this regard, we emphasize the development of the market share of global exports and effects (ET - the total effect and EC - the effect of competition) in which these market shares have evolved, at the main competitors level. According to NBR, on the side of exports, they are: Bulgaria (BG), Czech (CZ), Hungary (HU), Poland (PL), and Slovakia (SK).

Figure 6 - The evolution of ET and EC in the period 2002-2010: a comparison between Romania and key competitors



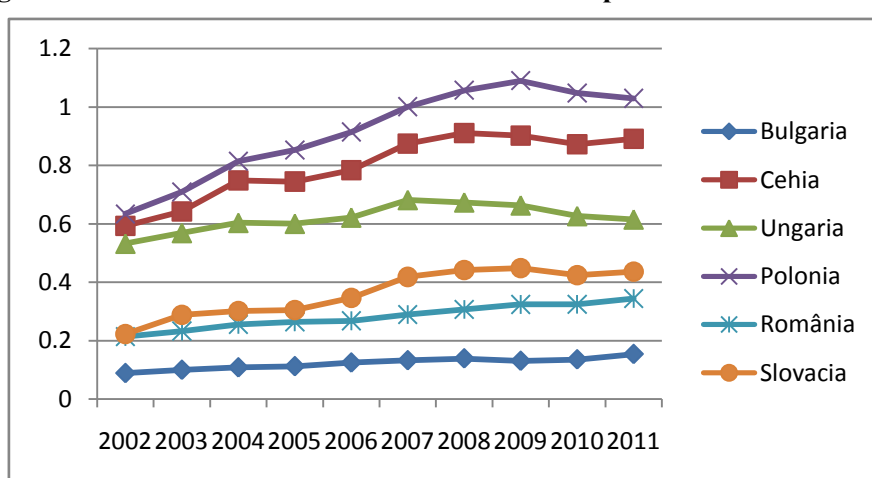
Source: primary data processing as offered by the International Trade Centre (www.intracen.org)

All six economies have a similar structure of the total effect within its competitive effect is the main determinant of the evolution of market shares.

However, in the case of the Czech Republic, Poland and Slovakia, the effect of competitiveness is less than the total effect, which means that the other component of the overall effect, the structural effect is positive. Therefore, increasing the market share of exports is carried out on the basis of their orientation to products whose world demand is growing or to markets whose capacity for absorption is also on the rise.

Regarding Bulgaria, Hungary and Romania, the competitiveness effect is superior to total effect. In this case, the structural effect is negative, resulting in an increase in export market shares, strictly on competitive effect. This can be achieved in two ways: either by price competitiveness or by non-price competitiveness.

Figure 7 - The evolution of the market shares of exports in total world trade



Source: World Trade Organization (www.wits.worldbank.org), own calculations.

Of the six countries studied, Romania has one of the lowest levels of the market share, surpassing only Bulgaria. But the appearance is given by the positive trend, which is one up for the whole period considered, reaching almost 0, 4% for the year 2011. This percentage represents almost a doubling of market share compared with 2002, when its average was of about 0, 2%.

CONCLUSIONS

In general, the degree of competitiveness of exports is set by market share. In the case of Romania, this is among the lowest in the EU and globally. However, the trend is recorded a slight increase.

Market share shows us the level of competitiveness, but equally important are the changes and its determinants. It is essential to know the nature and proportion in certain factors contributed to movements recorded in export market shares.

In this sense, the use of constant market share analysis has given us the opportunity to discover the essence of the ability to compete in exports. The results have spotlighted the following aspects:

- **Export growth rates were achieved in an overwhelming proportion on the basis of competitiveness effect;**
- **The contribution of structural effect is minimal.**

In turn, the impact of competitiveness is broken down into competitiveness through price and non-price competitiveness. Of the two components, the first may be as the main determinants of low cost labour or higher productivity. FDI can affect productivity, but the labour cost is a specific element of the Romanian economy.

Given that the productivity of companies in the Romanian economy is half the average of the European, price competitiveness had the support of low labour cost. In this case, MNC merit is to harness the comparative advantages of local labour. Unfortunately, this is the most fragile of the competitive advantage of a country.

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ROMANIAN MACROECONOMIC STABILITY BETWEEN THE BALANCE OF PAYMENT ASSISTANCE AND THE EUROPEAN SEMESTER

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Abstract: *The first EU Alert Mechanism Report demonstrates the vulnerable macroeconomic external position of Romania, the current Romanian's balance of payments reflecting a severe need of financing and capitalization. On the other hand, the 2007-2013 programming period potentially provided a significant amount of EU money for investments (around 29 billion euro) through Structural Funds. However, five years after the beginning of the current financial framework, the level of absorption remains extremely low. The paper focuses on the main Romanian macroeconomic imbalances (the current account balance, international investment position) and on the most important sources for financing investments and development - the EU financial structural instruments: ERDF and Cohesion Fund.*

Keywords: economic and financial crisis, macroeconomic imbalances, EU funds absorption, balance of payments.

JEL Classification: F02, F36, F59

INTRODUCTION

When the financial crisis hit Europe, Romania was one of the most exposed countries from Central and Eastern Europe (CEE). Before 2008, the very rapid growth which stimulated the domestic demand was mainly the effect of foreign direct investments and capital inflows facilitated by foreign banks with subsidiaries in Romania. As a result of the reduction of capital inflows and sharp decline in export demand, the previous pace of growth has proved unsustainable and a very severe recession hit Romanian economy in the late of 2008 (Dragan, 2011). In order to avoid a possible banking sector collapses in CEE, the EU, the IMF and other International Financial Institutions (EBRD, EIB and the World Bank Group) created a new financial facility called *EU Balance of Payment Facility* (BOPF). Consequently, Romania, Hungary and Latvia, all of them non-euro EU member-states facing problems resulting from an “*unusual combination of external shocks and domestic policy mistakes*”, received a common financial support package of around €50 billion. Romania signed its first agreement of multilateral financial assistance in May 2009 (for an overall amount of 20 billion euro) and an additional one in May 2011 (for around 5 billion euro).

The first *Alert Mechanism Report* on macroeconomic imbalances in the EU member states, published by the European Commission in February 2012, demonstrates the vulnerable

macroeconomic external position of Romania, which surpasses the indicative threshold in three out of ten indicators, all of them from the area of external imbalances and competitiveness. Although the FDI inflows in Romania have decreased due to prolonged economic recession of Western Europe, the EU funds allocated to our country for the 2007-2013 financial period should have had a visible impact on the Romanian BoP, offsetting this drop and supporting the external sustainability of the country. Unfortunately, the contracted and payment ratio are still very low in Romania comparing with the CEE average. Romanian's poor absorption of EU funds represents a multifaceted reality, the causes ranging from a weak administrative capacity (managing structures and rules too complicated, inefficient procedures, institutions, etc) to the lack of co-financing, respectively of guaranteeing the national contribution, as a result of an acute shortage of financial resources both for public and private co-financing investments.

1. FROM THE EU BALANCE OF PAYMENT SUPPORT TO THE EUROPEAN SEMESTER

Carmen Reinhart and Kenneth Rogoff (2008, 2010), both former International Monetary Fund economists, have proved, using past country experiences, the striking correlation between freer capital mobility and the incidence of banking crises. As a general rule, a financial (banking) crisis is followed by a currency crisis, which in turn, exacerbates the banking crisis's dimension. According to Reinhart and Rogoff (2010), data collected over a long period of time "confirms a strong link between banking crises and sovereign default across the economic history of great many countries, advanced and emerging alike" and the evidence that "banking crises (both domestic ones and those emanating from international financial centers) often precede or accompany sovereign debt crises", on average, public debt growing by around two-third in the years immediately following a banking crisis.

The collapse of Lehman Brothers determined, among others, a brutal disruption of international capital flows all over the world, including Europe, where the most exposed financial systems of the EU, confronted with significant risks of foreign banks withdrawals, were those of the Central and Eastern European countries. Consequently, at the end of 2008, large European banks, with systemic presence in these countries, decided to maintain their exposure there and to keep their

subsidiaries well capitalized, under the so-called Vienna Initiative*. The *European Bank Coordination Initiative* EBCI, launched in January 2009, brings together important IFIs (IMF, EBRD, EIB, World Bank Group), European institutions (EC, ECB as observer), country central banks, regulatory and fiscal authorities and the most important EU banking groups acting in the Eastern Europe, its aim being to “help [...] banking system to better withstand the current downturn and return the economy back to a sustainable growth path” (Williams, EBRD, 2011). The EBCI’s motivation is to address, on the one hand, „the twin vulnerability of weak domestic capital markets and limited reliance on domestic sources of finance” and, on the other hand, to lend “borrowers without foreign exchange income” (European Commission, EUPress Releases, 2010a).

Consequently, the solution found for most vulnerable non-euro member states was to place them under the umbrella of a common financial support provided by the EU and IMF plus other international financial institutions (EBRD, EIB and the World Bank Group)†. For the EU, this financial assistance is called the *Balance of Payment facility* (BoP) and has been made available for those member states outside the Euro area, “*seriously threaten with difficulties*” in their short-term balance of payments as a result of “*unusual combination of external shocks and domestic policy mistakes*” (European Commission, 2009).

Table 1 - Outline of the joint IMF-EU current balance-of-payments assistance programmes

Country	Total international financial assistance/ EU financial assistance	Period covered by EU assistance	Status of the programme (June 2010)	Main areas of policy conditionality
Hungary	€ 20.0 bn / € 6.5 bn	Until November 2010	Quasi-precautionary (the authorities decide on a case by case basis whether to draw)	Fiscal consolidation Fiscal governance reform Financial sector regulation and supervision reform Other structural reforms (mainly related to transport sector)
Latvia	€ 7.5 bn / € 3.1 bn	Until January 2012	Active (disbursements continue), although part of bilateral funding will be treated as credit lines	Fiscal consolidation Fiscal governance reform Financial sector regulation and supervision reform Structural reforms, business environment Absorption of EU funds
Romania - I -	€ 20.0 bn / € 5.0 bn	Until May 2012/ Until June 2011	Post programme surveillance Disbursements completed	Fiscal consolidation Fiscal governance reform Reform of public wage system Pension reform

* In January 2009, the nine banks with high exposure on Eastern Europe (Erste Group Bank, Raiffeisen International, Eurobank EFG, National Bank of Greece, UniCredit Group, Société Générale, Alpha Bank, Volksbank, and Piraeus Bank) launched the *European Bank Coordination Initiative* (EBCI), known as “*Vienna initiative*”.

† The IFI have committed to make available up to €25 billion under this Joint IFI Action Plan.

				Financial sector regulation and supervision reform Absorption of EU funds
Romania – II-	€ 5.0 bn / € 1.4 bn	Until March 2013	Precautionary (not activated)	Continued fiscal consolidation Fiscal governance reform Financial sector regulation and supervision reform Product market reform with a focus on energy and transport sectors Labour market reform Absorption of EU funds

Source: European Commission, Economic and Financial Affairs, Balance of Payments Assistance, available on http://ec.europa.eu/economy_finance/eu_borrower/balance_of_payments/index_en.htm.

One may note, however, that almost all countries from Central and Eastern Europe had experienced a very difficult period due to the crisis, but only three of them (Hungary, Romania and Latvia) received financial support through three joint EU-IMF programs which were strictly connected with very strict austerity measures. On the other hand, even though fears that foreign banks would make large withdrawals of capital from the region have so far proved unfounded, there is still a possibility that a return of financial difficulties in Western Europe could lead to parent banks diverting capital to their home markets (Hoey, 2010) and make necessary new EU financial interventions.

The EU BoP programme has recommended Romania to bring the general government deficit below 3% of GDP by implementing fiscal measures. Among the austerity measures implemented in 2010 and 2011 by the Romanian Government, in line with the policy conditions imposed under the balance-of-payments support programme, the expenditure cuts represented a priority: public sector wage cuts and freezes, cuts in public spending on goods and services, pension freezes, subsidies cuts, all of these measures meaning to contribute to a cut in expenditures of around 2.2% of GDP. However, the Council's comments on the Romanian Government programme has underlined political and social difficulties of carrying out some of the reforms envisaged, especially in the field of EU funds' absorption (mainly, because of the lack of effectiveness and efficiency of public administration, both at the central and local level) but also the fact that "the impact of these measures is partially offset by expenditure increases elsewhere" (EC, 2010b, pp. 3-4).

At the moment, the most urgent task for the Europe and, as well for Romania, is to restore confidence in the future by preventing a vicious cycle of unsustainable debt and low economic growth. In order to ensure a sound fiscal consolidation in the EU, the European Commission decided to implement, among other measures, a more rigorous instrument of monitoring the

programming of national budgets, the so-called “*European Semester*”. The Alert Mechanism Report is part of this new EU surveillance procedure and will be discussed in the following section.

2. MACROECONOMIC IMBALANCES IN THE ROMANIAN’S EXTERNAL POSITION

The *European Commission Alert Mechanism Report* on macroeconomic imbalances in the EU member states (February 2012) is based on a scoreboard (including indicators and thresholds) and represents the first phase of the new EU surveillance procedure, being part of the new introduced instrument the “*European Semester*”. The main goal of the Report is to allow the EC to find out internal and external imbalances of the analyzed countries and, if it is the case, to “propose policy recommendations, either under the preventive or the corrective arm of the procedure” (AMR, 2012). The report demonstrates the vulnerable macroeconomic external position of Romania, which surpasses the indicative threshold in three out of ten indicators, all of them from the area of external imbalances and competitiveness, specifically on the current account balance, international investment position and nominal unit labour costs (Table 2).

The Report shows that at the EU level, as a result “of a sharper drop in private sector demand and a corresponding contraction in imports”, the crisis has determined “a significant reduction in external imbalances” in most of the EU member states, particularly in those EU countries “which entered the recession with large current account deficits”, (AMR, 2012). Consequently, the high current account deficits decreased in the majority of EU member states. However, there are a number of EU member states, and among them Romania, where the scoreboard indicator on the **current account balance (CAD)** has been surpassed. Nevertheless, even if the AMR threshold of 4%/ +6% for “the 3 year average Current Account Balance” (as a % of GDP) has been slightly exceeded in Romania, where the average is - 6.6 %, the situation is even worse for countries like Bulgaria (-11.1%), Greece (-12.1%), Cyprus (-12.1%) and Portugal (-11.2%).

Table 2 - The Romania’s Macroeconomic Imbalance Procedure (MIP) scoreboard for 2010

External imbalances and competitiveness				
3 years average of CAD (% of GDP)	Net International Investment Position (%of GDP)	% change (3 ys) of Real Effective Exchange Rate with HIPC deflators	5 change (5 ys) in Export Market Shares	% change (3 ys) in Nominal ULC
EU Thresholds				
-4/+6%	-35%	+/-5% & +/- 11%	-6%	+9% & +12%
The Romania MIP scoreboard				
-6.6	-64.2	-10.4	21.4	22.1
Internal imbalances				

% y-o-y change in deflated House Prices	Private credit Flow (% of GDP)	Private Sector Debt (% of GDP)	Public Sector Debt (% of GDP)	3 years average of Unemployment
<i>EU Thresholds</i>				
+6%	15%	160%	60%	10%
The Romania MIP scoreboard				
-12.1	1.7	78	31	6.6

Source: Author, on the base of the EC, Alert Mechanism Report, p.4

Romania's external deficit (the CAD) declined from a peak of around 13% in 2007 to an average of around 4% since 2009 and, according to the 2012 European Commission Spring Forecast, it will remain below 5% of GDP in the next period 2012-2013 (EC Spring Forecast, 2012). The decrease of CAD over the past three years was mainly the result of a significantly decrease of trade deficit, due to a sharper decline of imports on the back of the domestic demand's turn down.

Theoretically speaking, the potential vulnerability created by the current account deficits could be diminished if these deficits are financed through relatively secure means, such as FDI or capital transfers, including capital inflows from the EU funds. In a balance of payment, the financial account shows how an economy's BOP transactions are financed: if an economy's savings exceed its investment, the surplus must be reflected in net financial outflow or net financial investment in the rest of the world and if an economy's savings are less than its investment, the economy will be a net importer of nonfinancial assets from the rest of the world and these net imports should be financed by a net financial inflow from the rest of the world (IMF textbook, 1996). According to the evolutions registered by the Romanian's balance of payments, the net FDI has sharply decreased as a result of the crisis and uncertainty felt by the foreign investors, from a peak of 8.9% in 2006 to less than 2% after 2010 (Convergence Report 2012). However, the position "net other inflows" (including financial derivatives) remained positive during the crisis due to loans from IMF and EU. As we presented in section 2, a substantial official international BoP assistance totaling up to 20 billion euro was provided to Romania for the period 2009-2011 and, in spring of 2011, an additional programme was made available, accessible until early 2013. However, at the same time, the level of gross external debt, has significantly increased, from about 40% of GDP in 2006 to more than 70% after 2010 as a result of disbursements of international financial assistance and international bond issues (in June 2011, a first euro-denominated issuance of 5-year bonds and in January 2012, a new US dollar-denominated issuance of 10-years bonds).

The negative international investment position has deteriorated as well, from -37% of GDP in 2006 to above 60% of GDP after 2009. The negative situation in the *net international investment*

position (NIIP) is occurring when “financial liabilities exceed financial assets”, an economy’s external financial assets consisting of “claims on non-residents and of monetary gold and SDRs held by the monetary authorities” (IMF textbook, 1996). The AMR scoreboard shows that the *net international investment positions*, calculated as a % in the GDP, have registered “high negative levels in many current account deficit countries”, “due to persistent, although lower, current account deficits and also weak growth dynamics” (AMR, 2012). All new EU member states from CEE and some of the vulnerable older EU member states (Greece, Spain, Portugal, Ireland) exceed the indicative threshold of -35%. However, the degree of vulnerability is lower if the percentage of liabilities in GDP (respectively, the net external debt) that require repayment of principal or interest is low. At the moment, Romania registers a level of 38.3% of NED in GDP, as a result of a still low level of indebtedness. The risk to see this indicator rising on medium term is a real one, as well as the current account crisis converting into a public finance crisis, as the structure of the foreign debt is changing from private to public. Total external debt was up from 54% of GDP in 2008 to 70% in 2010, and is estimated to reach 82% in 2011, while total public debt increased from 20% of GDP in 2008 to 30% in 2009 and about 40% in 2010 (Constantin et al., 2011)

Hence, although the FDI inflows in Romania have decreased due to prolonged economic recession of Western Europe, the EU funds allocated to our country for the 2007-2013 financial period could have had a visible impact on the Romanian BoP, offsetting this drop and supporting the external sustainability of the country. The 2012 Convergence Report specifies that “Romania’s external position is expected to benefit from a higher absorption of EU funds, while supported by the precautionary EU-IMF assistance programme.” (2012 Convergence Report, p. 140). The following section will focus on some evolutions concerning the EU funds absorption in Romania.

3. A GENERAL OVERVIEW ON THE ROMANIAN’S ABSORPTION IN THE FINANCIAL PROGRAMMING PERIOD 2007-2013

Romania is experiencing a rather paradoxical situation: while the macroeconomic indicators reflects a severe need of financing and, potentially speaking, an important amount of EU money is at its disposal, covering different category of investments (from infrastructure in transport and environment to human resources), so far, Romania has not been able to take advantage of it.

According to the latest KPMG report on the absorption of the EU funds (May, 2012), at 31 December 2011 Romania occupied the last position among the CEE countries, both in terms of contracted and paid grants. Specifically, of the 23.25 billion Euro allocated for the 2007-2013

programming period, the contracted amount was 14.61 billion (63%) and the EC disbursement of 3.15 billion Euro (14%) (KPMG Report, 2012). On the other hand, one should notice that a “better absorption of EU funds by national authorities” and, at the same time “a closer involvement of banks in the selection, prefinancing and co-financing of structural funds projects” could have generated new business opportunities and thus contributed to the recovery of the Romanian economy (Dragan, 2011).

Table 3 - The situation of EU funds absorption in CEE countries at 31 December 2011

Country	Available budget 2007-2013 (bn euro)	Contracted grants (bn euro/ %)	Paid grants (bn euro/%)
TOTAL (10 CEE)	209,14	139,87/ (67%)	60, 84 / (29%)
Bulgaria	8,02	6,33 / (79%)	1,51 / (19%)
Czech Republic	30,77	22,20 / (72%)	11,86 / (39%)
Estonia	4,10	3,85 / (94%)	1,81 / (44%)
Hungary	29,32	18,84/ (64%)	8,33 / (28%)
Latvia	4,94	4,27/ (87%)	2,15 / (44%)
Lithuania	7,43	5,80 / (78%)	3,23 / (43%)
Poland	82,87	52,44 / (63%)	23,09 / (28%)
Romania	23,25	14,61 / (63%)	3,15 / (14%)
Slovakia	13,6	8,66 / (64%)	3,84 / (28%)
Slovenia	4,82	2,86 / (59%)	1,84 / (38%)

Source: KPMG Report, 2012

For the 2007-2013 programming period, the overall EU financial support from the ERDF and Cohesion Fund amounts to an average of around 0.3% of EU GDP per year, with variation from 0.01% for Luxembourg or 0.02% in Denmark to around 3% or just over in each of the three Baltic States and Hungary (Expert evaluation, 2012). For CEE countries, the percentage is somewhere between 2 and 3% or below 2% in Romania and Slovenia (Table 3). In relation to the government capital expenditure, which might be at least indicative of capital expenditure on regional development, the proportion is much larger (over 25% of such expenditure in all CEE countries, with lower levels in Slovenia and Romania, of 25-27%, and more significant levels in Baltic States and Hungary, between 40% and 68%.

Table 4 - Allocation of ERDF and Cohesion Fund to Member States, 2007-2013 (average per year)

	Allocation 2007-2013			Funding remaining 2012-2015	
	EUR Million	% GDP	% Govt. capital expenditure	% GDP	% Govt. capital expenditure
Bulgaria	5,488.2	2.18	42.7	2.88	56.6
Czech Republic	22,475.2	2.15	31.7	2.74	40.4
Estonia	3,011.9	3.01	62.4	3.08	64.0
Latvia	3,947.3	3.14	41.2	3.68	48.3
Lithuania	5,747.2	2.98	58.3	2.71	53.0
Hungary	21,292.1	3.13	68.3	3.53	77.0

Poland	55,514.7	2.24	35.5	2.44	38.6
Romania	15,528.9	1.82	27.3	2.67	40.2
Slovenia	3,345.3	1.35	25.4	1.46	27.5
Slovakia	9,998.7	2.17	59.0	2.72	73.8

Source: Expert evaluation network delivering policy analysis on the performance of Cohesion Policy 2007-2013. Synthesis of national reports 2011, Belgium, February 2012

On the other hand, the annual amounts remaining for the period 2012-2015 of the period are larger in relation to government capital expenditure in 2010, since the latter is assumed to be spread over 7 years and the former over the remaining two years of the period plus two additional years to allow for the $n+2$ rule. In this case, the remaining funding amounts to at least 40% of government capital expenditure a year, in all CEE countries (apart from Poland, where it is just under 40% and Slovenia with 28%). Romania had one of the lowest proportions of ERDF and CF allocations over the period 2007-2013, respectively less than 2 % of GDP (only Slovenia had a even smaller percentage).

Although the mentioned figures give us only an approximate indication of the size of EU funding in relation to the overall spending on regional development, they draw attention to its critical importance in this regard. In conclusion, the figures set out above reinforce the remark that for many EU countries the ERDF and the Cohesion Fund are critical sources for financing the development expenditure over the remainder of the programming period.

CONCLUSIONS

At the EU level, the differentiation between euro and non-eurozone economic policy measures is likely to become an issue and arise the question to what extent an EU with two speeds, one for the “core Europe” and one for the non-eurozone countries, could resist. The European Semester, however, is likely to become subject for new political debates concerning the power of national parliaments during the budgetary cycle. The mainly proposed measures in the field of fiscal consolidation, either under the EU-IMF financial assistance umbrella or under the other EU surveillance mechanisms (such as the European Semester), will have, in the short run, a twofold effect: a positive one, strengthening the financial stability and, a negative one, reducing the demand and the standard of living mainly in the geographical periphery of the EU. The threat is that the crisis „effects on the Europe”s Eastern periphery weaken the whole European integration process and this reality should represent the main concern for all EU policy-makers in the future (Dragan, 2011).

Romania is dealing with severe internal structural problems (inefficient institutions and economy, demographic decline, etc.) and a poor crisis management (one of the most debated measure during the first stages of the crises, the cut of salaries for the public sector, has mainly determined a sharp reduction of purchasing power and living standards of the population, reduction of internal demand and, finally, deepening of the crisis). Consequently, the time is now for Romania, even at the eleventh hour, to rediscover the utility of the EU Structural Funds which might represent the most important external impulse for economic growth. However, the condition is that Romania rapidly solves its constant “absorption problems” and become able to spend the remaining allocated funds.

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WHAT DETERMINES THE CAPITAL STRUCTURE OF LISTED FIRMS IN ROMANIA

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Abstract: *This paper examines the relative importance of four factors in the capital structure decisions of Romanian listed firms. The existing empirical research on capital structure has been largely confined to developed countries. The Romanian Financial Market has been developing at an exponential rate and dedicated research in the field is required. We used 100 firms listed in 2010 at the Bucharest Stock Exchange. The objective of this paper is to build on previous studies model all the important factors affecting capital structure decisions. We find that factors such as tangibility of assets, firm size, liquidity, and profitability have significant influences on the leverage structure chosen by firms.*

These results are believed to have significant implications for the theory of finance and to be of importance to the corporate treasure in choice of new financing and to the financial analyst.

Keywords: Profitability, firm size, leverage, total assets turnover

JEL Classification: C10, G10, G30

INTRODUCTION

Over the past several decades, theories on a firm's capital structure choice have evolved in many directions. But what are the factors that affect the firm's financing decisions? Researchers in the corporate finance area have devoted extensive time and effort to ascertain the answer to this important research question through theoretical and empirical means. Several researchers have investigated the determinants of the capital structure. However, there is still no unifying theory regarding capital structure, even after decades of serious research, which leaves the topic open for further research. The choice of capital structure for firms is one of the most fundamental premises of the financial framework of a corporate entity. The method, by which public corporations finance their assets, set up their ownership structure and influence whether their corporate governance is of a high standard. We examine 100 listed firms in Romania and test a range of hypotheses to determine which factors affect the capital structure decisions. We have found strong correlations between leverage and tangibility of assets, firm size, liquidity, and profitability.

1. LITERATURE REVIEW

We briefly review the literature on the determinants of capital structure. For the sake of brevity we have not presented reviews of highly cited studies of capital structure that are not explicitly related to the emerging economies. Modigliani and Miller presented behavioural approach and the modern concept of capital structure in their paper published in 1958. Corporate finance literature reveals that some researchers describe capital structure in narrow sense so as to include only long term financial instruments in its composition (Psillaki, 2009). According to Devic and Krstic (2001) “Capital structure is expressed as ratio of long term liabilities to the sum of long term liabilities and firms equity”. “Capital structure is described as long term debt divided by total assets” (Omet, 2008; Delcours, 2007).

Farhat et al. (2009) test the trade-off and the pecking order models under a range of institutional environments. They find that civil law countries follow the pecking order model and rely more on internally generated funds. Based on the empirical results, they believe the common law countries follow the trade-off theory.

In a recent paper De Jong et al. (2008) analysed the importance of firm specific and country specific factors in the leverage choice of firms across 42 countries. They found that firm specific determinants differ across countries whereas earlier studies suggested that the determinants have an equal impact. They also looked at direct country specific determinants like capital formation, rule of law, stock market development, bond market development, etc. They found positive relationships between tangibility, liquidity and leverage. They also found non-significant inverse relationships between leverage and size, profitability, tax and risk. One of the possible reasons why they did not have strong results for India was because they had only 226 observations.

Jensen and Meckling (1976), Easterbrook (1984), and Jensen (1986) suggest a positive relationship between leverage and profitability. In contrast, the pecking order theory suggests that more profitable firms should be less leveraged because they should prefer raising capital from retained earnings first, before turning to debt, and lastly to new equity. The empirical evidence on this hypothesis is ambiguous. Our measure of profitability is the return on assets (ROA), measured as the operating income over total assets.

Feidakis and Rovolis (2007) analyzed capital structure determinants for large European construction firms from 1996-2004. Despite important cross-country differences, the authors found size and profitability to be positively and negatively related to leverage, respectively.

Benefits of the study

There are several benefits from the study of determinants of capital structure for listed companies in Romania. First, this study will show the determinants of capital structure of listed companies by using the ratio of total debt to total assets as a proxy for leverage. Next, this study will supply evidence whether factors identified by previous studies are the same as the ones found to be determinants of capital structure of listed companies in Romania.

2. MODEL AND VARIABLES

The model

The study uses various sources that have been used for data collection. The book value based yearly financial data from 2010 has been collected from the financial statements. Leverage is the dependent variable while size, profitability, tangibility, liquidity are selected as independent variables.

The study tried to find the answers of the following research questions

- What are the major determinants of capital structure?
- What are the variables which have major effect on the leverage of the firm?

All financial data is nominated in terms of Romanian coin. The basic estimation strategy is to pool the observations across firms and apply the regression analysis on the pooled sample. That is, a pooled OLS (POLS) equation will be estimated in the form of:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu \quad (1), \text{ Where;}$$

- Y represents Leverage.
- X1 represents Liquidity
- X2 represents Profitability
- X3 represents Size
- X4 represents Tangibility
- μ_{it} = Error term.

Variables

Leverage

As it can be seen in the literature, various definitions of leverage exist. All these characterizations of leverage revolve around some form of debt ratio. The definitions depend on whether market value or book values are used. In addition, definitions also depend on whether short

term debt, long-term debt or total debt is used. Firms have several types of assets and liabilities and there can be further adjustments made to the definition. Leverage: Represents the value of debt divided by book value of total asset.

Liquidity

Firms prefer internal financing to external financing. Therefore, firms are likely to create liquid reserves from retained earnings. If the liquid assets are sufficient to finance the investments, firms will have no need to raise external funds. Hence, liquidity is expected to be negatively related to leverage. Here we use the current ratio (calculated as current assets over current liabilities) as a proxy of liquidity. Firms with higher liquidity ratios are preferred to acquire more debt because of great ability to meet short term obligations (Ozkan, 2001).

Hypothesis 1: There is a negative relationship between leverage and liquidity of the firm

Profitability

Theoretical predictions yield no consistent conclusions for the correlation between profitability and leverage.

Trade-off models argue that profitable firms have greater needs to shield income from corporate tax and should borrow more than less profitable firms. While pecking order theory suggests an inverse relationship between profitability and the level of debt. Firms are assumed to prefer internal financing to external financing in a pecking order framework. This preference leads firms to use retained earnings first as investment funds and move to external financing only when retained earnings are insufficient.

Hypothesis 2: There is positive relationship between leverage and profitability of the firm.

Size

Size is considered a key factor that can influence the financial structure of the firm. Firm size has been suggested to be an important variable related to the leverage ratios of the firm. It is also argued that relatively large firms tend to be more diversified and thereby less prone to bankruptcy. Shah A (2005), and Rajan and Zingales (1995), suggested the negative relationship between size and leverage of the firm. While there are many different proxies for size, in this study, the natural logarithm total assets of the firm is used.

Hypothesis 3: There is positive relationship between size and leverage of the firm

Tangibility of asset

Theories generally state that tangibility is positively related to leverage. Since the tangible assets can be used as collateral in external borrowing, the presence of a large fraction of tangible assets of a firm help to get bank loans at a lower interest rate and it also helps to reduce the risk the

lender suffering from the agency cost of debt. Negative relationships have been reported between leverage and fixed assets in small and medium firms (Daskalakis and Psillaki, 2009) and in less developed economies (Joeever, 2006). The proxy used in this study to measure the value of tangible assets of the company is the ratio of fixed assets to total assets.

Hypothesis 4: There is negative relationship between leverage and tangibility of assets of the firm

3. EMPIRICAL RESULTS

Descriptive Statistics

Table 1 - Descriptive Statistics

	LEVERAGE	LIQUIDITY	ROA	SIZE	TANGIBILITY
Mean	0.2862	4.1124	0.0524	17.2690	0.5541
Median	0.2232	1.9966	0.02407	17.4433	0.5391
Maximum	0.9312	24.8757	0.5716	23.3589	1.5972
Minimum	0.0086	-5.2860	0.0080	11.0559	0.0748
Std. Dev.	0.2165	5.4886	0.0853	1.9483	0.2344

The table above shows the descriptive statistics for the dependent variable and independent variables from among the companies listed at Bucharest Stock Exchange. The descriptive statistics show how the companies listed at the Bucharest Stock Exchange characterized or vary in term of size, profitability, liquidity and assets tangibility. The average value of leverage is approximately 0.28 and there are high variations of independent variables among the companies.

Regression Model Results

Table 2 presents the results of pooled regression analysis, the OLS method. The model explains almost 42 % of variation in leverage, with significant F-statistic. So, this means that the choice of capital structure is mainly defined by these four variables, more definitely by two variable- liquidity and tangibility.

Table 2 - Results of regression analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIQUIDITY	-0.0238	0.0034	-6.8674	0.0000
ROA	0.1184	0.2121	0.5583	0.5779
SIZE	0.0096	0.0097	0.9987	0.3204
TANGIBILITY	-0.3016	0.0799	-3.7711	0.0003
C	0.3781	0.1946	1.9423	0.0551

Table 2 shows that p-value of ROA is 0.5779. So, the coefficient of ROA implies that it is statistically significant at the 57.79 percent level. As can be seen, the coefficients of tangibility are statistically highly significant for leverage, but the results show that tangibility has a negative relationship with debt. The results reveal that size is an insignificant determinant of leverage, but while size is positively correlated with debt ratio. Thus, we can say that based on p-values, in our model for listed companies, just liquidity and tangibility assets are statistically significant, all the other determinants are statistically insignificant. This is verified also by t-statistics. Results in Table 2 show that t-statistics for parameters estimated are lower than 2 in absolute values, except liquidity and tangibility asset at companies. This is in conformity with the rule of thumb for using t-statistic which declares that if the absolute value of a t-statistic is greater than or equal to 2, then the corresponding parameter estimate is statistically different from zero.

Examination of corelation

A correlation analysis was performed to verify a possible association between and among the variables, in order to test whether there is any linear correlation between and among the variables. Collinearity explains the dependence of one variable to other. When variables are highly correlated they both express essentially the same information. The highest correlation between liquidity and tangibility asset of 34% is negative, the second highest (26.95%) between ROA and tangibility asset is also negative.

Table 3 - Correlation Matrix of Independent Variables

	LEVERAGE	LIQUIDITY	ROA	SIZE	TANGIBILITY
LEVERAGE	1.0000				
LIQUIDITY	-0.5468	1.0000			
ROA	0.0935	0.0407	1.0000		
SIZE	0.3118	-0.3463	-0.1895	1.0000	
TANGIBILITY	-0.1845	-0.2658	-0.2695	-0.0728	1.0000

4. DISCUSSION

Profitability/ROA is positive correlated with leverage (0.1184; Table 2) but it is statistically insignificant. The results reject any significant relationship between leverage and profitability. This suggests that leverage does depend upon profitability of firm.

The results of regression model indicate that the variable liquidity with the negative coefficient value -0.0238 (Table 2) is statistically significant at 1% level. Therefore, companies

with high liquidity ratios or more liquid assets preferred to utilize these assets to finance their investments and discourage to raise external funds.

Table 2 reports that the beta value of explanatory variable tangibility of assets is 0.3016 with the negative coefficient sign. This negative relationship shows that companies with large portion of fixed assets discourage to employ debt capital. A possible explanation is that firms with lots of tangible assets may have already found a stable source of return which provides them more internally generated funds and discourage them from turning to external financing. These results also confirmed with results of empirical studies for developing countries whereas studies for developed countries exhibit a positive relationship.

Theoretical expectation about the relationship of size and leverage, on the other hand, is ambiguous. Empirical studies experienced mainly positive relationships. Size was found to have positive relationships with the leverage of companies in this study. The sign of the coefficient confirms the direction of our relationship of size with the degree of indebtedness i.e. leverage.

CONCLUSIONS

Through this study, we analyzed a sample of 100 Romanian firms by using a pooled regression model to measure the determinants of capital structure of the firms. We have selected four independent variables with purpose to see their effect on capital structure. In the analysis, we have found the affect of liquidity, profitability, size and tangibility (all are independent variables) on the leverage (dependent variables) position of the company. With the help of regression, we found that only two characteristics - liquidity and tangibility of assets determine the capital structure of companies. We have found that liquidity and tangibility have the negative relationship and profitability and size have the positive relationship with the leverage. However, the results for size and profitability are not statistically significant. Based on this we are not in a position to conclude that size and profitability have the negative or positive relationship with leverage due to their insignificant results so we reject our hypothesis related with the size and profitability.

We believe that companies with lower level of tangible assets are more subject to information asymmetry problems, and consequently, more willing to use debts to finance their activities. Profitability/ROA and size were confirmed not to have effect in capital structures decisions for Romanian listed companies.

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METROPOLISATION AND THE METROPOLITAN SPACE: THE PRACTICE OF HORIZONTAL PARTNERSHIPS AT LOCAL LEVEL*

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Abstract: *At present, the development of large cities raises problems to specialists, who must find solutions to the most diverse processes of concentration, to the numerous problems of the communities tightly connected with the metropolitan areas / growth poles. The formation of the metropolitan areas regards not only the most common issues related to the increase of the standard of living, but also the concrete ways of solving the crises and reducing the forms related to the current metropolitan issues. The objective of this article is to present the main favourable aspects of the metropolisation processes, pointing out the advantages of implementing such areas in Romania.*

Keywords: metropolisation, development, territory, metropolitan areas, governance

JEL Classification: R10, R11

INTRODUCTION

Metropolisation enrolls in a process that, from the viewpoint of functional organisation, reconfigures space itself. In fact, the whole process of metropolitan development takes into account a factor of spatial integration, allowing the development of settlements and not a change to their boundaries; it is a redefinition of the areas of cooperation, a rapid integration into the European development networks organised in metropolitan regions and areas. In spatial terms, there is a tendency to regroup the population within and around the big cities or metropolises, while from a functional point of view there is a trend to concentrate the activities inside the major cities or metropolises.

For a certain period of time the term *metropolitan* has referred to the major cities, the state capitals; subsequently, metropolises referred to the political and economic capitals of a region, of a

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large provincial urban centre designed to contribute to counterbalance the influence of the country's capital and also to a better socio-economic counteraction.

Metropolitan development unfolds, chronologically and spatially, along urban development, this being a new stage in the development of the urban system by its extension beyond the initial borders; due to the increasing population in the surrounding areas of the cities, the emigration from the cities, but also by attracting people from other localities, the geographic and administrative boundaries of the cities have become inadequate to define urban agglomerations. This extension is equally generated by a comprehensive endogenous process of local economic development and the association of several local communities around an urban centre that exerts its role as *growth pole* (Dincă, 2007).

1. METROPOLISM AND METROPOLISATION

Metropolitan development represents an administrative and economic challenge in terms of the management and coordination of a significant number of resources; it is well-known in developed countries, being a feature of a new phase of urban development and representing the next stage of concentration of the population in the city and the suburbs, such socio-economic areas being defined by specialists as *metropolitan areas* (Dincă, 2007).

Therefore, the result of the process of metropolitan development is the emergence of metropolitan areas, a process also called *metropolisation*, which stands for a process of formation, construction and development of a metropolis. The basic characteristics of this process are *metropolism* and *metropolisation*. *Metropolism* means the result of a "bottom-up" process of awareness by some communities of the regional imbalances, their economic underdevelopment, the ethno cultural features and "the centralism of their lifestyle"; on the other hand, *metropolisation* means a "top-down" process in which states acknowledge the regional imbalances and all the phenomena accompanying them, such as economic underdevelopment or excessive centralism; as a result, they decentralise the political and legal system through metropolitan institutionalisation.

The formation of metropolitan areas meets a need or a set of opportunities determined by the organic evolution of cities. This process of urbanisation on the European territory has led to the interdependent development of metropolises with the localities within their area of influence, thus forming *metropolitan realities*; though not referred to as *metropolitan areas*, they function as unitary areas, relatively independent. Thus, there appear the first characteristics of *metropolitan*

areas; they represent distinct forms of human settlement and consist of a large number of people living within or around a centre of great density (Keating, 2008).

The development of metropolitan areas facilitates an integrated arrangement of the territory at the regional level; thus, it reduces the imbalances between the centre and the limitrophe area brought about by the dispersion or marginalisation triggered by the isolation of some settlements lacking opportunities; the elimination or reduction of such imbalances would lead to the improvement of the quality of life of the population. Thus, the identification of a set of common trends of development and cooperation of settlements within the area, the creation of new forms of institutional organisation and management and the representation of interests at the external level will strengthen their ability to cope with competition and will ensure the increasing economic development of localities in the metropolitan area in comparison with the surrounding regions. The completion of the so-called *development policy* is usually carried out by means of a good cooperation between municipalities in the areas of planning, housing, infrastructure, economic development, environmental protection, use of human resources, transportation, water supply, waste processing and, last but not least, the implementation of investment projects.

From an administrative point of view, metropolitan structures depend on political, social, economic, historical and geographical factors. At the same time, the management of metropolitan areas may raise a series of problems, implying a set of "changes in the development pattern of some territories with low density through a voluntary cooperation between local administrations, the intervention of the State in the provision of urban services, a fair public-private coordination and the existence of some administrative structures in addition to the regional agencies, thus providing public facilities aimed at stimulating regional institutionalisation" (Dincă, 2007).

The structure of metropolitan areas consists of three major components: "the cultural identity, a social and economic basis vital to support the development of the area and a form of power in decision making"; these are only some of the elements required for the establishment of public and private "development coalitions" (Vasile, 2001), along with territory, leadership, external links and development strategies.

The metropolisation process can also be defined from the perspective of economic and administrative components; thus, it represents "all the actions taken by the public sector via its public administration bodies, as well as by the private sector, by means of the contribution of the economic agents; this process has led to the emergence and development of an economic zone, functional and competitive in the area of influence of the metropolis."

Metropolisation implies a process that, from the viewpoint of functional organisation, reconfigures space. In fact, the whole process of metropolitan development takes into account a factor of spatial integration, allowing the development of settlements and not a change to their boundaries; it is a redefinition of the areas of cooperation, a rapid integration into the European development networks classified into metropolitan regions and areas. From a spatial point of view, there is a tendency to regroup the population within and around the big cities or metropolises, while from a functional point of view there is a tendency to concentrate the activities inside the major cities or metropolises.

Metropolitan areas (Dincă, 2007) are the growth engines of national territories, spatial mutations implying a series of social and economic interdependencies that redefine the metropolitan space, thus being re-established the links between the strategies of enterprises, the socio-economic changes, the reconfiguration of the relations of power and the transformation of the organisation of metropolitan areas. The metropolitan area forms around a metropolis (over 1 million inhabitants), taking pride in its ability to support the metropolis so as to develop it at national, regional and international levels. In terms of quantity, the metropolitan area provides 80% of the input/output flows, this representing a hierarchical area where medium-sized and small cities or rural localities with no central functions have areas of diffuse influence; the metropolitan area represents a network of main and secondary poles identified according to a number of relevant indicators so as to determine the correct degree of attractiveness of the sites, being characterised by a wide range of economic specialisations which, together with the specialisations of the metropolis, support its development at regional and national levels.

2. EUROPEAN METROPOLITAN AREAS – THE NETWORK OF REGIONS AND METROPOLITAN AREAS IN EUROPE (METREX)

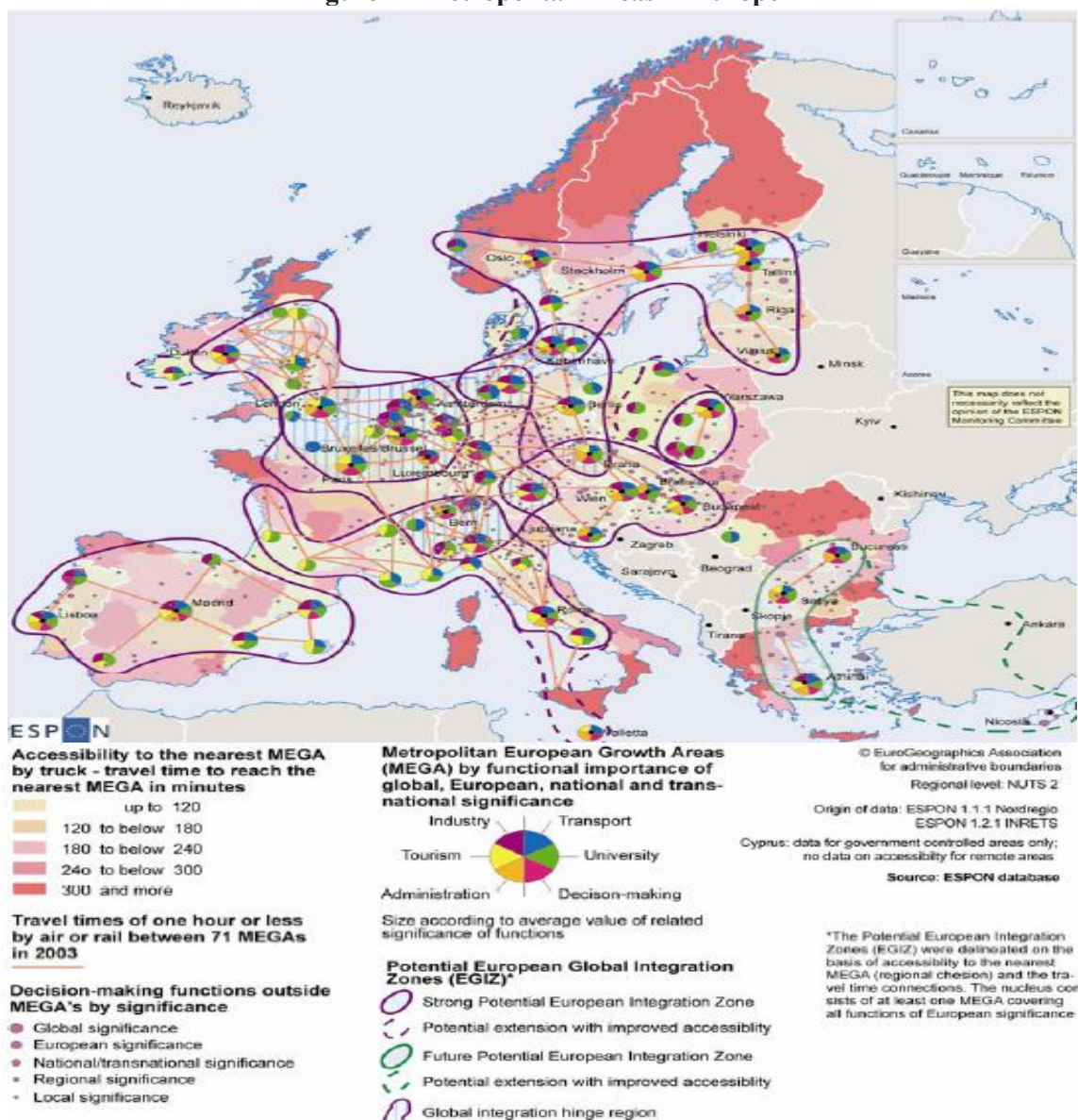
European experiences relate to theoretical approaches on the integrated planning of polarising cities and their areas of influence; these approaches are reflected in a series of legislative measures on the harmonisation of the development of cities and the afferent territory. Practical and systematic interventions have taken place since the 1990s when the enlarged Europe was facing the integration into global economy and the rigors of competition; therefore there appears the need of the existence of other perspectives on the development of cities and localities - *regional development*.

In 1996, at the Conference of Metropolitan Regions in Glasgow, with the support of the European Commission, there appeared the Network of Regions and Metropolitan Areas in Europe

(METREX), meant to ensure the means to promote metropolitan governance and answer the problems of enlarged Europe.

In 1999, METREX in collaboration with the European Parliament, the Committee of Regions and the Council of Europe, convened the assembly of the main European institutions and the national and local governments in the metropolitan areas of Europe to sign the "Metropolitan *Magna Carta* – the Porto Declaration" regarding the strategy in the planning and development of regions and metropolitan areas in Europe. The event resulted in a document with 40 signatory entities. Currently, the process of structuring the metropolitan regions and areas in Europe is expanding: there are 120 metropolitan regions or areas, of which 33 are METREX members.

Figure 1 - Metropolitan Areas in Europe



Source: ESPON Project 2.4.2: Integrated Analysis of Transnational and National Territories Based on ESPON Results

The prospect of the European Union enlargement is a decisive factor in accelerating the process of development of metropolitan areas in Europe; as an important actor on the global market, it must meet the requirements of the competitive development and prepare the localities to respond to these challenges.

There is no hierarchy of metropolises; the population size has become a less relevant factor in the case of a city aiming at becoming a metropolis. According to a study carried out in 1995 (DATAR), the minimum threshold at which a city can aspire to the status of metropolis is 200,000 inhabitants, consistent with its structural, functional and accessibility characteristics.

3. THE IMPLEMENTATION OF METROPOLITAN AREAS IN ROMANIA

In Romania, metropolitan development involves two distinct actions: the definition and subsequently the delimitation of these areas. One of the first definitions of the *metropolitan area* dates back to the 1980s, during the U.S.A. Census: "Statistical Metropolitan Area" including a city and the surrounding localities, characterised by relationships of interdependence and summing 50,000 inhabitants, this number reaching 254 in 1990.

A metropolitan area refers to an area which contains a number of autonomous administrative units, with emphasis on both the metropolitan independence and the coordination of metropolitan affairs. A new defining element for the metropolitan area, in addition to the territory and the administrative organisation, is the population. In accordance with the French law, namely "an agglomeration of communities representing a public entity which regroups several municipalities forming a geographical area inhabited by at least 50 000 inhabitants. At least one of these localities must be inhabited by at least 15,000 inhabitants, the mission of the entity being to formulate a joint program for urban development and planning the use of land", all of them in accordance with the *Chevènement Law* of 1999, France.

The first metropolitan areas were defined by the *Law on the Landscaping of the National Territory no. 351/2001* as "areas ensued from the association, on the basis of voluntary partnership, between urban and rural areas, between which there have developed collaborative relationships on multiple plans." The metropolitan territory, on the basis of the *Law on Urban Planning no. 350/2001*, is defined as "the area lying around the municipalities of first rank, including localities at distances up to 30 km, where there are reciprocal relationships of influence in the field of communication, economic, social, cultural and urban infrastructure". The formation of a metropolitan area was the aim of the *Ordinance 53/2002 on the Status of the administrative-*

territorial unit, which stipulated its operation under the conditions of preserving political and administrative autonomy to each of the municipalities in the metropolitan area.

The establishment of the partnership for metropolitan development does not require an area identical with the administrative areas of the units involved. In delineating a metropolitan area there are important aspects to consider, such as the axes and corridors of development, the areas of mutual influence, the common problems and interests, their spatial extent, the complementary, articulated and integrated resources etc., but also a series of social and economic analyses. Romanian legislation states that "metropolitan areas function as independent entities without legal personality, although there is the possibility that these areas function on a perimeter independent of the boundaries of administrative-territorial units, jointly established by the local public administration authorities". The development program of the area can be put into practice only *with the consent of local councils and in consultation with the public in accordance with the law*.

Metropolitan areas and urban agglomerations are formed with the express agreement of the local councils of the administrative-territorial units and aim at the infrastructure development and the development goals of common interest. The deliberative and executive authorities at the level of each administrative-territorial unit keep their local autonomy. The modifications of the *Law no. 215/2001 on Local Public Administration* introduced a series of new clarifications. Thus, the metropolitan area is defined as "the association of intercommunity development on the basis of partnership between the Romanian capital or first-rank cities and the territorial administrative units located in the immediate area."

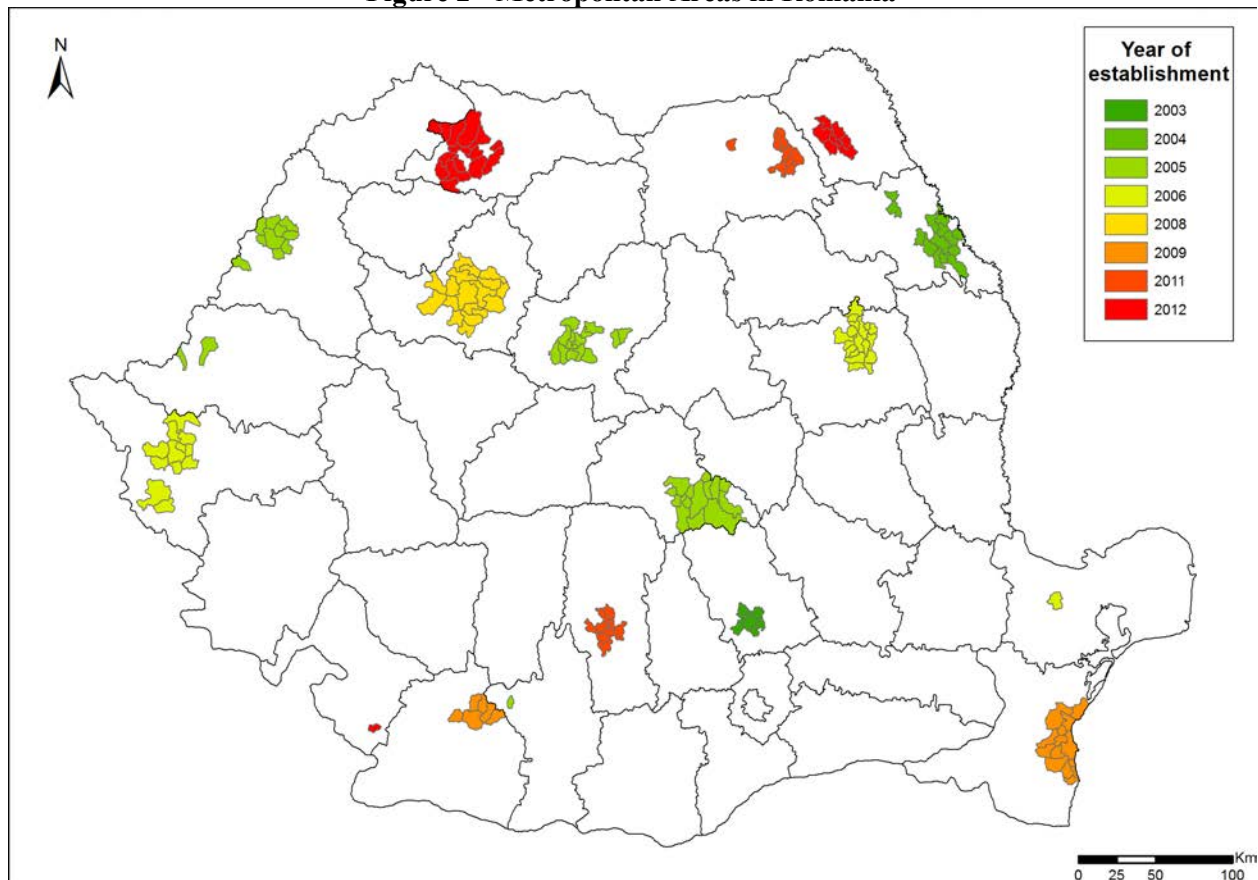
However, this definition can lead to some confusion; on one hand, it is mentioned that metropolitan areas function as entities without legal personality, while on the other hand there is reference to *the association of the metropolitan area*, a syntagm which implies the existence of an associative structure of the metropolitan area^{*}. Although there have been attempts to cover a legal vacuum regarding the functioning of metropolitan areas, the apparent equality between metropolitan areas and the associations of intercommunity development does nothing more than to introduce a new contradiction (Pop et al., 2007). As indicated in the paragraphs above, the legislation relating to metropolitan areas stipulates the possibility of functioning in a territorial framework independent of the administrative structure, while intercommunity association relationships can only work within the administrative limits of the component units.

Reality has shown that in numerous counties people have understood that such structures constitute a framework conducive to development by applying integrated strategies at the level of

^{*} The associative structure will function according to the Law 246/2005 as regards associations and foundations.

urban-rural relationships. So far there have been set up 14 metropolitan areas and at least half of them have been constituted after the law modifications (Figure 2).

Figure 2 - Metropolitan Areas in Romania



Source: Representation based on data from the Ministry of Internal Affairs – UCRAP

Unfortunately, the biggest problem of these structures is their relatively reduced functionality triggered by frequent conflicts between the officials of these units. The worst examples are usually related to the projects of integrated management of waste, because in this case, no official is willing to allow the construction of such facilities on the territory of its locality. However, the utility of such structures cannot be denied. Possible subsequent legislative modifications may introduce more prerogatives for these areas; moreover, raising the awareness that such associations can bring an economic benefit for those involved may lead to a future increase in the level of performance.

CONCLUSIONS

Romanian experience has proven that major reforms are still needed in several areas. The ability of the local government to manage and facilitate local economic development is still limited by national legislation and too restrictive administrative rule. These legal and regulatory obstacles

limit the ability of the local government to use productively its assets (which it controls nominally) and to encourage economic growth through innovative planning measures, based on market relations.

The emergence and development of metropolitan areas around the main cities implies the fact that the applicant entities should assume some functions in order to stimulate economic development and social cohesion and at the same time to contribute to building and reinforcing some specific roles at territorial, national and international level, so as to meet development processes. The result is the development of integrated systems of infrastructure that turn metropolitan areas into genuine logistical knots, namely areas which are equally attractive and accessible, equipped for complex functions and accessible to the measures designed to ensure territorial development. Thus, while focusing on already existing functions and on the potential of the area, there are developed numerous international links meant to contribute to maintaining their already established role in areas of influence, as well as to cope with the rigors of the metropolitan entity existing within the European networks.

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AN OVERVIEW OF THE TOBACCO BLACK MARKET IN EUROPE

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Abstract: *Cigarette smuggling is a global phenomenon and so well-organized that it poses a serious threat to public health and national economies. The aim of the article is to highlight the main definitions and classifications between illegal tobacco trade and cigarette smuggling and also to describe the general situation of Europe. Based on data retrieved from International Tobacco Trade and UNODC, the paper is focused on the price differences, source countries, supply and demand and on the analysis of reports and articles. Furthermore the main findings emphasize the role of high taxation and corruption which have affected the European economies.*

Keywords: tobacco, illegal cigarettes, smuggling, counterfeiting, underground economy.

JEL Classification: E26, O17

INTRODUCTION

Tobacco has a true long history, from its first native forms in the early Americas to the well-known widespread trade through Europe and further to Asia. Introduced by Spanish to Europeans, tobacco showed at the end, how quickly can be sold, action initiated at that time by the French ambassador in Lisbon, Jean Nicot. Historical events that followed after this peak point, led to a big profitable business of our days which unfortunately turned tobacco and cigarettes into one of the most popularized topics, especially regarding health problems and illegal trade.

Recognized as a symbol of modern society, the simple cigarette has transformed into a very common product of both legal and illegal base. Although the international tobacco industry became a profitable business with a large portfolio of clients all over the world, the total production continues to be associated and also interferes with the evasion of excise and customs duties. According to Illicit Tobacco Trade 2008 Report, hundreds of billions of cigarettes are "vanishing" each year from legal trade channels into an underworld market and the counterfeiting of cigarettes is growing steadily, all at an enormous cost to public health and nations' economies (ITT, 2008 Report, p. 2).

Illicit tobacco trade is a much broader concept than smuggling. For instance, the ITT 2012 Report showed that smuggling is conducted for one or both of the following reasons: to avoid

excise taxes and to evade rules prohibiting the sale of such goods. Moreover, some well-known economists such as David Merriman defined the action of smuggling as the evasion of excise taxes on goods by circumvention of border controls (Merriman, 2002). The illicit tobacco trade process works on three major pillars such as smuggling, counterfeiting and the category of tax evaded products (ITIC, 2010). These three important pillars are very connected and interrelated in the production and sale mechanism, a true important fact which describes that this industry may also have ramifications in the global underground economy. Also this process does not define one particular country or region, it simply covering all the world nation's economies, the high and low income countries together.

However, in finding a more specific definition for the illegal tobacco trade, definitely cannot be removed the nature of the product. Being a highly taxed product in many countries, it is understandable that it has been created a distribution niche of cheaper and poorer quality cigarettes. Sometimes with the help of the international tobacco companies, the cigarette black market turned into a real business same as drug trafficking, which reached a high level in terms of total sales of cigarettes, involving in the whole mechanism a more efficient transport and processing.

Considering the general overview regarding the illegal tobacco trade, which has emerged in a surprisingly way, this paper focuses on smuggling of cigarettes in Europe. Labelled as an outlaw trade, the black market tobacco is covering all the states, whether it is United Kingdom, China, or Brazil, this illicit trade has become a real problem for all the world governments especially regarding the stability of their budgets. For many years, EU was the main destination for illicit tobacco products, although transit routes were often via South America. Even an expert of Philip Morris International, Timothy Lindon said in 2011, that the illegal cigarette market in the EU is at this time more larger than the legal cigarette markets of France, Ireland and Finland combined, and also many European countries are determined by two distinct cigarette markets, one legal regulated market which is declining, and an illegal unregulated market that is growing (PMI, 2011).

Europol data points out that these types of cigarettes are manufactured elsewhere, particularly in China and the Far East, in the Middle East and the CIS countries (UNODC, 2011). Recent studies like Action on Smoking and Health 2011, estimated that 11,6% of all internationally traded cigarettes are smuggled, equivalent to 667 billion cigarettes a year, causing losses to government revenue worldwide of US\$40,5 billion. For European Union particularly, it is estimated that the illicit tobacco trade is costing the governments about €10 billion a year in lost revenue (UNODC, 2011).

International tobacco industry with the big 4 tobacco manufacturers, Philip Morris International, Japan Tobacco International, British American Tobacco and Imperial Tobacco Limited, represents the legal face of this successful business, being extremely involved on the market. The ugly truth that affects these multinational companies is the fact that smuggling makes top international brands available at affordable prices to low-income consumers. Although there are many cigarettes brands that continue to be smuggled, such as Marlboro, State Express, 555, Benson & Hedges, Camel or Winston, there is evidence indicating that the international tobacco industry has instigated cigarette smuggling and has participated directly in these activities, while at the same time carrying out costly lobbying campaigns to pressure governments against tax increases and to promote their own interests (Armendares and Shigematsu, 2006).

Roughly cigarette smuggling is labelled as a serious threat of our modern era because: smuggling makes cigarettes available cheaply, fact which leads to increasing consumption; about third of annual global exports go to the contraband market, representing an enormous impact on general consumption (Joossens and Raw, 1998); cigarettes are considered a part of the highest taxed commodities which provide a significant source of revenue for governments, smuggling involving in this way the stability of government budgets (Klaus von Lampe, 2011); is a significant source of income for all levels of organized crime, income that is very often reinvested to support other criminal activities; affects seriously the consumers health, for example World Health Organization (WHO) statistics revealed that tobacco caused 100-million deaths worldwide in the 20th Century.

1. ILLICIT TOBACCO TRADE- DEFINITION AND CLASSIFICATION

In this era of Internet purchases and globalised exchanges, the idea of prohibiting the sale of a product such as tobacco, with a history going back thousands of years may simply appear unreal (Petkantchin, 2012, p.1). Even in this context, the economics and tobacco are definitely linked. Based on the economic nature, illicit trade can be seen as a simple outcome of classic *demand* and *supply* (Joossens and Raw, 2011). First, *demand* derives from the need of smokers for cheaper products while on the other side, *supply* continues to highlight the situation of legal and illegal tobacco manufacturers, which are looking to increase their sales, profits and market share or even to penetrate new markets that are very often facilitated by corruption or by the presence of criminal organization and poor government policies (Joossens and Raw, 2011). Also many experts suggested through their own research that the world cigarette production is very close to the world consumption only because cigarettes do not keep for very long. Thus global imports should be equal

or close to global exports, but the real economic world is quite different, because generally imports are lower than exports to a serious degree that cannot be explained.

According to Illicit Tobacco Trade 2008 Report, illicit tobacco trade is a much broader concept than the often-used "cigarette smuggling". Generally, this term refers to a prohibited practice or activity that involves production, shipping, distribution, receipt, purchase or sale of products^{*}. Moreover this illicit trade is characterized by:

a) *Large-scale smuggling* - takes advantage of the temporary suspension of customs duties, excise and other taxes on goods destined for export to a third country (Klaus von Lampe, 2011). These untaxed cigarettes don't leave the country and are directly diverted to the black market, or, far more commonly, they are properly exported and disappear on the black market abroad or are illegally re-imported (Klaus von Lampe, 2011). Moreover, the ITT 2008 Report shows that the large-scale smuggling very often involves criminal organizations.

b) *Bootlegging* - a practice which involves the purchase of cigarettes in low-tax countries for resale in high-tax countries, a form of smuggling carried out by individuals or small groups (Klaus von Lampe, 2011). The main differences in these cases are given by the nature of the paid taxes which are made not in the country of consumption (Hornsby and Hobbs, 2007).

c) *Counterfeiting* - the fastest-growing category of illicit tobacco trade, counterfeiting constitutes a violation of brand property rights and involves the production of fake brand cigarettes, including packing and on occasion, fiscal marks made by unauthorized manufacturers (Klaus von Lampe, 2011, p.149). A strong example is given by China, the largest manufacturer of legal cigarettes and also the main source of counterfeit cigarettes (Antonopoulos and Klaus von Lampe, 2010).

Illicit trade in tobacco products has ramified detrimental consequences and above all, smuggling continue to be caused by large price differences between cigarettes in different countries, the evasion of border controls, distribution infrastructure (e.g. street vendors), trade restriction, geographic proximity, overproduction, unemployment or low-wage legal employment, frequencies of international travel, moral suasion or by the demand to finance other illegal activities.

2. SOURCE COUNTRIES

The illegal tobacco industry is a global black market defined by complex distribution systems and smuggling routes that are very hard to track. Described as a underground industry, the illegal

^{*} see *Illicit Tobacco Trade 2008 Report* available on http://tobaccofreecenter.org/files/pdfs/en/ILL_overview_en.pdf

tobacco trade starts from Fujian and Guangdong provinces with the Chinese counterfeiters that are very well-known due to their capacity to mimic Marlboro to perfection, to Kaliningrad and with Russian-owned factories that produce popular brands exclusively to be smuggled into Western Europe, to Indian reservations in New York, to South America's notorious Tri-border (Argentina, Brazil and Paraguay) and furthermore to illegal reservation from Pakistan and African countries (see Figure 1).

Generally there are three types of countries in this whole process: source countries of illicit cigarettes, countries that are mainly transit routes and the third type, are the final destination countries, where the illegal products are consumed. Despite this, some researcher suggest that in this classification can be introduced another type of countries, mixed countries which can be found in more than one of these categories.

The source countries are viewed generally through the Asian gate. Countries like China, Vietnam or North Korea are the main suppliers of counterfeiting cigarettes for the European and U.S.A countries. For the Middle East, Egypt is recognized as a central key regarding cigarettes contraband. In Africa, Zimbabwe plays an important role in the contraband process which is detected mainly in East and Southern Africa while in Latin America; Paraguay continues to be a real source of illicit cigarettes which are especially transported in Brazil. In addition other popular sources of counterfeit cigarettes include Iran, United Arab Emirates, Romania, Russia and Ukraine, known as Europe suppliers.

Figure 1 - The Global Trade in Smuggled Cigarettes for 2010



Source: Guevara (2010) *Follow the Money: Who Benefits from Booming Trade in Smuggled Tobacco?* retrieved from www.unfreemedia.com/un/2010/05/follow-the-money-who-benefits-from-booming-trade-in-smuggled-tobacco.html

According to *Illicit Tobacco Trade 2008 Report*, to move cigarettes from legal trade channels into the black market, a smuggling route can cover thousands of miles. One pathway for smuggling American cigarette brands into Italy began with container loads exported to Antwerp, Belgium under the transit system of temporary suspension of taxes on goods headed for a third country. Next cigarettes were rapidly exported and imported again through many locations, ultimately transferring them to illegal channels in a city known for lax surveillance, such as Bar or Zelenika in Montenegro. Finally speedboats ferried cases of the cigarettes by night across the Adriatic to Italy where they were sold in the streets of Naples and Bari^{*}.

3. TRENDS IN SMOKING IN EUROPE

Europe is for sure among the top global consumer of tobacco. A report released by Philip Morris International showed that Europeans smoked more than 65 billion illicit cigarettes in 2011 (Nielsen, 2012). Moreover, in Europe approximately 30% of adults smoke regularly and some 1.3 millions deaths per year are caused by smoking, losing 20 years of life each on average. Deaths from smoking are highest in Eastern Europe and at current rates, 20% of all deaths in 2020 will be from smoking[†]. Some 550 000 people in the European Union die from their smoking habit (WHO Europe, 2002).

Despite health problems that tobacco causes, there are no signs of smoking decreasing in Europe. Although there are serious consequences, both in health and economic sector, Europe continues to be determined by wide differences regarding price and tax between countries, an important example being in the image of Spain and UK.

4. CIGARETTE SMUGGLING IN EUROPE

The dynamics of illicit tobacco trade have evolved remarkable in the past years. From a market characterized by a large -scale cigarette smuggling in the nineties and at the beginning of this millennium, Europe showed in the last few years a slight decrease regarding large-scale smuggling in favour of counterfeiting and the development of new cigarette brands. The market itself is determined by variety: there is an explosive growth of "illicit white" or so called "cheap

^{*} see *Illicit Tobacco Trade 2008 Report* available on http://tobaccofreecenter.org/files/pdfs/en/ILL_overview_en.pdf

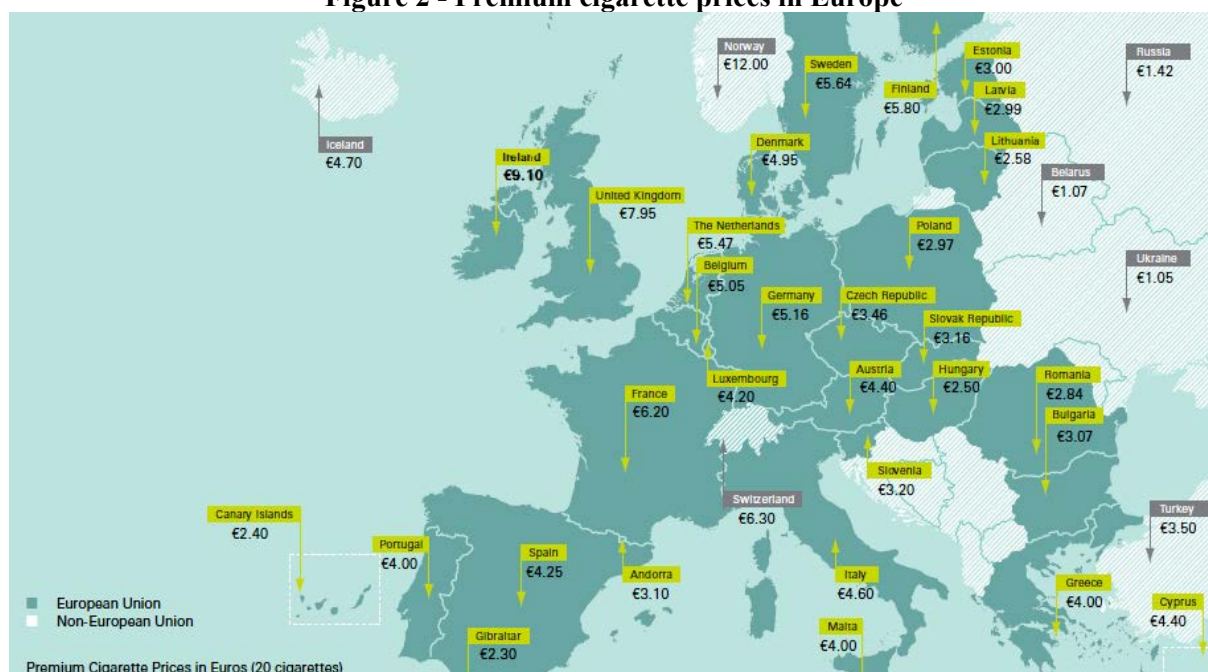
[†] See *Economic Aspects of Smoking in Europe* p.17 available on http://www.nuigalway.ie/hbsc/documents/economic_aspects_of_smoking_final_report.pdf

whites" a special type of cigarette at very low-cost made for smuggling while on the other side is the high-presence of internet sites who sell and ship cigarettes in small quantities by the post to evade taxation. Despite this, can be mentioned an expansion in distribution networks. Generally smuggled tobacco is transported in containers (by sea, rail or road), postal routes and even with tourists or carried abroad through unusual ways as tunnels between countries, like that one discovered between Slovakia and Ukraine in 2012*.

4.1 Cigarette prices in Europe

The wide range of economic situations makes Europe a continent with a wide range of prices. Figure 2 shows that generally in the eastern European countries like Belarus, Ukraine or Russia a pack of Marlboro for example can be bought for around one euro while in the top most expensive are situated by far the western countries like Ireland and Norway where a pack of cigarettes cost ten times as much (see Figure 2).

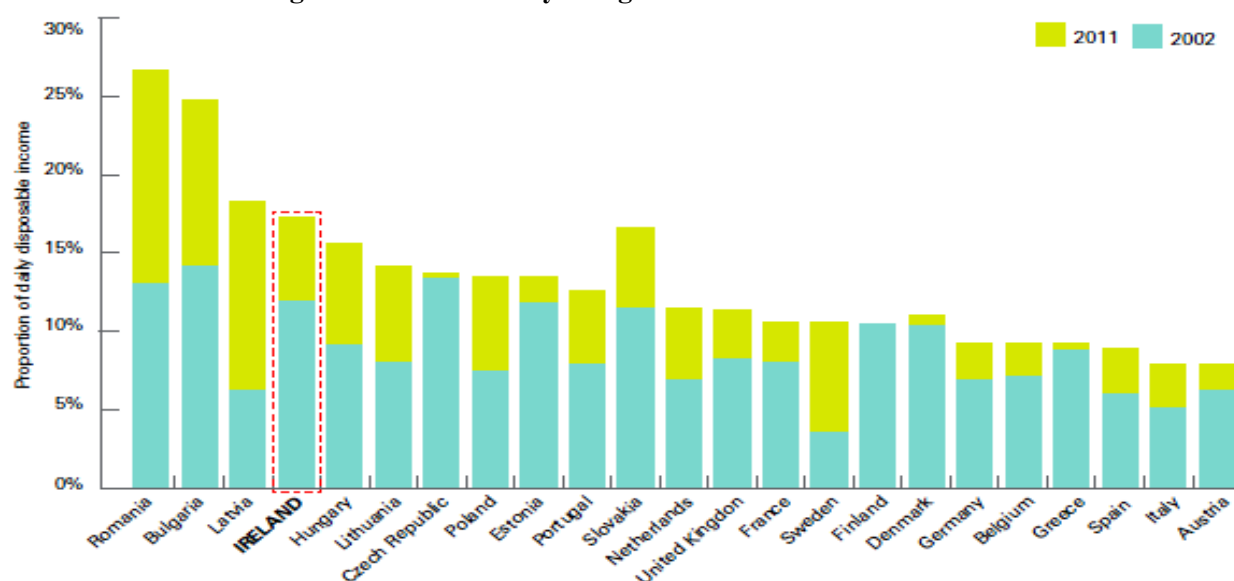
Figure 2 - Premium cigarette prices in Europe



Source: JTI, January 2012

* e.g. see *Tunnel vision*, accessed on July 2012 at <http://www.economist.com/blogs/easternapproaches/2012/07/slovakias-borders>

Figure 3 - Affordability of cigarettes in the EU in 2002 and 2011



Source: JTI, 2011 Report and Oxford Economics/EC

According to KPMG, total cigarette consumption in the EU was 685 billion units and contraband trade accounted for 8,9% of total consumption in 2009 (Joossens, 2011, pp.1-2). Also according to JTI 2011 Report, cigarettes in Ireland are the fourth least affordable in the EU being ranked after Romania, Bulgaria and Latvia (see Figure 3).

In the same context, Table 1 shows the price and tax burden of a pack of 20 cigarettes in eight of the 27 EU Members states, representing the four most and least expensive jurisdictions. As the table indicates, smugglers can make profit on the territory of Estonia.

Table 1- The price and tax burden of 20 cigarettes in the premium cigarette price category in eight of the 27 EU Member States

Country	RRP per 20 cigarettes			Tax burden per 20 cigarettes			Tax incidence
	GBP	EUR	USD	GBP	EUR	USD	
Ireland	7,41	9,27	11,62	5,82	7,28	9,13	79%
UK	6,95	8,69	10,89	5,40	6,75	8,47	78%
Sweden	5,71	7,14	8,95	3,95	4,94	6,19	69%
France	5,12	6,40	8,03	4,09	5,12	6,41	80%
Bulgaria	2,65	3,31	4,15	2,08	2,60	3,26	79%
Lithuania	2,41	3,01	3,77	1,78	2,23	2,79	74%
Hungary	2,40	3,00	3,76	1,88	2,35	2,95	78%
Estonia	2,38	2,97	3,73	1,85	2,31	2,90	78%

Source: ITT, 2012, FATF Guidance.

Characterized very often due to cheap price (sometimes less than £ 3.50 for a pack of 20) unpopular foreign names such as Raquel and Jin Ling, no picture health warning or unusual

packaging and taste, smuggled tobacco is generally easy to detect. An underground market like this generates a considerable profit margin for illicit traders.

For example, organized smugglers can buy a container of Jin Ling cigarettes in Russia (on which they pay no taxes) for US\$100 000. The value of such container in the EU is on average US\$2 million, an enormous profit margin. In the UK the potential profit is as much as three time higher (Joossens and Raw, 2011).

For several decades the European Community was flooded by smuggled tobacco. With time, more exactly from 1994 onwards, cigarettes smuggling became more prolific, both outside and inside the EU territory. Austin Rowan the Head of Operations in the Task Group Cigarettes in the European Commission's Anti-Fraud Office (OLAF) reported that in the early days the mostly affected countries were Italy and Spain - Marlboro being the main brand placed onto the Italian contraband market, Winston onto the Spanish contraband market. Also he points out that it is very interesting how the smugglers operate, because both Italy and Spain with the exception of Luxembourg had the lowest taxes on cigarettes in the EU for many years.

Several studies reported that the Nordic countries have the highest cigarette prices in the world (between US\$4 and \$6 a pack) but a low level of smuggling, as street selling is not acceptable in northern Europe. In countries such as Spain and Italy prices are low, but the level of smuggling is high, as street selling is culturally acceptable. In Spain 40% of contraband cigarettes are sold on the streets and 23% in the bars (Joossens, 1999, p. 9).

4.2 The Eastern border - a gate to West for smuggled cigarettes?

EU agreement regarding the tax increase on cigarettes has led also to an increase in consumption of illicit cigarettes in all the Member States. Also according to Michaletos, inside the European Union, tobacco smuggling has increase more than 100 percent since the introduction of the Schengen control-free zone. Furthermore the proliferation of inter-European tourism and the multitude of air transportation and truck companies, along with the existence of duty free zones in non-EU states across the borders of Schengen agreement countries, have fuelled the issue and provided golden opportunities to the smugglers.

The main gates that facilitated the illicit tobacco transportation are in particular Moldova, Ukraine, Belarus and Russia. All these illegal cigarettes that enter the EU via Eastern border are destined generally for the illegal markets in Western Europe, like Germany or the United Kingdom, especially because of the higher prices they can be sold for. Although the smugglers take into their

account European countries with high taxes, a significant portion of the smuggled cigarettes is targeted on the local market. Moreover, many researchers reported that smuggling of cigarettes and tobacco products is very prominent in the regional triangle between Netherlands, Belgium and the United Kingdom particularly for the main reasons of high taxes practice and the potential for large profit.

With time, some international investigations detected that an important part of European countries are actually flooded by smuggled Russian cigarettes that worth millions of dollar per year, the main smuggled pack of cigarettes being Jing Ling which resembles very much with the Camel pack of cigarettes.

5. ILLEGAL CIGARETTE TRADE AND CRIMINAL ORGANIZATIONS

Illegal cigarette trade it was always an interesting topic, not only to its mechanism terms but also to its variety of groups involved in this underground activity. According to Klaus von Lampe 2011, there are three major aspects that describe the nature of illegal tobacco trade: the interest of criminal groups, the source funding nature for terrorist groups and the complicity for bigger profits and sale of the tobacco companies.

The latest studies on this topics revealed that this activity it is not run primarily by criminal groups but by common individuals. Despite criminal groups, Louise Shelley, a transnational crime expert at George Mason University and an adviser to the World Economic Forum on illicit trade reported that terrorist financing through cigarette smuggling is "huge". Also, extremist groups like Hezbollah, al-Qaeda or Real Irish Republican Army (IRA) and the Kurdistan Workers' Party (PKK) are involved in smuggling cigarettes (Willson, 2009) even on the European territory.

Along time tobacco manufacturers blamed smuggling on organized crime, but some investigations proved that some tobacco companies like BAT, Philip Morris and R.J. Reynolds have had their own connections to crime groups.

CONCLUSIONS

Labelled as a global problem which needs global solutions, illicit tobacco trade contributes to a major harm to public health and economies worldwide. Despite the general view, tobacco smuggling is particularly a significant political issue different from country to country.

Reviewed literature points out that is very difficult to estimate the real size of illegal tobacco all over the world, practically it is impossible. Moreover the lack of experience showed in this domain is a handicap to future research. Part of the underground economy the illicit tobacco trade and cigarette smuggling involves also criminal and terrorist groups and even tobacco companies for higher profits.

For Europe, this issue continues to be a serious concern. First because undermines the effectiveness of tax policies and second because increases the availability of cheap cigarettes on the market. Recent case studies showed that the most involved countries, both indirect and direct are United Kingdom, Spain, Norway, Sweden, Ukraine, Russia, Belgium or Romania.

This work provides a general description of the changing nature of illicit tobacco trade all over the world, with greater focus to Europe. Also points out the form of classic demand and supply: demand by smokers for cheaper cigarettes and supply by legal and illegal tobacco companies which primarily are looking for more profit and more sales.

Countries should be encouraged to develop and to implement strong measures such as national taxation and other best practice tobacco policies to curb the illicit trade (e.g. raise public awareness of smuggling; increase the penalties for those convicted of smuggling and so on). Also there is a strong need for international cooperation, partnerships among the ministries of health, ministries of finance and law enforcement agencies and civil society for an effective control of tobacco products and illegal trade.

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THE STRATEGIC TRADE POLICIES: COMMERCIAL DISPUTES ON THE WORLD AIRCRAFT MARKET*

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Abstract: *The paper aims to illustrate how strategic trade policy is used by analyzing the concrete situation in the world aircraft industry, focusing on the case of the large civil aircrafts and on the regional jet aircrafts. We want to clarify which is the position of GATT / WTO regarding the strategic trade policy, what are the factors which made it possible to use strategic trade policy in the aviation industry and how the strategic trade policy was implemented by the four major market actors considered, the disputes that have arisen from the use of strategic trade policy and how these were resolved.*

Keywords: strategic trade policy, oligopoly, subsidies, multilateral system, countervailing measures
JEL classification: F12, F13, F14, F42, F53

INTRODUCTION

Within GATT and, later on, WTO a special attention was given to the regulations of subsidies and to how to control them, in order to avoid trade distortions (DeCarlo, 2007, p. 6), through the *Agreement on Subsidies and Countervailing Measures* (SCM Agreement) for industrial products and the *Agreement on Agriculture* for agricultural products, this one being a more delicate subject among the multilateral negotiations. There is also a mechanism for solving the conflicts, in which the panel judges if the governmental policy is in accordance with the legislation and government measures designed to answer to trade distortions that take place due to such inadequate actions. Moreover, the Organization for Economic Co-operation and Development oversees the compliance with a commitment of 30 of its members which regulate the conditions and the rates used for financing the exports.

The concern regarding the implementation of this aspect in the multilateral negotiations and the regulations framework of international trade is an obvious one, taking into account the effects that this kind of public policies would have on international commercial flows. The importance of a

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multilateral approach is even higher, as there is a trend to replace the trade barriers with this kind of more subtle ways of encouraging the domestic production, all kind of subsidies, from simple *ad valorem* payments based on the size of export turnover, until complex fiscal credit systems, loans, insurance and guarantee programs etc. (Conconi, 2001, p. 1)

1. THE STRATEGIC TRADE POLICY IN THE CONTEXT OF THE GATT/WTO MULTILATERAL SYSTEM

Within the Uruguay Round of the multilateral trade negotiations, the GATT code regarding subsidies was revised and the new negotiated agreement associated the subsidies with a different colour: green (permitted), amber (slow down, decreasing), red (forbidden). At least 34 countries agreed to gradually reduce the aids given to domestic producers in order to stimulate exports. To enter into an allowed subsidy category, a subsidy must not distort trade, or, at most, should affect it in a very small extent. Subsidies should be government funded and should not support the price directly, and it does not refer to subsidies that address a specific product or company, but are available to everyone.

Part I: Article 1 of WTO *Agreement on Subsidies and Countervailing Measures* defines a *subsidy* as the situation where (a) there is a financial contribution from the government or other public body or it is offered any form of income or price support (as art. XVI GATT 1994) and (b) that company is given a benefit. If point (a) takes place, financial contribution can be made by direct transfer of funds (grants, loans, equity infusion, etc.) or through potential direct transfers (loan guarantees) by giving up the budget revenue collection (like stimulate business through tax credit), except those related to the national territory good consumption through offering of goods and services by the state, other than general infrastructure, or through purchase of goods etc.

In the context of the subsidy definition, we can see that the classification procedure of a government support concerning the subsidies category is not straightforward. For example, the export credit support provided by an agency or government department or a private entity on behalf of the state, falls within the definition of financial contribution, but it is not required to provide a benefit. If the government provides a credit to an economic agent under the same terms as it would get from a private lender, we cannot speak about any subsidies. The notion of advantage is essential to determine whether a measure is a subsidy or not. (Berinde, 2004, p. 174)

In order to be penalized according to GATT provisions, a grant must be awarded with the *specificity* character to a company, an industry or to a group of firms or industries. According to

Article 2, a subsidy is specific if the paying authority or the law, under which the authority operates, explicitly limits the access to grant funding only to certain companies or industries. If the paying authority or its operating law establishes neutral eligibility criteria and objective, that do not favour certain firms, and they are of economic nature and horizontal as it concerns the application procedure (e.g., number of employees, firm size etc..) for the subsidies access and for the establishment of the financial support size, then the subsidy cannot be considered specific.

If, despite the non-specificity resulting from the application of the two principles above, there are reasons to believe that the subsidy is specific, in this case, factors such as: the use of a subsidy program by a limited number of companies or mainly by certain companies, providing disproportionately large amounts of money to certain companies, the manner in which the financing decision of firms is made (the rejection or approval frequency of the subsidies, the criteria underlying these decisions and so on) may be taken into consideration. Likewise, the agreement states that an available subsidy to a limited number of firms located in a specific geographic area will be considered as specific. This is not the case for contributions and local taxes, determining their level being part of the attributes of the local authorities.

The agreement strictly regulates the reporting procedure of an existing category of actionable subsidy case, the compensatory measures being applied only if there has been a substantial increase in the imports of subsidized products, either in absolute value or as a percentage from production or consumption, if the prices of the subsidized goods decreased the domestic price of the goods or similar goods, if there is a causal determination between the import of subsidized products and a damage brought to the national economy etc. Over the time, the *Agreement on Subsidies and Countervailing Measures* underwent a series of changes and updates, bodies responsible for the enforcement of its provisions being put often in the position of solving this kind of commercial disputes.

The *Agreement on Subsidies and Countervailing Measures* recognizes the fact that the subsidies may contribute significantly to the development programs in the developing countries, due to the fact that this category of countries is provided with a special and different treatment, consisting in a postponement of the ban on subsidies use, settlement of the transitional period etc. However, the Agreement recognizes the special status of the countries that are undergoing a transition process, from a planned economy to a market economy, countries that could apply the programs and measures necessary for this transformation. (Berinde, 2004, pp. 179-180)

2. THE COMMERCIAL CONFRONTATION ON THE LARGE CIVIL AIRCRAFTS MARKET: BOEING VERSUS AIRBUS

The aircraft market might be explained through the oligopoly specific conditions, especially concerning the large aircrafts designed for passengers, the supremacy being disputed by two major producers: AIRBUS and BOEING. A third important manufacturer, MacDonnell Douglas (US), was purchased by Boeing in 1997. Airbus is a European airplane manufacturing company, founded as a result of an agreement among important European countries, such as: Great Britain, France, Spain and Germany, as a reaction to the American monopoly represented by the Boeing Company. The latest was created at the beginning of the 20th century and nowadays produces civil and military aircrafts and not only. Being close to a duopoly, the success on the market depends upon the decisions regarding the price product and the manufactured quantity of the competition. The big potential of this market and the importance of the both manufacturing large civil aircrafts companies are underlined through the evolution of the turnover obtained in the last 5 years.

Table 1 - The evolution of Airbus and Boeing revenues (civil aircraft)

Producer	2007	2008	2009	2010	2011
AIRBUS (billion EUR)	27,453	28,991	28,067	29,978	33,103
BOEING (billion USD)	33,386	28,263	34,051	31,834	36,171

Source: EADS (2011) *Revenues per division*; Boeing (2011) *Annual Report*.

Heymann (2007) underlines five features of this market which could explain why the influence of the government is so pronounced in this industry and it could help to understand the conflicts between the firms concerning subsidies. During the time, one of the most intense disputes between European Union and US, raised from the Airbus and Boeing conflict on large civil aircraft market, was founded on subsidies accusations of manufacturing these goods.

A prim factor refers to the entry barriers that are extremely strict for the market newcomers being impossible for them to successful compete with the ones that are already on the market. The main source of these entry barriers is represented by the economies of scale and the large necessities of capital, adding also the complexity of the final product which implies tremendous research – development costs, qualified human resources with engineer and scientific expertise. The huge value of the investment is also an exit barrier, because if a commercial failure takes place, it is very difficult to use the investment for other purposes. For example, Airbus A380 was purchased with 12 billion USD, and a Boeing 787 was also over 10 billion USD. (Economist, 2005a, 2005b)

The entry difficulty into this type of market is underlined and by the recent Russian – Chinese project that created a common company, through the association of OAK (the Russian holding that reunites the Russian aircrafts constructors’ actives) and COMAC (the aerospace producer from China). If China will succeed ensuring her financing, the project will have over \$10 billion/budget, and will have as a starting point the Russian model Iliușin 96, which is a long course airplane available since 1993 especially in Russia, but, in order to answer the present standards and to be able to compete with the occidental airplanes, the model should be substantial modernized, especially in that what concerns the fuel consume. (Cojocaru, 2012)

Another factor is related to the length of the investment cycles in the large civil aircrafts market area. A large number of a certain model of aircrafts has to be sold (at a price between 50 and 250 million USD) in order to recover the research – development and manufacturing spending belonging to that certain model. It has been estimated that a manufacturer has to sell around 500 – 600 aircrafts from a certain model (this action can extend to 10 years) in order to obtain profit. Therefore, there is an uncertainty concerning the success or failure when developing a new product, which, added to the amount of capital used, makes that a single misstep to endanger the existence of the entire company. (Caliskan, 2010, p. 1130)

A third factor refers to the fact that, although the aerospace industry, viewed as a whole, is a growing one, the airplane orders follow a cyclic evolution, which include large periods of time between the order placement, manufacture and shipment. These long periods of time make this type of airplane production to be affected by external shocks, e.g. Gulf War or September 11 attack, which may lead to annulments of previous orders.

Another important aspect is the duopoly structure. However, despite the asymmetric distribution between the two producers and the large number of customers, discounts have become a standard promotion sales instrument and a sign of rigid competition. This tight competition between the two producers is underlined by the continuing process of the ships quality improving, the comfort increasing and the fuel consumption and pollutant emissions and noise decreasing.

The last, but not the least, the argument related to the national security of supplying and protection of this kind of industry is one which refers to the tradition of both geographic areas. There is a strong connection between military and civil aircraft industry, each of the companies having a strategic importance for her own government. Therefore, the development contracts for the military part can induce positive effects in the civil part, in the same way that the sales of military aircrafts, offer a commercial success because it presents a bigger output and a reduced cyclicity. (Caliskan, 2010, p. 1130)

Public support and subsidies are the most contentious issues from the large civil aircraft area. Until now four international agreements concerning the subsidies regulation have been completed in this industry: OECD - 1978, GATT – 1979, EU - US – 1992 and WTO - 1994, although there are more specific rules, with multilateral character, concerning the different types of government support. By the late '70s, the American company Boeing was in a quasi-monopoly situation on this market, Airbus starting to compete only in the 80s. Since the beginning, the US was concerned with the European competition and the subsidies paid by European governments to develop the first Airbus models. To this problem, the concerns related to the European subsidies received by Boeing from military programs and those funded by NASA, were countered.

In the main round of confrontation between the two producers, both parties addressed to the World Trade Organization. WTO consultations have evolved by creating two panels, one for resolving the complaint from the European Union and one designed to resolve the complaint addressed by US, other countries (third parties) being also interested in the dispute: Australia, Brazil, Canada, China, Japan and South Korea. Because the initial complaints were not resolved, in June 2005 and January 2006 new complaints were filed.

Regarding the US complaint against the European Union and some of the member states (France, Germany, Spain, UK), the charges aimed over 300 specific situations covering a period of about 40 years in which the development subsidies, manufacture and sale of products by Airbus were claimed. These can be grouped into five aid categories: support for launch aid and funding from member states, loans from the European Investment Bank, grants for infrastructure and related matters, measures for company restructuring, financing research and technological development.

After analyzing the US requests the panel accepted the majority of the claimed situations as being specific subsidies prohibited by the international agreements, underlying the nature of some measures or limiting their action only for a certain period or for some certain models. The conclusion was that the panel subsidies granted to Airbus seriously damaged Boeing, because the public authorities or community took over a part of the risk incurred by the launch of new products. Airbus could not launch new products as they did before if the subsidies did not exist. Meanwhile, American exports were restricted on markets such as European, Australia, Brazil, China, Taiwan, South Korea, Mexico and Singapore, but also there were decreases in the overall sales, the increasing on the Airbus market share was made by damaging Boeing and due to the received subsidies. The panel recommended eliminating the negative effects of the measures taken or eliminating highlighted subsidies, decision that EU appealed.

After the appeal, the majority of the conclusions were maintained; the most important change was the research and development funding program elimination and the denial of Boeing removal from the market for the following countries: Brazil, Mexico, Singapore and Taiwan. A final decision was taken on June 1, 2011 when EU committed itself to respect and implement the report recommendations. But the process was time-consuming, US accusing EU of ill will and unleashing even a new arbitration procedure.

The complaint from the European Union at the United States, was referring to the following ten categories of measures that represented subsidies given to the large civil aircraft division of Boeing aircraft company, as opposed to the Agreement on Subsidies and Countervailing Measures: the Washington State and the Everett authorities have granted tax and non-tax incentives to the company, especially in connection with 787 model from Everett; Wichita City (Kansas) provided discount taxes for the property and sales while Kansas State subsidized some of the loans interest, fiscal and non-fiscal incentives offered by the state of Illinois, Chicago authorities and those of Cook County, once with the head office relocation of Boeing; NASA has made payments to Boeing and offered access to government facilities while equipment and employees of Boeing under research and development contracts were included in eight research and development programs in aeronautics area funded by NASA, Department of Defense made payments to Boeing and gave access to some government facilities while Boeing equipment and employees under research and development contracts were included in 23 programs of research, development, test and evaluation; Department of Commerce made payments to Boeing and granted access to government infrastructure while the Boeing equipment and personnel was offered to joint ventures where Boeing participated in an Advanced Technology Program, transfers of some intellectual property rights acquired under contracts and agreements with NASA or with the Ministry of Defense, amounts reimbursed by NASA and the Ministry of Defense, Ministry of Labour awarded Boeing with employee training grants, exemptions from payment of fees related to sales made in foreign companies etc.

The European Union estimations for the whole subsidies equalled \$19, 1 billion which were given to Boeing by the Americans between 1989 and 2006. Half of this money, around \$10, 1 billion comes, from a European Union point of view, from NASA's subsidies for research development activities. In March 2011, however, the panel in charge with analyzing the EU complaint, realized that only some of the measures implemented by Washington, Kansas, Illinois and cities within them, concerned with the promotion of NASA's research and development, Ministry of Defense, etc. can be considered special subsidies, the total amount for the 1989-2006

period was for at least \$5.3 billion, all this having a serious harm effect on EU interests through the restriction of Airbus entry on third markets and a significant decrease price and sales volume. Also, the panel noticed that USA violated the 1992 agreement recommending that all measures to be taken in order to eliminate all the negative effects and the subsidies withdraw.

Both parties appealed the panel report, the appealing organism offering a reply in March 2012. Therefore, the report made by the panel offered a number of modified conclusions, but the conclusion that stated that the subsidies that were covering the research and development in the aeronautics area brought drastic harm to the European Union interests, decreases in sales and prices, but also the exit from the market, as in Kenya, Iceland, Ethiopia (especially the aircrafts with 200 – 300 seats) was maintained. Adopted on 23rd March 2012, the report was accepted by the US (measure accepted also by the EU), which accepted to implement this recommendations within six months as stipulated in the Agreement on Subsidies and Countervailing Measures.

3. THE COMMERCIAL CONFLICT ON THE MEDIUM AIRCRAFT MARKET FOR REGIONAL AIR TRANSPORT: BOMBARDIER VERSUS EMBRAER

The conflict between Brazil and Canada appeared once with the aeronautic market: jets with less than 100 seats which used to operate regional flights on distances smaller than 1000 km and flights that lasted around one hour. These jets replaced propeller aircrafts in routes that merged isolated communities to important transport nodes or in those that merged two cities directly, trying to avoid the main hubs. When the fuel price was acceptable, airlines companies were seeking for solutions to expand the transport services that they offer. These kinds of aircrafts were an optimal solution that was easy to use.

The first conflict between these two countries has Canada as complainant and Brazil as a defendant. The case started from PROEX, the Brazilian financing export agency which offered credit to Brazilian exporters through direct financing or through interest equilibration. After a series of protests expressed since 1996 within WTO, Canada disputed the subsidies given by PROEX to Embraer foreign buyers between 1998 and 1999. Upon request, the WTO dispute settlement body established a panel which was meant to analyze the complaint, something that made both, EU and US, to be interested. After analyzing both sides, the panel decided that these are against what is stippled in the Agreement on Subsidies and Countervailing Measures, decision that is appealed without success by Brazil, Canada ending up winning. Although Brazil declared that implemented the necessary measures in order to avoid the 90 days deadline, Canada complained in November

1999 that, in reality Brazil did not take the measures, observation that was also noticed by the dispute settlement body. Therefore, Canada requested in May 2000 the approval for taking compensatory measures in accordance with GATT provisions and agreements, equalling \$700 millions/year. This sum is contested by Brazil, the final amount established at the end being \$344, 3 million/year plus Canada's right to suspend tariff concessions and other obligations assumed by Canada from Brazil. However, Canada insisted on finding a negotiation solution, without hurrying in applying the compensatory measures. Brazil defended herself all the times sustaining that this is similar to the \$1, 2 billion loan that the Canadian government gave to Northern Airlines Company in order to buy Bombardier airplanes. Through interest equalling, Brazil offered to the third financing party an equivalent payment that could cover the difference between the established interest with the purchased and the cost of finding those money.

Based on this argument, the implication similarity of the both governments, the second commercial conflict appeared between these two countries, having Canada as a defendant, conflict triggered by the competition between the two firms in order to obtain the supply contract of 75 medium airplanes for Wisconsin Airlines passengers, one of the United Airlines branch. On 10th January 2001, the Canadian government accepts to give to this company a loan up to \$1, 1 billion dollars, with reduced interest in order to help Bombardier to ensure its contract. Immediately, the Brazil Foreign Minister responds with a threat of retaliation, saying that by offering the loan, Canada accepts what she always denied, that provides illegal subsidies. Canada responded by insisting that it's just a measure of financing counter below price market which Brazilian government offers to Embraer, so it is a mirror subsidy. And, as Judge Michael Hart, a former Canadian trade negotiator affirmed, the Canadian government did not violate any laws or international trade rules, the multilateral agreement allowing to grant such subsidies as granted by other competitors. (Lau, 2001)

But, in February 2002, the WTO dispute settlement body adopted a report stating that the help granted by the Canadian government in order to support the aircraft selling's produced by Bombardier were an illegal subsidies form, as it was the offering of the subsidies to the purchaser of this kind of planes. Also, in 2003, WTO gives Brazil the right to impose penalties as a response to the subventions offered by Canada, to a \$250 million level, much less as the requested level, \$3, 36 billion. In this case, also the governments of both countries re-affirmed the preoccupation for finding a negotiation solution, which would permit to avoid the imposition of financial penalties. (Doh, 2003, p. 11)

The conflict between Brazil and Canada regarding the support offered by both states for the producing firms of propeller aircraft, Bombardier and Embraer, brought in front debates concerning export loans and underlined the WTO role in the international trade relations. Brazil not being a member of the Organization for Economic Cooperation and Development, Canada could only appeal the measures taken by this state.

Brazil countered, claiming Canada for using some export support measures, the same as it was used in the body called *Canada Account - Export Development Canada*. On the web page, it is clearly mentioned the role of this institution: to support, among other things, those export operations considered by the Ministry of Foreign Trade as being of national interest. In the offered list, that contained the 17 transactions supported until today, there is listed the support of aircraft exports of Bombardier towards Northwest Airlines, (2002), Air Wisconsin Airlines Corporation (2001), Comair (2004 and 2005), SAS AB (2009), the value of financed transactions being around \$1 billion.

In the case solving, the panel and the body had to define exactly the mean of provisions concerning the interest rate in report with the commitment. The panel appreciated that the credits for the export can be protected by the provisions of section k, if they take the direct financing loan shape, refinancing or supporting the interest rate and applies to the interest rate established in OECD agreement, like other clauses therefore.

This assessment may have strong implications over the pure hedging (e.g., the insurance that some export credit agencies offer against political risks and/or commercial, that do not involve the participation or financial support) that would not benefit from the extent permitted status, but would fall under the agreement. From WTO's point of view it is not important whether the institution or the program pays the fees or not, rather if the support offered is more generous than the one offered by the private sector.

CONCLUSIONS

The subject tight with strategic trade policy application has not been omitted from the list concerning the multilateral regulation of international trade. As the barrier tariffs concerning the movement of goods were eliminated or reduced as importance, there was a shift for the utilization of non-tariff protectionist policies nature, more subtle and more difficult to identify and combat. In the same range the strategic trade policy is also included. Given the impact that such export promotion tools can have on international trade, it is not hard to understand why it was initiated

within GATT / WTO, signed by the member states and why an Agreement on Subsidies and Countervailing Measures implemented.

This is the trial of any dispute, claim or complaint of WTO's member states regarding other governments measurement application that promote exports through various mechanisms to subsidize domestic firms. The aircraft industry is an example to easily illustrate the impact that strategic trade policy may have on profits division in an oligopolistic market or to show how a near-monopoly company can be shaken by such measures. Both segments analyzed in this paper, the large civil aircraft and the jet aircraft for regional transport, offer basic information on how firms interact in such a market, the available tools they have available in order to support national firms, the effects of these measures on the market share and profits size etc.

The topics discussed above also bring to foreground important elements regarding the ways in which firms and competing countries can react to measures which would disadvantage through complaints brought at the Dispute Settlement Body within WTO. Due to this completed procedure, there were captured important reasoning behind the panel decisions that was called in these files and the final decisions that remain after each one of them appealed. An interesting element are the analyzed countries involved in trade disputes although they obtain this right on decisions based on ability forum, they did not use compensatory measures, and they preferred dialogue and the negotiation for solutions avoiding trade retaliation.

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THE VARIOUS POSSIBLE EU TAXES

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Abstract: *In this article, the various possible EU taxes are compared with regard to each of the criteria: budgetary, equity and efficiency criteria. In principle, this problem of revenue insufficiency can be overcome by combining several resources, including contributions from the Member States, to make up for the needs of the EU budget. Setting an equalisation mechanism to replace or complement the current GNI contribution could thus be a useful complement to tax autonomy in the context of a reform of the current own resource system.*

Keywords: accession by the EU, accounting methods, budgetary criteria, efficiency criteria, equity criteria, fiscality, tax basis, tax rate

JEL Classification: C10, E62, H30, O23

INTRODUCTION

In this article, the various possible EU taxes are compared with regard to each of the criteria:

- ☐ Budgetary criteria (sufficiency and stability);
- ☐ Efficiency criteria (visibility, low operating costs and efficient allocation of resources);
- ☐ Equity criteria (horizontal equity, vertical equity and fair contributions).

1. ACCOUNTING METHODS

The European Union felt quite early the need for harmonizing the accounting rules of member countries. Since the early '70s have succeeded more projects, reaching it in 1978 when adopting Directive IV, which certified the accounts of predilection societies with limited liability and joint-stock companies. Subsequently, during 1983 year, the Directive VII was elaborate and it was target harmonisation to get a consolidated accounts. Even if the national legislations of the Member countries have been made in accordance with these texts, the procedure required for several years. For example, the Directive IV begins to work in Denmark in 1980 and in Italy in 1991.

The accounting harmonization process in the European Union are due to the Anglo-Saxon doctrine, based on customary law and the doctrine of continental engineering, based on the right of Roman writing. European accounting harmonization was one of the ways of European economic integration, stipulated by the Treaty of Rome, its results being found in the comparability of

accounting practices and the financial information of European societies and in improving the quality of the annual reports.

At European Union level, the need for compliance of national provisions of the Member States in respect of consolidated accounts appeared on 13 June 1983, through the publication of Directive VII. Dominated by the Anglo-Saxon tradition, Directive VII contains 51 articles, none in 6 sections. Directive VII was included in the legislation of the Member States over the course of 7 years, starting with the Netherlands (1985) and that concludes with Ireland (1992).

Consequently, the European accounting rules do not respond quickly to the changes of the economic environment, given the fact that the rapidity of response is the main feature of the process of normalization. The need for harmonization and uniformity in accounting require normalization.

Table 1 – Evaluation of EU taxes with respect to the criteria

Proposed EU tax	Budgetary criteria		Efficiency criteria			Equity criteria		
	Sufficiency	Stability	Visibility	Low operating costs	Efficient allocation of resources	Horizontal equity	Vertical equity	Fair contributions
Modulated VAT	A	A	A	A	B	A	B	B
Corporate income tax	B	C	B	B	A	A	B	B
Energy taxation	A	A	B	A	A	A	A or B	B
Excise duties on Tobacco and alcohol	B	A	B	B	B	A	C	C
Transfer of seigniorage revenue	C	B	C	A	A	A	B	B
Communication tax	C	B	B	B	C	A	A	A
Personal income tax	A	A	A	A or C	B	A or C	B	A
Tax on financial transactions	C	C	C	A	C	B	A	B
Climate charge on aviation	C	C	B	A	A	A	A	A

Source: Philippe Cattoir (2004) – „*Taxation papers – Tax based EU own resources*”, Luxemburg, pp. 42

Notes: An increasing number of stars indicates increasing arguments in favour of the proposal with regard to the criterion under examination:

- A- the criterion is largely respected. Some limited problems may still arise;
- B- the criterion is respected in part. Important problems may arise;
- C- the criterion is not respected. Many problems arise as to the criterion.

2. BUDGETARY CRITERIA

The budgetary criteria are of critical importance in determining the appropriate new European own resource. The stability criterion is important with regard to the financial autonomy of the EU. Sufficiency indicates whether a given resource is sufficient to finance the whole budget.

a) *Sufficiency* - Three of the possible EU taxes seem to offer prospects to fully cover the needs of the Community, including in the longer run prospect: the modulated VAT, the personal income tax and energy taxation.

Several other resources could bring about substantial revenues but these would probably be insufficient to fully cover the EU needs.

In principle, this problem of revenue insufficiency can be overcome by combining several resources, including contributions from the Member States, to make up for the needs of the EU budget.

b) *Stability* - Four of the nine possible EU taxes – the modulated VAT, personal income tax, excise duties on tobacco & alcohol and energy taxation – would satisfy the criterion of stability. The other possibilities offer a moderate or limited stability in the short-run, in general due to their sometimes strong link to the business cycle. In the absence of financial autonomy, EU resources could therefore be too limited in years of slow economic growth and could tend to exceed the needs in times of prosperity.

Developing a flexibility mechanism on the revenue side to complement tax autonomy could be necessary. This mechanism could consist in either allowing financial autonomy or variable transfers from the Member States to ensure a balanced budget.

Overall, in order to achieve stability, sufficiency and permitting and effective tax autonomy, it might therefore be appropriate to combine taxes with other resources, such as Member States contributions, and envisage a certain degree of financial autonomy.

3. EFFICIENCY CRITERIA

The constraints related to the budgetary framework are of significant importance, as is illustrated above. Nevertheless, the assessment of the EU taxes must also rest on other arguments. In this respect, efficiency criteria are of critical importance.

a) *Visibility* - Several of the assessed taxes would respect to a large extent the visibility criterion. This is in particular the case for the modulated VAT and the personal income tax. Only

the transfer of seigniorage revenue and the tax on financial transactions would clearly lack visibility to the public at large.

b) *Low operating costs* - In general, the operating costs would not create a major or insurmountable issue, except for one scenario of harmonised personal income tax. In some cases, the tax could lead to an actual improvement upon the current situation or to costs that could be negligible. This is for example the case for the transfer of seigniorage revenue or the corporate income tax. In some cases, there can be a trade-off between low operating costs and high visibility. This has been illustrated for the proposal on EU excises on alcohol and tobacco. Increasing the visibility of the tax may impose a cost on the seller or the consumer.

c) *Efficient allocation of resources* - Corporate income tax, energy taxation and a climate charge on aviation could have an impact on, and help foster EU policies. This is due to the numerous cross-border externalities observed in the related areas. Furthermore, in the case of the transfer of seigniorage revenue, the tax could probably be raised in a fairly efficient, non-distortive way.

In most other cases the tax should be seen as an instrument to raise revenues rather than as an instrument to achieve Community policies. However, in the case of the tax on financial transactions and the communication tax, the tax could prove detrimental to the proper allocation of capital and investment in the EU.

4. EQUITY CRITERIA

The economic assessment of the assignment of a tax to a given level of government also very much depends on equity issues.

a) *Horizontal equity* - The horizontal equity primarily depends on the degree of harmonisation of the tax base. Where there is full harmonisation, horizontal equity is achieved, while in the other cases, one should expect equivalent EU citizens to be taxed in different ways. It has been assumed in a number of cases that harmonisation would be achieved. Therefore, most taxes examined above accordingly respect to a high degree the criterion. However, it is far from obvious that actual harmonisation would be achieved in some cases. This is for instance illustrated by the failure to complete harmonisation for the VAT in the Community despite decades of efforts. The current degree of harmonisation offers limited indications on the level of harmonisation that could be reached in the future, e.g. for the personal income tax.

b) *Vertical equity* - Vertical equity is also a major issue when it comes to designing a tax structure. In general, priority is given to a tax system that allows for some kind of interpersonal redistribution. In this respect, the communication taxation, the tax on financial transactions and the climate charge on aviation, which would be new EU taxes, would respect the criterion to a large extent. Indeed, these taxes would mainly be a burden on relatively wealthy people and the revenues raised would allow for a corresponding decline in Member States contributions and taxes. A number of other taxes would also respect this criterion, albeit to a lower extent. Only excise duties on tobacco and alcohol would bear to a relatively large extent on poorer households, thereby possibly decreasing the overall progressiveness of taxation in the EU.

c) *Fair contributions* - The criterion would be respected to a large extent for the communication taxation, the personal income tax and the climate charge on aviation. The other taxes would in all likelihood not fully respect this criterion. This would in particular be the case for excise duties on alcohol or tobacco. This means that should these taxes be the main source of finance of the EU budget the revenue collected in some of the Member States would be relatively high considering their level of economic development compared to other Member States. This result is not surprising given the diversity characterising the economic and tax structures of the Member States.

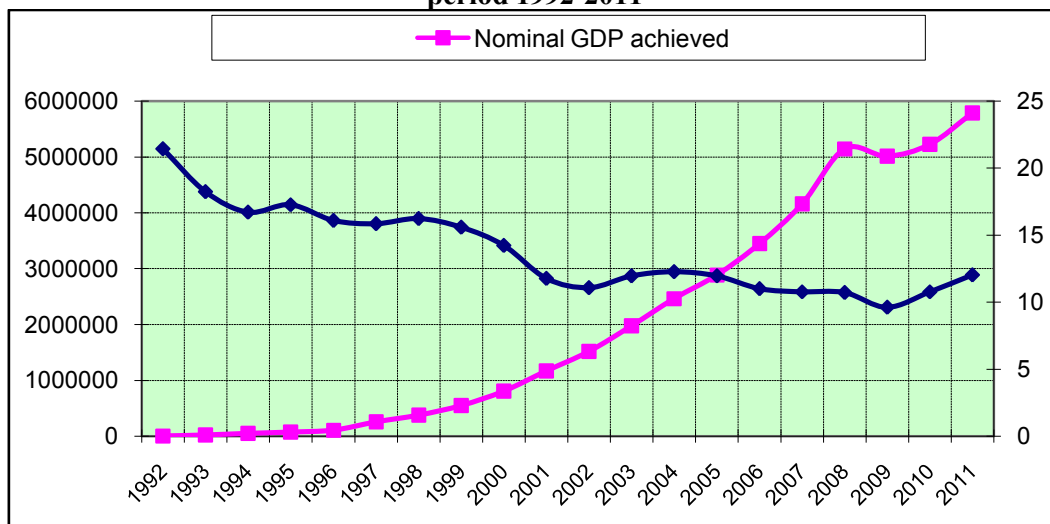
5. BUDGETARY REVENUES INCREASE BY REDUCING THE DEGREE OF TAXATION IN ROMANIA

Arguments:

- ❖ Essential is the relationship between budgetary revenue system and economic development;
- ❖ Alleviate tax offers taxpayers the opportunity to use the amounts resulting from the reduction of taxes for economic development and, thus, enhance the future income;
- ❖ Having a reduced rate of taxation to higher state tax due, absolutely no reduction even grows. So alleviate environmental taxation will have to be accompanied by expansion of tax base, as a result of the development of the economy, and the development of new value-generating activities;
- ❖ The present system of budgetary revenue has sufficient resources and possibilities, yet entirely unexploited, to become an effective instrument of economic, social and economic policy.

As a result of its own calculations based on data provided by the INS is a significant growth of gross domestic product achieved starting with the year 2000 (719.78% growth at the end of 2011 girl of the year 2000) and a oscillate pressure of nominal tax at a point of maximum 21, 43% in 1992 to 2011 12, 02%, though, reaching the lesser value in 2009 of 11, 07%, according to the figure below.

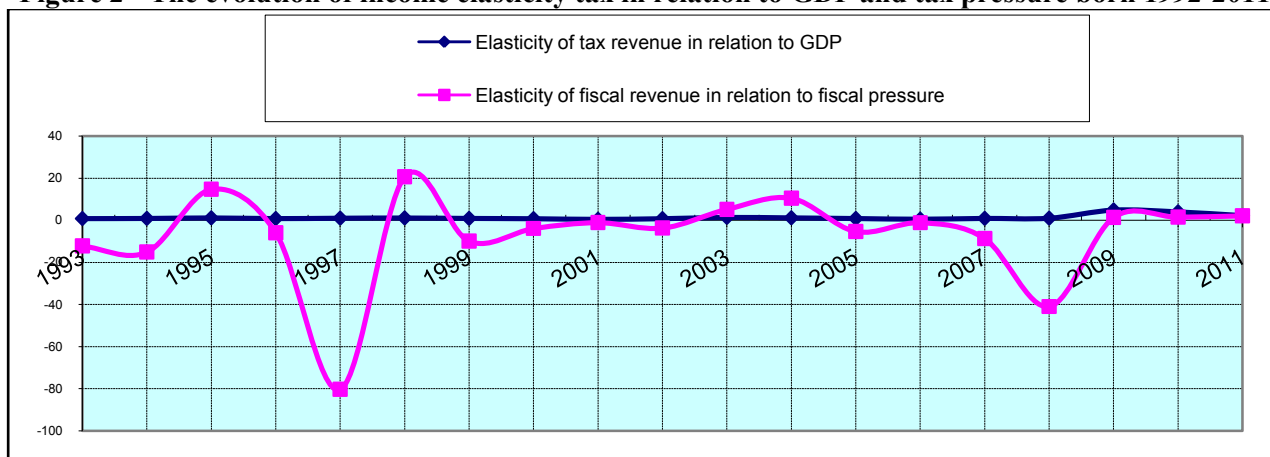
Figure 1 - The evolution of nominal GDP achieved nominal fiscal pressure and completed during the period 1992-2011



Elasticity of tax revenue in fiscal pressure ratio is positive only in 1995, 1998, 2003-2004 and 2009-2011, according to the schedule below, when a certain increase in fiscal pressure environments could have led to a greater public taxation intakes; in the remainder, it is negative, what indicate, clearly, the fact that an increase in fiscal pressure has a negative effect on budgetary revenues; it is significant that this elasticity and decreases during the period considered in the Standing.

Elasticity of tax revenue in relation to GDP is subunit (with the same exceptions, 1995, 1998, 2003-2004 and 2009-2011) throughout the period considered, which indicates that widen the tax base (tax-independent dynamic pressure) has not resulted in increased tax revenues corresponding; the explanation may lie in the increasing tax evasion or for statistical reasons (National Institute of statistics, GDP enters in a certain amount of the underground economy, GDP grows but the associated tax base remains the same, and related tax revenue).

Figure 2 - The evolution of income elasticity tax in relation to GDP and tax pressure born 1992-2011



CONCLUSIONS

Considering the income elasticity tax values in relation to the average tax pressure, it is necessary to decrease, eventually to obtain the corresponding tax increase of intake from the State budget.

It is necessary to determine the margin of empirical variation of average fiscal pressure that has positive impact on tax revenue growth, so as to not diminish the tax base more quickly than the average fiscal pressure decreases (which would result in decreased tax intakes), the situation in Romania and in the perspective of a period at least medium.

It should be noted that a possible solution to unequal distributions of the tax base would be to set up some form of equalisation mechanism to adjust the Member States contributions according to the amount of tax collected on their territory and other relevant variables. Equalisation mechanisms are found in numerous federal systems, as well as in decentralised States. They are inherent to State structure when there are differences in needs and resources across "regions".

Setting an equalisation mechanism to replace or complement the current GNI contribution could thus be a useful complement to tax autonomy in the context of a reform of the current own resource system.

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WESTERN BALKAN COUNTRIES ON THE ROAD OF EUROPEAN INTEGRATION: RESULTS AND TENDENCIES

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Abstract: *The article analyses the negotiations between European Union and countries of the Western Balkans and attempts to identify where the major problems are likely to be. The main obstacles in the process of European integration of the countries from Balkan region are analyzed. Also, the paper focuses on the key priorities that Western Balkan countries have to accomplish in order to reach the domestic readiness for their process of European integration. An important goal of the article is to identify some important conclusions for the European roadmap of the Republic of Moldova from experience of the presented states.*

Keywords: European integration, Western Balkan countries, experience, pre-accession domestic tasks, negotiations

JEL Classification: F15

INTRODUCTION

After five successful waves of enlargement, the European Union, despite all debates, is on the way to receive new members. At present, clear prospects for European Union membership have the countries of the Western Balkans – Croatia, Former Yugoslav Republic of Macedonia (FYROM), Serbia and Montenegro followed by potential candidates Albania, Bosnia and Herzegovina, Kosovo. The Western Balkans case presents a particular case of interest, as there are other potential candidates (Turkey and Island), due to the fact that this region represents a complex and diverse reality. These countries have returned on the international arena in the 1990's with a reputation of instability. As a result, the European Union, that was more concerned by this region mostly when a conflict occurred, began to repeatedly state that the Western Balkan countries future is within the European community. The European Union membership seems to be a guarantee of peace and stability in the region. The European Union is viewing each country both as an integral part of the region, recognizing the common denominators of the problems that in some cases require collective solutions, without at the same time losing sight of country specificities. Hence a regional approach coexists with a tailor-made approach for each country. The major problems relate to striking a balance between these objectives and distributing funds accordingly considering the limited resources after the last European Union enlargement (Serbos, 2008).

At the same time, the European integration has become, for Western Balkan countries, the main priority of their foreign policy. Their adjustment to the European requirements should be made according to the same Copenhagen criteria from 1993. Hence, the European Union conditionality makes necessary the initiation and promotion of the domestic transformations that will lead to the fulfilment of assumed commitments, that are state of law, human rights observation, stable institutions, a functioning market economy, incorporation of the *acquis communautaire*. Hence, there is no doubt that the key advantages of the integration and membership in the European Union are included in the national strategies of all Western Balkan countries, although each country is characterized by a different political climate and is facing different challenges on both short and long-term level (Trenchov, 2012, p. 2).

WESTERN BALKAN COUNTRIES AND EUROPEAN UNION

Western Balkans countries, after obtaining their independence, had to face a lot of problems that became more distinguishable along with the decision to join the European Union. The improvement of the social and economic situation of these states were noticed mainly after the Process of Stabilization and Association was started by signing of the Stabilization and Association Agreements, that were adopted by European Union in the 1999 and represents the European Union's renewed long-term commitment to the region. The agreements have the mission to bring closer the Western Balkan countries to the European Union by introducing European values, principles and standards in region and creating in such a way a favourable context for accession (Serbos, 2008, p. 97).

The First Stabilization and Association Agreements were signed with Former Yugoslav Republic of Macedonia on 9 April 2001 and Croatia on 29 October 2001. Both of states started the implementation of the agreements before they came into force. The situation of the other Western Balkan countries is different, the progress being more modest. So, Albania has signed the Stabilization and Association Agreement only in 2006, Montenegro in 2007, Bosnia and Herzegovina in 2008, as well as Kosovo and Serbia. The last one was conferred the candidate status on 1 March 2012 (European Commission, 2012).

According to Stefan Lehne, there are several explanations for the marked differences in the progress of the West Balkan countries in the Stabilization and Association Process. *One factor* is the historical accident. Serbia and Montenegro, for instance, could only begin the process after the fall of Milosevic in October 2000, at a time when negotiations on a Stabilization and Association

Agreement with Former Yugoslav Republic of Macedonia were well under way. *Another* is the difference in capacity. It is obvious that Croatia, which has more than twice the GDP per capita of any other West Balkan country, finds it easier than other states to prepare its institutions for implementing European standards. A *third factor* is the constitutional complexity and unresolved status questions. Here, both Bosnia and Herzegovina and Serbia and Montenegro have a handicap compared with the other states. In the case of Bosnia and Herzegovina it is evident that the topmost concern of the negotiators of Dayton was to end a war, not to produce state structures optimally suited for participation in European integration. An underdeveloped government at state level and continuing tensions between the state and the entities continue to hinder progress. A *fourth important factor* in determining the pace at which a country moves towards Europe is the extent and strength of political commitment to this policy. During a difficult process of transition, democracies inevitably experience a good deal of political instability (Lehne, 2004, p. 119).

In this context, in many respects, the negotiations with the Western Balkan countries are seen by researchers to be similar to those with the ten new member states from Central and Eastern Europe which joined in 2004 and 2007, due to the fact that they have a similar history. This similarity is applied to the institutional structure of the negotiations and to the position which the Union is likely to take in key areas. However, some elements certainly are different. So, the *acquis communautaire* will be changed considerably by the time the last country in the region joins the Union. On the one hand, new regulations will have been adopted and on the other hand, under the simplification agenda, some regulations may have been rolled back and others may have been simplified. Secondly, changes to the treaties on which the Union is based may have been implemented, leading to significant institutional change. Conditionality may have been increased even further to take account of the experience gained from the last two enlargements. Finally, the specific economic and social conditions in the acceding countries will be taken into account, as was the case in the fifth enlargement, where these differences do not compromise the implementation of the *acquis communautaire* (Mayhew, 2007, p.12).

These differences can be completed with some concrete features. In the case of the *political criteria* the Western Balkan countries are required to cooperate with International Criminal Tribunal for the former Yugoslavia, secondly, to pay a great attention to the protection of minorities and to the resettlement of refugees, and thirdly, to work constructively together with countries in the region. The crucial elements of the *economic criteria* are the overall competence of a state to run a stability-oriented macroeconomic policy and proven capacity to carry out structural reforms and to ensure that economic regulation is supporting the smooth functioning of the Union's internal

market. The main problems that are met by Western Balkan countries in this field are the structural reform that is not progressing perhaps because privatization is either progressing too slowly and the imposition of EU competition policy or state aid control, is not taking place etc. (Mayhew, 2007) The corruption and the justice remain the problematic domains too. As a result, European Union is monitoring strictly the progress made by the candidate states. In comparison with Romania that had from the European Union three progress reports after the Association Agreement, for Western Balkan countries there is also called „Negotiating Framework”. This one states clearly that if the country fails to fulfil the political conditions, the European Union can stop the negotiations (Mayhew, 2007).

In this respect, the most successful example of Western Balkan countries is Croatia. It applied for European Union membership in 2003 and was in negotiations from 2005 until 2011. But the domestic readiness began long before. In 1998 Croatia founded the Office for European Integration (Mayhew, 2007). Then, it started the National Programme for Integration of the Republic of Croatia into the European Union. The Programme was meant to be the main co-ordinating instrument, focusing on all three Copenhagen criteria, with particular emphasis on legal harmonization. The first Programme started in the year 2003 and was accompanied by similar documents for 2004 and 2005. The Implementation Plan for the Stabilization and Association Agreement has been merged in 2004 with the National Plan of Integration that made a single implementation and monitoring instrument (Samardzija, 2005, p. 53). In 2005, when negotiations started, the Croatian Parliament adopted three important documents: Declaration on joint activities of Croatian Government and Parliament in the EU accession process; Declaration on basic principles of negotiations for the full EU membership; Declaration on establishing National Committee for monitoring the negotiations (Samardzija, 2005, p. 53). It is obvious, that important domestic efforts were made in order to gain the capacity to accomplish the European Union requirements. The main difficulties were met in domains of corruption, justice and home affairs, agriculture etc.

However, the Accession Treaty between European Union and Croatia was signed only on 9 December 2011, when two major issues were solved. First was the capture and deportation in 2005 to The Hague of former general Ante Gotovina, the most wanted Croatian war crimes suspect. Secondly, Croatia’s membership negotiation process was stalled for a period of almost a year (from late 2008 to October 2009) after vetoed by its neighbour and European Union member Slovenia. Slovenia blocked the talks until a bilateral dispute between the two countries over a maritime border in the Adriatic Bay of Piran was resolved. Basically, Slovenia was after a corridor of free passage for its ships through the bay and thus to open sea, while Croatia insisted this should happen through

formally Croatian territorial waters. The problem was solved through an agreement under which the issue would be decided by an EU-appointed arbitration board, and Croatia's membership negotiations were formally re-launched (Ralchev, 2010, p. 60). Later the problem was sealed by a referendum in Slovenia with 51.5 per cent of voters (Slovenians Back Border Deal with Croatia, 2010.)

Thus, Croatia is expected to become the 28th European Union member country on 1 July 2013 after the ratification of the Accession Treaty by all European Union countries. The importance of this event is huge. If Croatia will become the member state of European Union, it will be a green light for over candidates, otherwise it will signify a negative answer for the Western Balkan countries.

Coming to Macedonia, although it was the first country of the region to sign a Stabilization and Association Agreement in April 2001, it obtained its candidate status a bit later, in December, 2005. This delay is derived first from a serious political crisis in 2001 about the rights of the ethnic Albanians who constitute about 25-30 percent of Macedonia's population, and then the bilateral dispute with Greece over the country's name. In October 2009, despite the European Union's recommendation to open accession negotiations, Greece opposed Macedonia's accession negotiations saying they could only start after the dispute over the country's name had been solved (Sel Turhan, 2011, p. 9).

However, the progress in relations between Macedonia and European Union is positive. It was February 2008 that the Council adopted the Accession Partnership for the country, thus updating the previous European Partnership of January 2006. A visa facilitation agreement and readmission agreement with the EU has been in force since 1 January 2008 (Kentrotis, 2010, p. 59). In its 2009 progress report on Macedonia the European Commission once again confirmed the continuation of the financial assistance to the country under the Instrument for Pre-accession Assistance (IPA) tool (The Former Yugoslav Republic of Macedonia 2009 progress report, Brussels, 2009).

Macedonia, however, faces the responsibility to implement its own part of the partnership arrangement. The country had committed to halt corruption, to fight public administration partisanship, to improve political dialogue and to reform the judiciary. More concretely, Macedonia is expected to accomplish the following four things: first, the Agency for Public Officials to prepare normative acts that will make the application of existing laws easier; second, the governing coalition to stop the ongoing temporary appointments in the administration and start conducting transparent procedures under the law on the State Servant instead; third, the judiciary reforms to

concentrate on the Prosecution, the Judicial Council and the courts" budget; and fourth, to make amendments in the Rules of Work of Parliament (Stojkovski, 2010, p. 96). So, as resumes Stojkovski, there are four basic components of the platform on which Macedonia"s domestic and foreign policy should tread on: 1) An initiative for a pro-active maintenance of a continual political dialogue and balance (at home and abroad); 2) Tolerance and political consensus applied at home and in multilateral relations; 3) Maintaining a strategic balance based on good-neighbourliness and in the spirit of liberal-democratic values; 4) Devotion to an intensified and unyielding reform implementation (Stojkovski, 2010, p. 96).

On the other hand, measured by the weight of the political challenges, Serbia has been one of the most difficult cases in the EU enlargement process. After the referendum in Montenegro, on May 21, 2006, at which the majority of the citizens opted for independence, the State Union fell apart and one issue from the long list of problems was solved (Minic, 2007, p. 76). But the key issue – Kosovo, is still on agenda. Moreover, relations with European community have worsened after the declaration of independence of Kosovo. Serbia has taken the view that its continuing struggle for Kosovo and Belgrade ambitions to join the European Union can be pursued independently of each other. But, the European Union clearly stated that Serbia"s candidate status is linked with progress on improving relations with Kosovo (Lehne, 2012). Besides, the European Union has showed its willingness to assist the economic and political development of Kosovo through a clear European perspective. Also, it contributes to stability in Kosovo through the EULEX rule of law mission in Kosovo, Special representative in Kosovo and Kosovo international Civilian Office (European Commission, Kosovo, 2012) in this context, since 2011 the relations between Belgrade and Pristina began to improve. This fact, as well as the capture of Ratko Mladic – the Bosnian Serb wartime military commander wanted since 1995 by the United Nations war-crimes tribunal in The Hague – and Goran Hadzic – a former Croatian Serb leader, the only other outstanding fugitive – in May and July 2011, represented a significant breakthrough in the accession process (Serbia: a step closer to the EU, 2012). Therefore, in 2010, the process to ratify the Stabilization and Association Agreement began, and in March 2012 Serbia was granted EU candidate status (European Commission, Serbia, 2012).

The situation of Montenegro is different from Serbia. In 2008, the new country applied for European Union membership. It was granted the candidate status in 2010. Also, Montenegro has successfully addressed the key priorities set out in 2010 by the European Union covering the following areas: legislative framework for elections and Parliament's legislative and oversight role; public administration reform; judicial reform; fight against corruption; fight against organized

crime; media freedom and cooperation with civil society; implementation of the anti-discrimination framework and the situation of displaced persons (Commission Opinion on Montenegro's application for membership of the European Union, 2010). As result, the European Commission, taking into account the Council conclusions of December 2011, have decided that Montenegro complies with the membership criteria and can start accession negotiations in 2012 (Report from the commission to the European parliament and the council on Montenegro's progress in the implementation of reforms, 2012).

Speaking about Albania, it submitted in 2009 its formal application for EU membership. In its Opinion on Albania's application (in 2010), the Commission assessed that before accession negotiations could be formally opened, Albania still had to achieve a necessary degree of compliance with the membership criteria and in particular to meet the 12 key priorities identified in the Opinion (Commission Opinion on Albania's application for membership of the European Union). These priorities cover the most important areas for a democratic society such as : establishment of political dialog and proper functioning of the parliament, reform of the electoral code in line with OSCE-ODIHR recommendations, independent functioning of the judicial system, tangible results on fighting against organized crime, respect of the property rights, protection of the human rights and vulnerable groups, improvement of treatment of the detainees in police stations, pre-trial detention and prisons (12 key priorities for Albania: *Where do we stand?*, 2011, p. 2).

Finally, the European Union Council welcomes political progress in Bosnia and Herzegovina since the start of 2012, particularly the formation of the Council of Ministers at state-level, adoption of the State Aid and Population Census Laws, the passing of the 2012 State Budget, and the reaching of a political agreement on state and immovable defence property. However, the Council expresses concern over the lack of implementing political agreements, the continued use of divisive ethnic rhetoric, and a difficult economic situation (Council conclusions on Bosnia and Herzegovina, 2012).

CONCLUSIONS

The Western Balkans European integration has surely some specific features. But at the same time, the main problems that are met are the same – corruption, judicial system, human rights, economic situation – all of them are present almost in every European progress report. The fulfilment of Copenhagen criteria has become not only European Union conditionality, but also a mechanism of domestic redressing of these states.

However, the experience of the Western Balkan countries presents a significant interest for the other countries with European integration aspirations, especially taking into consideration that the Western Balkans achieved important results as visa liberalization and financial aid from European Union after a complex process of reforms. In these lights, the Republic of Moldova which started from January 2010 the negotiations with the European Union on the Association Agreement is making significant efforts to obtain the visa liberalization and to sign the Deep and Comprehensive Free Trade Agreement. In order to achieve the purposed goal, the Republic of Moldova uses the experience of the Western Balkans to develop the domestic reforms on four basic directions: documents safety, public order and security, illegal migration and foreign relations and fundamental rights. Since 2011, the Ministry of Technologies and Communications of the Republic of Moldova is offering the biometric passports, which are in accordance with the standards of the International Civil Aviation Organization (Litra, 2010, p. 2).

At the same time, for the Republic of Moldova, it is necessary to develop a National Plan for preparation Moldova's accession to the European Union, which would determine its own path forward European integration vector. Another step would be the creation of a special institution that will deal with all aspects of European integration. The example of the Croatian Office for European Integration is worth to mention here. Finally, it is necessary to elaborate National Policy of European integration and a Strategy for European integration of the country that will include not only the country's modernization, but also preparation of the population for the status of European citizens.

Therefore, analyzing how the Western Balkan countries are moving on towards the European Union, becomes clear that a successful interdependence of European Union conditionality and domestic policies and readiness of the candidate country can lead to the successful accomplishment of the European aspirations of that country.

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EXPERIMENTS AND RESULTS ON THE USE OF ONTOLOGIES IN THE ARTIFICIAL INTELLIGENCE DOMAIN

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Abstract: *The field of agent-based systems as part of the Artificial Intelligence domain is, now-a-days, quite popular. There are specialized technologies required for building software agents and it should be communicative, capable, autonomous and adaptive. In fact, these are the key characteristics required to help make the Internet activity more successful. The limiting factors in building such systems are being overcome, and new approaches are emerging from information technology research laboratories around the world. The use of ontology has proven to be essential elements in many applications and thus, they have been successfully applied in agent systems technology, knowledge management systems, and e-commerce platforms. The current research aims to present besides some theoretical aspects and examples of using the web agents for two European cities.*

Keywords: Ontologies, Knowledge Acquisition Systems, Artificial Intelligence, Knowledge management, intelligent agents

JEL Classification: M15, M29

INTRODUCTION

The world we live in is characterized by globalization, rush times, hyper competition and strong alliances (Maha, Donici and Maha, 2010; Marston, 2007). Consequently, no business can survive without emphasizing on their competitive advantages. The artificial intelligence domain holds the key for some technologies that can help companies to overcome the fiercely competition (Buckingham, 2011) and the web agents development is one example. There are specialized technologies that allow the development of intelligent software agents and they should be able to feature characteristics of a human being. As a result, they should be communicative, capable, autonomous and adaptive according to the particularities of the environment they activate in. As ontologies have been proven to be essential elements in many computerized applications, they have also been successfully applied in the development of agent software.

From an Artificial Intelligence approach it is stated that ontology stand for formal models of a shared understanding within a domain. Thus, as the Knowledge Management has its roots in Artificial Intelligence, ontologies are considered to be a key technology for Knowledge Management especially due to their aim of bringing a consensus in the way a particular area of expertise is described. This consensus extends not only to terminology, but also to the way concepts

and objects may be organized and structured within the domain (Andone, 2006). Due to the formality* of ontologies they also have the advantage to be modelled through information systems.

The term ontology[†], comes from the Greek language and stands for: ὄν - of being and λογία (logy) - science, study, theory.

From a philosophical perspective, ontology is a branch of metaphysics, studying the nature of being or existence and its purpose is discovering the entities and their categories that are available.

From an information systems point of view, ontology seeks to express a complete and rigorous conceptual scheme of a certain domain, a hierarchic structure that should contain all the entities, the relationships between them and the rules of the domain (Davies, Fensel and Harmelen, 2003).

Ontologies can be successfully used in any field of study, for the purpose of a better structuring of the information, knowledge and concepts that define the domain. The ontology may take various formats, but it will always contain a term vocabulary and some relative specification to the term signification. Therefore, ontologies can be used in Economics (Siricharoen and Puttitanun, 2009; Casafont, 2005), Accounting (Lupaş, 2010; Aparaschivei, 2007), Finance (Martin et al., 2011; Coates, 2009; Castells et al., 2008) and obviously, in almost any sub domain that deals with the Information Technology area (Dospinescu, 2009; Strîmbei, 2009).

1. REPRESENTATIVE DEFINITIONS OF ONTOLOGIES

Ontology can be a computerized model of a certain part of a domain. Frequently, it can be illustrated as a semantic network: a chart whose nodes are concepts that belong to individual object and the arches stand for relationships and concepts associations. The above described network is featuring the following elements: properties, attributes, constraints, functions and rules and they dominate the behaviour of concepts (Gruber, 2003).

From a formal perspective, the ontology is a convention of a conceptualization that includes work frames designated for modeling purpose of the field of activity. It also contains conventions that lead to representation of the theory from a domain.

The specialized literature associates definitions of ontology with the name of entities (classes, relationships, functions and other objects) with text information that can be read out by individuals.

* http://www.aifb.uni-karlsruhe.de/WBS/ysu/publications/2003_ontohandbook_ens.pdf, pag.1

† <http://en.wikipedia.org/wiki/Ontology>

In the above case, the ontology describes what the name represents, and formal axioms that contain the name interpretation and use.

Thus, ontologies are often equated with taxonomic hierarchies of classes, but class definitions, and the subsumption relation, but ontologies are not limited to these forms. Ontologies are also not limited to conservative definitions, that is, definitions in the traditional logic sense that only introduce terminology and do not add any knowledge about the world.

Ontologies help organizations by allocating a base for domain standard descriptions. Such descriptions can be markup or metadata and they are expressed in terms of the ontology that the members of the domain are committed to.

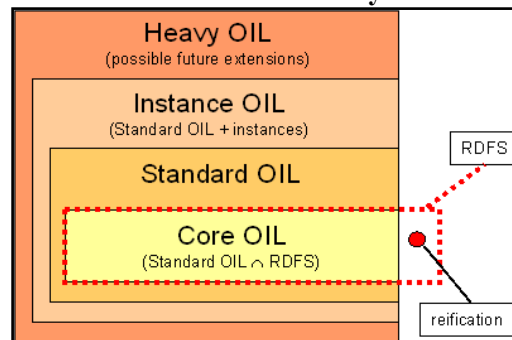
2. ONTOLOGY LANGUAGES – A SELECTIVE APPROACH

Ontologies have proven to be essential elements in many applications and they have been applied in agent systems technology, knowledge management systems, and e-commerce platforms. Ontology can also imitate natural language, put together information in a wise manner, provide semantic-based access to the Internet, and extract information from texts in addition to being used in many other applications to explicitly declare the knowledge embedded in it (Sowa, 2009).

Web Ontology Language - OWL is a semantic markup language and is developed to be used by applications in which is required the process of the content of information instead of presenting information to human users. OWL facilitates greater machine interpretability of Web content than that supported by XML, RDF, and RDF Schema (RDF-S). It provides additional vocabulary and also a formal semantics frame. OWL has three increasingly-expressive sublanguages: OWL Lite, OWL DL, and OWL Full.

Another ontology language, The Ontology Inference Layer – OIL is another offer for a web-based representation and inference layer for ontology and it combines the widely used primitives modelling from frame-based languages with the formal semantics and reasoning services provided by description logics. It is quite similar with RDF Schema (RDFS) and contains a precise semantics for describing term meanings. Therefore, it is also useful when describing implied information.

Figure 1 - The relation between the layered OIL and RDFS



Source: <http://www.ontoknowledge.org/oil>

The OIL language has a layered content for a standard ontology language. Each additional layer contributes to the functionality and complexity of the previous layer. In this manner, the agents (humans or machines) who can only process a lower layer can still partially comprehend ontologies that are expressed in any of the higher layers. Figure 1 reveals the relation between the OIL dialects and RDFS.

Semantic web is a vision of future web where the information is giving and explicit meaning for easy processing and integrating. Semantic web is relying on the ability of XML standard to define specific XML tag schemes as well as on flexibility of RDF standard in representing data.

3. THE CHARACTERISTICS OF AN INTELLIGENT WEB AGENT

On one hand, such an agent should be able to communicate, using a natural language, with the user. Therefore, a common language needs to be established. On the other hand, an agent should be able to act rather than suggest certain steps that are to be followed. An advisor can suggest someone where to go in order to book a plane ticket, a hotel room or a car but when it comes to act, one have to do it on its own. Therefore, an agent should do all the work for us, act in our behalf and take the best decisions. In order for the tasks to be achieved, the agent should be able to collect the right information, search according to the requests, choose the best offer and contact us in order to suggest its findings.

A reliable web agent should have the same abilities with a human agent, namely: should be communicative, able to understand the aims and constraints, be autonomous, adaptable, able to learn from previous experience and fulfil the user preferences.

It is said that a search engine contains agents that runs the search. Let us assume that someone is looking for an article that belongs to the Physics domain. The agent, that runs the search, should be familiar with some Physics concepts instead of just searching for certain keywords. An answer to

the above questions would be the use of ontology, meaning that a piece of knowledge should be formally defined.

The most used characteristic of ontology, when it comes to building an agent, involves the use of a structural component. In this case, ontology would consist in the development of taxonomy between object classes and subclasses, accompanied by definitions and descriptions of the relationships between such objects. Besides, ontology contains inference rules, explicit rules that refer to certain objects or structural inferences that are offered by the system. Examples:

IF X is a car
THEN X has 4 wheels
or IF the tire is part of the wheel
THEN the tire is part of the car

If ontology could be understood by a machine, then a computer could handle the terms that the ontology uses, terms that have a certain meaning for the human users which can comprehend such information. A computer cannot understand certain (type of) information, in its profound meaning, but handles terms that the human user does not always comprehend.

Therefore, the establishment of a common channel is a must and it allows them (computer and user) to understand each other and furthermore, permits the development of intelligent agents that can handle the human needs, preferences and constraints.

4. THE COMPONENTS OF AN INTELLIGENT AGENT INFORMATION CHAIN. AN EUROPEAN APPROACH

The components of an intelligent agent information chain can explain how each link (component) of the chain can lead to information that allows the existence of the next link. In Figure 2 there are presented the components of web intelligent agent information.

4.1 Ontology development tools for intelligent agents

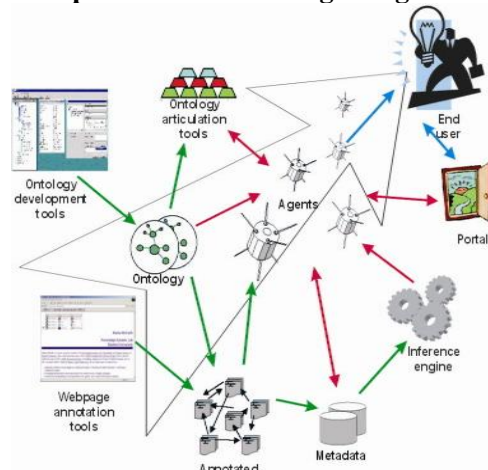
The main aim of ontology development tools for intelligent agents is to guarantee a low cost level at a good quality rate. Similar to human need, knowledge and capabilities, the ontology evolve and encounter changes over time. Thus, cutting acquisition and maintenance costs is a very important task.

Protégé and WebOnto are two examples of ontology editors applied in the development of knowledge acquisition systems.

Protégé is a free, open source ontology editor and knowledge-base framework. Protégé is a platform that supports two main modelling ontologies manners that use frames and OWL editors. Furthermore, the Protégé ontologies can be exported into a variety of formats including RDF(S), OWL, and XML Schema. Protégé is based on Java technology, is extensible, and provides a plug-and-play environment that makes it a flexible base for rapid prototyping and application development.

The Protégé Programming Development Kit (PDK)^{*} contains a set of documents designed to describe and illustrate the manner in which a plug-in extension for Protégé should be developed and installed. Protégé also has an OWL API that extends the core API to provide access to OWL ontologies and can be used directly by external applications to access Protégé knowledge bases and make use of Protégé forms without running the Protégé application.

Figure 2 - The components of an intelligent agent information chain



Source: adapted after www.aifb.uni-karlsruhe.de/WBS/Publ/2000/ECDL_sdeetal_2000.ps

The main aim in designing WebOnto was for the purpose of supporting the collaborative browsing, creating and editing of ontologies without having interface problems related to standard HTML-based editors, such as limited support for direct manipulation interfaces, inability to handle asynchronous communication and limited support for graphical interfaces. In order to avoid the above problems WebOnto was implemented as a Java Applet[†], and includes both graphical user interface and fine grained inspector windows. WebOnto also provides a fruitful set of options to

^{*} <http://protege.stanford.edu/>

[†] <http://kmi.open.ac.uk/projects/webonto/>

customize the presentation of information, making it easier to navigate through large ontologies. WebOnto is available as a public service and can be launched from the web.

4.2 Webpage annotation tools

The annotation process requires specialized tools that assist the user during the development process of webpage annotation projects. Annotations refer to any comment, note, explanation, or other type of external remark that can be attached to any whole or selected part of a Web document, without actually needing to change the document. When the user gets the document it can also load the annotations attached to it from a selected annotation server or several servers and see what the peer group thinks.

There are several specialized tools available^{*} and, among them, we will refer to only few:

- SHOE Knowledge Annotator is software based on Java platform and allows users to mark-up web pages with SHOE knowledge without having to worry about the HTML codes[†].

- Annotea, a LEAD[‡] project enhancing the W3C collaboration environment with shared annotations, is open source, part of the Semantic Web efforts and it uses and helps to advance W3C standards when possible. As a result, it uses an RDF based annotation schema for describing annotations as metadata and XPointer for locating the annotations in the annotated document. The annotations are stored on annotation servers under metadata forms and presented to the user by a client capable of understanding this metadata and capable of interacting with an annotation server that has the HTTP service protocol[§].

- Ontopad is an extension of a Java-based HTML editor, which allows normal browsing and editing of the HTML page, and supports the annotation of the HTML-page with ontology-based metadata. The annotator can select a portion of the text from a webpage and choose to add a semantic annotation, which is inserted into the HTML source. However, for significant annotation tasks a basic annotation tool is not sufficient. It still takes a long time to annotate large pages, although a significant improvement was reported when compared to the manual task. Thus, a practical tool should also exploit information extraction techniques for semi-automatic metadata creation. The precision of linguistic processing technology is far from perfect. Also, reasonably exact automatic annotation is not yet possible.

^{*} <http://annotation.semanticweb.org/tools/>

[†] <http://www.cs.umd.edu/projects/plus/SHOE/KnowledgeAnnotator.html>

[‡] LEAD - Live Early Adoption and Demonstration

[§] <http://www.w3.org/DesignIssues/Architecture.html#Collaboration>

4.3 Ontology articulation/interconnecting tools

Ontology Articulation consists in aligning two ontologies O1 and O2 by means of a pair of ontology mappings from intermediate source ontology O3. The resulting ontology O3, together with its mappings, is called the articulation of two ontologies. Articulation allows defining a manner in which the fusion or merging of ontologies has to be fulfilled.

For the purpose of solving a task that involves consulting multiple information sources that have separate ontologies, an un-automated agent is required to link the semantic gap between the several ontologies found on the web. In the Scalable Knowledge Composition Project (Mitra, Wiederhold and Kersten, 2000) the authors developed tools that assist an expert with the process of defining rules and bridge ontologies from different sources that have different terminology and semantic relationships. The obtained rules define new articulation ontology, which help the application and translate terms.

The major advantage in using the SKC approach is that not all of the terms in the source ontologies have to be aligned in order to be made globally consistent. Aligning completely just two ontologies requires a major effort for a practical application, as well as ongoing maintenance.

Another important characteristic of articulation is scalability. Since there are hundreds of domains just in the logistics area, and different applications need to use them in various combinations, the global-consistency approach would require that all domains which interact must be made consistent. No single application can take that responsibility, and it is unlikely that even any government can mandate national semantic consistency.

4.4 Agent's inference engine

The use of inference engines can reduce metadata creation and maintenance cost^{*}. Every single assertion of metadata must explicitly lead to a large metadata creation and maintenance overhead. Therefore tools and techniques are necessary to help reducing the amount of explicitly stated metadata by inferring further implicit metadata[†]. Implicit metadata can be derived from already known metadata by using general background knowledge, as stated by the ontologies.

Over the Web, metadata is distributed and the added value can be generated by combining metadata from several metadata offerings: for instance, for the travel area, metadata can state that

^{*} www.aifb.uni-karlsruhe.de/WBS/Publ/2000/ECDL_sdeetal_2000.ps

[†] <http://www.w3.org/TandS/QL/QL98/pp.html>

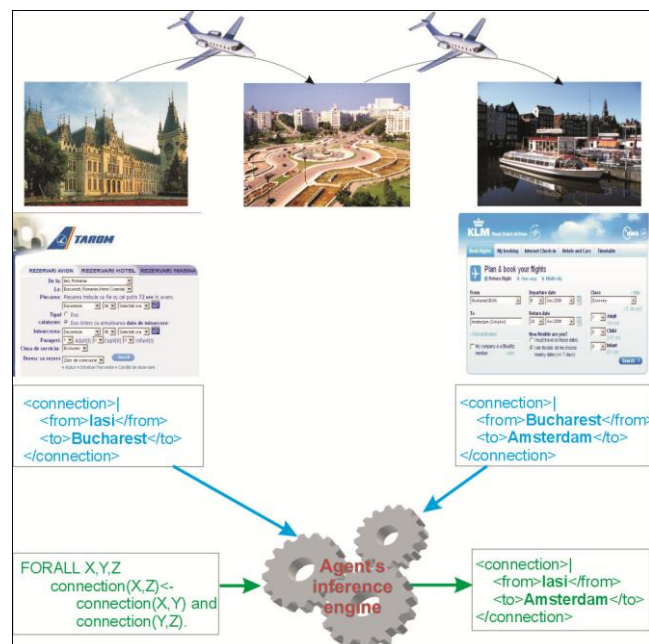
between Iasi and Bucharest a flight is available. Another statement, issued by another server, states that a flight between Bucharest and Amsterdam is available. Combining the above two pieces of information an agent inference system can infer that a connection between two European cities (Iasi and Amsterdam) is available although this information it not made explicit by any servers (see Figure 3).

Such simple rules as those showed in Figure 3 cannot be considered by commercial databases because of their inability to perform recursion (they can generate infinite looping).

CONCLUSIONS

Within the projects mentioned in the present material were presented real possibilities to annotate web page throughout ontology based metadata. The architectures based on intelligent agents are being based on the communication between agents and less on ontology development and delivering. The informational chain model offers a focused infrastructure based on an automatic web infrastructure throughout agents. The model is based on web semantic methodology and assumes that the web collection of data should become less a collection of HTML documents and more of a source of formalized knowledge where the software agents should be in charge.

Figure 3 - Agent inference system – an European example



Source: adapted after www.aifb.uni-karlsruhe.de/WBS/Publ/2000/ECDL_sdeetal_2000.ps

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TEN YEARS OF GDP EVOLUTION IN CORRELATION WITH THE TURNOVER. THE CASE OF ROMANIA

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Abstract: *The economic environment must be parsed because of the multitude of phenomena that determine developments which generate effects and show sinuous ridges that can be interpreted differed depending on the context. Tourism is an important sector of the economy, and the evolution must be analyzed through the signification of a set of specific indicators. However, there are common indicators for all the areas of activity which are relevant both for industry and for the country's economic level. Thus, the analysis of the achieved turnover by the most successful travel agencies in conjunction with the evolution of gross domestic product per capita is important and highlights significant elements for the future forecasts, and analysis of the business environment in this area. The time period under analysis should be long enough so that the valuable judgments are issued from the normal not random trend of the indicators.*

Keywords: GDP, turnover, tourism, analysis.

JEL Classification: C82, D39, E01.

INTRODUCTION

Financial statements represent the elements of standardized financial reporting, being subject to mandatory provisions imposed by the specialized bodies. A detailed treatment of the elements and indicators of economic-financial analysis is paramount to understand both the business environment and economic reality itself. Studies (Tabără and Briciu, 2012) shows that over 80% of information circulating within the information system of an entity is of an economic nature, and within it accounting information is about 50%. Thus, it recourse to the analysis of economic and financial, which is a mean of knowledge of reality through the causes (Mironiuc, 2006) and has a gnosiological role in setting the course in establishing the structure of studied phenomena/processes, the research of each structural element, the establishing of the causal relations between components, the discovery of mechanism which formed the basis for the formation and evolution of the phenomenon/process to be analyzed, the identification of the causes which led to the emergence of the phenomena/processes, as well as drawing conclusions and future development framework/process analysis of the phenomenon.

Tourism, as an economic phenomenon, became a veritable industry. The development of tourism operations and its growing complexity has led to the study of this phenomenon as a distinct sector of the economy. With the help of statistics, which facilitated the study of these phenomena and its variation in time and space (*The role of statistics in the knowledge economic phenomena*), tourism become easy to study and understand.

Romania has experienced a significant economic contraction in 2009 because of a fall in economic activity and significant drop of consumption. At the same time, increased the uncertainty regarding the duration of the global financial and economic crisis, and the negative effects it will generate. "The stagnation of economic growth and the increase of financial and fiscal burden resulted in significant tourism market uncertainties", said Taleb Rifai, UNWTO Secretary-General's during the press conference on 8 November 2011. But the recovery was not too much expected, since according to the annual report of the UNWTO for 2010, 2010 has exceeded all records in the field of tourism, due to the fact that many people have travelled through the world more than ever. However, in Romania, in 2011 was registered a decrease of approximately 1.5% of turnover achieved in the field of tourism by travel agents and tour operators.

1. METHODOLOGY

The case study is conducted on the basis of the results of the top 10 companies in the field of tourism which have as their primary activity "activities of tourist agencies". The data was collected from the official website of the Ministry of Public Finance of Romania and the European Commission website EUROSTAT and has been processed by electronic means, using the applications in Microsoft Office Excel 2007 and the package SPSS 15.0 for Windows.

This paper is based on the analysis of the evolution of turnover in correlation with GDP in the period 2000-2010. The analysis for a period of 11 years is relevant from the point of view of global economic development, avoiding in this way making conclusions without having carried out a thorough analysis, trend analysis, which will justify the conclusions which will be made in a scientific way. Quantitative techniques are used such as ordering, grouping, generating sets, tabulating and plotting, also applying the standardization of data. The research strategy is inductive, quantitative and case study.

2. BASIC CONCEPTS

Definition of the basic concepts is an indispensable part for this paper, because of the basic notions that ensures the understanding of phenomena.

National Bureau of Statistics of Moldova defines the tourism agencies, as economic agents“ license holders for tourism activity, specialized in the purchase of tour packages from tour operators and the marketing of these packages directly to consumers, and in the marketing of their own services.

Turnover represents (Petrescu, 2004) a fundamental indicator of the activity of any undertaking, being located at the forefront of performance indicators, because it influence the level of profit and the value of return rate. This indicator corresponds to the volume of business conducted with third parties as a result of the current activity of the company and represents the amount of revenue arising from the supply of goods, performance of works and provision of services (income from activity). Analysis of the dynamics of the turnover is important for any field, because, in order to understand the business, is necessary to know the evolution over time of the results of this indicator, as well as existing trends.

For tourism companies the turnover consists solely of the services provided to the clients, and their turnover is largely derived from commissions on the sale of tourism packages.

Gross domestic product (GDP) is a key indicator to measure the level of a country. The European Commission, together with the International Monetary Fund, the Organization for Economic Cooperation and Development, United Nations and World Bank (1993) define GDP at market prices as the sum of the value added by manufacturers“ residents at market prices, plus taxes and fewer subsidies on imports. GDP per capita is about the value of goods produced within the country relative to the population.

World Bank simplifies the definition even further and says that GDP per capita is the sum of gross value added by all resident producers in the economy plus the taxes and minus any subsidies not included in the value of products, divided by the number of population in the middle of the year.

And because the extent of the phenomenon of the global financial crisis is indescribable, it generates a cliché explanation. However, Horomnea (2009) expresses in a phrase the essence of this event as the bankruptcy of big companies, decline or extinction of small companies, a significant reduction in revenue, increase in unemployment and indebtedness, which make up the spectre of a life marked by uncertainty and stress.

3. ANALYSIS OF THE EVOLUTION OF INDICATORS

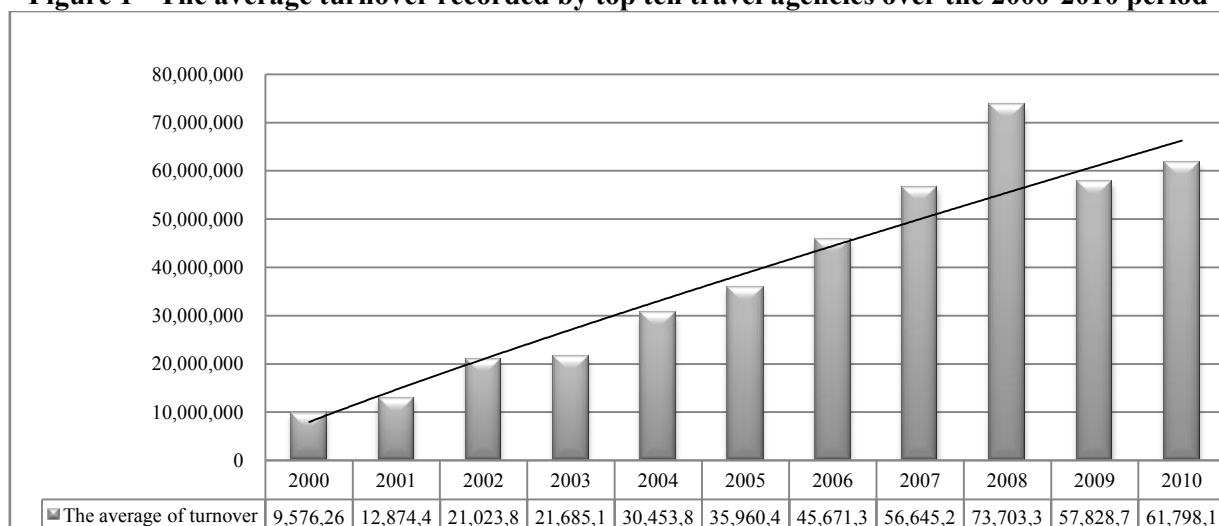
In the period under review, 2000-2010, the Romanian economy has experienced significant economic growth due to the development services field versus the production activity. But the important thing is that this growth was supported by consumption, so the offer is still growing because of demand.

The analysis was realized on the basis of the results of 10 travel agencies with the best results, taking as reference period the year 2010. During the first 3 years of analysis, the mean value is obtained by just 8 and/or 9 companies, the reason being that one of the companies has not submitted the financial statements to the Ministry of Public Finance and others were established after the year 2000.

Companies have obtained values of turnover that reached maximum average amount – 73.703.332 RON - in 2008. Positive variation was resumed in 2010, but it was only at the level of 61.798.198 RON. The growth was sensitive in the early years of analysis, making it considerably in the period 2003-2008. The reduction with 15.874.621 RON in turnover in 2009 was motivated by the economic crisis triggered by the bankruptcy of Lehman Brothers announced in September 2008. The companies' activity has contracted, but managed to remain on the market in a period in which thousands of firms have suspended their operations or were in a state of insolvency. For example, according to ONRC, in January-December 2009 133.362 firms have suspended their activity, compared with only 12.019 companies in the same period of 2008, the dynamic being about 1009,59%. The situation of dissolutions is amazing: 18.766 companies in 2009 compared to 2008 - 3.762 of undertakings, meaning more with 398.83%. And the number of voluntary liquidations from the same period is significant: 43.615 companies in 2009, more by 147% than in 2008 when they were liquidated in these manner only 17.676 firms. Because it is relevant and the number of companies registered in the period 2008-2009, we note that in 2009 there were registered 57.038 companies compared to 100.735 registered in 2008, fewer with 43,38%.

Thus, the economic context in which these companies have resisted justifies the decrease by 22% of the turnover achieved in 2009. In the Descriptive statistics table must be said that the minimum value of turnover (97 RON) was achieved by a travel agency in 2001, the year in which he set up. The maximum value was obtained by a company established in 1994 which in 2008 achieved a turnover of 184.199.196 RON.

Figure 1 - The average turnover recorded by top ten travel agencies over the 2000-2010 period



Source: own calculations, data taken from the official website of the MPF

Table 1 - Report SPSS

TIME	Mean	N	Std Deviation.
2000	9576262.250	8	8496101.1400
2001	12874450.222	9	12819932.9454
2002	21023806.750	8	20302536.6713
2003	21685185.600	10	21572956.3740
2004	30453890.700	10	27911156.4011
2005	35960498.500	10	32451117.2877
2006	45671305.800	10	42945718.1892
2007	56645278.500	10	46906447.4157
2008	73703332.000	10	54869724.1235
2009	57828711.700	10	33555773.0494
2010	61798198.600	10	37373143.9331
Total	39982234.457	105	38643206.5544

Source: own calculations, data processed in SPSS

Table 2 - Descriptive Statistics

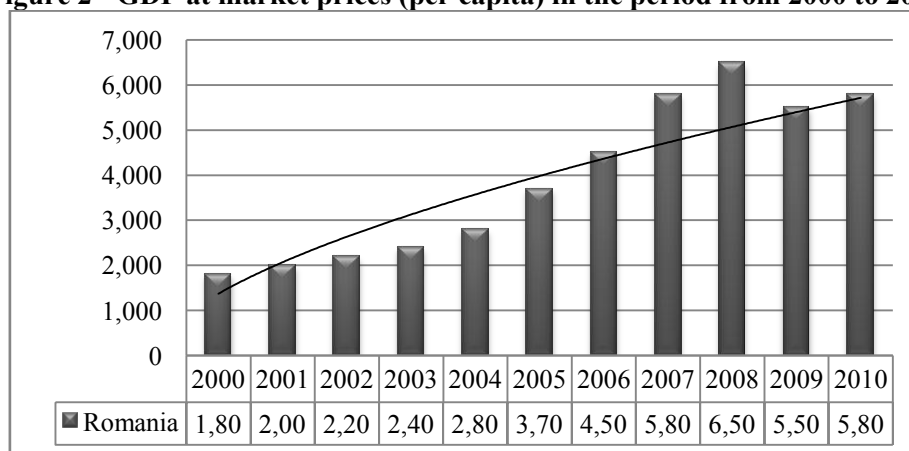
	N	Not Less Than	Maximum	Mean	Std Deviation.
value	105	97.0	184199196.0	39982234.457	38643206.5544
Valid N (list wise)	105				

Source: own calculations, data processed in SPSS

The GDP recorded a growth from 2000 to 2008 inclusive, from 1,800 euro per capita in 2000 to 6,500 euro per capita in 2008. The year 2009 was marked by a significant economic downturn for national economy, with GDP falling by 1,000 euro per capita (6,500 euro in 2008 to 5,500 euro in 2009). In 2010 it is noted an increase of 300 euro per capita, thanks to the redress of the economy and the overcoming the shock generated by the world economic crisis. So, it was back to the level of GDP per capita since 2007, but this return was unsustainable because in 2010 has grown considerably the accumulation of stock where in time when there wasn't an increase of consumption. The contraction of the consumption is due to the fiscal measures (the increase of VAT amount from 19% to 24% from 1 July 2010), but also because of the reduction in incomes of the population and increase the level of prices.

If you compare GDP at market prices in euro per capita, with the total value of the indicator, it is found that the total value of GDP recorded a growth of 1.2% in 2010 compared with 2009 (from 116,3 billion euro to 119,8 billion euro.) compared with the growth of 5% of the calculated indicator per capita. If you analyze the demographic evolution of Romania we must note that the values do not vary significantly: the amount decreases to 0, 17% from 21.498.616 people on 1 January 2009 at 21.462.186 people as of 1 January 2010.

Figure 2 - GDP at market prices (per capita) in the period from 2000 to 2010



Source: own calculations, data taken from EUROSTAT

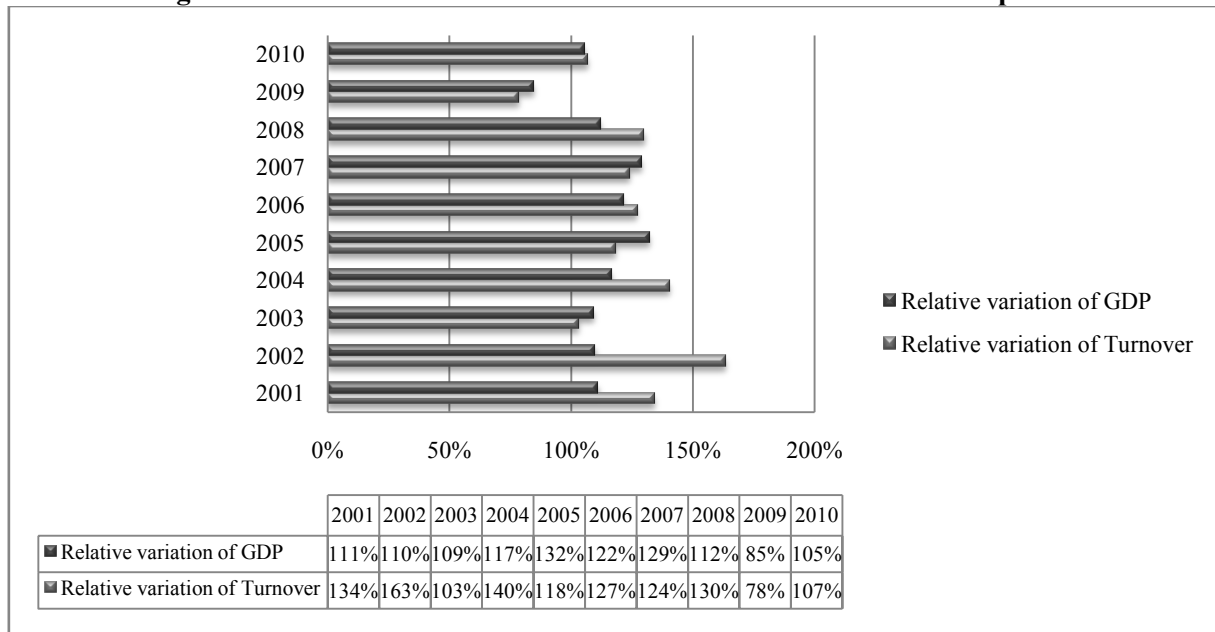
With the help of statistics we can determine the stochastic links, in which case the changing of the quantity (or value) of GDP is influenced by the cause phenomenon. If we note GDP with y , the factor of influence – the turnover - with x and random factors with e , we get the following equation: $y = f(x, e)$.

Why we considered the turnover the factor of influence? Because GDP is made up of the value added generated by residents, and the value added consist considerable from turnover. And the reverse relationship can exist, since tourism is an industry of which development depends and is strongly interrelated with other business areas of the economy and the inflation rate, unemployment rate, level of economic development, etc.

From the first idea, we have the figure below, where the relative variation is presented to the turnover achieved by the undertakings as an average of the tourism agencies and GDP per capita. The first obvious issue is that the two indicators vary in the same sense and with roughly the same intensity, with some exceptions. In the beginning of the studied period, GDP increases more slowly than the turnover obtained by travel agencies, understandable if one takes into account the fact that the year 2000 was the first year for Romania's economic growth after three years of recession. But in 2003, GDP increased by 9% compared to results of 2002, while the turnover of enterprises with just 3%. Another such situation happens in 2005, comparing with 2004, when GDP grew by 32%, and the turnover with just 18%. The scenario is repeated in 2007, but with the difference of only 5 percentage points (relative variation is 129% to GDP and 124% for turnover average). In 2008, the year of the start of the economic crisis which we live today, GDP is growing, but at a rate of only 12%, a percentage too small relative to the period immediately prior to the increase. But, the tourism agencies having resources from the previous years, as well due to the fact that the crisis has triggered official after the closure of the summer season, continued to grow, with a variation of 130% in 2008 compared to 2007. The following year, as was expected, both the GDP and the evolution of turnover generated by tourism agencies decrease significantly: GDP falls by 15% and turnover by 22%. The purchasing power of money has declined, the inflation rate was 7, 85% in 2008, the unemployment rate was below 4.5% in December 2008 and has reached 7.5% in November 2009 (Figure 4), and the concern of population for tourism activities has decreased considerably in the favour of solutions to overcome the crisis of a modern society. Both indicators registered in 2010 growth in relation to sensitive evolution before the crisis: 5% for GDP and 7% for turnover.

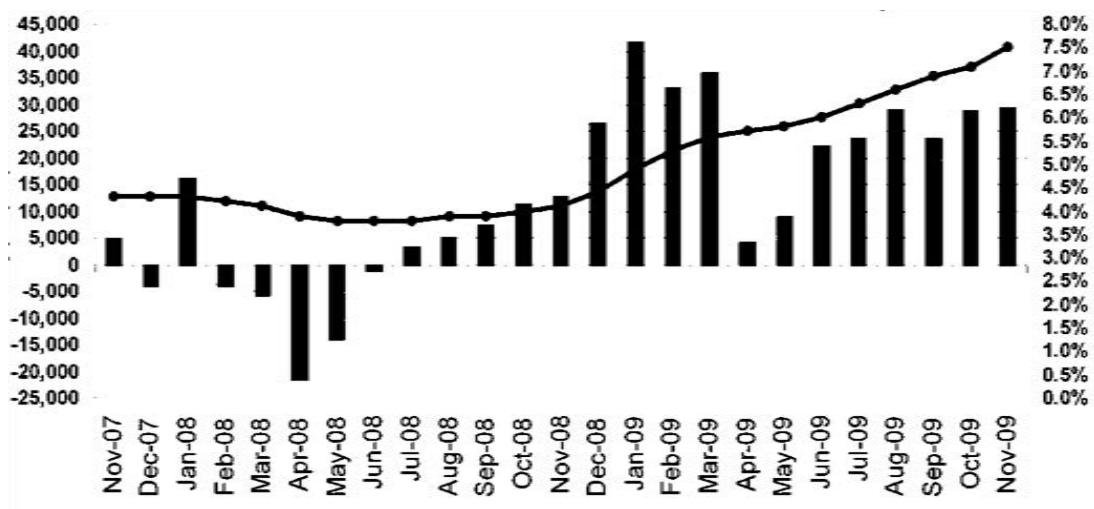
Thus, the results of the analyze shows the indicators are evolving in the same direction, which can justify the conclusion that the GDP and turnover by tourism agencies covaries.

Figure 3 - Relative variation of turnover and GDP in the 2001-2010 period



Source: own calculations

Figure 4 - The evolution of unemployment during the period November 2007-November 2009



Source: <http://businessday.ro/12/2009/rata-somajului-a-ajuns-la-7-5/>

CONCLUSIONS

The analysis carried out on the basis of the data collected showed that GDP per capita at market prices covaries with the turnover achieved by the travel agencies in the 2000-2010 period. Both indicators have the influence factor of the global financial crisis, with adverse evolution immediately after the onset of the phenomenon. Regeneration of tourism companies activity boost

the raising of GDP per capita, even if there are other numerous factors that determine economic evolution of this indicator.

The case study conducted to highlight a trend for GDP and for the turnover, with a solid foundation for a forecast: next 3 years GDP per capita will be unstable due to an unsustainable increase in 2010, while the average of turnover realized by of travel agencies will grow slowly but steadily. So, it appears that the two indicators will evolve in different ways, which do not lead to breaking of the relationship between them. The decisions taken at the country level will not have the same weight as the fiscal and political measures in 2010, which is one of the reasons that companies have the necessary conditions to attract customers in a smart way: by folding the offer on their purchasing power. The current rate of inflation is 2.59% (February 19, 2011/2012), meaning that the price increase is subtle, not affecting the ability of tourist population to make tourism acquisitions, thereby supporting both business and consumption, developing the national economy and increasing the economic potential of the country.

This study has demonstrated that between GDP, which is an indicator of the macroeconomic and turnover, which examines the micro-level only, there is a direct relationship and in future studies we will present in detail the stochastic link, highlighting their similar nature.

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EFFECTS OF MONETARY POLICY IN ROMANIA - A VAR APPROACH

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Abstract: *Understanding how monetary policy decisions affect inflation and other economic variables is particularly important. In this paper we consider the implications of monetary policy under the inflation targeting regime in Romania, based on an autoregressive vector method including recursive VAR and structural VAR (SVAR). Therefore, we focus on assessing the extent and persistence of monetary policy effects on gross domestic product (GDP), price level, extended monetary aggregate (M3) and exchange rate. The main results of VAR analysis reflect a negative response of consumer price index (CPI), GDP and M3 and positive nominal exchange rate behaviour to a monetary policy shock, and also a limited impact of a short-term interest rate shock in explaining the consumer prices, production and exchange rate fluctuations.*

Keywords: monetary policy, transmission mechanism, vector auto regressions

JEL Classification: E31, E52, E58, C32

INTRODUCTION

The monetary policy transmission mechanism describes how traders respond to the decisions of monetary authorities in the context of future, mutual interactions between them. Such a process can be characterized as a set of monetary policy propagation channels through which the central bank influences the aggregate demand and the prices in the economy. Thus, we underline the presence of traditional channels of monetary policy transmission: the interest rate channel, the exchange rate channel, the credit (banking and balance sheet), the expectations channel, particularly important under inflation targeting regime and a series of non-standard channels such as the cost of risk taking risk.

Linked to the above, the present paper aims to empirically analyse the effects of monetary policy shocks on real economic aggregates and prices. Our approach is structured as follows. The first part offers a review of the literature focused on Central and Eastern Europe research, both at the level of individual states and for different groups within the region compared to other advanced economies; the second part explains the VAR model and data used. The third part is centred on identifying shocks with a distinction between recursive vector autoregressive (the Choleski identification) and structural autoregressive vector that implies zero restrictions freely distributed allowing for greater flexibility and a more accurate description of the considered variables interdependence. The fourth part focuses on model robustness, on its ability to provide a good

image of the interactions dynamics between variables. The results on the effects of monetary policy shocks are shown in the fifth part that also presents the shock response functions (impulse response), decomposition of the variance (dispersion) and Granger causality. The sixth part contains conclusions and future directions of analysis.

1. RELATED VAR LITERATURE

Autoregressive vector models (VAR) introduced by Sims (1980) are considered to prevail in the econometric modelling of monetary policy transmission mechanism. Fry and Pagan (2005) argued that this class of models offers the ideal combination between the data-based approach and the coherent approach based on economic theory. With regard to monetary policy analysis, the VAR methodology was further developed in the works of Gerlach and Smets (1995), Leeper, Sims and Zha (1998), Christiano, Eichenbaum, and Evans (1999). The latter study provides a detailed analysis of the literature on the subject in the U.S. Similarly, several researches have been undertaken in Europe to study the various aspects of the monetary policy transmission mechanism within the euro area (Angeloni, Kashyap, and Mojon, 2003). These studies focused both on the whole euro area (Peersman and Smets, 2001), and on individual member countries (Mojon and Peersman, 2001).

The analysis of the monetary policy transmission mechanism with VAR models spread to the emerging markets of Central and Eastern Europe. Again, we identify individual-level studies and comparative analyses for different groups of countries in the region.

Thus, Hurník and Arnoštová (2005) analysed the transmission mechanism of monetary policy in the Czech Republic for the period 1994-2004 using a VAR methodology. Their results show that an unexpected contractionary monetary policy shock leads to a lower production; prices increase in the first two quarters after the shock (price puzzle), exchange rate drops (appreciation) for 4-5 quarters and after it raises (delayed overshooting). The transmission mechanism of monetary policy in the Czech Republic is also studied by Morgese and Horvath (2008). The two authors take into account the period 1998-2006 (only the inflation targeting regime time) and using VAR, SVAR and FAVAR they obtain the following results: an unexpected contractionary monetary policy shock causes a decrease in production and in the price level with a maximum amplitude after about a year; and a persistent appreciation of the exchange rate followed by a further depreciation.

In Poland, Lyziak, Przystupa and Wróbel (2008) conducted an SVAR analysis of monetary policy transmission mechanism for the period 1997Q1 - 2006Q1, a period characterized by an

inflation targeting regime. The empirical results obtained showed a maximum response of price level to a positive short-term interest rate shock after 16 to 20 months *ex post* the event, while the output response differs depending on the identification method used.

Demchuk et al. (2012) assessed the key characteristics of the monetary policy transmission mechanism in Poland, using VAR and SVAR during 1998-2011 (both monthly and quarterly data) and highlighted the following conclusions: an increase in short term interest rate by 1 % strongly reflects on output, price level and exchange rate (consumer price index decreases by about 0.3% after 6 quarters, the production by the same percentage after four quarters, an appreciation of the national currency that lasts 14 to 16 quarters).

In Romania, an analysis of monetary policy transmission mechanism was conducted by Antohi, Udrea and Braun (2003). For studying the first segment, namely the transmission of policy decisions on financial variables, the three authors used a vector error correction model (VEC). Their conclusion emphasized that the central bank directly influences deposit interest rate through sterilization operations interest rate, but the banks' lending rate does not seem to be directly sensitive to NBR policy rate, but to deposit interest rate.

More recently, the VAR and SVAR approach of monetary policy transmission mechanism in Romania was applied by Andries (2008). Considering the period 2000:1 - 2007:6 and Cholesky identification method the author's main result highlighted that a sudden increase in the effective short-term interest rate causes a decrease in consumer prices that reflects the greatest amplitude after 6 months and an appreciation of the national currency with a maximum recorded in the same period after the shock.

There are also works that analyse and compare the effects of monetary policy through vector autoregressive model in different groups of Central and Eastern European countries against other advanced economies (Creel and Levasseur, 2005; Héricourt, 2005 ; Elbourne and de Haan, 2006, Darvas, 2005). These studies underlined some specific features of the monetary policy transmission mechanism in the new EU members from Central and Eastern Europe compared to the old Member States. Such particularities include a number of elements such as: 1) financial systems relatively less developed than the old EU member states, which could lead to a weaker impact of monetary policy on the economy, 2) additional difficulties in anchoring inflation expectations, which may generate prices behaviours with highest lags, 3) an increased inflation rate with considerable impact on the monetary policy transmission mechanism because under a higher inflation environment the agents adjust their prices more often having as a result a lower prices rigidity in these countries.

At the same time, these researches stresses a common view in the literature, namely the prevalence of exchange rate channel against the other two traditional channels of monetary policy transmission mechanism (interest rate channel and the credit) in the Central and Eastern European countries. In addition, Creel and Levasseur (2005) highlighted the weak impact of monetary policy in the region on production and prices, a conclusion opposite to that supported by Elbourne and de Haan (2006).

Anzuini and Levy (2007) provided empirical evidence on the effects of monetary policy shocks in the Czech Republic, Hungary and Poland. The VAR system estimates considered by the two authors have suggested that despite a weaker development of national financial systems, the responses of macroeconomic variables to a monetary policy shock are similar between the three countries, and not significantly different from those of the advanced European economies. While from a qualitative perspective the responses of EU new member states proved to be similar to those observed in the old EU member states, quantitatively they were on average, weaker.

More recently, Jarociński (2010) performed a systematic comparison of macroeconomic variables responses to monetary shocks in Western Europe and new EU member states. New Member States (Czech Republic, Hungary, Poland and Slovenia) behaviours proved to be qualitatively similar to those in developed countries sample (Finland, France, Italy, Portugal and Spain), but with interesting differences: while production responses were found to be generally similar, price reactions uncertainty included the possibility of stronger effects compared to the case of considered Euro zone members. This result suggest that when analysing differences between the Central and Eastern European countries and Western Europe states, the study should be much more in depth, beyond the rule assuming that the monetary policy is less effective in countries with less developed financial systems.

Presently there is a new wave of interest to identifying and analysing the implications of the recent financial crisis and on the monetary policy transmission mechanism based on VAR method (e.g. Boivin et al., 2010, Cecioni and Neri, 2010). Central and Eastern Europe countries researches are still in their infancy. In this regard we note the study of Lyziak et al. (2011), which highlighted the impact of recent global turmoil on the effectiveness of monetary policy transmission mechanism in Poland through a VAR and a small structural model, with the mention that it depends on monetary policy and the structural characteristics of the economy. The financial crisis, which affected both components led to a change in monetary policy rule and a significant lower efficiency of monetary policy.

In the same line, Demchuk et al. (2012) pointed out that during the recent international stress, the monetary policy transmission mechanism in a small open economy such as Poland suffered extensive disturbance, with the interest rate channel being the most affected

2. MODEL SPECIFICATION

We consider the following system:

$$AY_t = C(L)Y_{t-1} + D(L)X_t + B\varepsilon_t \quad (1)$$

where: the A matrix includes all coefficients describing the simultaneous relationships between variables, the C(L) matrix includes all coefficients reflecting the lagged linkages between variables, the D(L) matrix contains all coefficients pointing out the link between endogenous and exogenous variables, the B matrix is a diagonal matrix and vector ε includes the residuals. By multiplying the VAR system with the A inverse matrix we obtain:

$$Y_t = A^{(-1)}C(L)Y_{t-1} + A^{(-1)}D(L)X_t + A^{(-1)}B\varepsilon_t \quad (2)$$

This can be re-written as:

$$Y_t = aY_{t-1} + bX_t + \mu_t \quad (3)$$

Where:

$$a = A^{(-1)}C(L)$$

$$b = A^{(-1)}D(L)$$

$$\mu = A^{(-1)}B\varepsilon$$

Equation (1) describes the structural model and equation (3) is a synthesized model form, the latter being observed empirically.

Thus, the considered VAR model has the following representation (reduced form):

$$Y_t = aY_{t-1} + bX_t + \mu_t$$

where: Y_t is the endogenous variables vector, X_t the exogenous variables vector, μ_t the vector of residual terms (white noise), a is a matrix that includes all coefficients describing relationships between endogenous variables and b is a matrix that contains all the coefficients reflecting the connections between endogenous and exogenous variables.

Exogenous variables vector contains the following variables: euro area consumer price index (ipc_ea), real GDP in the euro area (y_ea) and Eurozone short-term interest rate (i_ea).

$$X_t = [ipc_ea_t \ y_ea_t \ i_ea_t] \quad (4)$$

These variables are used to control the evolution of demand and inflation in the euro area. Their inclusion helps solve the so-called *price puzzle* (e.g. the empirical results currently identified in the VAR literature showing that the interest rate rise results in an increase of price levels). Treating these variables as exogenous means, implicitly, that there is no impact from the endogenous to the exogenous variables. At the same time it allows for the contemporary impact of exogenous on endogenous variables.

Endogenous variables vector contains the following: Romanian real gross domestic product (y_{ro}), the national consumer price index (ipc_{ro}), M3 monetary aggregate ($m3_{ro}$), domestic short-term interest rate (i_{ro}) and nominal exchange rate EUR / RON (s_{ro}).

$$Y_t = [y_{ro_t} \ ipc_{ro_t} \ m3_{ro_t} \ i_{ro_t} \ s_{ro_t}] \quad (5)$$

Data

The data sample is restricted, including data from mid-2005, at which point the NBR adopted inflation targeting strategy. Before this moment, during 1990-1997 the central bank applied a monetary targeting strategy and between 1997 and 2005 a combined strategy targeting both monetary aggregates and the exchange rate (eclectic strategy). Thus, the sample covers the period between 2005: Q3 and 2012: Q1 with a quarterly frequency. As a result, we have 27 observations provided by Eurostat (www.eurostat.ec.europa.eu).

The analysed variables include:

- the national real gross domestic product and the euro area (y_{ro_t} , y_{ea_t});
- fixed-base index of domestic consumer prices and the euro area indicator(y_{ro_t} , y_{ea_t});
- M3 monetary aggregate in Romania($m3_{ro_t}$);
- the national and Euro zone short-term interest rates with ROBOR as proxy, and respectively 3-month EURIBOR (i_{ro_t} i_{ea_t});
- EUR / RON nominal exchange rate (s_{ro_t}).

All series except the interest rates and exchange rates have been adjusted to eliminate seasonal factors based on the X12 procedure used by the U.S. Census Bureau. Also all series except interest rates were put under logarithms.

The VAR variables should not be stationary. Sims (1980), *inter alia*, argued against differentiation, even if the series contain a unit root, causing informational losses. What matters for VAR results robustness is the system general stationarity (Lütkepohl, 2006).

If the considered endogenous variables are stationary, meaning integrated of order zero, $I(0)$, the VAR estimation is supported by level-specified variables. If the variables are nonstationary but cointegrated, the estimation is allowed with level-specified variables or autocorrection model (VEC). Finally, if the variables are nonstationary and not cointegrated it is necessary to specify them as differences.

We test the stationarity with the help of Augmented Dickey - Fuller test and Phillips – Perron test; their results indicate that variables are not stationary: $y_ro_sa: I(2)$, $y_ea_sa: I(2)$, $ipc_ro_sa: I(1)$, $ipc_ea_sa: I(2)$, $i_ro: I(1)$, $m3_ro: I(0)$, $i_ea: I(2)$, $s_ro: I(1)$.

Cointegration testing based on the methodology developed by Johansen indicate that there are three cointegration equations at a significance level of 0.05 (outcome based on both Trace and Maximum Eigenvalue Tests). This result, in conjunction with the stationarity tests conclusions underlines the possibility of model estimation with level-specified variables.

The number of lags considered must capture the system dynamics without consuming too many degrees of freedom. If the lag number is too small, the model will not be specified correctly and if the number is too high, too many degrees of freedom would be lost (Codirlaşu, 2007). Choosing the number of lags was based on results synthesis of several methods: the sequential testing of lags significance, minimizing the final prediction error and information content evaluation criteria (Akaike, Schwartz and Hannan-Quinn). Most criteria indicate the existence of 1 lag. We check the result by excluding non-significant lags based on lag exclusion tests. Lag Exclusion Wald test confirmed the retaining of 1 lag.

3. SHOCKS IDENTIFICATION

Shocks identification is based on imposing zero-restrictions for A and B matrices coefficients in $\mu = A^{(-1)}B\varepsilon$ relation. The minimum number of zero restrictions to be imposed to identify structural innovations is $n(n-1)/2$, where n is the number of endogenous variables (in this case $n = 5$). So, if we impose a number of 10 zero-restrictions, the VAR system is precisely identified and if the number of zero restrictions is higher than 10, the system will be over-identified. The determination of the appropriate number of zero restrictions (innovation decomposition or

orthogonalization), which is actually equivalent to setting assumptions about the endogenous variables can be done in several ways.

One of the methods is the recursive Choleski identification. In this case, the A matrix has a triangular structure, the all elements above the main diagonal equal to zero. Under Choleski approach, the two matrices, A and B, have the following representation:

$$A = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ a_{21} & 1 & 0 & 0 & 0 \\ a_{31} & a_{32} & 1 & 0 & 0 \\ a_{41} & a_{42} & a_{43} & 1 & 0 \\ a_{51} & a_{52} & a_{53} & a_{54} & 1 \end{bmatrix} \quad B = \begin{bmatrix} b_{11} & 0 & 0 & 0 & 0 \\ 0 & b_{22} & 0 & 0 & 0 \\ 0 & 0 & b_{33} & 0 & 0 \\ 0 & 0 & 0 & b_{44} & 0 \\ 0 & 0 & 0 & 0 & b_{55} \end{bmatrix}$$

The ordering of the variables in the context of equation (5) requires implicit assumptions about: (i) what do the monetary authority considers when making monetary decisions, and (ii) which are the variables that simultaneously respond or not respond to monetary policy decisions. This ordering also implies that when deciding, the central bank takes into account the current level of production, prices and monetary developments. At the same time, monetary policy actions have no impact on production and prices contemporary. Because the exchange rate is ordered after the interest rate, the latter should have an immediate impact on the exchange rate. On the other hand, the interest rate does not respond in the same period to changes in nominal exchange rate.

The considered recursive VAR model (the Choleski identification) requires a rigid structure of causal relationships between variables and as a result, its ability to correctly describe dependencies between variables is put under question. To eliminate these drawbacks, namely to allow greater flexibility of connections between variables, it is necessary to use a structural VAR identification with Sims (1986) and Bernake (1986) identification method. Under this orthogonalization approach the zero restrictions can be freely distributed. In the case of structural VAR, the two matrices, A and B, are represented as follows:

$$A = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ a_{21} & 1 & 0 & 0 & 0 \\ a_{31} & a_{32} & 1 & a_{34} & 0 \\ a_{41} & 0 & 0 & 1 & a_{45} \\ a_{51} & a_{52} & a_{53} & a_{54} & 1 \end{bmatrix} \quad B = \begin{bmatrix} b_{11} & 0 & 0 & 0 & 0 \\ 0 & b_{22} & 0 & 0 & 0 \\ 0 & 0 & b_{33} & 0 & 0 \\ 0 & 0 & 0 & b_{44} & 0 \\ 0 & 0 & 0 & 0 & b_{55} \end{bmatrix}$$

The number of zero restrictions imposed in this case is also 10; therefore the system is exactly identified. The first two equations represent the slow reaction of the real sector (GDP and prices) to monetary sector shocks (M2, interest rates and exchange rates). There is no contemporary impact of

monetary policy shocks, M2 and exchange rate on production and prices. M2 is influenced by GDP contemporary innovations, price level and short-term interest rate. The central bank sets the interest rate taking into account the contemporary innovations of production (a_{41} can be interpreted as a pressure indicator of excessive demand) and exchange rate (a_{45} can be interpreted as the exchange rate fluctuations that influence inflation expectations), but it does not respond simultaneously to monetary aggregate shocks (under a monetary targeting regime) and to price level (price information is available only with a certain lag). Finally, the exchange rate as price of an asset immediately reacts to all the innovations of the other variables.

4. ANALYSIS ROBUSTNESS

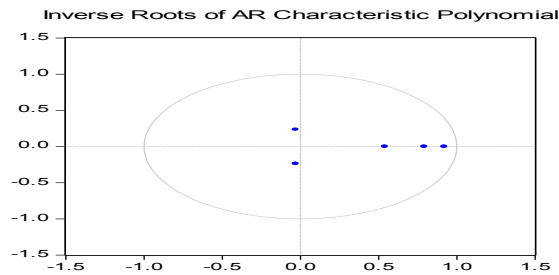
The VAR is confirmed if it is stable and the residuals are "white noise".

4.1 Testing the model stability

The considered model should be stationary. If not, the confidence intervals for impulse-response functions cannot be built. The VAR stability is confirmed when the inverses of estimated coefficients matrix characteristic roots have modules less than 1 or alternatively, they lie within the circle of radius 1. We test the model stability with the help of AR roots test as a graph and table.

Figure 1 – Testing the model stability using AR Table and AR Graph

Roots of Characteristic Polynomial	
Endogenous variables: LOG(Y RO SA) LOG(IPC RO SA) LOG(M3 RO SA) I RO LOG(S RO)	
Exogenous variables: LOG(Y EA SA) LOG(IPC EA SA) I EA	
Root	Modulus
0.920318	0.920318
0.793025	0.793025
0.541869	0.541869
-0.029740 - 0.235721i	0.237589
-0.029740 + 0.235721i	0.237589
No root lies outside the unit circle. VAR satisfies the stability condition.	



Source: authorial calculations

According to Figure 1, the VAR model has five roots: 3 real and 2 complexes. If the roots values in module are subunit, the model is stable. In this case, the hypothesis of model stability is checked. The AR Table graphical representation provides the same conclusions. The VAR is considered to be stable because none of the points exceeds the circle.

4.2 The diagnosis of residual terms

Under the considered VAR model, the μ_t errors must be "white noise" (the absence of autocorrelation, the distribution normality and homoscedasticity).

The verification of the serial non-correlation hypothesis of residuals is supported by Portmanteau and LM autocorrelation test. Portmanteau test verifies the partial correlation up to a specified lag, usually with a higher order than the VAR model (in the present case we check the first 3 lags). The null hypothesis states the absence of autocorrelation.

Table 1 – Residuals autocorrelation verification Portmanteau test

VAR Residual Portmanteau Tests for Autocorrelations					
Null Hypothesis: no residual autocorrelations up to lag h					
Sample: 2005Q3 2012Q1					
Included observations: 26					
Lags	Q-Stat	Prob.	Adj Q-Stat	Prob.	df
1	27.75312	NA*	28.86325	NA*	NA*
2	53.99395	0.1954	57.29081	0.1228	46
3	80.93088	0.1969	87.74125	0.0865	71
*The test is valid only for lags larger than the VAR lag order.					
df is degrees of freedom for (approximate) chi-square distribution					
*df and Prob. may not be valid for models with exogenous variables					

Source: authorial calculations

The p-value higher than 5% allows us to accept the null hypothesis and say that there is no serial correlation between residuals. This result is confirmed by multivariate LM test for partial correlation up to a certain lag.

Testing the distribution normality of errors is supported by Jarque-Bera test that compares the skewness and kurtosis coefficients with those of a normal distribution.

Table 2 – Testing the normality of errors distribution

VAR Residual Normality Tests				
Orthogonalization: Cholesky (Lutkepohl)				
Null Hypothesis: residuals are multivariate normal				
Sample: 2005Q3 2012Q1				
Included observations: 26				
Component	Skewness	Chi-sq	df	Prob.
1	0.931599	3.760801	1	0.0525
2	0.500628	1.086057	1	0.2973
3	0.329713	0.471079	1	0.4925
4	0.153983	0.102747	1	0.7486
5	0.556588	1.342425	1	0.2466
Joint		6.763109	5	0.2389
Component	Kurtosis	Chi-sq	df	Prob.
1	3.320329	0.111162	1	0.7388
2	4.025600	1.139510	1	0.2858
3	2.646240	0.135575	1	0.7127
4	1.771195	1.635793	1	0.2009
5	2.733395	0.077001	1	0.7814
Joint		3.099041	5	0.6847
Component	Jarque-Bera	df	Prob.	
1	3.871962	2	0.1443	
2	2.225567	2	0.3286	
3	0.606654	2	0.7384	
4	1.738540	2	0.4193	
5	1.419426	2	0.4918	
Joint	9.862149	10	0.4527	

Source: authorial calculations

Table 2 presents the results of residuals testing distribution. All normality assumptions are accepted due to a p-value greater than the significance threshold (5%) for all situations. The homoscedasticity of residual terms was verified based on White's test. The null hypothesis states that all errors are homoscedastic (their variation is constant.).

Table 3 – Testing the residuals homoscedasticity

VAR Residual Heteroskedasticity Tests: No Cross Terms (only levels and squares)					
Sample: 2005Q3 2012Q1					
Included observations: 26					
Joint test:					
Chi-sq	df	Prob.			
236.3719	240	0.5541			
Individual components:					
Dependent	R-squared	F(16,9)	Prob.	Chi-sq(16)	Prob.
res1*res1	0.537509	0.653739	0.7805	13.97523	0.6006
res2*res2	0.662557	1.104450	0.4567	17.22649	0.3711
res3*res3	0.491493	0.543679	0.8622	12.77881	0.6889

res4*res4	0.368720	0.328546	0.9748	9.586711	0.8873
res5*res5	0.596612	0.831938	0.6420	15.51190	0.4875
res2*res1	0.603138	0.854871	0.6248	15.68160	0.4754
res3*res1	0.430507	0.425221	0.9350	11.19319	0.7974
res3*res2	0.471987	0.502816	0.8897	12.27167	0.7251
res4*res1	0.649271	1.041303	0.4954	16.88105	0.3933
res4*res2	0.543754	0.670388	0.7675	14.13761	0.5885
res4*res3	0.406260	0.384885	0.9540	10.56276	0.8356
res5*res1	0.639280	0.996883	0.5242	16.62129	0.4105
res5*res2	0.487442	0.534938	0.8683	12.67350	0.6965
res5*res3	0.419257	0.406086	0.9444	10.90067	0.8156
res5*res4	0.494114	0.549410	0.8582	12.84696	0.6839

Source: authorial calculations

The p-value of greater than 5% allows us to accept the null hypothesis and say that the residuals do not broke the homoscedastic hypothesis.

The results of stability testing and residual terms indicate that the considered model is able to provide a good picture of the dynamics of interactions between variables.

5. ESTIMATION RESULTS

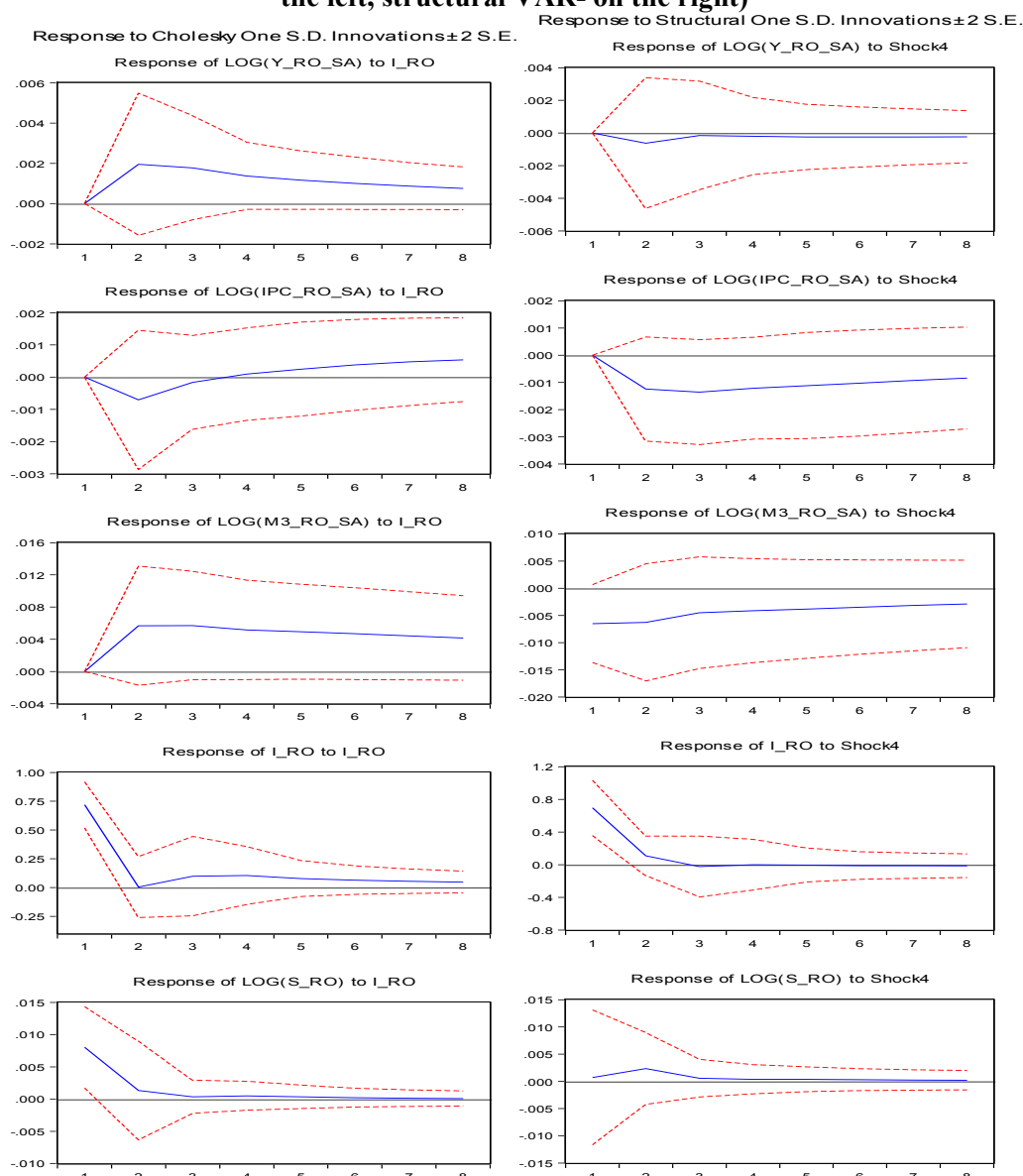
VAR analysis provides three important results: the shock response function (impulse response), variance decomposition (dispersion) and Granger causality.

5.1 Impulse response function

The shock response function presents the results on the effects of a monetary policy shock on the economic variables of interest for the monetary authority. The confidence interval is 95%, the shock is a standard deviation, and the time on the horizontal axis is expressed in quarters. Figure 2 shows the impulse-response function for considered recursive VAR and structural models. The graphical representation points out that when using recursive VAR, a quarter of monetary policy leads to a positive response (the same sign) of GDP, M3 and nominal exchange rate, results that are counterintuitive.

The application of a structural VAR, for which the shock identification was achieved by the free distribution of zero restrictions allowing for a more accurate description of the variables interdependencies led to a negative response of GDP, CPI and M3 and positive nominal exchange rate.

Figure 2 - Variables response variables to a contractionary monetary policy shock (recursive VAR- on the left, structural VAR- on the right)



Source: authorial calculations

In the case of an unexpected contractionary monetary policy shock (a sudden increase in short term interest rate) we emphasize the following behaviours of the interest variables:

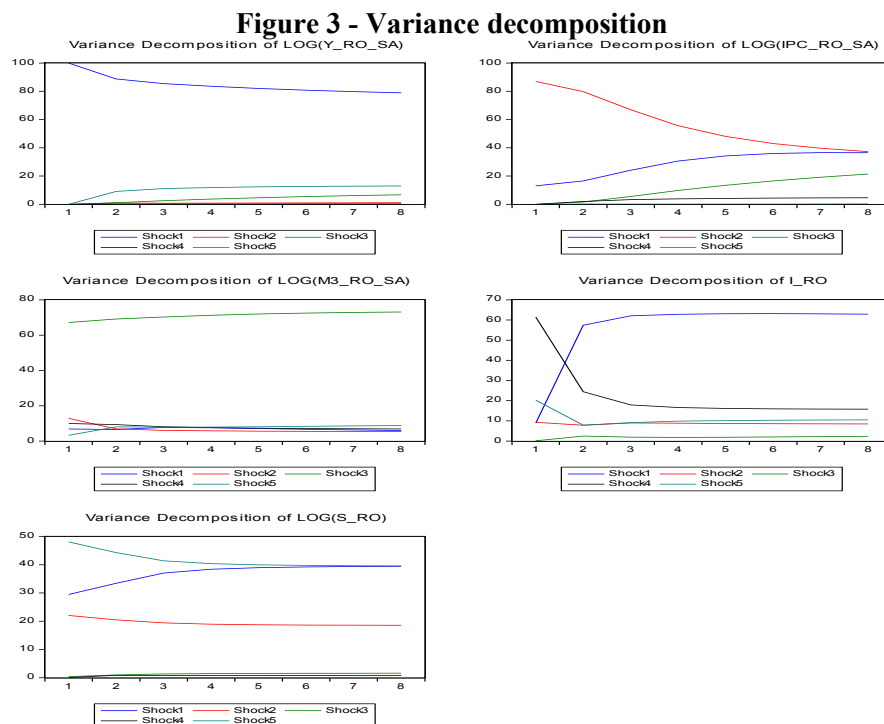
- A GDP decline, that reaches a maximum after about a quarter and a half;
- A broader decrease of consumer price index, with a maximum level after about two quarters;
- A negative M3 response, with a peak during the first two quarters from the short-term interest rate rise;
- A positive behaviour of the exchange rate (domestic currency depreciation). Such a counterintuitive result (an increase in short-term interest rates followed by the national currency

depreciation) is often found when using vector autoregressive methods, known as the "exchange rate puzzle". This *puzzle* leads to higher import prices enhancing the acceleration of domestic inflation, especially in a small open economy as Romania.

However, the results can be challenged as we note the presence of the 0 value within the confidence interval, which translates into a lack of response to shocks (results are not statistically significant).

5.2 Decomposition of variance (dispersion)

The proportions of the variations of an endogenous variables caused by its own shocks and shocks due to other variables within the system are presented in Figure 3. Because the use of structural autoregressive vector has generated superior results both from a qualitative and a quantitative perspective, as we have seen previously, the variance decomposition is presented only for this case.



Source: authorial calculations

Figure 3 reveals that short-term interest rate shocks have a limited contribution in explaining the variation of consumer prices, production and exchange rate. For example, considering a time

horizon of two quarters, the CPI variation is explained by approximately 80% of GDP shocks, 15% by its own innovations and 2% by the monetary aggregate M3 innovations, interest rate short-term, and nominal exchange rate. For a longer time span (8 quarters), the CPI variation is explained by 40% of GDP shocks, 40% by their innovations, 15% of innovations in M3 and less than 2% by short-term interest rate and nominal exchange rate shocks. In the same period, the GDP variation is explained by approximately 80% of its own innovations, 10% by the nominal exchange rate shocks, 5% by the innovations of M3 and less than 2% by the consumption price index shocks and short-term interest rate.

5.3 Granger causality test

The identification of variables that contain useful information to predict other variables within the VAR system is shown in Table 4.

Table 4 - Granger causality test

VAR Granger Causality/Block Exogeneity Wald Tests							
Sample: 2005Q3 2012Q1							
Included observations: 26							
Dependent variable: LOG(Y_RO_SA)				Dependent variable: LOG(IPC_RO_SA)			
Excluded	Chi-sq	df	Prob.	Excluded	Chi-sq	df	Prob.
LOG(IPC_RO_SA)	0.379230	1	0.5380	LOG(Y_RO_SA)	0.029221	1	0.8643
LOG(M3_RO_SA)	5.079878	1	0.0242	LOG(M3_RO_SA)	3.881607	1	0.0488
I_RO	0.005624	1	0.9402	I_RO	0.783785	1	0.3760
LOG(S_RO)	7.949480	1	0.0048	LOG(S_RO)	0.108132	1	0.7423
All	12.10176	4	0.0166	All	6.675855	4	0.1540
Dependent variable: LOG(M3_RO_SA)				Dependent variable: I_RO			
Excluded	Chi-sq	df	Prob.	Excluded	Chi-sq	df	Prob.
LOG(Y_RO_SA)	3.856640	1	0.0495	LOG(Y_RO_SA)	29.21581	1	0.0000
LOG(IPC_RO_SA)	0.422210	1	0.5158	LOG(IPC_RO_SA)	2.561936	1	0.1095
I_RO	0.036068	1	0.8494	LOG(M3_RO_SA)	10.67442	1	0.0011
LOG(S_RO)	12.96658	1	0.0003	LOG(S_RO)	0.108535	1	0.7418
All	20.40120	4	0.0004	All	30.13475	4	0.0000
Dependent variable: LOG(S_RO)							
Excluded	Chi-sq	df	Prob.				
LOG(Y_RO_SA)	1.069117	1	0.3011				
LOG(IPC_RO_SA)	0.001136	1	0.9731				
LOG(M3_RO_SA)	1.144530	1	0.2847				
I_RO	0.207741	1	0.6485				
All	11.80676	4	0.0188				

Source: authorial calculations

Granger causality tests highlight the following results:

- The consumer price index variable is Granger caused by the gross domestic product variables, short-term interest rate and nominal exchange rate, but not the monetary aggregate and it Granger determines all other variables.
- The gross domestic product is Granger caused by the consumer price index variables and short-term interest rate, but not the nominal exchange rate and monetary aggregate M3 and it Granger determines the nominal exchange rate and consumer price index variables.
- The M3 variable is Granger caused by short-term interest rate variables and the consumer price index, but not the nominal exchange rate variables and gross domestic product and it Granger causes only the nominal exchange rate.
- The interest rate term is Granger caused by the nominal exchange rate and consumer price index, but not the GDP and M3 variables and it Granger determines all other variables.
- The nominal exchange rate is Granger caused by all other variables and it Granger determines the short-term interest rate and consumer price index variables.

However, it should be stressed that the Granger causality cannot be interpreted as a structural causality, it is only consistent with (it is neither necessary nor sufficient for) true causality, the effect must succeed in time to cause Botel (2002).

CONCLUSIONS

The three important results provided by the VAR analysis of the monetary policy transmission mechanism were:

• **Shock response function (impulse response):** under the considered recursive VAR approach (the Choleski identification) a monetary policy shock causes a response of the same sign from the GDP, M3, nominal exchange rate, results that are counterintuitive and a negative response of price level. The free distribution of zero restrictions to identify shocks in the structural VAR model revealed the negative behaviour of GDP, consumer price index and monetary aggregate M3 and a positive reaction of nominal exchange rate. Thus, in case of SVAR, the results of an unexpected short-term interest rates translate into a decrease in GDP, that reaches a maximum level after about a quarter and a half after the event; a reduction of the broad consumer price index, with a maximum reached after about two quarters ex post the shock; a decrease of monetary aggregate M3, with a maximum during the first two quarters after the short-term interest rate rise and an increase

of the exchange rate (the depreciation of the domestic currency), known as the so-called "exchange rate puzzle".

• **Decomposition of variance (dispersion):** short-term interest rate shocks have a reduced role in explaining the variation of consumer prices, production and exchange rate. Regarding the price level, for a time horizon of two quarters, the CPI variation is explained by approximately 80% of GDP shocks, 15% of its own innovations, fewer than 2% of M3 innovations, short-term interest rate and nominal exchange rate. For a longer time span (8 quarters), the CPI variation is explained by approximately 40% of GDP shocks, 40% of its own innovations, 15% of innovations in M3 and less than 2% of short-term interest rate and nominal exchange rate shocks.

• **Granger causality test type:** short-term interest rate Granger causes CPI, GDP and M3 monetary aggregate and nominal exchange rate is Granger caused by nominal exchange rate and consumer price index and but not by the gross domestic product and the M3 monetary aggregate.

As future directions of analysis we propose an evaluation based on the technique using an autoregressive structural vector of the disturbance degree of monetary policy transmission mechanism on both its segments, in the light of the recent economic and financial crisis impact and also the determination of its efficiency under the current international financial stress.

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MODELS AND PRACTICES OF CORPORATE GOVERNANCE WORLDWIDE*

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Abstract: *In the current context of globalization, we can no longer talk about increasing organizational value ignoring the interests of shareholders, employees, business partners, etc. Such interests may come into conflict, leading to internal conflicts, with negative influence on the entity's performance. To avoid such discrepancies, a responsible behavior from managers is increasingly necessary, which means, in fact, adopting a corporate governance model.*

The aim of this article is to make a comparative study between the main corporate governance models used globally by analyzing strengths and weaknesses for each one, in the sense to determine which one is the best model and if it can be adapted to different economic systems, in order to be applied on a scale as large. We used a bibliographic method for our research is the one. Literature does not provide concrete answers to this problem, most authors treating each one the governance model specific to their home country.

Keywords: corporate governance, model, control, market, efficiency

JEL Classification: G34, O16, M14, M41

INTRODUCTION

Corporate governance is defined as the management and control system of an organization, in accordance with the principles and best practices in this field. At the entity level, it seeks the way to structure the distribution of power and responsibilities among shareholders, directors and the management. Today, the concept is used to describe the action of governing, the manner of managing, administering, in the states, world organisms, but also businesses. Mainly, it seeks how the power of various factors of decision and control can be balanced and the tools for both shareholders and other stakeholders in the capital of an entity can be implemented.

Corporate governance provides rules and appropriate control mechanisms through which, on the one hand shareholders can supervise the decisions of managers, and on the other hand partners can be monitored and motivated. Such a system, within a modern business environment, should initiate and support research and development activities, contribute to social stability by building human but also cultural capital. It easily detaches the conclusion that modelling corporate

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governance should be integrated in strategies concerning sustainable development, through continuous involvement in restructuring the main branches of the economy or social sector reform.

If in the traditional governance model, the company was run by the owner family, economic, managerial and technological have determined the need of a leadership realized by professional managers. In this way new relationships and economic processes between business owners and executives have occurred. Their modelling and exercise makes the subject of corporate governance, but its basic objectives have remained unchanged. There are three main models of leadership on which the corporate governance theory is based: the Anglo-Saxon, the Continental and the Japanese model.

1. THE ANGLO-SAXON MODEL – BASED ON ENTREPRENEURSHIP AND PRIVATE PROPERTY

Anglo-Saxon model is characterized by the dominance in the company of independent persons and individual shareholders. The manager is responsible to the Board of Directors and shareholders, the latter being especially interested in profitable activities and received dividends. It ensures the mobility of investments and their placement from the inefficient to the developed areas, but it however feels a lack of strategic development.

In the U.S., financial markets activities dominate the allocation of ownership and control rights into organizations. Legislation always appeared hostile to concentration, especially in the banking industry, but in the recent years there have been notice new regulations development, more forced by the new economic trends: the increasing influence of boards, investors are increasingly demanding and cautious and managers give more importance to key business issues. Enterprises are required to disclose more information compared to those Japanese or German. On financial markets (NASDAQ) smaller companies are also present, even if some are still in growth and development. Corporate governance was encouraged by the work of various associations which have introduced a motion to support the shareholders, such as National Association of Investors Corporation (founded in 1951) which advises on investments on the stock exchange and National Council of Individual Investors, which protects interests of the shareholders in front of regulatory authorities. Mainly are considering the transparency and access to information, strengthening the relationship between regulators and shareholders, and promoting business ethics.

The governance model takes place in organizations at three levels: shareholders-directors-managers, since managers authority derives from the administrators. Legislation limits the rights of

shareholders to intervene on the current activities of the entity, for example they can only decide the elected members of the Board. However, they can influence changes in the managers' attitude and manner of leading; they may decide to liquidate holdings or refuse to increase its capital contribution of the entity, thus stopping the funding. Financial support of shareholders is the most important weapon they have in front of managers.

The Securities and Exchange Commission (SEC) has reduced its strict rules on collective activities of shareholders, proposing various regulations to encourage investment relationship that allows managers and owners to discuss possible advantages and disadvantages of business strategy. Institutional investors play an ever important in Anglo-Saxon systems. They already dominate the UK, holding even two thirds of the equity of companies. So, investment relationship – a feature of UK governance system – is gaining more ground in the United States in relations between company management and institutional investors. There were critics which have claimed that these phenomena occurred due to repeated failures of internal and external control mechanisms.

The Anglo-Saxon countries are characterized by the emergence of financial markets and strong banking restrictions, especially regarding the holding of shares in companies outside the banking sector. Great Britain can be perceived as a special presence in Europe, having recognized the importance of the financial market in London, where many national companies are listed. The banking system does not have a central role in governance structures, banks being considered merely "credit providers". In the economic entities, capital structure is dispersed and shareholder power is stable compared with that of managers. The Governance model (similar to the American) is dominated by the influence of external capital markets, through merger and acquisitions, but also through the control exercised over securities trading. Regulatory institutions act to protect investors by implementing specific policies and practices of corporate governance system. Such a system requires an independent Board, responsible for monitoring and control of management, to improve its organizational performance and recovery.

In the UK, but also in other Anglo-Saxon countries, where market economy has significantly developed through sustained economic growth, there is a high degree of dispersion of capital and shareholder structure. Population can directly intervene to the economic development through holding shares, making of its own availabilities investment on capital market.

2. THE CONTINENTAL-EUROPEAN MODEL – CHARACTERIZED BY MAJOR SHAREHOLDERS’ INTERESTS

The Continental European model is characterized by a high concentration of capital. Shareholders have common interests with the organization and participate in its management and control. Managers are responsible to a wider group of stakeholders, besides shareholders, such as unions, business partners, etc.

It can be said that in Italy, the idea of corporation dates back to ancient Rome, from time of Emperor Trajan. At that time they had institutions „collegia artificum” similar to the contemporary, which were legal entities for various types of trade. The members of „collegia artificum” enjoyed tax benefits and other reliefs. They were inspired by the example of Greek society and the goal was to assist entrepreneurs.

Italian corporatism saw two levels: the Catholic and fascist. Catholic-inspired corporatism appeared in 1891 and has grown to early-twentieth century. Representative is the name of Giuseppe Toniolo, economist and sociologist, who has always promoted solidarity, rejecting individualism and liberal doctrines. Fascist corporatism developed during the years 1920-1940, and its general principles were set out in the Charter of Labour in 1927 and were institutionalized with the advent of new corporations, bringing together different categories of entrepreneurs and workers. 1939 was the crucial step by establishing Chamber fascia. Its abolition coincided with the removal procedure.

The 1980s brought into attention a new concept, later debated by the Italian literature: neocorporatism. Currently, market and companies management regulation is prevalent public in a less receptive environment and exposed to adverse conditions. Socio-economic reality generated some different structures of distribution and control management, each specific to the reference market and with special characteristics. Ownership and control of listed companies are significantly concentrated, shareholders having the opportunity of intervention in the management process.

In the German system of governance, the enterprise is seen as the combination of various interest groups aimed to coordinate the national interest objectives. From a historical point of view, German banks have played an important role in corporate decisions. Only one of four companies in Germany is entitled to public transactions, thus most companies seek financial assistance from banks. A great importance is given to the protection of creditors, even to the point where a bank might dominate a firm. Unlike the U.S., German banks may hold only actions of their own clients. This ensures the depositary voting rights to control the decisions and votes in a company. In Germany, the corporate governance system is a dual one, aiming at the same time a national policy

to provide employees access to information and participation in various activities of the enterprise and industrial democracy.

Within companies we can find an executive board and a supervisory council. The first effectively manages the company, but under the direction of the second, most decisions are, necessarily, confirmed by it. Such a governance structure is a mechanism for management monitoring and control.

3. THE JAPANESE MODEL – SPECIFIC TO A ORIENTED CONTROL GOVERNANCE SYSTEM

The Japanese model brings, as a new, the holding concept, which designates industrial groups consisting of companies with common interests and similar strategies. The managers' responsibility manifests itself in relations with shareholders and keiretsu (a network of loyal suppliers and customers). Keiretsu represents a complex pattern of cooperation and also competition relationships, characterized by the adoption of defensive tactics in hostile takeovers, reducing the degree of opportunism of parties involved and keeping long term business relationships. Most Japanese companies are affiliated with this group of trading partners.

The characteristic pattern of governance is dominated by two types of legal relationships: one of co-determination between shareholders and unions, customers, suppliers, creditors, government and another ratio between administrators and those stakeholders, including managers. The necessity of the model results from the fact that the activity of a company should not be upset by the relations between all these people, relationships that generate risks. Management decisions pursue improving the income and power of an enterprise, in particular by specific corporate governance practices, although sometimes the shareholders control on the management can be hampered. Therefore, the Japanese model (similar to the German one) is based on internal control; it does not focus on the influence of strong capital markets, but on the existence of those strategic shareholders such as banks. As in Germany, major shareholders are actively involved in the management process, to stimulate economic efficiency and to penalize its absence. It also aims to harmonize the interests of social partners and employees of the entity.

The Japanese governance system facilitates the monitoring and flexible financing of enterprises, effective communication between them and the banks, as the main source of financing consists in bank loans. It should be noted that the owners are other companies or even banks, control the management strategies; ownership is always oriented to the control, justifying the

limited issue of shares. Most packages are held by fix shareholders who can also be of major creditors, suppliers, customers, in order to maintain long term relationships of trust and not only to obtain gain.

In Japan, the corporate policies are influenced by the active intervention of the government, since officials are stakeholders in many companies. The Central Bank and Ministry of Finance are monitoring the supervision and control within the company, in its relations with its strategic partners. Government structures have created an informal negotiation system to implement certain policies and corporate strategies (gyosei shido). In the 1980s, the governmental influence manifested itself indirectly through appointments to the board of directors and managers of some functionaries out of system (amakudari). They were retired at the age of 55 and belonged to various private companies to lead and participate effectively in developing strategies, driven by government policies.

Corporate governance oriented to control is easily achieved in Japan due to a concentrated shareholder structures, unlike the United States. Many voices say that Japan has to go the longest road to improve standards of governance, a significant gap being now, as in the past, corporate transparency. The existing situation is seen as a consequence of the market dominated by companies founded and ran by families. Banks and other institutional investors have usually a minor role in terms of corporate governance discipline. Their main responsibility is to provide debt financing, the existence of equity and bank directors should occupy top management positions. If an entity is profitable, the banks shall be limited to monitor and protect the interests of foreign investors.

At present, Japan's system is focused on transactional networks and not enough on individuals. Relations between keiretsu and stable banking system is generally based on strong management and sometimes even isolated. There are two favourable factors: the first refers to passivity of shareholders and second is the predominance of internal directors.

4. CONVERGENCES AND DIVERGENCES OF DIFFERENT SYSTEMS WORLDWIDE USED

The study on models of corporate governance in various countries provides the image of the main specific features of Anglo-Saxon, Continental European, and Asian. Viewed in parallel, the features of those three models have important similarities and differences, as shown in the following table (Table 1).

Table 1 – The main features of corporate governance models

	Anglo-Saxon	Continental Europe	Japanese
Oriented towards	stock market	banking market	banking market
Considers	shareholders' property right	shareholders' property right and company's relationships with its employees	stakeholders' interests (keiretsu)
Shareholding structure	dispersed	concentrated	concentrated (cross possession of shares)
Management	executive directors non-executive directors	Supervisor Board Board of Directors	Board of Directors Revision commission
Control system	external	internal	internal
Accounting system	GAAP	IFRS	GAAP and IFRS

Managers in the U.S. and Britain are mainly specialized in finance and marketing, and their mobility is much higher in contrast to France and Japan, where they tend to remain in the company a long time. In the United States most managers are from outside the country compared to France, Italy and Japan, where the situation is completely opposite.

The U.S. have been opened to foreign influences, considering this a way to a successful diversification of business concepts and strategies. A good example is of those companies which are more numerous, led by foreigners. For example, McDonald's led by the Australian Charles Bell and Coca Cola with the Irishman Neville Isdell. In countries like France, Italy, Japan, where companies are characterized by governmental influences or familial control, management teams will be more reserved in the global strategies, most preferring to maintain local control. The United States enhances the quality of accounting in achieving economic transactions, unlike Japan, where capital providers such as keiretsu and banks have information sources that are not public, the quality of accounting information presented and the relevance for their investment decisions can be questioned. Following the success of the U.S. market, countries like Germany and Japan, with a governance model by characterized intervention, have oriented their system closer to the Anglo-Saxon one. In contrast, the Japanese model brings more and more in its centre the importance of human capital and focuses on the banking system.

The quality of accounting is important in the United States, both statistically and economically, where a high degree of quality is associated with reduced sensitivity of the cash flow invested a relationship that in Japan does not exist. In the U.S., the institutional investors are not allowed to own more than one company or work with other institutional owners to influence managers. They can resist some kind of pressure, but are aware that those investors cannot be ignored, considering the voting power, but also that on their actions depend the current and future business situation.

Corporate governance addresses the concerns about capital providers: risk assessment associated capital, capital allocation estimate for maximum efficiency, monitoring and managing funds on a continuing basis. The comparisons of systems in the United States, Germany and Japan reveals two different answers to these issues: direct disclosure of management actions and a long-term development of relations between owners and other participants in the entity. While each answer is different and sufficient for the needs of an economy, association could provide specific competitive advantages for the market global company.

A review of the three main models of corporate governance shows that there are at least two dimensions that may provide a basis for comparison between them: the first considers the system (for example, the claims are priority) and the second relates to the evaluation governance effectiveness (how well supported priority requests are). Maximizing the owners' assets is interpreted differently in each system, because they, as well as the holders of claims are different from one country to another.

The American system emphasizes the role of free market, based on it to exercise a control over the companies' owners. Japanese model focuses on business network acting in an interdependent way and on the own interests of all involved parties, especially through mutual control. In the German system, the company is considered an entity that produces richness, so that the market is closely monitoring its economic activity, the yield being the engine of national wealth. Interests of employees and creditors are a control factor and stimulation in obtaining gain.

Each model has emerged from the need to increase economic efficiency, measures in this respect and including measures to streamline the system of governance being significantly different.

In the U.S. corporate success is primarily measured by financial return on invested capital. The Japanese system focuses on capital efficiency and the German one concentrates on human capital performance. The fact that these systems have endured economic and social transformations, demonstrates that despite all the differences and specific weaknesses, each has enough strengths to support the existence and influence a nation's own economy. Table 2 shows, in parallel, the main strengths and weaknesses of the three discussed models.

Table 2 – Strengths and weaknesses of governance models

	Anglo-Saxon	Continental European	Japanese
Strengths	continuous discipline	multiple risk carriers	decreased optimism
	transparency	mutual benefit	direct influence of owners
Weaknesses	failure	slow reaction	resistance to change

The table below (Table 3) shows how the influence of the participants in enterprise activity varies according to claims recognition in the legislation of each country.

Table 3 – The degree of influence of the participants according to the legal system

Legal system	U.S.A.	Germany	Japan
Importance of the participants	individuals	business network	banks
	institutions	banks	business network
	business network	Government	employees
	employees	institutions	Government
	Government	individuals	individuals
	banks	employees	institutions
Issues covered by governance	capital market	transactions	corporations network
Evaluating the governance efficiency	financial performance	return on social capital	return on human capital

The Japanese system is difficult to understand for outsiders. From a historical perspective, it is based on legal recognition at national level, a mixture of public and private property, in which to each citizen is accepted the right to a fair share of all those things strictly necessary for the welfare. Power of property and rights of debts are equally divided between participants only theoretically.

Although corporations in Japan resemble the structure of those of the United States, here the interest of shareholders overrides. Their status is clearly different in the two models, those in Japan who have only one quarter of action simply does not matter, particularly because of a weak capital markets and with no influence.

Models of governance in Germany and Japan are characterized by the strong presence of interested parties (stakeholders), especially banks, which increases the efficiency of corporate governance and provides competitive advantages of the two countries. In opposition, the populist policy of the United States inhibits the influence of such stakeholders, leading to inefficiency and increased agency costs. German and Japanese systems focus on expanding public-private partnership that leads to possible competitive advantage by reducing costs of risk capital.

CONCLUSIONS

Each model was developed based precisely on cultural, historical and technological features, and they show the way and means in which the models appeared under the influence of national economic and social specific conditions. It turned out that no model of governance is perfect and even better, their existence over time showing that each one is effective in its own way, and corporate governance structure specific to a country is difficult to transfer to another country.

Western societies have promoted corporate governance as a democratic culture, based on dynamism and willingness to impose on the market, which created the conditions of globalization. Essential objectives are to obtain profit, support creativity, research and innovation, solutions to globalization requirements. The new economy and knowledge based society place in the centre of corporate governance that form of capital which has become increasingly important – human capital.

In some European countries (Belgium, Spain, Portugal, Italy etc.), but also at the international organizations level (OECD), the objective of developing mechanisms of governance is improving the information provided on the capital market and improve company performance, competitiveness and/or access to capital. For countries with tradition in the field and liquid capital markets (UK, France, Germany, etc.), the main objective of these mechanisms relates to the Board of Directors' work, meaning improve its quality and the quality of provided information about corporate governance.

Good governance is still difficult to measure, organizations carrying out such assessments need more representative criteria so that entities must notify their management processes in an efficient manner. The implemented model essentially depends on the firm's theory of voluntary or mandatory approach, but also on the boundaries between markets, entrepreneurs and civil society. The literature cannot provide yet a general method which to base on a comparative study, because the measurement techniques of social responsibility performance are not rigorously founded.

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