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ANALYSIS OF THE MAIN STRUCTURAL CHARACTERISTICS OF THE ROMANIAN FINANCIAL SYSTEM[1]

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Abstract: *To know and to understand the factors within a financial system that significantly influences the institutions behaviour and the market responses to the central bank actions is of great importance for the monetary authorities and for the achievement of their monetary policy objectives. In Romania, the National Bank must pay special attention to financial institutions given their significant role in the process of financial intermediation (bank-based system). This study aims to conduct an investigation of the main coordinates of the Romanian financial system that are relevant for the study of the monetary policy transmission mechanism. The study focuses on the following features of the Romanian financial system: financial deepening, the existence of a bank-based system, the concentration degree of the Romanian banking sector, the balance sheet structure of monetary financial institutions and the soundness of the banking system. The study also considers the effects of the recent financial market turmoil on the financial system. The span of the empirical study covers the period after 2000 but brings to the forefront the period before and after October 2008. We believe that this research provides useful information for a future analysis of the Romanian monetary policy transmission mechanism.*

Keywords: financial system, banking system, Romania, monetary policy transmission mechanism
JEL Classification: E50, G21

INTRODUCTION

The transmission of monetary policy decisions in the real economy is achieved in different ways which will eventually reflect themselves on the evolution of prices and output. The monetary policy transmission mechanism is a combination of all economic channels through which the monetary policy affects real economy for a certain time period. It is extremely necessary and important for the monetary authorities to know the particularities of the monetary policy transmission mechanism (MPTM hereafter) they implement, as well as the economic environment in which monetary policy decisions are made, from the perspective of professionals in the field or of policy makers. The transmission channels receive and transmit monetary policy decisions in an efficient and fast manner, and this is eventually reflected in the capacity of the central bank to steer real economy in the desired direction.

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While there are numerous works on the monetary policy transmission mechanism, in general, and on the interest rate channel, in particular, things are different with regard to the factors influencing the *pass-through* of interest rates. From this perspective, Bernanke's and Gertler's (1995) black box of the MPTM continues to be a topical subject. The accurate knowledge of the factors which influence the behavior of banking institutions and the market responses to the actions of the central bank would have significant implications in the sense of the improvement of the efficiency of the implementation of the monetary policy.

In economic literature (Cecchetti, 1999, Antohi et al., 2003 and others), *the structure of the financial system* is of utmost importance for both segments of the MPTM. In the presence of certain values of the coordinates of the financial system, the impulse of a decision made by the monetary authorities at the moment *t* turns into a response of one/several financial variables at a moment *t+m*, in a certain direction and at a certain scale, with a specific duration and persistence. For the member countries of the monetary union, the source of the asymmetries in the financial structure of economies is given firstly by discrepancies at the legislative level, and, secondly, by the particularities of financial markets (Cecchetti, 1999). As concerns Romania, the modifications which occurred at the level of the financial system starting with 2000 had a favorable impact on the MPTM, in the sense that its efficiency increased.

In this context, this study aims at conducting *an analysis of the main coordinates of the Romanian financial system*, relevant to the transmission mechanism of monetary policy impulses. In other words, the objective of our scientific paper is to outline the main structural characteristics of the Romanian financial system by focusing on those features which exert a particular influence on the transmission of monetary policy decisions.

The findings of our study emphasize the cessation of the financial disintermediation and demonetization phenomena starting with 2001 and their redirecting towards an ascending trend (see Antohi et al., 2007, for a detailed analysis). If we refer strictly to financial intermediation, although it evolved significantly over the 2000-2010 period, from 9.30 to 40.74%, its level continues to be low, with considerable differences in comparison with other countries from Central or Eastern Europe, respectively in comparison with the euro area. This study also reveals the prevailing role of the bank-based system in the financial system of Romania (at the end of 2010, banks owned over 80% of the total assets of financial institutions, respectively over 90% of the financial sector, together with nonbanking financial institutions). Thus, bank loans constitute the basis of the Romanian financial system, situation very similar to the one of the European Union. As concerns the level of competition between banks, the analyzed indicator (the degree of concentration of the

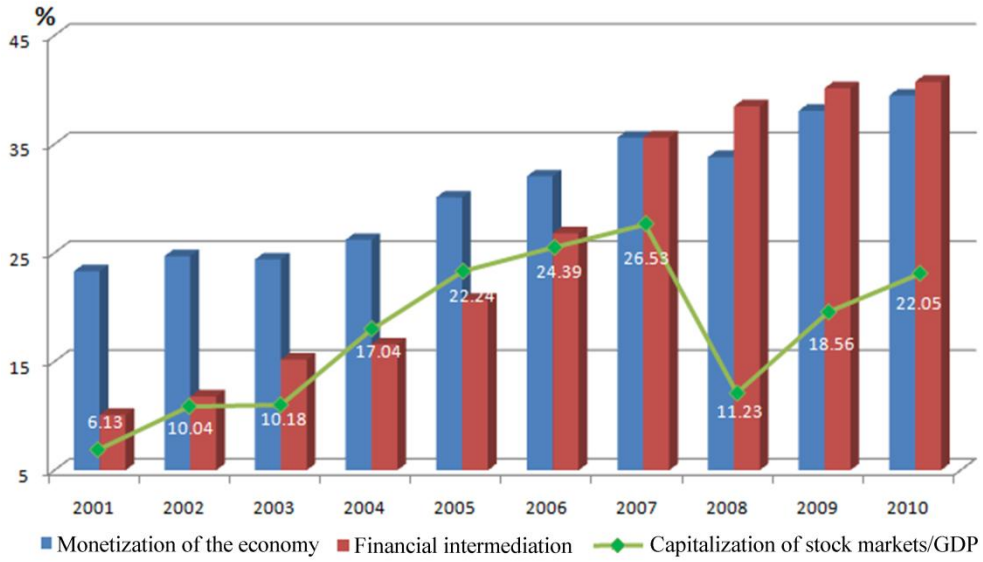
banking system) registered a decreasing trend over the 2004-2009 period (with a slight increase in 2010), situation also confirmed by the evolution of the Herfindahl – Hirschmann index.

1. FINANCIAL DEEPENING

In order to quantify the financial deepening of an economy, specialized literature (Levine, 1992; Levine and Zervos, 1998) focuses on the following two indicators: *the degree of monetization of the economy* (calculated as the share of the M2 aggregate in the GDP) and *the level of financial intermediation* (share of non-government credit in the GDP).

According to table A1, attached at the end of the study, both indicators of the degree of financial deepening of the Romanian economy registered a strong descending trend starting with 1990 and until the end of 2000. These severe disintermediation and demonetization phenomena took place in the context of the occurrence of significant transformations at the level of the economy, specific to the transition period in which Romania was at that time. As a result of the prolonged economic decline (see the dynamics of the real GDP indicator or the evolution of industrial output, table A1) and of the persistence of the inflationist process (IAPC indicator, table A1), over the 1990-2000 period, the degree of financial deepening of the Romanian economy was low, and this is why the traditional channels (interest rate and credit channels) of transmission of monetary policy impulses were inefficient.

Figure 1 - Dynamics of the financial deepening of Romania, 2001-2010



Source: NBR, Authors' calculation

Starting with 2001, financial disintermediation and demonetization ceased, thus creating the premises for the commencement of the recovery of financial intermediation and of the connections between financial variables and real economy (according to figure no. 1, the monetization of the economy and financial intermediation are back on an ascending trend). Thus, the economic agents' and population's requests for financial resources, necessary for the financing of projects deemed sustainable, enabled the resuming of the loan granting process after 2000. This was accompanied by a recapitalization of the stock market as an alternative to financing resources. Oscillating between values below 7% over the 1996-2000 period, the ratio between the capitalization of stock markets (BVB and RASDAQ) and the GDP went up during the 2001-2007 period. Although the financial intermediation indicator evolved, registering a significant increase over the 2000-2010 period, from 9.30% to 40.74% (a four times increase, with an annual average growth of the degree of intermediation of 1.4 percentage points over the 2001-2004 period, in comparison with the 5.6 percentage points during the 2005-2009 interval), there are significant differences in comparison with countries from Central and Eastern Europe, respectively in comparison the Euro area (according to NBR, 2010:38 the average is 150%). Antohi et al. (2007) also mention a low value of the financial deepening of the Romanian economy in comparison with EU countries, for the 2000-2006 period, despite the extremely high dynamics registered by monetary indicators during the analyzed period.

Other specific features of non-government credit, which affect the efficiency of the monetary policy transmission mechanism, are: the maturing debts or maturities structure of credit (see figure no. 2), the denomination currency (see figure no. 3), as well as the type of debtor (see figure no. 4).

Figure 2 - Dynamics of non-government credit according to maturing debts

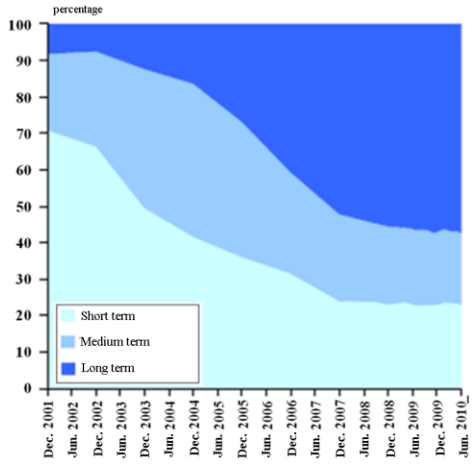
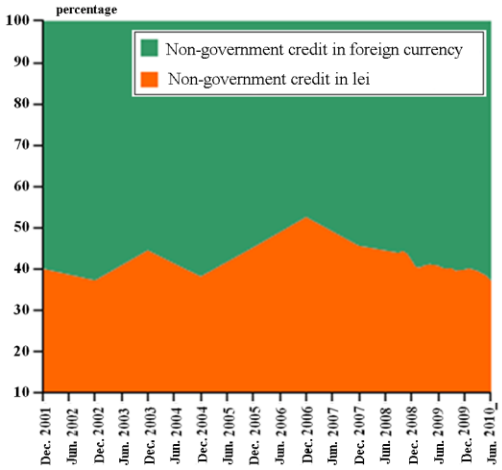


Figure 3 - Dynamics of non-government credit according to the denomination currency



Source: NBR, Authors' calculation

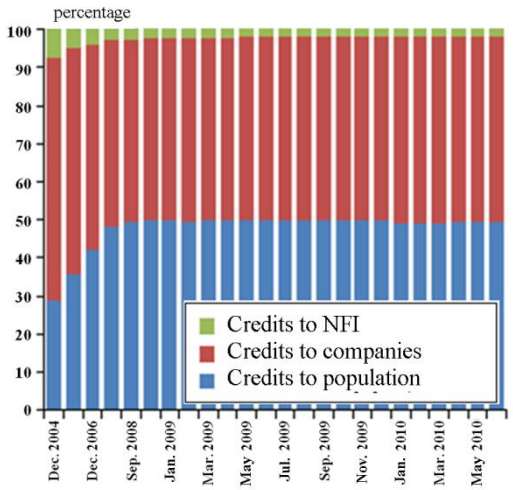
According to figure no. 3, we may notice a significant augmentation of the share of credits with a reimbursement period longer than 5 years in the aggregate non-government credit, from approximately 8% in 2001 to 57% in June 2010, whereas short and medium term loans accounted for 20%, respectively 23% of non-government credit towards the first half of 2010.

As concerns the dynamics of non-government credit according to the denomination currency (see figure no. 3), foreign currency credits represent a large part of the aggregate non-government credit, accounting for approximately 60% during the January 2009- March 2010 period, with a slight increase towards the end of the first half of 2010. The smaller number of credits in lei in the total credit granted to the private sector over the 2007-2010 period is caused, to a great extent, by the easy access of banks to external financing, supported by the strengthening of the position of foreign capital banks in the banking sector (according to table A1, the share of the assets owned by banks with foreign capital or with majority foreign capital, including the branches of foreign banks, in the total assets of the banking system augmented from approximately 51% in 2000 to over 86% in 2010).

As concerns the evolution of non-government credit according to the type of debtor (see Figure 4), we may notice the existence of approximately equal shares for the population segment, as well as for the segment of financial companies.

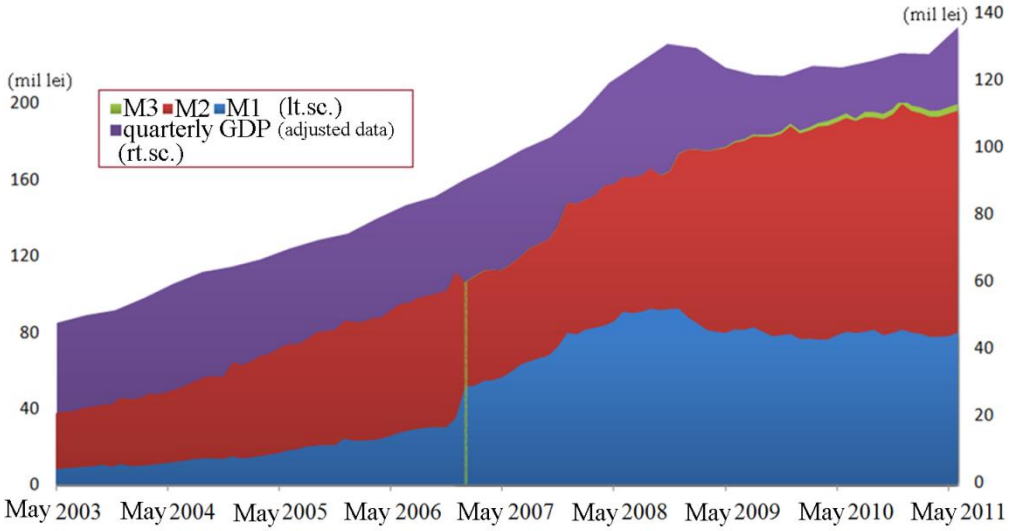
The current configuration of the credit structure according to customer categories was the result of the positive evolution of household loans starting with 2004 (from approximately 30% towards the end of 2004, to almost 50% during the first months of 2009).

Figure 4 - Dynamics of non-government credit according to the type of debtor



Source: NBR, Authors' calculation

Figure 5 - Evolution of monetary aggregates and of the quarterly GDP in Romania, during the May 2003 - June 2011 period



Note: [1)] the values of the aggregate M3 are available starting with January 2007; the data for aggregates M1, M2 and M3 are monthly (the scale in the left); [2)] the GDP is nominal, expressed in millions of lei at current prices PIB (BNR, monthly reports, 2003-2011); the data are quarterly and were adjusted after every season, in Eviews, by using a procedure of the mobile average type (the scale in the right).

All these modifications at the level of the financial deepening indicators of the Romanian economy, as well as at the level of the stock market, influence the way in which monetary policy impulses are captured at the level of liquidity and of the financial market process and then transmitted to the macroeconomic components.

2. THE PREVAILING ROLE OF BANKS WITHIN THE ROMANIAN FINANCIAL SYSTEM

The Romanian financial system is a bank-based one, for banks owned over 80% of the total assets of financial institutions (respectively over 90% of the financial sector, together with nonbanking financial institutions at the end of 2010). Thus, bank loans represent the foundation of the Romanian financial system, situation similar to that of the European Union (Rajan and Zingales, 2002) or of other economies from Central and Eastern Europe. Table no. 1 sketches a profile of the Romanian financial system, revealing the dominant position of banks and the strong dynamics of private retirement plans towards the end of the period. At the same time, we may notice that, although banks dominate the financial system, the process of convergence of domestic financial markets towards the European ones creates the perfect environment for the development of insurances and capital market investments.

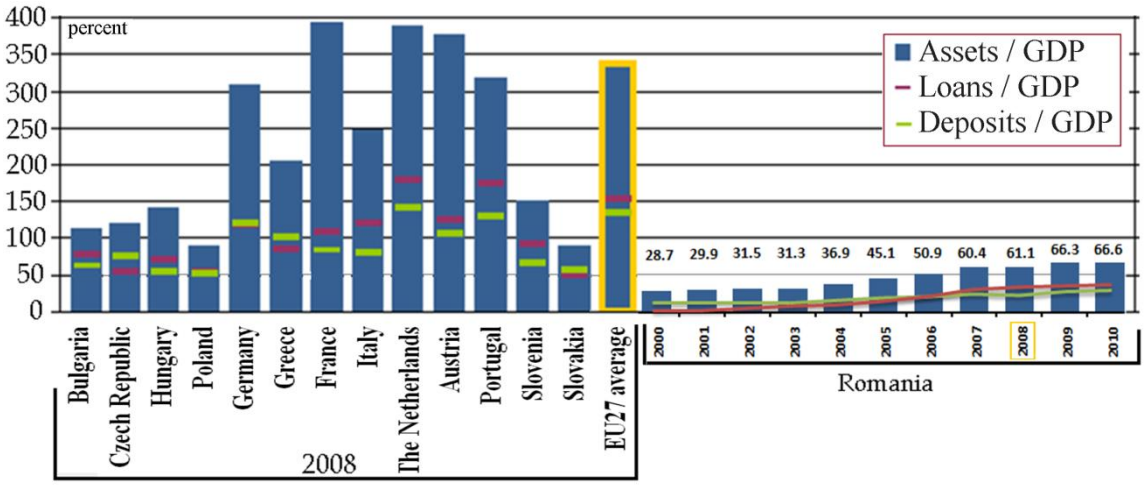
Table 1 - Profile of the Romanian financial system, 2000-2010

Financial institutions	Net assets as a share to GDP (%)									
	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Credit institutions [1)]	28.73	31.46	31.27	36.94	45.08	50.91	60.44	61.09	66.30	66.55
Insurance companies [2)]	1.17	1.51	1.78	1.90	2.20	2.50	3.00	3.00	3.34	3.27
Open-end investment funds [3)]	0.05	0.09	0.09	0.21	0.17	0.30	0.30	0.20	0.67	1.07
Private pension funds	0	0	0	0	0	0	0	0.17	0.47	0.84
Financial investment companies	1.44	1.45	1.45	1.29	1.76	2.30	2.80	1.20	1.49	n.a.
Non-bank financial institutions	n.a.	1.89	2.21	3.62	4.50	4.70	7.20	8.40	7.53	7.00
Total – Financial system (FS)	31.39	36.4	36.8	43.96	53.71	60.71	73.74	74.06	79.8	78.73
BVB [4)]	1.36	6.02	6.17	13.80	19.40	21.28	20.66	8.88	16.08	19.94
RASDAQ [4)]	2.57	4.02	4.01	3.23	2.84	3.11	5.87	2.35	2.48	2.11
Total – other financial institutions	3.93	10.04	10.18	17.04	22.24	24.39	26.53	11.23	18.56	22.05
Total – FS and stock market capitalization	35.32	46.44	46.98	61,0	75.95	85.1	100.3	85.29	98.36	100.8

Source: NBR annual and monthly reports, (www.http://bnro.ro), Report on Insurance Market and for the Activity (www.csa-isc.ro/), Monthly reports of the Asociatiei Administratorilor de Fonduri (www.kmarket.ro/), Activity reports of the CNVM, (www.cnvmr.ro/), Authors' calculations

Note: [1)] in the calculation the total of net assets of credit institutions, including CREDITCOOP, has been considered; [2)] the total value of the net assets according with the centralized balance-sheets; [3)] the total value of the net assets according with the centralized balance-sheets from the annual reports; [4)] stock market capitalization

Figure 6 - International comparisons with regard to the degree of intermediation of the banking system



Source: NBR, Financial stability report for 2010 and 2011, Eurostat, Authors' calculation

Returning to the data presented in table A1, we may notice the increasing number of banks in Romania after the shift to the market economy and the increasing share of private-owned banks in the total assets of the banking system. With regard to the degree of financial intermediation of the

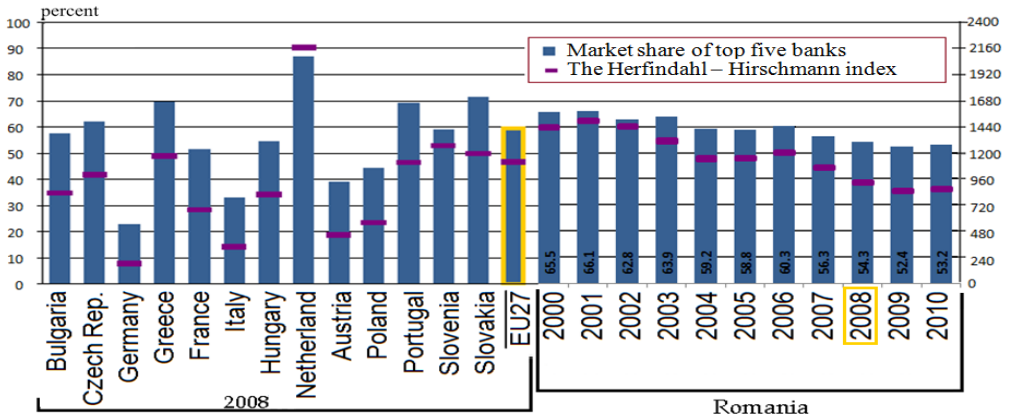
banking system in Romania, although it registered an ascending trend starting with 2000 (the critical threshold was exceeded due to: favourable macroeconomic conditions, restructuring at the level of the banking sector and the improvement by the banks of their portfolio of customers and of banking products), it remains considerably below the average of the European countries and even below the average of the newest EU member states (see figure no. 6).

3. CONCENTRATION IN THE ROMANIAN BANKING SYSTEM

According to the data in table A1, the degree of concentration in the banking system (outlined by using the indicator related to the share of the first five banks in the total assets) registered decreasing values starting with 1991, but started to increase again towards the end of 1997. Its value oscillated over the 2000-2010 period, but the trend was a decreasing one, from approximately 66 % in 2000 to 53% in 2010. It is worth mentioning that, when compared with 2008, the level was below the average values registered in the European Union (see figure no. 7).

The situation is also confirmed by the evolution of the Herfindahl – Hirschmann index, which started to decline in 2006, reaching a value of 857 points at the end of 2009, thus indicating the existence of a competitive banking sector, as far as assets were concerned. In 2010, the value of the HH index augmented by 17 points in comparison with the value registered in 2009. The relatively low value of the HH index positions Romania below the average of 1120 points registered at the level of the European Union in 2008 (see figure no. 7).

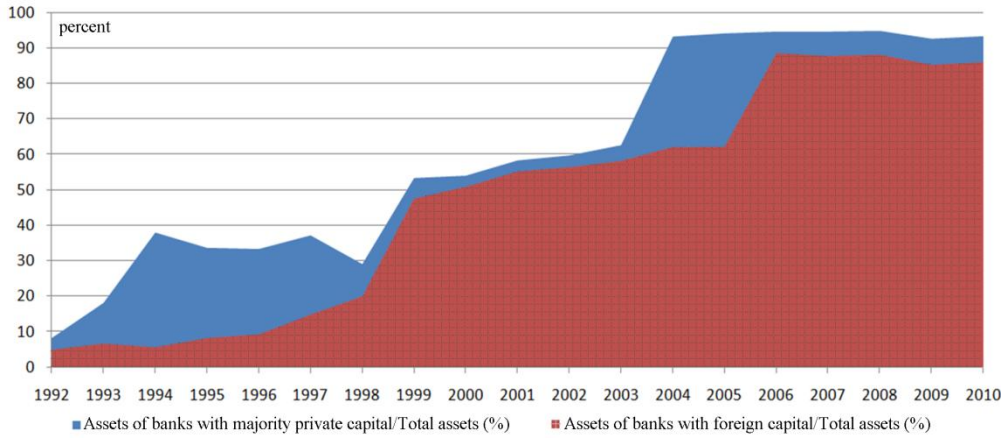
Figure 7 - International comparisons with regard to the degree of concentration in the banking system



Source: NBR, Financial stability report for 2010 and 2011, Eurostat, Authors' calculation

The relatively high degree of concentration of the Romanian banking system creates the premises for some banking institutions to function, for certain time periods, as oligopolies. Thus, these banks have the possibility of influencing liquidity at the level of the banking system, on the monetary market and also the liquidity of interest rates. In such a scenario, the monetary policy impulses are inaccurately received and unequally transmitted by the banks involved (thus affecting interbank interest rates). Also, the responses of the interest rates applied to deposits and credits are unequal and asymmetrical, with direct effect on the spread between them. In addition, Sandler and Kleimeier (2004) argue that the level of the competition in the banking system affects in an unequal manner the *pass-through* of the interest rate and has a more significant impact on the interest rates of deposits than on those of loans.

Figure 8 - Dynamics of the share of the assets of banks with majority privately owned capital and with foreign capital, Romania 1992-2010



Source: Authors' calculation using data from Table A 1

The study of the evolution of the two indicators can be supplemented by the analysis of the dynamics of the market shares of banks, including of the modifications which occur in their classification. According to a recent study (Radu, 2010), the variations of the market shares of banks that are in the "top 10", function of the size of their assets and, implicitly, of their position in such a hierarchy, became even more intense over the 2000-2010 period, thus confirming the intensification of competition in the banking sector.

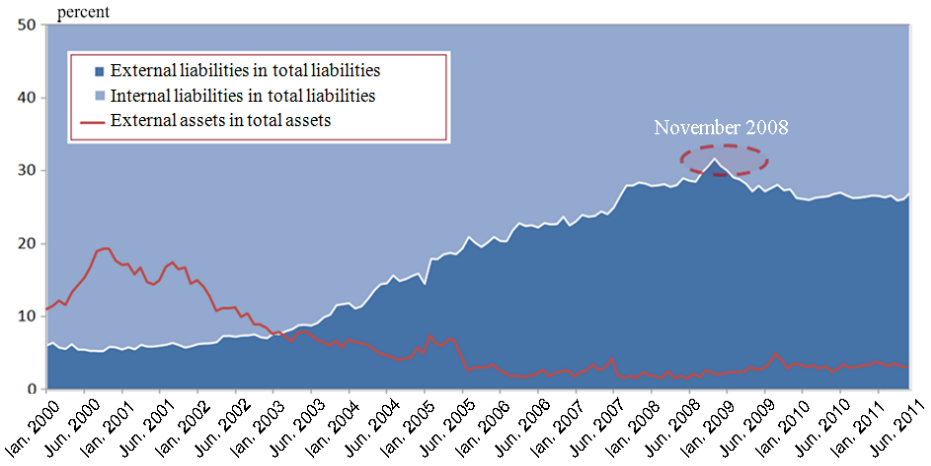
The reforms made after 2000 in the Romanian banking system created the premises for the occurrence of transformations at the level of the capital of banking institutions. Thus, state-owned banks were privatized, and the number of partially or completely privately-owned banks, rose from 5 in 1992 to 29 in 2000 and to 40 in 2010. We also witnessed the increase of the share of private

capital, and especially of foreign capital coming from the EU, in the Romanian banking industry starting with 1998 (see figure no. 8). The presence of banks with foreign capital in the Romanian economy may bring certain advantages, such as better governance at the level of the banking system, as well as the improvement of competition, both with favourable effects on the interest rate channel of the monetary policy transmission mechanism, as well as on the channel of large loans and on the channel of bank loans (both registered a very good evolution starting with 2001, following the restructuring and privatization of the banking system).

4. BALANCE SHEET STRUCTURE OF MONETARY FINANCIAL INSTITUTIONS

The transmission mechanism of monetary policy impulses is also influenced by the orientation of banks towards domestic deposits or towards the financial resources of non-residents at a given moment.

Figure 9 - Dynamics of the share of external debts in the total debts of FMIs in Romania



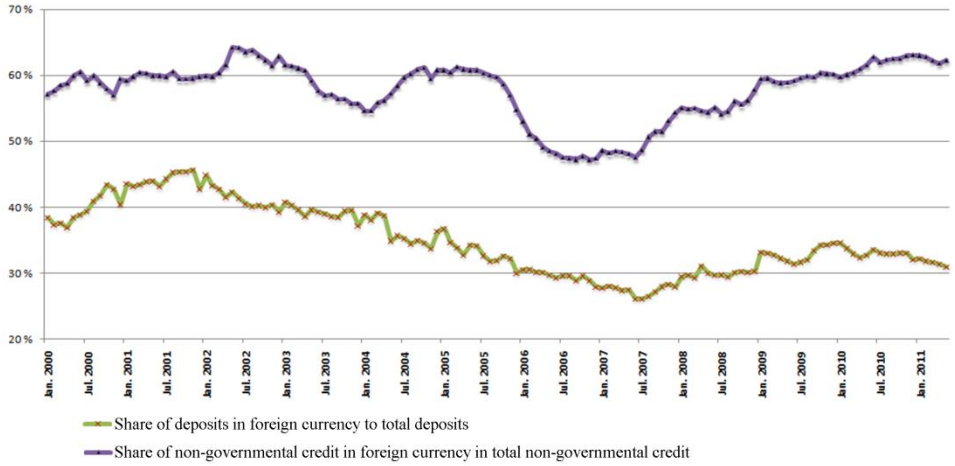
Source: Author's illustration using Eurostat and NBR data

Note: starting with January 2007 the (monthly) data refer to the aggregate monetary balance sheet of credit institutions (banks, Romanian legal entities; branches of foreign banks; cooperative credit institutions) and of monetary market funds (which invested at least 85% of their assets in certain financial instruments).

The orientation of monetary financial institutions towards foreign resources may expand the channel of the influence of external markets on internal financial variables, thus affecting the functionality of the transmission channels. In the case of Romania, the situation of the share of foreign resources in the portfolio of financial resources available for monetary financial institutions is presented under the form of a chart in figure no. 9.

The share of external debts in the total debts of banks decreased from 10% in 1997 to 5.9% in 2001, but started to increase again in January 2002, reaching its peak, of 31.66% in November 2008, in the context of the problems which existed at the level of the financial system (see figure no. 10). At the end of June 2011, the contribution of external debts to the financing of the activities of monetary financial institutions equalled 26.9%.

Figure 10 - Distribution of the foreign capital in the assets and debts of the banks in Romania



Source: NBR, monthly bulletins 2000-2011, Author's illustration

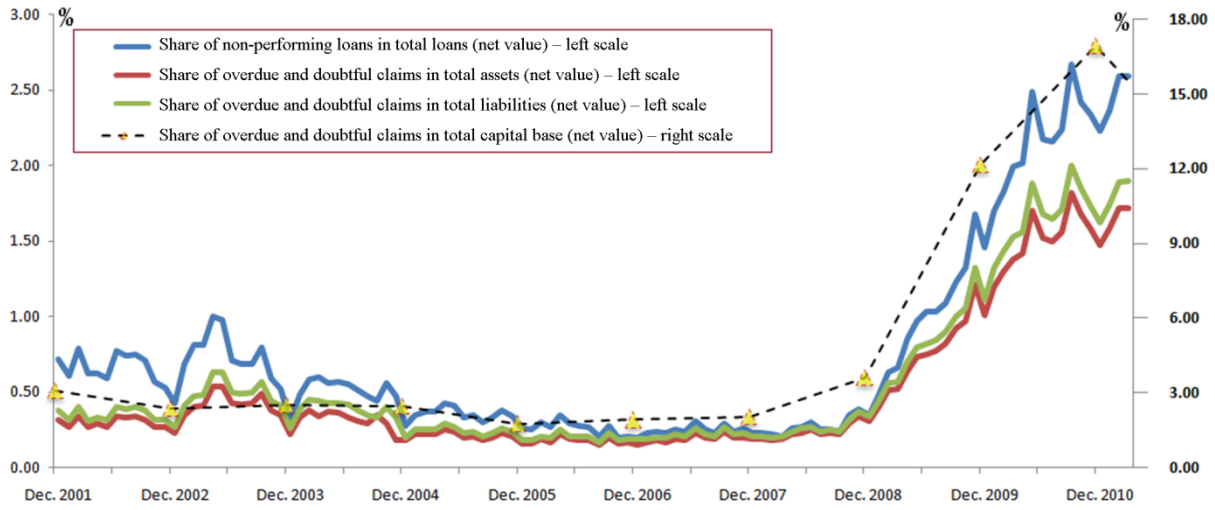
Note: table elaborated based on monthly data

According to the analyses, starting with the middle of 2007, the Romanian banking system has been flooded by foreign currency, situation which affects the efficiency of the transmission mechanisms of monetary policy impulses, both from the perspective of deposits and from that of loans (see figure no. 10).

5. SOUNDNESS OF THE BANKING SYSTEM

An efficient mechanism for the transmission of monetary policy impulses involves the existence of a sound banking system and its functioning in accordance with sound principles. Hence, the quality and performance of the granted loans are of utmost importance. Towards the end of 1998, the share of bad loans in the total number of granted loans was of 58%, and most of them were registered at the level of state-owned banks (Bichi and Drăgulin, 2003).

Figure 11 - Dynamics of the main indicators used for the analysis of the Romanian banking system



Source: BNR, Annual reports, 2001-2010 and monthly reports, 2001-2011, processed by me.

Note: the indicators referring to the share of overdue and doubtful loans granted to customers in the NGC portfolio (net value) and the share of overdue and doubtful debts in the total assets and total debts (net value) were calculated by using monthly data; the indicator related to the share of overdue and doubtful loans in the total equity (net value) was taken from the annual reports of BNR and has annual values (at the end of the year).

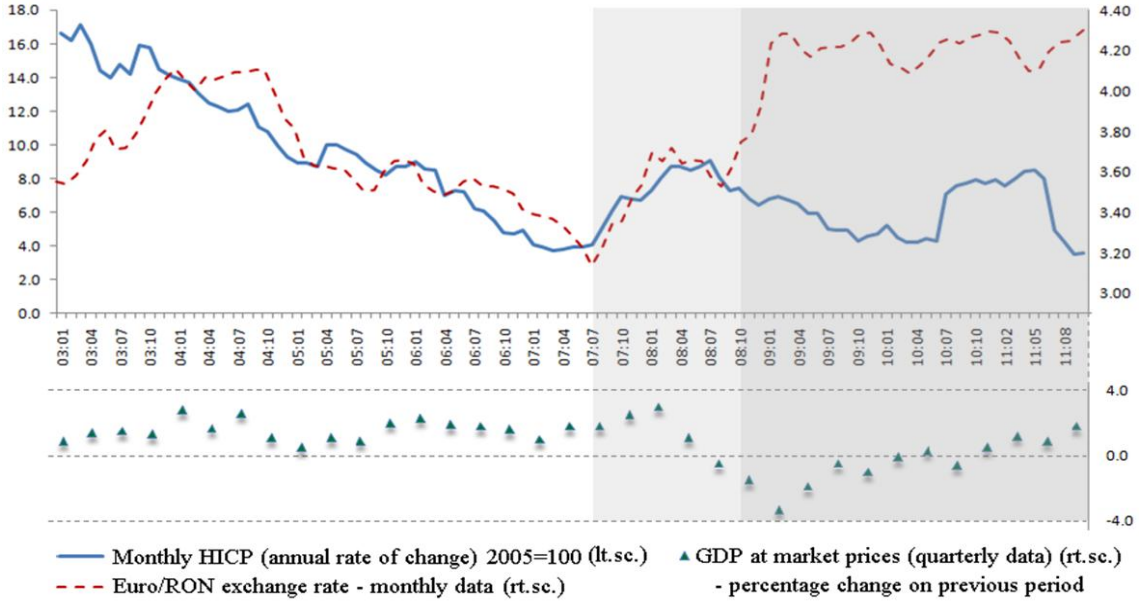
As a result of the restructuring of the financial system and of the recovery and strengthening of the banking sector, the share of overdue loans in the total number of non-government credits declined substantially, from 32.21% in 1998 (see table A1) to 1% in 2003 and below 0.5% in 2008. Despite all this, in the context of the propagation of the effects of the international financial crisis in Romania, too, and of the distress existing at the level of the financial system, the quality of the portfolio of debts worsened, and the indicators related to the analysis of the banking system "exploded" (see figure no. 11).

6. THE CURRENT CONTEXT

When interpreting the values – figures and tables – that characterize the Romanian financial system we must pay special attention to the period before and after the month of October 2008, when the effects of the international financial crisis were felt in the Romanian economy. Thus, before the effects of the international financial crisis had become more visible: 1) the Romanian economy registered a period of sustained growth, accompanied by a continuous process of disinflation and nominal appreciation of our national currency (see Figure 12) with effects on the risk premium; 2) there was a gradual intensification of the competitive process in the banking

sector, and the credit institutions used their resources for augmenting their market share; 3) following the loosening of monetary control, there was excess liquidity.

Figure 12 - Indices if economic health



Source: Author's illustration using Eurostat data

Following the economic and financial shocks in the Romanian economy, we witnessed: 1) the deterioration of the macroeconomic conditions (including inflation); 2) the powerful increase of competitiveness in the banking sector, focusing on the efficient management of the quality of the credit portfolio and the structure of the balance sheets; 3) the modification of the net position of the banking system, supported by the increasing level of mistrust among credit institutions (the amplification of the risk perceived by banks was one of the main effects).

CONCLUSIONS

This scientific paper deals with the analysis of the main coordinates of the Romanian financial system, relevant for the study of the transmission mechanism of monetary policy impulses. In other words, our study consisted in the revealing of the main structural characteristics of the financial system in Romania, with emphasis on those features that exert a particular influence on the transmission of the monetary policy decisions. The accurate knowledge of the factors which influence the behaviour of banks and of the responses of the market to the actions of the central

bank would have significant implications in the sense of the improvement of the efficiency of the implementation of the monetary policy.

The findings of our study revealed the cessation of the financial disintermediation and demonetization phenomena starting with 2001 and the fact that they started an ascending trend (without expanding on the topic of the main factors which determined these phenomena, as this study was already conducted by Antohi et al., 2007). Referring strictly to financial intermediation, although this evolved considerably over the 200-2010 period, from 9.30% to 40.74%, the level continues to be low, with significant differences when compared with other countries from Central and Eastern Europe, respectively with the euro area. This paper also outlined the prevailing role of the bank-based system in the financial system in Romania (at the end of 2010, banks owned over 80% of the total assets of financial institutions, respectively over 90% of the financial sector, together with nonbanking financial institutions). Thus, bank loans constitute the foundation of the Romanian financial system, situation similar to that of the European Union (or even to that of other countries from Central, Eastern and Southeast Europe). As concerns the level of competition between banks, the analyzed indicator (the degree of concentration of the banking system) declined over the 2004-2009 period (with a slight increase in 2010), situation also confirmed by the evolution of the Herfindahl – Hirschmann index. This study is also aimed at paving the way for a subsequent analysis of Bernanke's and Getler's black box – of the monetary policy transmission mechanism, a subject which, although no longer topical, has managed to remain in the spotlight.

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*** Eurostat web page, http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home.

Appendix **Table A1 - Indicators of the financial system and of the Romanian economy, 1990-2011[a)]** (percentages, unless otherwise specified)

Indices	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999[b)]**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011[c)]**
Macroeconomic indicators of economic health																						
Real GDP[1)]	-5,60	-12,90	-8,80	1,50	3,90	7,10	3,90	-6,60	-5,40	-3,20	1,60	5,60	5,10	5,30	8,50	4,20	7,90	6,30	7,30	-7,10	-1,30	1,70
Ind. Output[2)]	-23,7	-22,8	-25,6	0,7	3,5	9,9	5,7	-6,9	-13,9	-2,8	32,1	4,1	0,3	-0,9	1,6	-3,1	9,6	10,5	3,0	-6,4	5,5	11,4
HICP	5,10	170,2	210,4	256,10	136,70	32,3	38,8	154,8	59,1	45,8	45,7	34,5	22,5	15,3	11,9	9,1	6,6	4,9	7,9	5,6	6,1	7,5
Indicators of financial development																						
Monet. economy[3)]	55,70	27,40	20,10	13,80	13,30	18,10	20,50	18,10	24,90	24,80	23,20	23,30	24,70	24,40	26,20	30,10	32,04	35,60	33,81	38,07	39,48	-6,4[20)]
Fin. intermed.[4)]	79,70	62,40	31,70	24,50	19,10	22,80	24,60	14,20	15,80	10,60	9,30	10,10	11,80	15,18	16,58	20,69	26,80	35,62	38,48	40,14	40,74	-6,8[20)]
Stock cap.[5)]	x	x	x	x	x	x	…	6,40	3,70	4,50	3,93	6,13	10,04	10,18	17,04	22,24	24,39	26,53	11,23	18,56	22,05	…
NGL[6)]	…	-38,0	-54,0	-35,0	19,0	36,0	4,0	-47,0	17,0	-37,0	-8,0	21,0	28,9	47,8	26,2	33,8	47,0	50,0	26,0	-3,46	x	…
Structural indicators of the Romanian banking system																						
No. cr. instit.	12	8	17	20	27	31	40	43	45	41	41	41	39	39	40	40	39	42	43	42	42	42
HH Index[7)]	…	…	…	…	…	…	…	…	…	1296	1375	1427	1381	1264	1120	1124	1171	1046	926	857	874	…
% Privat Cap.[8)]	…	…	8,13	18,04	37,87	33,55	33,23	37,08	28,98	53,23	53,90	58,20	59,60	62,50	93,10	94,0	94,5	94,50	94,70	92,50	93,20	93,40
% Foreign Cap.[9)]	…	…	4,88	6,57	5,54	8,15	9,17	14,77	19,95	47,55	50,88	55,20	56,40	58,20	62,10	62,20	88,60	87,80	88,20	85,30	86,10	85,40
%5 banks[10)]	…	83,0	76,0	76,0	69,0	64,0	66,0	61,0	62,0	66,70	65,50	66,10	62,80	63,90	59,20	58,80	60,30	56,30	54,30	52,40	53,15	…
Indicators of the aggregate balance of monetary and financial institutions[11)]																						
%Exter. liabilities[12)]	-	-	-	-	-	-	-	-	-	-	5.69	5.91	6.98	9.20	13.86	18.91	22.23	25.57	29.04	27.91	26.42	26.48
%Exter. assets[13)]	-	-	-	-	-	-	-	-	-	-	15.00	15.99	10.97	7.01	5.31	4.80	2.19	2.44	1.96	3.05	3.10	3.46
%Dep. foreign[14)]	-	-	-	-	-	-	-	-	-	-	39.70	44.19	41.41	39.21	36.24	33.14	29.58	27.39	29.94	32.90	33.10	31.90
%NGL foreign[15)]	-	-	-	-	-	-	-	-	-	-	58.72	59.84	62.25	58.30	58.25	59.59	48.72	49.89	55.26	59.55	61.74	62.66
Indicators of banking system																						
% ODL in NGL[16)]	-	-	-	-	-	-	-	-	32,21	14,76	0,65	0,72	0,43	0,31	0,28	0,26	0,20	0,23	0,35	1,46	2,23	2,59
% ODC on A[17)]	-	-	-	-	-	-	-	-	14,54	2,36	0,29	0,32	0,23	0,22	0,18	0,16	0,15	0,19	0,31	1,01	1,47	1,72
% ODC in D[18)]	-	-	-	-	-	-	-	-	26,29	2,61	0,30	0,40	0,27	0,26	0,20	0,18	1,19	0,21	0,34	1,11	1,62	1,90
% ODC in PC[19)]	-	-	-	-	-	-	-	-	253,64	31,21	3,32	2,66	1,97	2,11	2,05	1,35	1,50	1,63	3,19	11,78	16,59	11,47

Note: [a)] end-of-period data (unless otherwise specified); [b)] 1999 is the year of the commencement of the recovery and consolidation of the banking sector, followed by a period of stabilization of its performances; [c)] the period refers to the first quarter of 2011 (T1 or Q1). [1)] the indicator refers to the annual growth rate of the GDP, percentage variations [2)] industrial output: data series adjusted according to working days, percentage modification in relation to the period corresponding to the previous year. Source: Eurostat; [3)] the indicator "monetization of the economy" refers to the share of the aggregate M2 in the GDP; [4)] the indicator "financial intermediation" refers to the share of non-government credit in the GDP; [5)] the indicator "market capitalization" refers to the share of the total capitalization of stock markets (BVB and RASDAQ) in the GDP; [6)] percentage modification of the real non-government loans (NGL or NGC) in relation to the previous year; [7)] the Herfindahl – Hirschmann index (points); [8)] the share in the total assets of banks with majority privately owned capital; [9)] the share in the total assets of banks with foreign capital; [10)] the share of the first five banks in the total assets (for the 1991-1998 period, the indicator refers to the first four banks); [11)] for the 2000-2007 period, the indicators are calculated for banks, whereas in the case of the 2007-2011 period they refer to credit institutions and monetary market; the data are calculated as annual average values. [12)] share of external debts in total debts; [13)] share of external assets in total assets; [14)] share of foreign currency deposits in M2; [15)] share of foreign currency NGL in the total NGL; [16)] share of overdue and doubtful loans (ODL) granted to customers in the NGL portfolio (net value); [17) 18) 19)] share of overdue and doubtful claims (ODC) in the total assets, total debts and total equity (net value); [20)] the indicators express the percentage modifications of the values registered in T1, 2011, in comparison with the value registered in T1, 2010. … = lack of data; x = does not apply; - = was not calculated;

Source: NBR, Eurostat, Authors' calculations

CREDIT RISK ASSESSMENT IN THE ROMANIAN BANKING SYSTEM. EVIDENCE FROM THE RECENT FINANCIAL CRISIS[2]

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Abstract: *The financial crisis followed by the recession has adversely affected the quality of Romanian banking assets. The aim of this paper is to point out the implications of credit risk in the Romanian banking system following the accelerate dynamics of credit activity before the financial crisis and the effects vs. solutions proposed and implemented in recent years. Structured on four parts, the study presents the recent contributions in the crisis-lending relationship, the main features of the Romanian banking system, the evaluation of credit risk in terms of numbers, facts, actions and a short analysis of the correlation between credit indicators (consumer credit, credit risk ratio, medium exchange rate and the number of employees in the economy). To conclude, we propose to define the key points of the future Romanian banking activity.*

Keywords: credit risk, financial crisis, Romanian banking system.
JEL Classification: G01, G21, G32

INTRODUCTION

The recent experiences revealed the weaknesses of the banking systems associated with an increased risk-taking attitude. This study points out the coordinates of credit risk and the aggregate effects in the lending activity. The economic literature and practice confirm the connections between credit growth and the fragility of the banking systems. The analyses highlight the major influences in the crisis-lending relationship. In the second part we present the characteristics of the Romanian banking system: the structure, the financial position and the institutional environment.

In the third part we analyze the credit portfolio of the Romanian banking system in terms of quality, the role of the central bank, and the implications of the financial crisis on the local market. The client's profile changed during recent years and we proposed to evaluate the impact of the social measures of recovery on credit activity results. In the fourth part of this paper we focus on the connections between consumer credit, credit risk ratio, medium exchange rate and the number of

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employees in the economy. The evolutions are explained by the measures implemented on the local market and the nature of the connections reveals the paradox.

1. CRISIS vs. LENDING. A LITERATURE REVIEW.

The particularities of this financial crisis reveal the great impact and effects in developed economies, the use of various types of assets and liabilities, fiscal packages and "shadow" processes.

According to Dell'Ariccia, Detragiache and Rajan (2008), during a financial crisis, the banking sector deals with a down-grade in lending activity and the economy assists at a reduction of GDP. External financing is vital for some sectors and usually there is a direct relationship between banking activity and the economic activity. Mendoza and Terrones (2008) emphasize the importance of lending booms in terms of identification and measurement. They argue that in developed countries lending boom is high, not every case leads to financial crisis and in emerging economies lending boom comes after capital inflows not after financial reforms or productivity advantages.

In 2009, Hume and Sentence sustain that lending boom had the same trend with inflation. An important volume of savings, monetary policy directions and low levels of macroeconomic risks perception ask for more credits. Isărescu (2009), the governor of National Bank of Romania declared that increasing liquidity led to a risk-taking attitude, massive assets securitization, with gaps in the national balance sheets. As a response to the crisis, the banks change the loans price in order to cover the losses. Prudential behavior reflects into a higher price for the new loans (Santos, 2009). On the other hand, financial innovation and deregulation opened a new line for lending expansion and resized the role of credit on macroeconomic level (Taylor, 2009). An analysis on 80 countries shows that lending boom before a crisis and the reduction of GDP in the main partners countries have a great influence on lending activity after the manifestation of the crisis. Financial depth and financial integration are relevant variables in Aisen and Franken (2010) analysis as well as anti-cyclical monetary policy and liquidity. Changes in credit standards as pure effects of credit supply have major economic effects on real GDP and on total lending capacity (Bassett et al., 2010).

The economists from IMF and ECB (2010) sustain that deterioration of banking credit portfolios is the result of economic recession, increasing unemployment, high levels of interest rates, financial disintermediation and national currencies depreciation.

The crisis revealed significant deficiencies in credit risk management. Redefining the principles is vital for strengthening the banking system and correct information is the key to identify, evaluate and monitor risks. The interrelation between crisis and lending affects the real economy, the structural processes and the market perceptions. The future is uncertain, the challenges are still present and the solutions seem to be not enough - what is to be done?

2. THE MAIN FEATURES OF THE ROMANIAN BANKING SYSTEM

In the last 15 years, the reforms of the Romanian banking system were dictated by three major events:

- ✓ Starting with 1999, the privatization of Romanian banks has begun and National Bank of Romania initiated a restructuring process in order to prevent the systemic risk; (Isărescu, 2004);
- ✓ The year 2007 announced the new position of Romania in the European Union: as a member of this community, the obligations reflected also to the banking system;
- ✓ The actual financial crisis determined a rethinking of the banking strategies and highlighted the active role of the central bank.

The main objective of the reform included quality improvement, new supervision framework, the implementation of a banking rating system and maintaining a safe authorization process policy of the new institutions. In 2004, the Romanian banking system was characterized by an increasing trend of assets superior to economic growth rate, high profits and an intense retail lending activity.

Romania's integration in the European Union facilitated the development of the banking system: acquisitions and mergers led to appearance of new banking entities, diversification of banking products and services was dictated by the environment competitiveness and the presence of the foreign capital assured the access to external financing and efficiency in managing risks.

A structural analysis of the banking system shows that in the analyzed period, the total number of the credit institutions is relatively stable, varying between 39 and 43. The major presence of the foreign capital and foreign banks shows the potential of the investment environment and the openness level of the country.

In 2009, 2010 and 2011, the Austrian and Greek banks had more than 50% assets market share in the Romanian banking system. In early 2010, there were significant changes compared to June 2009, in terms of capital origin - the Greek credit institutions retaining the first position.

Table 1- Indicators of the Romanian banking system

Indicator	2004	2005	2006	2007	2008	2009	2010	S12011
Number of credit institutions	40	40	39	42	43	42	42	42
Number of banks with majority private capital	38	38	37	40	41	40	40	40
Number of banks with majority foreign capital, of which:	30	30	33	36	37	35	35	35
Foreign banks branches	7	6	7	10	10	10	9	9
Number of banks	**39**	**39**	**38**	**41**	**42**	**41**	**41**	**41**
Number of local units	3031	3533	4470	6340	7375	6425	6169	n.a
Number of employees	49702	52452	58536	66039	71622	67898	66753	n.a
The share of private banks in total assets	93,1	94	94,5	94,7	94,6	92,5	92,4	93,1
The share of foreign banks in total assets	62,1	62,2	88,6	88	88,2	85,3	85	85,4
Assets of the first 5 banks/Total assets (%)	59,5	59,4	60,1	56,3	54,3	52,4	52,7	53,6
Herfindhal-Hirschman Index (HHI)	1120	1124	1171	1046	926	857	871	895
Solvency ratio (>8%)	20,64	21,07	18,12	13,78	13,76	14,67	15,02	14,19
Liquidity ratio	2,28	2,59	2,31	2,13	2,47	1,38	1,35	1,37

Source: Data collected from National Bank of Romania, Monthly Bulletins (Dec 2004-Dec 2010, June 2011), Financial stability report, 2011, www.bnro.ro, *** ECB: Structural Indicators for the EU Banking sector, http://www.ecb.int/pub/pdf/other/structralindicatorseubankingsector201001en.pdf

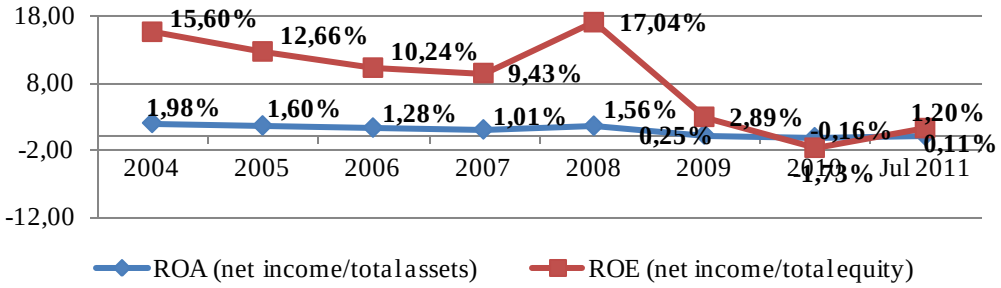
The recession determined a strategy based on cost cuts manifested through the reduction of local branches and employees. Assets concentration level decreased from 2006 to 2009, the value of HHI in 2011 places Romania under the average of the European Union (1102 points).

The Romanian banking system remains well capitalized, by the end of 2008 the financial crisis put pressure on the external liquidity channel, the liquidity ratio went down to 1,37% in June 2011. But, the financial assistance of the parent-banks continued assuring more than 95% of the external financing in 2010. Between 2004 and 2011, the solvability ratio was over the minimum 8% imposed in the European Union; this confortable level providing a solid framework for Basel III implementation.

In 2010, the profit of the banking system went down because of massive provisions expenses and operational profit reduction especially for small and middle banks (the market share of the banks which registered losses was 21,9% in December 2010). Twenty credit institution- large and

middle banks reported profit at the end of 2010 based on operational costs efficiency and credit portfolio restructuring.

Figure 1 - Profitability indicators of the Romanian banking system



Source: *** National Bank of Romania, Financial Stability Report 2011, www.bnro.ro

According to the National Bank of Romania, in the third quarter of 2011, the Romanian banking system reported losses. At the end of September 2011, ROA was -0,31% and ROE was -3,37%, values explained by the uncertainty present on both external and internal markets associated with low client profiles and massive provisions.

3. CREDIT RISK: INDICATORS AND TRENDS

In the context of the financial crisis, the banking systems from Central and Eastern Europe suffer from multiple dimensions of distress:

- An accelerate dynamic of credit activity designed to increase the portfolios and profits rather than the quality of clients turned into a real source of risks associated with real losses;

- In an environment under reforms, uncertainty and panics generated trust issues and chaotic clients' behavior;

- The instability of the western banking systems in terms of debts 'structure (an important volume of governmental bonds from Euro-zone) might create liquidity problems for subsidiaries;

- In the long-run, the structure of the local banking ownership can increase the volatility and vulnerability to shocks so that diversification is required.

The credit portfolios in Central and Eastern European banking systems deteriorated form 2007 to 2010 (as in Table 2). Considering the non-performing loans to total loan ratio after Ukraine, Lithuania and Latvia, the Romanian banking system is one of the most affected.

The actual financial crisis had a trans-regional impact and the global variables influenced the credit evolution more than the local factors (Eller, Frömmel and Srzentic, 2011).

The Romanian banking sector was adequately capitalized, but credit risk intensified in the context of economic recession and increasing unemployment. The trend of non-performing loans called for a close monitoring and further provision efforts.

Table 2 - Evolution of non-performing loans to total loans (%) in Central and Eastern European countries between 2005 and 2010

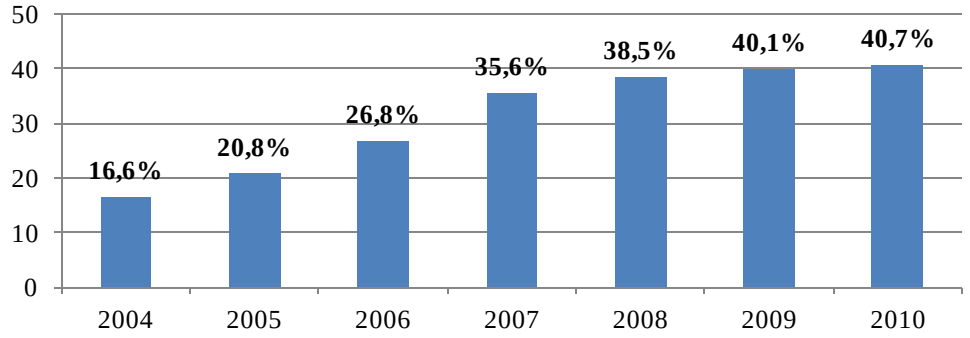
Country	2005	2006	2007	2008	2009	2010
Albania	2,3	3,1	3,4	6,6	10,5	12,0
Bosnia and Herzegovina	5,3	4,0	3,0	3,1	5,9	7,1
Belarus	3,1	2,8	1,9	1,7	4,2	4,9
Bulgaria	2,2	2,2	2,1	2,5	6,4	7,8
Czech Republic	3,9	3,7	2,8	2,8	4,6	4,9
Croatia	6,2	5,2	4,8	4,9	7,8	8,8
Estonia	0,2	0,2	0,4	1,9	5,2	5,6
Latvia	0,7	0,5	0,8	3,6	16,4	**17,9**
Lithuania	0,6	1,0	1,0	4,6	19,3	**19,2**
Macedonia	15,0	11,2	7,5	6,8	8,9	9,9
Montenegro	5,3	2,9	3,2	7,2	13,5	14,9
Hungary	2,3	2,6	2,3	3,0	6,7	7,8
Poland	11,0	7,4	5,2	4,5	7,6	8,2
Romania	**2,6**	**2,8**	**4,0**	**6,5**	**15,3**	**17,5 (4th)**
Russia	2,6	2,4	2,5	3,8	9,7	9,5
Slovenia	2,5	2,5	1,8	1,8	2,3	2,5
Slovak Republic	5,0	3,2	2,5	2,5	5,3	5,8
Ukraine	19,6	17,8	13,2	17,4	40,2	**41,6**
Mean	**5,0**	**4,2**	**3,5**	**4,7**	**10,5**	**11,4**

Source: data collected from the World Bank Database; www.imf.org

Starting with 2007, the Romanian banking system is characterized by an increasing financial intermediation sustained by domestic demand and supply, an accelerate rhythm of households lending and shortages in deposits-credits ratio with effects on external financing. In 2009, the credit for the private sector reduced compared to 2008, evolution explained by decreasing resources flows, restrictive conditions imposed by banks in order to reduce client's insolvency risk and the uncertainty of future earnings.

Financial intermediation followed an upward trend during 2004 and 2010, but in the last year the 0,6% growth defines the prudential attitude of the banks (liquidity administration, orientation to savings).

Figure 2 - Financial intermediation in the Romanian banking system



Source: ***National Bank of Romania, Financial Stability Reports 2002-2011, www.bnro.ro

Credit risk is a major concern of the Romanian banking system, a signal for future losses and an indicator of the real cost of the crisis.

Table 3 - The evolution of credit risk indicators in the Romanian banking system between 2004 and 2011

Indicator	2004	2005	2006	2007	2008	2009	2010	Jun. 2011
Overdue and doubtful loans (net value)/Total credit portfolio (net value)	0.28	0.26	0.20	0.22	0.32	1.45	2.22	**2.51**
Doubtful and past-due claims (net value)/ Total assets (net value)	0.18	0.15	0.14	0.17	0.29	1.01	1.49	**1.70**
Credit risk ratio[3]	2.85	2.6	3.1	3.7	6.5	15.3	20.8	**21.9**

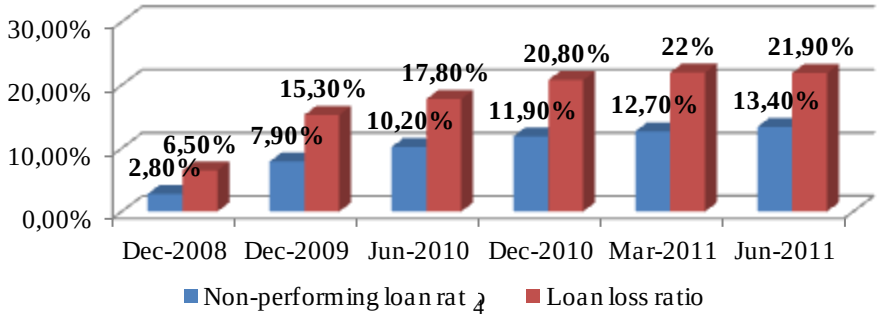
Source: Data collected from National Bank of Romania, Monthly Bulletins (Dec 2004-Dec 2010, June 2011), Financial stability report, 2011, www.bnro.ro

The deterioration of credit portfolio was determined by economic recession, an increasing unemployment level, high credit interest rates, financial disintermediation, and national currency depreciation. As positive aspects in the Romanian banking system we can mention the absence of toxic assets and the fact that no credit institution had severe problems, so that public money was not

[3] Gross exposure of non-bank loans and interest classified as doubtful and loss / Total classified non-bank loans and related interest, excluding off-balance sheet items. The NPLs represent gross exposure of loans and related interest overdue for more than 90 days and/or for which legal proceedings were initiated. The definition is in line with the IMF's recommendations and allows international comparisons.

use for saving banks. Contrary, the support of shareholders offered supplementary reserves to absorb losses.

Figure 3 - The evolution of asset quality in the Romanian banking system between 2008 and 2011



Source: ***IMF Country Report No.11/297, www.imf.org

The evolution of non-performing loans reveals the orientation to a scale economy- accelerate dynamics of lending, a risky business model inappropriate for the Romanian domestic market and strategies orientated to volumes, clients, assets instead of quality (cash-flow projection, business, internal and external economic environment, policies mixture) (Dănilă, 2010).

Table 4 - Measures proposed and implemented by National Bank of Romania for lending activity *ex ante* and *ex post* the financial crisis

	Monetary policy measures	**Prudential measures**
Before the manifestation of the financial crisis (2004 - 2007)	- Gradual increase of monetary policy rate to 10,25% in August 2008; - Gradual increase of minimum reserve requirements to maximum 20% for national currency and maximum 40% for foreign currencies.	-to establish a maximum level of indebtedness for individuals; - to limit the bank's exposure to currency risk; - to introduce new requirements concerning provisions for loans to borrowers not covered in foreign exchange; -to regulate and supervise non-banking institutions.
After the manifestation of the financial crisis (2008 - 2011)	- Gradual decrease of monetary policy rate to 6,00% in November 2011; -Gradual decrease of minimum reserve requirements to maximum 15% for national currency and	- flexible conditions for households loans; -improvement measures for banking liquidity; - new regulation for solvability; - the "Vienna Agreement" with the nine largest banks active in Romania, the aim was to preserve their exposure to the country (may 2009).

[4] Unadjusted exposure from loans classifieds as "loss" defined as past 90 days and/or initiation of legal preceding / total loans and interest, excluding off-balance sheet items.

	maximum 20% for foreign currencies.	

Source: adaptation after Dănilă, N., (2010), "Rolul sistemului bancar din România în reluarea creşterii economice"

In the context of the global downturn, credit institutions strategies were directed from high market shares, massive credit campaigns and profit maximization on short-term to qualitative analysis of credit activity and risk management. The Romanian authorities applied severe measures such as cuts earnings, staff reduction in the public sector and increasing value added tax by 5%. A significant impact had the approval of Ordinance no.50/2010 designed to align the internal legislation to the European one in terms of credit contracts. The Romanian banks restricted credit access, planned to reduce costs and to adapt in the new economic context.

4. THE ANALYSIS

For the econometric analysis we used four variables: consumer credit for households (CONSCR- million lei), credit risk ratio (DCRRISKR-percentage), medium exchange rate (DMEXRATE- EUR/RON) and number of employees in the economy (DNOEMPL- thousands) monthly collected from January 2007 to August 2011.[5]

Dependent Variable: CONSCR
Method: Least Squares
Date: 11/09/11 Time: 18:44
Sample (adjusted): 2007M02 2011M08
Included observations: 55 after adjustments

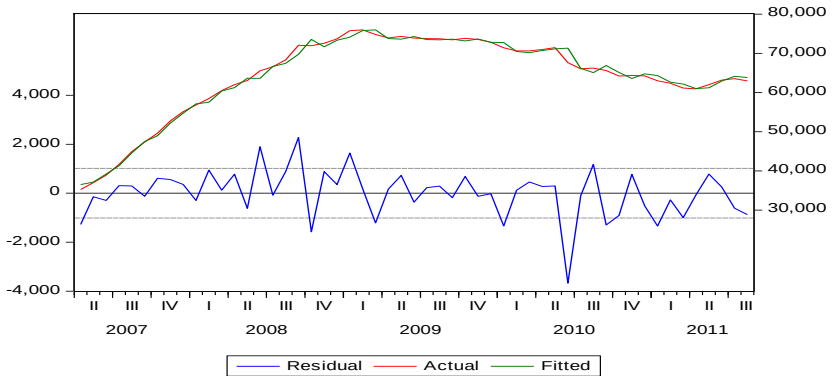
Variable	Coefficie	Std. Error	t-Statistic	Prob.
C	57022.27	1710.868	33.32943	0.0000
DCRRISKR	10166.32	3603.466	2.821262	0.0068
DMEXRATE	41116.91	17159.95	2.396098	0.0203
DNOEMPL	-202.3682	51.47550	-3.931350	0.0003
R-squared	0.448372	Mean dependent var		62963.34

The results show that all variables have significant values (*Prob<5%*), there is an indirect and very strong relationship between the number of employees in the economy and the volume of consumer loans. In the analyzed period, this evolution is explained by an increased uncertainty in the local market, the restriction imposed by the banks reduced the access to consumer credit. The uncertainty of the future earnings also became a major concern.

[5] National Bank of Romania statistical data.

A direct and strong relationship between credit risk ratio, medium exchange rate (the independent variables) and the volume of consumer loans shows that non-performing loans follow the same trend with consumer credit, a curious situation covered by the fact that credit risk rate consider gross exposure of loans and related interest overdue for more than 90 days. If the medium exchange rate EUR/RON goes up, consumer credit increases: the component of consumer loans in the national currency exceeds the euro lending.

The value of R-squared shows that 44.83% of consumer credit changes are explained by the evolution of number of employees in the economy, credit risk ratio and medium exchange rate.



The regression equation is:

CONSCR = 57022.27 + 10166.32*DCRRISKR + 41116.91*DMEXRATE –202.3682*DNOEMPL

The graph shows that our model is fit and the independent variables (credit risk ratio, medium exchange rate and the number of employees in the economy) explain the evolution of the dependent variable (consumer credit).

CONCLUSIONS

In the last years, credit risk was a real threat to banking financial stability causing disruptions, spreading uncertainty and confusion on the local market. The financial crisis cut deep into banking balance sheets, determined large costs variations, decreasing banking profitability and affected the lending capacity. In the economic literature, the interrelation between crisis and lending was analyzed from different perspectives: in terms of excessive lending, booms, liquidity, monetary policy, macroeconomic indicators, credit standards, costs. The essence of crisis-lending duality in recent years has the following coordinates: 1) the new characteristics of the global financial system associated with macroeconomic imbalances led to unsustainable lending boom and increasing asset prices; 2) these characteristics had a crucial role in the financial crisis transmission, in the real economy; 3) the shocks felt in the banking system reduced the credit supply.

In Romania, after 2007, banking indicators changes reflected the negative effects as a mixture of weaknesses, disruptions, unsolved issues and fragilities. The financial situation of the clients, determined by cuts earnings and staff reduction in the public sector, was the major concern for banks. The uncertainty of future earnings and the restrictions imposed by banks define a slow-down trend in lending activity.

The major directions for improvement concern an effective prudential regulation environment in order to manage risks, discourage lending in a foreign currency, but counting the volume of the national resources, a clearly distinction of uncertain clients- to implement solid criteria that consider all social, financial and historical aspects and to collect information in order to monitor risks. The Romanian banking system has to find the optimum structure for lending and savings, to repair the credit cycle, to improve the portfolios quality and to minimize risks. The empiric analysis shows that consumer lending is influenced by medium exchange rate, credit risk ratio and the number of employees in the economy. The client's profile is the key for the quality of the portfolio in the banking system. The question that arises is: will banks be able to maintain a high level of lending reconsidering the mix of criteria? Managing credit risk demands for changing perceptions, new legislation and efficient instruments.

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ROMANIAN ADMINISTRATIVE CAPACITY OF EUROPEAN FUNDS ABSOBTION[6]

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Abstract: *The capacity to absorb European funds is part of a state complex integrated admninistrative capacity, a component of a state as a whole. The analysis in this article starts from the theoretical development by studying the reports made by the Romanian Government, correlated with the European Union reports on funds and Romanian legislation. This analysis of the EU's structural funds, highlights the importance of accessing them and the degree to which Romania and member countries benefits of income support.*

European funds are meant to supplement a member of the Union funds to the extent that they are accessed through the projects. Money allocated on type of operation is distributed in amounts proportionate to that state needs. Money distributed will be justified by their realization of infrastructure projects, environment, transport, human resources development, rural and regional development.

Theoretical research lay the foundation for determining administrative capacity in Romania from the first time of defining the concept until now. Empirical research reveals the degree of absorption of which is that Romania has in comparison with some EU countries, former socialist countries present democratic states.

The absorption capacity of European funds determine the strength of a state administrative management issues in the management of monetary dated. Power in handling management administrative problems can be efficient in higher manner and it's represented by cost-benefit analysis and the degree of satisfaction of citizen interest. As public services are financially supported and developed, the degree of citizen satisfaction is greater in an implemented decentralized administrative system.

Key words: administrative capacity, structural funds, economic development, funds distributions
JEL Classification: H4, F3, D73

1. ABOUT THE ADMINISTRATIVE CAPACITY

Administrative capacity is defined in the Decentralisation Law Framework, 195/2006, art. 2 letter. b and is the body of material, institutional and human resources available to the administrative-territorial unit, and the actions they carry out this exercise established by law.

Antonie Iorgovan claimed that the administrative capacity of public administration bodies, their ability to understand issues in administrative legal relations claimed by the realization of their powers (Iorgovan, 2005). Administrative Bodies can be explained as the category which means all

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the duties of administrative bodies, departments or individuals and their performance limits (Iovănaş, 1977).

The literature gives new meanings of the concept of administrative capacity, equated with the concept of decentralization and development of public services. Transfer of responsibilities in the provision of public services is often accompanied by decentralization of political powers and fiscal decentralization (Ghobadian, 2009). Studies show that decentralization is an effective solution to meet the local needs of central planning. By improving the definition and correlation of income from taxes, to increase the benefits of decentralized financial system, compared with the centralized system.

In Romania were introduced with the Operational Programme Administrative Capacity Development, by priority axis I, program structure and process improvements of public policy management cycle. National Strategic Reference Framework 2007 - 2013 (NSRF) aims to improve the strategic approach to regional policy and economic and social cohesion in Romania and achieve coordination with the European Commission policies, in particular the Lisbon Strategy, which develops policies for economic growth and creating jobs (PO DCA 2007). Social progress has led to changes in public services provided by state powers. Long-term changes have occurred in the twentieth century, which are visible at a structural level. With the financial crisis of 1929 came the Great Depression and administrative. Now we face another financial crisis than other failure of the administrative system and new financial and economic rehabilitation attempts.

Development of administrative capacity requires structural and organizational changes in governments to improve the formulation and implementation in order to obtain the best results. Public policies are instruments through which government implements all measures taken to attempt to solve the problems of national interest. The Government policy seeks effective approach in solving problems of a public nature. The Government develops policy regarding legislation, regulations, decisions and actions of the administration. According to the Ministry of regional development and tourism, public policy is a series of activities carried out by specialized central public administration, primarily aimed at public policy problems identified. Policy documents are: plan, strategy and policy proposal.

2. THE ADMINISTRATIVE CAPACITY OF ABSORPTION EUROPEAN FUNDS

The administrative capacity of absorption of European funds can be defined by capacity building in local government and civil society to design and implement development projects.

2007-2013 EU budget periods began on 1 January 2007 when the funding scheme for this period has been modified and new programs were launched.

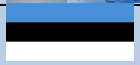
Table 1 - Structural Funds available for EU Member States

	2007-2013			2010		2011	
Member states	**Total allocations 2007-2013 Billion Euro**	**% GDP 2010**	**% Total**	**Total allocations 2010**	**% GDP 2010**	**Total allocations 2011**	**% GDP 2011**
Bulgaria	6,9	19,3	3,8	1,0	2,9	1,1	3,0
Czech Republic	26,7	18,3	15,0	3,8	2,6	4,0	2,6
Estonia	3,5	25,0	1,9	0,5	3,5	0,5	3,6
Cyprus	0,6	3,7	0,4	0,1	0,5	0,0	0,3
Latvia	4,6	27,7	2,6	0,7	3,9	0,7	4,2
Lithuania	6,9	26,7	3,9	1,0	3,8	1,1	3,9
Hungary	25,3	26,2	14,2	3,6	3,8	3,8	3,8
Malta	0,9	14,5	0,5	0,1	2,1	0,1	2,0
Poland	67,3	19,0	37,8	9,4	2,7	10,0	2,7
Romania	19,7	16,0	11,0	3,1	2,5	3,3	2,5
Slovenia	4,2	11,7	2,4	0,6	1,7	0,6	1,7
Slovakia	11,6	17,6	6,5	1,7	2,5	1,8	2,5
Total	**178,1**	**19,0**	**100**	**25,6**	**2,7**	**27,1**	**2,7**
Other funds							
Rural development	**37.6**	**4.0**	**-**	**5.6**	**0.6**	**5.5**	**0.6**
Fishing funds	**1.4**	**0.1**	**-**	**0.2**	**0.0**	**0.2**	**0.0**
Other funds	**217.0**	**23.2**	**-**	**31.4**	**3.4**	**32.8**	**3.3**

Source: Data Processing from The European Bank Coordination ("Vienna") Initiative, The Role of Commercial Banks in the Absorption of EU Funds Report by the Working Group, march Brussels 2011

The amounts to be allocated from the total EU budget for 2007-2013 range from 3.7% GDP, as in Cyprus and 26.2% of GDP for Hungary. In 2010 and 2011 the largest amounts were allocated to the Czech Republic and Hungary.

Table 2 - Absorption of structural funds, compared with other Member States in 2010

	**EU Countries**	**Total allocations 2007-2013 Billions. Euro**	**Payment in December 2010**	**Absorption rate**
	Estonia	3,5	0,9	26%
	Latvia	4,6	1,3	29%
	Poland	67,3	13,7	20,4%
	Czech Republic	26,7	3,3	12,4%

	Bulgaria	6,9	0,7	10,2%
	Romania	19,7	1,65	8,6%

Source: Data processing from Annual Report 2011 - Council Tax

In 2010 the average rate of absorption after four years of the accession countries is well below average in the region (8.6% vs. 17%). In 2010 we can see an improvement in the contracting process of structural and cohesion funds, the contract rate of 42% against 16% in 2009.

Thomas W. Haase (2009) believes that the administrative capacity is possible by implementing state policies of four measures. These measures aim: making a database with information for monitoring administrative actions, strengthening policies and administrative institutions, strengthening community infrastructure and strengthening of international management. The literature defines the administrative capacity to absorb as part of a system that consists of three factors (Horvat, 2004). The first factor is the ability to absorb macro that can be measured in relation to GDP. Thus, the Council Regulation no. 1260/1999 provides that amounts received by any Member State from the Structural Funds in combination with assistance provided under the Cohesion Fund - should not exceed 4% of national GDP

Financial capacity of absorption is the ability of public authority's access to programs that require financing. According to the author Andrej Horvat, administrative absorption capacity is the capacity of central and local authorities to draw up projects and develop over time, making long-term forecasts to ensure the sustainability of projects. Administrative capacity of absorption also means the development of public-public partnerships, public-private transnational twinning.

According to the decentralization law, the administrative capacity framework is separated into two categories:

- Firsth Category belongs to the administrative-territorial units that have the ability to achieve the necessary administrative powers transferred. Local authorities in these administrative units may fully exercise the powers transferred in terms of efficiency;

- Second Category includes the administrative-territorial units which are unable to achieve the necessary administrative skills for transfer.

In aid of the two categories, but also for improving the first category have developed a series of programs designed to improve the administrative capacity of public authorities. The main drawback of territorial administrative units is the lack of funds for carrying out tasks within their competence. Operational Programme Administrative Capacity Building is one of the solutions

provided by the European Union, along with other types of projects accessed by other programs such as PO REGIONAL, POS MEDIU, POS TRANSPORT, POS CCE, POS DRU, PO AT.

Table 3 - Global Financial Programming of National Programme Developing (NPD) 2007-2013

Billions Euro

NPD Priorities	2007	2008	2009	2010	2011	2012	2013	TOTAL
P1 Competitiveness	651,48	620,72	793,14	882,76	842,95	761,25	682,12	5.234,43
P2 Transportation	2.094,99	2.517,48	2.465,25	2.465,25	1.819,84	1.832,20	1.853,75	14.654,79
P3 Environment	753,18	898,70	1.099,11	1.099,11	1.069,54	810,78	806,23	6.597,98
P4 Humane Resources	711,65	912,51	1.297,08	1.317,59	1.313,22	1.115,85	940,72	7.608,60
P5 Rural Development	1.585,56	1.757,72	2.200,96	2.335,49	2.395,08	2.445,15	2.517,37	15.237,32
P6 Regional Development	1.294,79	1.280,99	1.397,96	1.336,37	1.342,35	1.344,55	1.342,97	9.339,98
TOTAL	**7.091,65**	**7.988,12**	**9.253,50**	**9.103,95**	**8.782,98**	**8.309,78**	**8.143,16**	**58.673,10**

Source: National Plan of Development 2007-2013, Romanian Gouvenment, Ministery of Public Finance

Operational programs offers the opportunity to access European funds by the central government and local authorities for sustainable development and improving administrative capacity. Government of Romania counts on priority areas to strengthen organizational effectiveness processes in public administration and improve the quality and efficiency standards in public service delivery. From the opening lines of financing, Romania has reached only 13% of European funds available for 2007-2013. The effective absorption after advance payment is lower, reaching a level of 3% in 2011.

On 31 March 2010 Ministry of Finance said that the amount paid by project beneficiaries of European funds was almost 3 billion. The amount reported in the period 2007-2009 increased by 2%, totaling approximately 12.41%. According to data submitted by the Ministry of Finance, in 2011 the number of approved projects is 8505. Payments made to beneficiaries of 11341.77 reached mil.

Table 4 - The situation of the projects submitted by type of operation to 31.7.2011

Types of programs	No. projects submitted	Projects rejected	Projects being evaluated	Projects approved	Contracts / funding decisions with beneficiaries	Payments to beneficiaries (million)
PO REGIONAL	7.833	2.512	1.740	2.190	1.855	3814,34
POS MEDIU	440	88	116	234	208	2077,56
POS TRANSPORT	96	13	32	51	46	552,02
POS CCE	9.037	3.696	1.319	2.730	1.859	1538,91

Types of programs	No. projects submitted	Projects rejected	Projects being evaluated	Projects approved	Contracts / funding decisions with beneficiaries	Payments to beneficiaries (million)
POS DRU	10.166	5.195	1.806	2.894	2.116	3209,84
PO DCA	1.305	531	430	332	315	76,18
PO AT	87	13	0	74	69	72,92
7 PO	28.964	12.048	5.443	8.505	6.468	11341,77

Source: Data processing from www.fonduri-structurale.ro, accesed at 15th of August 2011

According to the table we see that there is a significant difference between the degree of access to projects on Regional Human Resource Development Program, unlike SOP Transport and Technical Assistance Program. Of the total number of project submissions by 31 July 2011, only 8,505 were approved, the number is lower than the rejected projects totaling 12,048.

CONCLUSIONS

Administrative simplification is an issue on the agenda of OECD countries. Romania wishes for modern government: decentralization, sustainable development, strengthening of administrative capacity, improvement of public policies, more transparent decision-making, improving the quality of public service.

Even though there have been changes at the legislative and the administrative structure, Romania's administrative capacity cannot be fully defined, depending on a number of factors that cannot be predicted accurately. In terms of administration are necessary to adapt processes to enable it to mitigate bureaucracy and focus on economic policies to promote competitiveness.

The need to redefine the administrative capacity is needed both from theoretical perspective, especially in practical application. Administrative capacity can be viewed from several directions. Various authors, including administrative capacity Nelissen argue that efficiency can be defined in terms of performance and is represented by local government capacity to act on problems. Administrative capacity is influenced primarily by legislative barriers, demographic, political influences, ecological factors, new consumer demands. The author defines the administrative capacity by using a simple mechanism in the form of a triangle and considers new types of government, assessing the legal context, economic and political and social values. Equilibrium of this type of government that determines the administrative capacity is given by the point where three lines intersect at right angles of the triangle JEP (legal-economic-political).

The main drawback of territorial administrative units is the lack of funds for the tasks they have to do. Operational Programme Administrative Capacity Building is one of the solutions implemented by the European Union, along with other types of projects accessed by other programs. Government of Romania counts on priority areas to strengthen organizational effectiveness processes within the Romanian public administration and improve the quality and efficiency standards in public service delivery.

In the analysis undertaken we find that capacity to attract European funds Romania is low. Compared with the degree of absorption of Poland, the Romania absorption rate is minimal. Poland is a former communist state after accession to EU structures to work towards development by attracting funds provided. In 2008 the Polish government launched a package of financial stabilization and economic development plan. The package includes measures for financial stabilization and economic growth, with a value of 91.3 billion zlotys. In 2010 Poland has initiated a new program called Better Legal generic Programme Regulations. The main objective of the program is to implement measures to ensure the creation and operation of effective regulation, stable and transparent economy. Main working tools for achieving this objective are to improve the process of creating new laws and regulations to improve and simplify the existing economic.

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INTERNATIONAL BIOMASS TRADE AND SUSTAINABLE DEVELOPMENT: AN OVERVIEW[7]

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Abstract: *It is crystal clear that the neoclassical economical theory, despite being probably the best growth model ever invented by man, tickled a cost of environmental degradation which can threaten our wealth and even our existence. For this reason, the concept of sustainable development (SD) is so empathic, being considered probably the best theoretical alternative invented by man to standard growth, because of its vision of a better world, where economics, society and environment are intimately linked. Thus, all human activities have to adapt to this new paradigm, in order to achieve its goals. From the economical perspective, production, consumption and trade must incorporate a kind of sustainable type of activity. In the recent years, growing demands in energy use and the increase of oil and coal prices, have led to the usage of new energy sources such as biomass, water, solar, wind and geothermal energy. This is why we propose in this paper to present an overview of international trade in biomass reported to the philosophy of SD. In short, we want to give an answer at two questions: how much is biomass trade sustainable and what risks may arise if the main source of energy used today, based on fossil fuels, will be totally substitute by biomass? To be sustainable, biomass, must meet certain criteria, such as: to possess a high capacity for regeneration, in a relatively short time; to offer a better efficiency compared with the traditional fossil fuel sources; to be less or non-polluting, to be used in solid, liquid and gaseous form; to have a broad applicability in production and consumption; to have a competitive level in terms of costs and prices for transport or storage, in both stages, as a raw material or as a finished product; to be a good substitute of traditional fuels (gasoline or diesel), without the necessity for structural changes of the of the engine. The article will conclude that the uprising trend of the EU biomass trade and consumption will continue, because of grown concerns of the EU Member States regarding the effects that greenhouse gas emissions have over the environment and over the quality of life standard, despite the critics which states that biomass production may have negative environmental effects, leading to massive deforestation and destruction of soil, water sources and natural habitat.*

Keywords: sustainable development, international trade, environmental impact, biomass, biofuels
JEL Classification: Q 01, F 18

INTRODUCTION

If we take into account one of the simplest but self speaking theoretical construction of the classical school of economics, named *Crusoe Economics* (Rothbard 1998: 29), we learn that economical practices began as a result of natural labor division and exchange. From the very

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beginning, Crusoe's existence – which has landed on his island, standing face-to-face with nature – is simplified to his instinctive decision making process, necessary to satisfy basic life sustainable needs. In short, he must learn *what*, but mainly *how* to achieve a proper *mix of land and labor*, in order to bring his ends and purposes into effect. The picture changes when, in this idyllic society, another individual has landed. The newcomer, as well as the legendary hero, must mix his labor with land in order to survive. Naturally, the two lean to attain their ends with minimal effort, choosing firstly the simplest activities, but as they acquire technological knowledge the end products are becoming more complex, reaching the point where their production exceeds domestic consumption. Keeping in mind that their skills and interests differ, they have to shape their economic activities of production and exchange in accordance with David Ricardo's *Law of Comparative Advantage*. And this is how, as Rothbard points out, "the process of exchange enables man to ascend from primitive isolation to civilization" (Rothbard, 1998: 36).

This short story is important mainly because it argues that "economics has revealed a great truth about the natural law of human interaction: that not only is *production* essential to man's prosperity and survival, but so also is exchange" (Rothbard 1998: 35). Furthermore, such an analysis – of the interaction of two people in an uninhabited island, as abstract and simplistic as it is, makes sense when the spectrum of thought widens to the size and complexity of contemporary society.

Indeed, production, consumption and especially trade, under classical and neoclassical economic philosophy, have generated economic growth and social prosperity. But this type of development tickled a cost of environmental degradation, which over time, became big enough to jeopardize our wealth and even our existence. The interdependent relationship between economy and environment have been largely ignored by the neoclassical economists, where in their elegant economical growth theoretical constructions, the natural environment has not been included. However, since the early '70s, there were some vices that, through their rigorous studies, began to draw attention to this issue, many of them speaking even of an imminent environmental, economical and consequently a wellbeing crisis. A few years later these initiatives have echoed in the developed world, giving rise to a new paradigm which would link economics with the environment in a different kind of global development, under the name of *sustainable development*. Therefore, eco-efficiency and pollution control quickly became targets for technological research and development. Meanwhile, trade has adapted to change and – for example – a new international market of biomass and bio-fuels emerged and quickly expended.

Given this example, we propose, in this paper, to perform an analysis of international trade in biomass reported to the philosophy of sustainable development. In short, we want to give an answer to two questions: how much is biomass trade sustainable and what risks may arise if the main source of energy used today, based on fossil fuels, will be totally substitute by biomass? For doing this, the paper is organized as follows. The first section will briefly explore for *what* and for *who* is the concept of sustainable development addressing, in order to emphasize on the one hand the energy dependency of people and on the other hand, the need to change the global optics regarding the sources through which this energy is produced, optics that embraces the idea of substituting non-renewable resources with renewable ones in the production process. The following section will focus on the biomass as an alternative to fossil fuels, on the trend in international trade of biomass – focusing mainly on European space – the purpose being to capture the dynamics of the demand for these products and last but not least, to draw the attention on the risks that we might face in the event that the traditional fuel consumption will be replaced exclusively by biomass.

1. SUSTAINABLE DEVELOPMENT AND BIOMASS

Although environmental issues were put on the carpet two centuries ago prefaced in the writings of the classical economist Thomas Robert Malthus, in his *Essay on the Principle of Population*, the main literature focused on the subject beginning with the decade seven of the last century, through a series of papers, reports and international conferences, which worth mentioning: the club of Rome report, entitled *Limits to Growth*, published in 1972 by Dennis L. Meadows *et al.*; *Plan B* book series by Lester Brown, founder of the World Watch Institute (WWI) in 1974 and the Earth Policy Institute in 2001. The most important conferences gathered representatives from all over the world to discuss the problems with the environmental - economical and social relationships, took place in Stockholm (1972), Rio de Janeiro (1992), in Kyoto (1997) and in Johannesburg in 2002.

All these events have put into the light the environmental issues focusing firstly on the level of consumption of natural resources, in particular the imminent depletion of the non-renewable ones in the near future, secondly, on the problems with pollution control and adverse effects of human activities over environment and biodiversity, and thirdly, on the never-ending bad story of poverty.

The way ahead was outlined and defined in what is called sustainable development in the Brundtland Report entitled *Our Common Future*, published in 1987, when the new concept was defined as "the kind of development that meets the needs of the present without compromising the

ability of future generation to meet their own needs" (Mihai and Borza 2009: 86). Sustainable development – thus became the common language of economists, ecologists, sociologists, philosophers and so on – has the task of finding a linkage between the environment and the society (who exploits it), to improve the degree of compliance between them, in order to be able to continue growth and development for us and for the ones who will replace those who live today.

1.1. **Biomass resources**

The influence of international trade over environment and welfare cannot be questioned, the causal links between these different aspects of life are intimate enough so that any issue caused by internal or external incentives in the market, finding – with little or no doubt – correspondent effect in the social and environmental side.

To be sustainable, biomass, which is considered alternative sources of energy, must meet certain criteria, such as: to possess a high capacity for regeneration, in a relatively short time; to offer a better efficiency compared with the traditional fossil fuel sources; to be less or non-polluting, to be used in solid, liquid and gaseous form; to have a broad applicability in production and consumption; to have a competitive level in terms of costs and prices for transport or storage, in both stages, as a raw material or as a finished product; to be a good substitute of traditional fuels (gasoline or diesel), without the necessity for structural changes of the of the engine, etc.

For these reasons, biomass resources appear, in a good extent, to provide a compromise between utility and eco-efficiency, having a real potential for sustainable energetic development.
The most important biomass energy sources are made of wood and wood waste, agricultural crops and agricultural byproducts from waste, waste derived from food processing and other plant and animal waste. Among these, the largest share in manufacturing biomass is wood and wood waste (64%), municipal solid waste (24%) and agricultural waste (5%) (Demirbas et al. 2009: 1746).

In industrialized nations, biomass is mainly used as a source of fuel used directly or indirectly (through combinations in different percentages between traditional and bio-fuels). The most used biofuels are *ethanol* and *biodiesel*. The first is produced from several categories of biomass and used as a substitute for gasoline. It can be used 100% as a transport fuel or mixed with gasoline in different proportions. Used in blend, ethanol offers the advantage of significant reductions in petroleum consumption and in greenhouse gas emissions, due to high oxygen concentration.

The second one, biodiesel, can replace diesel in the same way that ethanol replaces (or blends with) gasoline, except that biodiesel can be used only if changes are made to the engine structure.

The great advantage of biodiesel lies in the source of its production. It can be produced from rapeseed oil or coconut oil or even recycled cooking oil.

In the European Community, demand for biofuels is growing, and as such, international trade in these products are, for some time now, on an upward trend, described briefly in the following.

2. INTERNATIONAL TRADE WITH BIOMASS

With the diversification of the economies and growing concern of nations in fighting and controlling the devastating effects of their gas emissions and in accordance with the gas emission targets under Kyoto Protocol, the use of biomass has become more than necessary. One important means of achieving this objective is to increase the rate of renewable sources in total of energy supply. Thus, the European Union proposed, in the Renewable Energy Directive, a minimum of 35% to reduce the gas emissions, in terms of the agricultural and forestry biomass, solid and liquid biofuels.

Growing demands in energy use and the increase of oil and coal prices have led to the development of new energy sources such as biomass energy, water energy, solar, wind and geothermal energy.

Table 1 - Energy sources in total primary energy

Energy Sources	2008	%
Nuclear energy	241.763	28,7
Solid Fuels	177.348	21,0
Natural gas	168.116	19,9
Oil	107.351	12,7
Renewable Energy	148.134	17,6
which:		
biomass and waste	102.315	69,11
hydro electricity	28.147	9,0
wind energy	10.165	6,9
geothermal energy	5.778	3,9
solar energy	1.729	1,2

Source: Eurostat, data processed by Rusu Nicoleta at Apr 10, 2011

In 2008, approximately 18% of the European energy consumption came from renewable sources, where 70% from those came from traditional biomass production and 9% from hydro electricity. The new renewable energies (wind, geothermal, solar and biofuels) have a large and growing area. According to the European Commission, the biomass represents 4% from the EU energy needs. European Commission Action Plan sets out measures to increase biomass by creating

incentives and removing barriers to market development, further promoting biofuels and finding new opportunities for the developing countries (European Commission).

The literature review reveals that Latin America, Sub Saharan Africa and Eastern Europe, North-East Asia and Oceania will be the most important biomass producers in the long term, while the main demand will be found in OECD countries and Asia South East, which means that one of the most important role trade will be played by biomass (Heinimo and Junginger 2009: 1311). As the demand for biomass products is increasing, and international sales market is in developing, these resources are unequal distributed in different parts of the world, the biomass trade is in a continuous growth among the European Union countries.

According to the European Commission reports, the EU is a net importer, in the present the rate of energy import dependency is 54%, and while in 2020 is expected to lead to an addiction rate of 70% if no measures will be taken to increase production of domestic energy. Although fossil fuels can't be replaced with renewable resources, it can be taken to combine them with those from renewable resources in order to obtain the desired effect, which is reducing the gas emissions (Magar et al. 2010: 2).

The European Union is far from being the largest producer of biomass; it must then rely on imports, becoming a net importer. Thus, ethanol, vegetable oils, firewood, coal and wood pellets are the most important products which are currently the most traded energy purposes. They may be imported and used in their unprocessed shape or can be used as raw materials, in terms to be exported. In the mentioned period (Table no. 2.) reflects the rate of imports dependence of European Union, emphasizing it in 2008.

Table 2 - International Trade biomass EU27, 2007-2008

	2007 TJ(GCV)	**2008 TJ(GCV)**
Primary production	4094966	4283722
Imports	211434	245111
Exports	93257	112631
Stock changes	-7567	-10511

Source: Eurostat - Energy balance sheets, 2007-2008 data processed at Apr 15, 2011 by Nicoleta Rusu

In 2008, primary production of biomass was 188 756 TJ higher than the previous year, this upward trend mainly thanks to the growing importance of biomass energy.

Although the European Union is a net importer of energy, biomass imports are relatively small. In 2008, imports of biomass were 2,4% of total primary supply, and according IEA, in2009 they have raised to a level of 4,5% of total primary supply (International Energy Agency).

Because of insufficient production, member states dependent on imports of biomass, they use increasingly more often other EU member States or beside.

According to the European Commission report on the sustainability requirements for the use of biomass resources for electricity and gas, heating and cooling, increased trade is attributable to the form of pellets (a type of biomass, generally made from waste forestry industries) (European Commission).

Pellet production and consumption has increased in recent years, EU countries registered a high consumption, so a number of countries outside the EU produce wood pellets only for the European market. The biggest consumers of EU pellets were Sweden (1.8 million tons), Denmark, Holland, Belgium, Germany and Italy (all about one million tons), the main suppliers being Canada and the United States and Australia with a contribution of Argentina and South Africa. According to EAI reports, the European Union in 2009 imported pellets worth of 3,9 million tones, of which half were EU inside imports.

An overview of the biofuels trade shows that the largest global producers of ethanol are the U.S. and Brazil; the EU is a net importer. In 2009 estimated data shows that were traded 40 - 50 PJ of ethanol. Data on trade in ethanol are imprecise because of its multiple uses and lack of appropriate codes for biofuels in global trade statistics. In 2009, EU states have produced biodiesel of around 334 PJ (7,04 million tons), the main producers are Germany, France, Spain and Italy (International Energy Agency).

Production of biodiesel in the European Union represents two thirds of world production of biodiesel. According to the EAI report, biodiesel trade in 2009 totaled 80 PJ (1,60 million tons) from a one PJ in 2005.

Import dependence varies between Member States, this being due to uneven spread of renewable resources. Thus, the Netherlands, Denmark and Britain are major countries producing of biomass, being the only member states where the ratio of import/export is negative, this being due and rich endowment of renewable resources and their processing and refining capacity.

3. BARRIERS IN INTERNATIONAL TRADE OF BIOMASS

Over the time the demand for biomass products has increased, which led to an intensification of international trade, development that was hampered by a number of barriers.

We define a "barrier in international trade in biomass" an issue that may directly or indirectly affect the development of the biomass trade to final consumers. Thus, although the use of these

products on the environment is undeniable, there are many voices critical regarding the European Commission's position to achieve by 2020 a level of 10% use of biofuels. They support the idea to reduce the proportion up to 4% by 2015. Arguments supported by the members of the European Parliament where about the negative effects of biofuels over the cultivated areas, leading to massive deforestation, on soil, on water. Other critics have been on the effects of biomass would have it on food prices, increasing those.

Major obstacles to international trade of biomass can be referred to the tariff, especially affecting the ethanol trade, while logistical barriers have a greater impact on trade with pellets. Technical barriers relate to physical and chemical descriptions of fuels, including biofuels, were introduced to ensure the safety and health of consumers.

To counteract the effects mentioned above, the main importing countries began to develop biomass national sustainability requirements for bioenergy, which led to the creation of some systems of certification (voluntary and mandatory) in agriculture, forestry and energy sectors (European Commission).

CONCLUSION

International trade of biomass produced by the European Union has intensified in recent years and this upward trend may continue in the future because of growing concern of the EU Member States regarding the sustainability and the effects that their greenhouse gas emissions have over the environment. Although there have been many critics over the sustainability of biomass products, their effects on the environment remain compelling. A step towards a wider application of biomass should be a more pronounced promotion policy of biofuels and the effects they have on our environment.

The EU Member States must intensify its efforts to increase investment in the renewable resources by supporting and encouraging the production of biomass and the adoption of policies that support production, utilization of renewable energy and providing incentives for biomass production and consumption at national and local levels.

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ROMANIAN EXPORT COMPETITIVENESS ON THE EUROPEAN MARKET[8]

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Abstract: *Exports of a nation can form a large part of its commercial card on the international market. Global consumer, according to the quality of exports, may associate a certain image about the country of origin. This article aims at explaining the relationship between exports and competitiveness of a nation, the analysis focuses on the nature and intensity of intra-Community exports of Romania. To this end we considered a number of performance indicators that are able to reveal the positioning of trade from Romania to the EU.*

Keywords: exports, competitiveness, performance, trade, indicators
JEL Classification: F14, F15, F16, F40

1. EXPORT PERFORMANCE – AN EXPRESSION OF A NATION'S INTERNATIONAL COMPETITVENESS

Export performance and competitiveness are often regarded as synonymous. Just like competitiveness of a company can be measured by its market participation through increased sales, competitiveness of a nation is identified with its export performance. However, defining a nation's competitiveness in this way is unsatisfactory because countries do not compete, but companies do. In this case, given that export performance is more a manifestation than a measure of competitiveness, we found it necessary to make a brief foray into the concept of competitiveness in terms of exports of a country.

In one of his fundamental works, Porter (1998) argues that the level of national competitiveness is measured by two sets of indicators: (1) the presence of substantial and sustained exports to a wide range of countries as possible and (2) The significant presence of FDI outflows based on skills and assets created in the mother country. Of course the simultaneous presence of these indicators is feasible only for economies that already can afford to engage in FDI themselves. World Economic Forum assign different weights to these factors in calculating the global index of competitiveness, according to the stage of development of the country.

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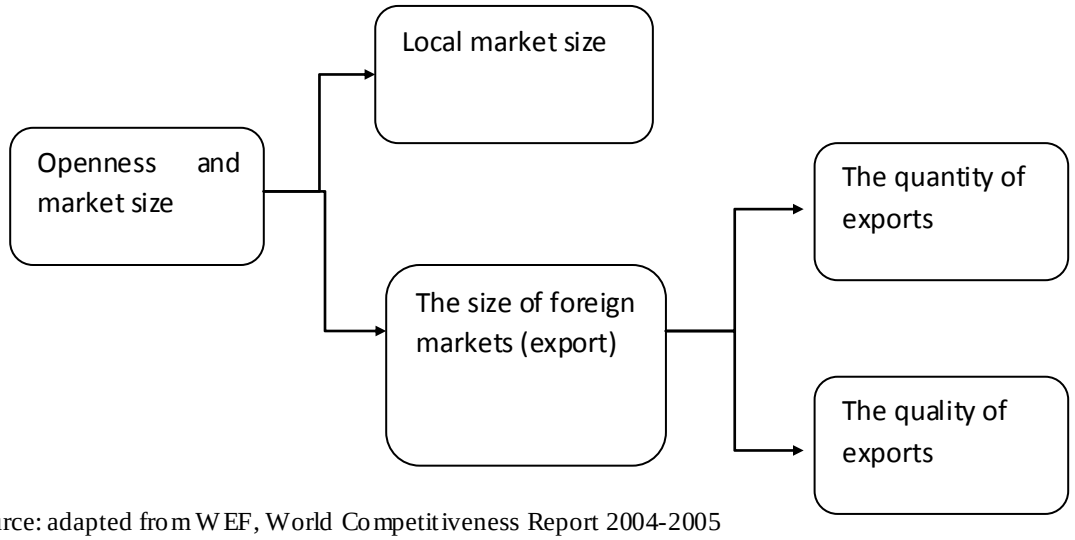
Stage two of the nation's economic development as surprised by the World Economic Forum, the economies based on efficiency, gives us the answer for export-competitiveness relationship. More specifically, the 10th pillar of a nation's competitiveness, openness and market size, is the one who sits the exports among the determinants of competitiveness.

Figure 1 - Pillar 10 of competitiveness: openness and market size



Source: adapted from WEF, World Competitiveness Report 2004-2005

In this case export quality concerns in particular the presence of "value-added chain." A low score of this indicator, reflecting a high share in the structure of exports of raw materials and low processed goods. In terms of size of foreign markets (exports), the global competitiveness report for 2010-2011, Romania ranks 49 of 139, with a score of 4.3 points from 7, which we indicate above average weight regarding the qualification of exports in high value added products and raw materials, low value added respectively.

Exports becomes particularly important when are defined indicators of competitiveness and international trade by OECD (Durand, 1987). Regarding the first point, the OECD calculates a country's export competitiveness as the difference between its export prices in a market and export prices of its competitors in the same market.

Porter and Delgado (2008) draw attention to the danger of accepting a very intuitive definition of competitiveness, namely when it is regarded as the nation's market share for its products. Viewed strictly in this sense, competitiveness is a zero sum game. Any increase in market share for a country becomes a loss for another. In fact, this view is not only to support interventionist measures (export subsidies, artificial restrictions to cut wage costs, devaluation of national currency interventions) promoted by certain countries. Correct view is that competitiveness is measured by productivity, the latter leading to prosperity of a nation and productivity "*is measured by the value*

of goods and services produced per unit of labor, capital and natural resources of the country." (Porter and Delago, 2008, p.52).

Regarding the definition of international competitiveness through market share, even subscribe to this definition, Krugman makes keeping some reservations given that "*for an economy with a very low level of international trade, competitiveness will be transformed into another mode to say "productivity" and will have nothing to do with international competition* "(Krugman, 1994, p.32). Krugman wants to stress that we should not neglect the internal aspects of competitiveness if we are to get a sound external side of it.

Michael Porter chooses to interpret competitiveness as arising from productivity with which a nation uses its resources in a kind of economic activity, the competitive advantage locating that level of productivity that allows companies to achieve substantial and supported exports in the international market by a significant number of countries or to generate significant flows of FDI. Therefore, the level of exports, given that behind them is found a high level of productivity, expresses the best competitiveness of a nation: "*We chose the best ways to measure international competitiveness, the presence of substantial and sustained exports to a wide range of countries as possible*." (Porter, 1998, p.31).

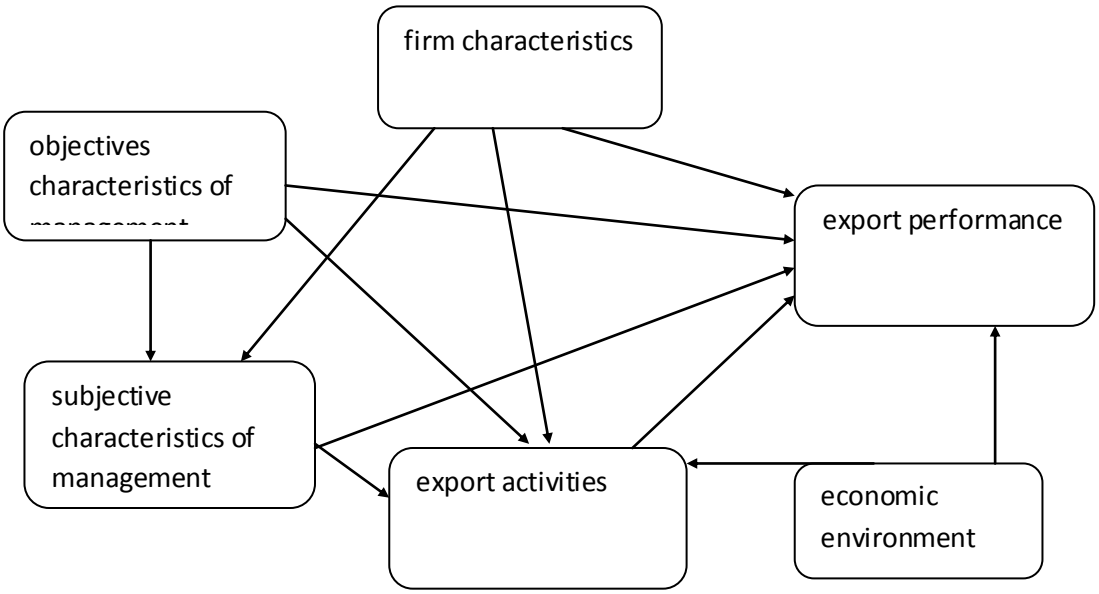
The presence of "*substantial and sustained*" exports can be an indicator of competitiveness, only given that generating source is based on productivity and not the result of interventionist practices designed to sustain artificially high levels of exports.

Lately, questions began to emerge (Rodrik, 2009; Ketels, 2010) about the reliability of export-oriented strategies practiced by developing countries. These questions arise due to development of such strategies based exclusively on export growth by any means, neglecting a very important aspect, namely productivity growth of domestic firms. Another problem would be the economic downturn in developed countries, to which many of these exports goes. The optimal solution proposed by Ketels (2010) would be to develop a strategy to increase competitiveness in general, exports are only part of the whole, a means and not an end, the ultimate goal being to prosperity.

For export performance to bear on his shoulders some of the significance of competitiveness of a nation, should be supported by a series of well-defined factors in the firm and the nation.
Through laborious research based on the results of 43 relevant empirical studies, conducted between 1987 and 2002, Voerman (2003) attempts to explain the export performance of European small and medium enterprises, by highlighting their determinants. Conclusions lead to the existence of five major components able to influence the competitiveness of exports: (1) economic environment, (2) firm characteristics, (3) objectives characteristics of management, (4) subjective characteristics of

management and (5) export activities. All these components do not behave independently from each other but interact at different levels with a certain intensity. Concerted action of these characteristics determines export performance. A picture of these relations can be seen in the figure below:

Figure 2 - Determinants of export performance networking



Source: adapted from Voerman (2003, p. 79)

Foreign Direct Investment are among the determinants of export competitiveness, but in turn, this type of investment effects the other factors that influence export activity, thus creating a spiral designed to raise and support the export capacity of firms in an economy. Therefore, the role that FDI play in determining the competitiveness of exports must be viewed in terms of export determinants. At a closer look we can easily see that FDI can influence most of the factors included in Figure 2 and the effects are transmitted toward which means export competitiveness.

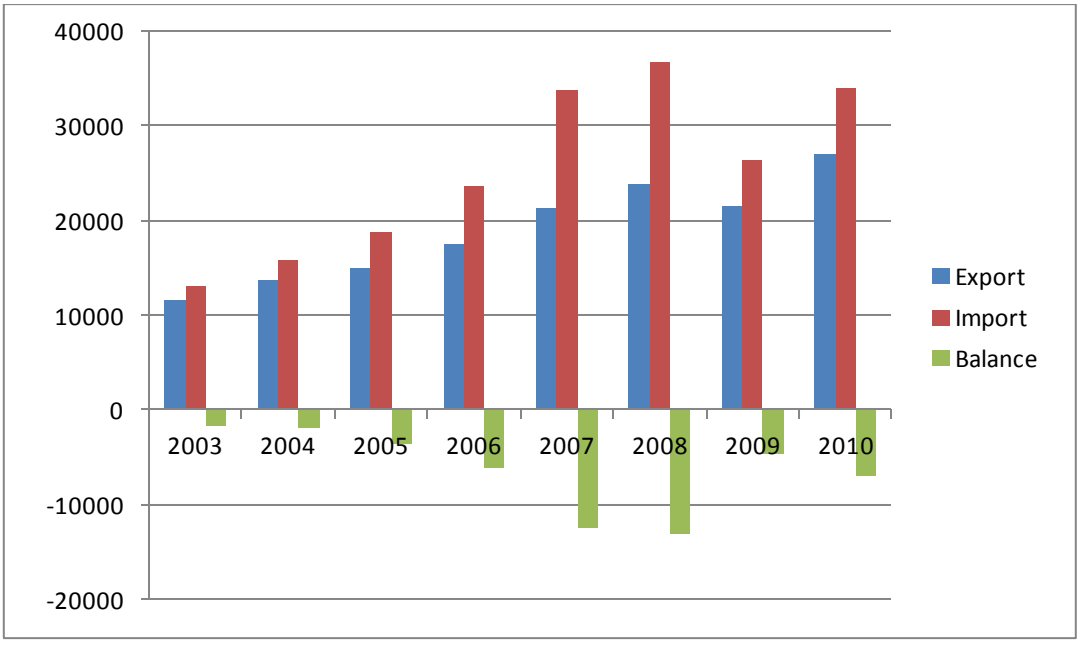
At the level of international trade, a country will make its presence felt through the products directly associated with it or its associated companies, whether they enter through exports or different types of FDI. Depending on the stage of development, penetration channels will oscillate between these two forms of international trade. Quality and quantity of exports is certainly a form of expression of a nation's competitiveness. However, to maintain quality of this indicator, it is necessary to avoid the trap of promoting them by any means, thus neglecting the productivity side. This is especially desirable as, for example, the exchange rate may represent a compensatory force,

by subsidizing exports, but also increase the cost of imports, affecting both domestic consumption and export-oriented industries as their proxy raw materials from imports (Rodrik, 2009).

2. PRE AND POST-ACCESION DEVELOPMENTS OF ROMANIAN EXPORTS WITH THE EU

Trade balance in relation to the EU for the period 2003 - 2010 is influenced by two major events: EU accession and economic crisis. Between 2003 and 2007 we can use the term trade relations with the EU; since 2007 we can use the term intra-trade relations. General trend of trade activity is increasing and presenting certain peculiarities arising from the two times outlined above. Trade balance can be traced in the following chart:

Figure 3. Romanian trade balance in relation to the EU, 2003 – 2010



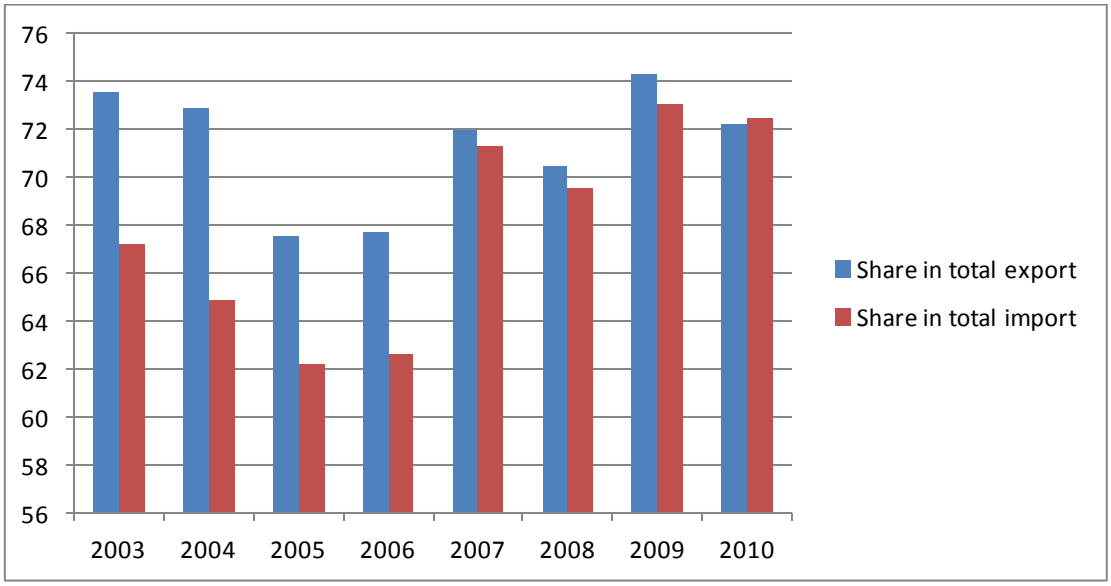
Source: Balance of Payments 2003-2009 and for 2010 Monthly Newsletter of the Romanian Center for Foreign Trade and Investment Promotion.

Coverage of Romania's EU accession in 2007 in the evolution of trade balance is quite obvious and it is particularly on import side. Imports show a rapid increase, while exports to the EU market remains at the same growth rate. The consequence of this development is represented by an increase in trade deficit in the years to come, it jumps from 6025 million in 2006 to 13,006 million euros in 2008. These facts support the idea that, at least initially, Romania was mainly a new market outlets for the old EU Member States, trade especially showing a favorable trend in one direction,

from the EU to Romania respectively. Thus in 2009 and 2010 while exports are characterized by the same trend imperturbable (a small exception in 2009 when exports fall, but was offset by a significant increase in 2010), the level of imports decreases significantly below those recorded in 2007, thereby reducing the trade deficit to levels comparable to Romania in the years leading up to EU entry.

Oscillations in the evolution of trade between Romania and EU, are found in high proportion in the general development of trade, the share of trade with the EU is quite large, which is shown by the following chart:

Figure 4 - Evolution of the share of EU trade in total foreign trade of Romania



Source: own calculations according to Romania's Balance of Payments 2003 – 2010

This graph confirms the results previously discovered, 2007 leaving its mark on the evolution of trade between Romania and the EU. Completion of the EU accession process brings a balance in terms of share of exports and imports in total foreign trade balance with imports coming from the EU on their shift. Also in 2010 was recorded the first time a twist on the weights of the two components of foreign trade, imports from the EU rate exceeding that of exports to this area.

3. INTRA-COMMUNITY TRADE – PERFORMANCE INDICATORS

To emphasize the nature of commercial relations between Romania and EU we considered the first 10 EU countries as importance in trade relations, aggregate share of these exports exceed 60% of the total Romanian exports to EU. Once established these guidelines we have explained a number

of indicators that show qualitative and quantitative aspects found in bilateral trade relations established by Romania with individual countries of the consideration.

A first indicator that we stopped is **Trade Intensity Index (TII)**. It is used to determine if the value of trade between two countries is higher or lower than would be expected according to their importance in world trade. The calculation formula is as follows:

$T_{ij} = (x_{ij}/X_{it})/(x_{wj}/X_{wt})$

where

x_{ij} and x_{wj} are the values of exports of country i and world exports to country j;

X_{it} and X_{wt} are the total exports of the country i, respectively the world export;

If the index is higher than one, then bilateral trade flows between the two countries is higher than expected and vice versa if the value is less.

According to data provided by the World Bank through WITS (World Integrated Trade Solution), in 2007 Romania recorded values higher than one of the TII with a total of 13 countries comprising EU 27 (Austria, Bulgaria, Cyprus, Czech Republic, Germany, France , Greece, Hungary, Italy, Malta, Poland, Slovakia and Slovenia). The following year the number of countries in this category increased to 14, Spain is one who joins this group. Year 2009 keeps the same trend, the number of countries with which Romania has rates higher than one of TII was 15 (Sweden joining), and for 2010, also Sweden is one that reduces their number to 14. Therefore, the index values higher than one of trade intensity is obtained for more than half of EU countries. The evolution of these values for the main trading partners are presented in the following table:

Table 1 - Evolution of TII for Romania's main export partners

Partener	**2007**	**2008**	**2009**	**2010**
Austria	2.3176	2.2581	2.3115	2.4683
Bulgaria	18.3187	21.8207	24.3125	24.4593
Germany	2.4632	2.4960	2.9433	2.9244
Spain	0.9209	1.0481	1.5265	1.6684
France	1.7792	1.7848	1.9767	2.2052
UK	0.9504	0.8322	0.8875	1.0222
Hungary	8.6669	8.3535	8.2630	9.3344
Italy	5.2809	4.8349	5.2233	4.9912
Netherlands	0.5953	0.8338	0.9805	0.8330

Poland	1.7920	1.5801	1.9094	2.3344

Source: own processing after the World Bank WITS

In general TII values in the four years after Romania's EU admission shows upward trends, in two cases, Spain and the UK, recorded the transition from subunit values to values higher than one.

Trade Complementarity Index (TCI) measures the extent to which a country's export performance meets the needs of the countries import from the same economic area. This is calculated using the following formula:

$TC_{ij} = 100(1 – sum(|m_{ik} – x_{ij}| / 2))$

x_{ij} - share of good i in total exports of country j;

m_{ik} - weight of good i in the total imports of country k;

It can take values between 0 and 100, as they are closer to the right end of the range, the country exports more overlap over the import needs of trading partners. Processing the data offered by the World Bank revealed that the lowest value of TCI is registered in 2010 in relation to Malta which is 37.40 and the highest is found in the same year in trade with Slovakia (73, 44). The values for the top 10 trade partners of Romania in the EU are found in the following table:

Table 2 - Complementarity Trade Index of Romania with major partners in the EU

Parteneri	**2007**	**2008**	**2009**	**2010**
Austria	68.3189	68.5382	67.8918	68.9272
Bulgaria	65.3028	67.3498	58.8388	57.4134
Germany	69.0954	69.4633	67.7669	68.0452
Spain	67.5281	69.9063	65.9288	66.3910
France	65.0230	66.8085	64.7967	65.3880
U K	64.6189	65.7827	65.1959	65.2579
Hungary	64.0767	68.4583	67.1023	68.0716
Italy	67.4728	68.6562	66.8894	67.8122
Netherlands	61.2272	60.6224	56.3282	55.9293
Poland	68.1242	68.6120	65.4797	65.4191

Source: own processing after the World Bank, WITS

Values are above average in many cases approaching 70, which indicates commercial relationships in which export supply folds quite well (in 70%) on the demand partners. The ability to cover the needs of trading partners, over 60%, indicates a fairly good potential for trade development and it being found in the actual values of exports directed to EU countries.

The next indicator, on which we turn analysis is **Export Specialization Index (ESI)**, which provides information on products in which a country has a comparative advantage over its trading partner and is calculated using the formula:

$ESI = (x_{ij}/X_{it}) / (m_{kj}/M_{kt})$

Numerator expresses the country i export values for product j, respectively the country's total exports, while in the denominator are represented imports of the product j on the k country market, respectively the country k total imports. Subunit values indicate the presence of a disadvantage compared of product j on k market, and values higher than one show a comparative advantage. An inventory of ESI values confirming the existence of export specialization in certain products in the EU market economies, is shown in the table below in descending order:

Table 3 - Romanian exports specialization on the European market (ESI)

ESI	Year	Partner	Groups of products
3.2025	2007	Italy	Footwear, gaiters and the like;
2.3394	2008	Italy	Footwear, gaiters and the like;
2.0251	2007	Italy	Silk
1.9414	2008	Italy	Silk
1.7218	2007	Italy	Articles of apparel and clothing accessories
1.6535	2009	Italy	Footwear, gaiters and the like;
1.5767	2010	Italy	Footwear, gaiters and the like;
1.5189	2009	Italy	Silk
1.4893	2007	Italy	Fertilisers
1.4400	2008	Italy	Articles of apparel and clothing accessories
1.4325	2007	Germany	Articles of apparel and clothing accessories
1.2802	2008	Italy	Zinc and articles thereof
1.2446	2008	Germany	Railway or tramway locomotives, rolling-stock
1.2162	2009	Germany	Railway or tramway locomotives, rolling-stock
1.1755	2009	Italy	Tobacco and manufactured tobacco substitutes
1.1630	2008	Germany	Articles of apparel and clothing accessories
1.1498	2010	Italy	Silk
1.1390	2009	Germany	Ships, boats and floating structures
1.1363	2008	Poland	Lead and articles thereof
1.1094	2010	France	Oil seeds and oleaginous fruits;
1.0874	2009	Italy	Articles of apparel and clothing accessories
1.0762	2009	Germany	Wool, fine or coarse animal hair; horsehair

1.0659	2010	Italy	Tobacco and manufactured tobacco substitutes
1.0339	2008	France	Oil seeds and oleaginous fruits;

Source: own processing after the World Bank, WITS

A first important observation is that the interval after Romania's EU accession, the values of the ESI are higher than one compared with only four EU countries: Italy, Germany, France and Poland. Number of product groups for which records these values is very limited. According to the HS2007 nomenclature which was performed by processing, from a total of 99 product groups, Romania is specialized in only 11 in dealing with trading partners and the 11 groups are distributed over four years. The highest recorded value (3.2025) is found in 2007 in trade with Italy in the group of goods *Footwear, gaiters and the like*. In fact the first 10 largest index values are obtained from commercial relations with this country on four groups of products: *footwear, gaiters and the like, silk, apparel and clothing accessories of articles, fertilisers.* In 2007 five groups record values higher than one, four in a relationship with Italy and one with Germany. The beginning of the economic crisis, namely 2008, finds Romania with a surprising number of eight groups of goods for which ESI is higher than one. This can be explained in terms of how the crisis were propagated in different economies. In Romania they have appeared with some delay. In 2008 trading partners for which ISE is greater than 1, is already affected to a greater extent of this economic phenomenon. Years 2009 and 2010 shows a decrease in the number of product groups in comparative advantage, leading to a total of four such goods at the end of 2010.

CONCLUSIONS

International trade relations, more than ever, represents today the way to can hope to raise living standards and welfare of the nation, issues that are or should be the final objective for any country.

In these circumstances, exports are materialized in one way forward to achieve the above objectives. Moreover, as their competitiveness is based on a higher proportion on high productivity, the quality or the innovative aspects and not on economic fireworks (excessive subsidies for exports, devaluation of national currency intends), the more growth result will be a solid, healthy based on the driving term.

Romanian exports to the European Union includes over 60% share amounting to approximately 70% of total exports. This situation is normal in at least two perspectives. First, geographic proximity helps carry these flows, the share of transport costs in total costs decreased

significantly. Secondly membership of a union in which most trade barriers have been abolished successfully completed significant weights explanation to this market. Over these two also adds the high values obtained for Trade Complementarity Index, which leads to normality support of this. On the other hand, weak values of exports specialization index to this area lead us to turn our attention to diversification both structurally and geographically. In this way is reduced excessive dependence on exports of a particular product range or a single geographical area. Along with reducing this dependence are reduced and risks arising from such an association.

Although we highlighted less pleasant aspects related to trade between Romania and EU, we must see huge benefits resulting from membership, counting among the most important gain is obtained in terms of quality of exports, due to high exposure to the competitive environment and FDI flows from this area.

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INTANGIBLE ASSETS – AN OPEN ISSUE

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Abstract: *We live in an ever more competitive, globalized world, in continuous technological evolution. Optimal resource management implies detailed knowledge on the value of intangible assets. In the present article, we aim to analyze the issue of intangible assets from the perspective of the Spanish accounting system, in order to identify the similarities and differences between it and the Romanian accounting system. The purpose of our approach is to complete the stage of knowledge concerning intangible capital – the hidden fortune of the new economy.*

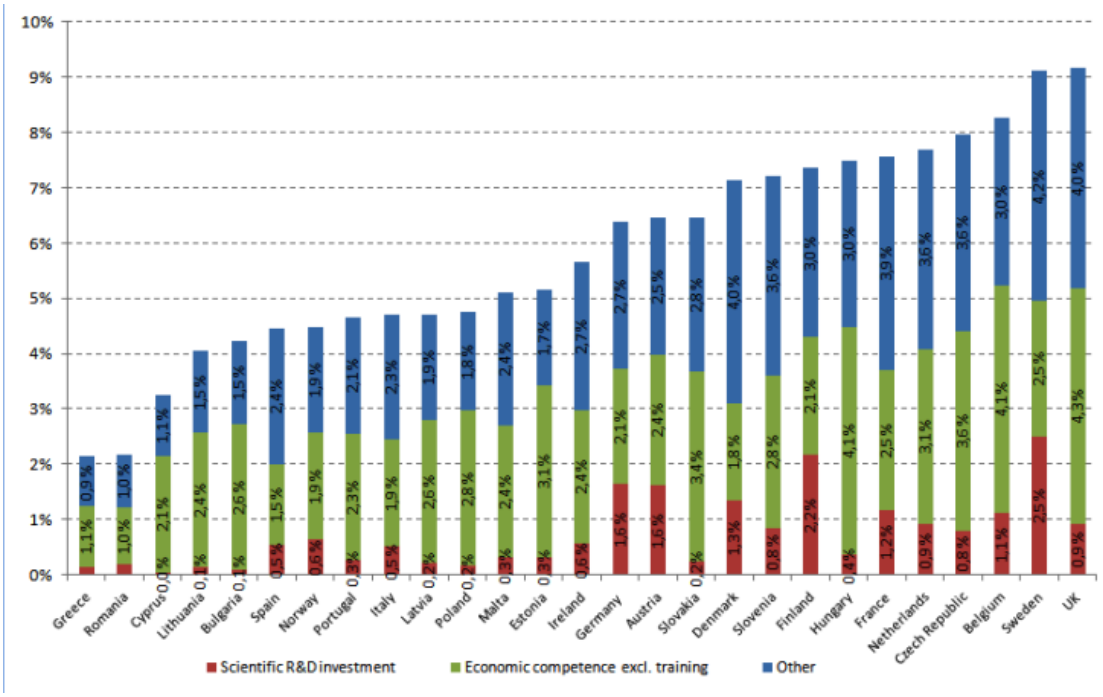
Keywords: intangible assets, intellectual capital, Centro Europeo de Empresas e Innovación de Navarra, El Instituto de Análisis de Intangibles, IAS 38
JEL Classification: M41

1. INTANGIBLE ASSETS IN THE SPANISH ACCOUNTING SYSTEM

Knowledge and intellectual capital are major determinants of innovation and thus of enhancing the growth, employment and competitiveness of the European Union. The importance of research and development activities and innovation is explicitly recognised in the 'Lisbon process' and in EU2020. However, our knowledge of the contributions of intangibles to economic performance remains incomplete. At the macro level, the national accounts data on capital formation focus primarily on fixed investments, and attempts to measure investment in intangibles, such as software, mineral exploration and artistic creations. The 2008-2011 INNODRIVE project, which ended in February 2011, gathered and measured intangible capital data. The main findings of the project are: the Gross domestic product (GDP) in the EU27 area is 5.5% higher after including all intangible investments; in the national approach, the intangible capital investment share of GDP was 6.7% in the EU27 and Norway, whereas only 1.1% is recorded in the System of National Accounts. Organisational competence accounts for nearly half of this, at 3.1% of GDP. The intangible share of GDP increased during the latter half of the 1990s, whereas the GDP shares have stayed mostly constant in the 2000s (Piekkola, 2011).

According to the data provided by the INNODRIVE project, investments in intangible assets account for approximately 2.1% of the gross domestic product for Romania, while in Spain this percentage amounts to 4.5 % of the gross domestic product for 2005.

Figure 1- Investment in intangible as share of Gross domestic product in EU countries (and Norway)- 2005



Source: "INNODRIVE Intangibles Database, May 2011, http://www.innodrive.org/"

In Spain, in the last 15 years, the number of companies that have become leaders in their sector has increased through the creation and management of patents and trademarks. At present, these assets account for up to 75% of the value of a company (Clarke and Modet, 2011). As a natural consequence, the Institute of Analysis of Intangibles has been created, whose purpose is to generate a favorable environment for the gradual inclusion of intangible elements into the economic-financial analyses and to support the process of normalization of the accounting of intangible assets.

The Institute of Analysis of Intangibles (El Instituto de Análisis de Intangibles) stresses the need for homogenous normalization rules concerning the accounting of intangible assets. Companies, professional accountants, analysts and the financial markets require independent organisms to analyze, evaluate, and certify intangible assets using methods based on objective criteria.

In the new economy, intangible assets (trademarks, the corporate reputation, ethics and social responsibility, human, organizational, and technical capital) have become vital and strategic elements in the financial and accounting management of companies.

Concentrated efforts with the purpose of identifying and acknowledging intangible assets are also made by the European Center of Companies and Innovation of Navarra (Centro Europeo de

Empresas e Innovación de Navarra – CEIN), according to which the real value of a company does not come from financial-accounting statements. CEIN identifies intangible assets with intellectual capital, which it classifies into: structural capital, relational capital, learning capital, and human capital (CEIN, 2004).

Structural capital includes information and communication technologies, work processes, patents and management systems (ERP, databases, and economic management instruments).

Structural capital is the cumulus of knowledge that the organization manages to explain, systematize, and internalize, and which, in principle, can be latent in employees or equipment. This capital includes, in turn, technological capital (the ability to use knowledge and technology) and organizational capital (the set of tools and methods used to manage knowledge).

In order to determine the structural capital of a company, we will analyze the culture of the organization, its management model, its main products and services, the sector where it operates, its quality standards, its information and telecommunication systems, its distribution channels and the patents and trademarks owned.

Relational capital concerns the quality and sustainability of the customer base, the potential of a company to attract new customers, the market share, the relationships established with the providers, their typology, the possibility to substitute business creditors, the typology of the competitors, and the cooperation agreements.

Learning capital includes the policies adopted by the company with the purpose of creating an environment open to ideas and experiments, and is made up of creativity capital, which comes from the employees' ability to find valid solutions to the problems raised by customers or by the company itself, and innovation capital, which is the company's potential or ability to innovate (for example, developing new products and services).

Human capital represents explicit and tacit knowledge of the employees. The elements that compose human capital are: the human resources policy, the employees' training, internal communication that favors the exchange of ideas, the behavior and skills of the staff etc..

2. THE INTERNATIONAL ACCOUNTING STANDARD 38

The Spanish accounting system is harmonized with the International Accounting Standards (IAS) and with the International Financial Reporting Standards (IFRS). After the International Financial Reporting Standards have come into force, with a compulsory application for consolidated financial statements starting with 2005, and with the General Accounting Plan coming

into force in 2008, a major change occurred in the Spanish accounting system in what concerns the acknowledgment, evaluation, and reporting of intangible assets. Intangible assets are the object of IAS 38, according to which an intangible asset is a non-monetary identifiable asset with no physical substance. Information concerning intangible assets can be also found in IFRS 3 "Company mergers" and IAS 36 "Asset deprecation".

The general frame of IASC establishes the acknowledgement criteria of the assets, which also apply to the acknowledgement of intangible assets. An intangible asset can be acquired or generated internally, but in either case it should be acknowledged only if:

- The asset is controlled by the entity as a result of past events;
- The entity expects the asset to generate future economic benefits;
- The cost of the asset can be measured in a credible manner; and
- The asset can be separated from goodwill.

According to IAS 38, internally generated goodwill is not acknowledged as an asset. Also, trademarks, logos, publishing titles, customer lists, and other internally generated elements with a similar substance will not be acknowledged as intangible assets.

In order to state if an internally generated intangible asset meets the criteria to be acknowledged as an asset, an entity divides its generation process into two stages: a research stage and a development stage. Intangible assets that come from research or from the research stage of an internal project will not be acknowledged as assets. The expenses for research or made during the research stage of an internal project will be acknowledged as costs when they are made. In the research stage of an internal project, an entity cannot demonstrate that an intangible asset exists and that it will generate future economic benefits. As a consequence, this expense is acknowledged as a cost when it is made. An intangible asset that came from development or from the development stage of an internal project will be acknowledged as an asset if and only if an entity can demonstrate the following:

- Technical feasibility for these intangible assets to be completed, so as to be available for usage or sale;
- Its intention to complete that intangible asset, so that it can be used or sold;
- Its ability to use or sell that intangible asset;
- The manner in which the intangible asset will generate probable future economic benefits. Among others, the entity can demonstrate the existence of a market for the products obtained using that intangible asset or for the intangible asset itself, or, if it is meant to be used internally, the usefulness of the intangible asset;

- The availability of technical and financial resources, as well as of other appropriate resources in order to complete its development, so that the intangible asset could be used or sold;
- Its ability to credibly evaluate the expense assigned to the intangible asset during its development.

Considering the restrictions imposed by the accounting criteria on acknowledging and presenting intangible assets, most of the information disseminated by companies is optional (Cañibano et al., 2009). A higher degree of dissemination of the information implies higher transparency, a better image and reputation, a lower cost of capital, but, at the same time, implies associated costs, for instance, for the creation of a competitive advantage to the rivals.

In general, Spanish companies publish limited information on intangible assets, as a result of the lack of a long-term vision, of the lack of knowledge on intangible assets, of not considering these assets as a source of value, and of the weak involvement of the management.

The consequence of the lack of regulations in this field has been the existence of information reports that are not harmonized from the point of view of their contents and degree of detail. An ever higher number of companies apply the recommendations of the RICARDIS project, providing information on the company's activity and objectives, on its strategy and know-how. The quantitative and qualitative indicators included in the reports on intellectual capital allow performing studies concerning the investments in intangibles, proving the company's ability to generate economic benefits.

3. INTANGIBLE ASSETS IN THE CONCEPTION OF THE ROMANIAN NORMALIZER

Romanian accounting norms are in accordance to the 4th and 7th Directive of the European Economic Communities. Order 3055/2009 for the approval of Accounting Regulations according to the European directives, published in Monitorul Oficial no. 766 of November 10, 2009, updated by Order no. 2382/2011 – for the completion of accounting regulations, by Order no. 2239/2011 – for the approval of the Simplified Accounting System, and by Order no. 2869/2010 – for the amendment and completion of accounting regulations, classifies intangible assets into creation expenses, development expenses, concessions, patents, licenses, trademarks, rights, and similar assets if they have been acquired onerously, goodwill to the extent to which it was acquired onerously, deposits and intangible assets under way.

Similarly to IAS 38, Romanian accounting norms mention the same criteria for acknowledging intangible assets: control, future economic benefits, credible cost and the ability to separate from goodwill. For the internally generated intangible assets, they require the separation of the activities into two stages: research and development, and intangible assets in the research stage are not acknowledged. Customer lists are not acknowledged as intangible assets.

Romanian companies quoted in the Bucharest Stock Exchange meet the provisions of OMFP no. 3055/2009, as well as those of the CNVM regulation, but only information strictly required by accounting regulations are presented, without insisting on the intangible side of the business. In reporting, mainly traditional financial-accounting indicators are calculated, and the results are interpreted exclusively from their perspective. Romanian companies are characterized by a low degree of dissemination of the information concerning intangible assets (Fădur, 2011).

Both Romanian and Spanish companies are confronted with the lack of a single, formal guide, which would treat the manner of drawing and presenting the reports on intangible assets, and this fact affects the degree of comparativeness of the companies.

CONCLUSIONS

Modern companies perform their activity in a globalized environment, characterized by competition, technological revolution, and the reversal of the balance in favor of intangible assets, which imposes reporting these new vectors of value creation. A doubt appears that the traditional accounting system offers sufficient and appropriate information for the decision-making process.

We draw the attention on the fact that it is fundamentally necessary for the specialists' efforts to be directed towards designing a standardized model for reporting reliable, comparable, and relevant information on intangible assets.

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THE CONTRIBUTION OF ALEXANDRU IOAN CUZA UNIVERSITY OF IAŞI TO THE INCREASE OF THE ECONOMIC ACTIVITY RATE IN THE NORTH EASTERN REGION AND IN ROMANIA[9]

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Abstract: *Over the past decades, knowledge, science and innovation have become the most important pillars on which the economic development is based. At the same time, the regions are considered to be the new poles of economic growth. In this context, universities are expected to expand their classic role to a leading actor in regional economic development. This paper focuses on how "Alexandru Ioan Cuza University" of Iaşi, the oldest and one of the most prestigious universities in Romania, contributes to this process, quantifying its indirect contribution to the generation of human capital, to the increase of the economic activity rate in the North Eastern Region and in Romania.*

Keywords: economic activity rate, university, regional economic development, human capital
JEL Classification: O15

1. THE UNIVERSITY – DECISIVE ACTOR IN REGIONAL ECONOMIC DEVELOPMENT

The present economic order, in which knowledge, science and innovation play a decisive role in the development of our society, has attributed to universities, beyond the classical role of research and education, a more complex mission which generates a much greater impact on its surroundings. Everyone speaks about a *third mission* of the universities, a leading actor in regional economic development. The regions are perceived as new poles of economic growth and universities as key partners in the process. And this is because the universities have - by interacting with the rest of regional socio-economic agents - the necessary means to contribute to the process of regional economic development.

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Thanki identifies four major ways through which a university brings about regional economic development: (1) by acting as an economic entity, (2) by producing knowledge, (3) by assuring the formation of human capital and (4) by being a strong institutional actor in the region. (Thanki, 1999) Boucher points out that, among the aforementioned points, the first two focus on the direct economic contribution of the universities to the regional development and the latter to the socio-cultural impact (Boucher et al., 2003, pp. 888-889). Goldstein, Maier and Luger distinguish eight functions that a modern university has to carry out in order to generate economic development: knowledge creation, human capital formation, know-how transfer, technical innovation, capital investment, regional leadership, production of knowledge infrastructure, influencing the regional milieu. (Goldstein, Maier and Luger, 1995)

The "Alexandru Ioan Cuza" University of Iaşi (UAIC), the oldest and one of the biggest and most prestigious universities in Romania, generates a significant direct and indirect contribution to the economic development of the North Eastern Region and Romania. Developing valuable human capital through a continuous process of shaping generations of young graduates represents the most direct and obvious added value. The indirect contribution is associated with the impact that the higher endowment with human capital has on the regional and national economic activity rate, employment rate and unemployment rate. This latter contribution, to which UAIC dedicates most of its resources, is extremely valuable from both the quantitative and qualitative points of view, if we take into consideration the positive economic effects a higher endowment with human capital has on an individual and collective level as shown in the economic literature.

McKenna considers that education confers two related benefits to workers: broader access to jobs and higher lifetime earnings (McKenna, 1996). The basic labour search models surveyed by Rogerson, Shimer and Wright suggest that human capital affects unemployment twofold. Firstly, increased human capital boosts the rate of job offers, thereby decreasing unemployment duration. Secondly, higher human capital enhances also the reservation wage, thus increasing unemployment duration (Rogerson, Shimer and Wright, 2005). D'Agostino and Mealli argue that there is a strong relation between education and employment, i.e. a higher academic qualification shortens unemployment duration. Such are the cases of the UK, Belgium, and Ireland, where the educational level seems to have a considerable impact on employment. (D'Agostino and Mealli, 2000) Using a *multinomial logit model*, Domadenik and Pastore have found that tertiary educational attainment works as a *buffer* against unemployment, especially for young adults (Domadenik and Pastore, 2004).

In the following paragraphs, we seek to quantify the indirect contribution of the UAIC to the increase of the economic activity rate, first at a regional level and then at a national level.

2. THE CONTRIBUTION OF ALEXANDRU IOAN CUZA UNIVERSITY OF IAŞI TO THE INCREASE OF THE ECONOMIC ACTIVITY RATE IN THE NORTH EASTERN REGION OF ROMANIA

Table 1 – The economic activity rate of the population in the age of work (15-64 years) by level of education attained in the North Eastern Region of Romania between 2005 and 2010

Year	Level of education attained			Total
	High	*Medium*	*Low*	
2005	87.3	70.0	54.2	65.5
2006	87.9	68.6	52.1	64.2
2007	87.6	67.5	54.8	64.8
2008	85.1	65.9	54.1	63.6
2009	85.2	66.6	56.5	64.8
2010	83.3	69.2	56.7	66.1
Average 2005-2010	86.0	67.9	54.7	64.8

Source: The National Institute of Statistics (INS), www.insse.ro, accessed on the 23th of March 2011

Table 1 illustrates the evolution of the economic activity rate of the population in the North Eastern Region of Romania by the level of education attained and per total between 2005 and 2010.[10]

By analysing the evolution of the total economic activity rate we notice that since 2005, when it reached 65.5%, has had a negative evolution until 2008, when it reached its minimum value of 63.6%. This value could be explained as a direct consequence of the economic crisis which hit Romania in 2008. Since 2009 the total activity rate has had a positive evolution, reaching in 2010 its maximum value of 66.1%, with 1.3% above the average value of 2005-2010.

The evolution of the economic activity rate by levels of education in the North Eastern Region of Romania, allows us to observe the various behaviour of the three educational groups (high,

[10] The activity rate is calculated as the percentage between the total active population and the working-age population, which in Romania is between 15 and 64 years old.

medium, low) in relation to the evolution of the labour market between 2005 and 2010. There are major differences between the activity rate of the population that attained a higher level of education and the activity rate of the population that obtained a low or a medium level of education.

The economic activity rate of the population that achieved a medium level of education has quite a similar evolution to the total activity rate, meaning that it reached a maximum value of 70.0% in 2005, started to decline to a minimum value of 65.9% in 2008, then climbed to 69.2% in 2010. The economic activity rate of the population that attained a low level of education has a contradictory evolution from 2005 (54.2%) to 2008 (54.1%). In spite of the difficult context negatively influenced by the economic downturn, the economic activity rate seemed to have a positive evolution in 2009 (56.5%) and also in 2010, when it reached a peak at 56.7%, 2% higher than the average value of the 2005-2010 period. The economic activity rate of the population that obtained a high level of education has a constant evolution between 2005 and 2007, than steadily dropping from 85.1% in 2008 to 2010, when it reached its lowest value of 83.3%.

This interpretation enables us to draw some relevant conclusions regarding the evolution of the activity rate of the three categories of population in the North Eastern Region of Romania. Therefore, the population that achieved a lower education level has the smallest activity rate on the labour market, followed by the population that attained a medium level of education. The official data provided by the National Institute of Statistics for 2005-2010 period, indicates that in the context of the economic recession, the participation in the labour market of these two categories tends to grow, especially for the population with a lower level of studies.

Even though the aforementioned category is the only one which has reduced its participation in the labour market, its average economic activity rate of 86% for the 2005-2010 period demonstrates that the population that attained a superior level of education tends to have a much significant participation in the labour market compared to the population which is either at a medium educational stage (average score of 67.9%) or at a lower educational one (average score of 54.7%).

All things considered, a higher level of human capital endowment has a positive effect on the participation in the labour market, which makes the institution of higher education in the North Eastern region of Romania, including the UAIC, fully contribute to the this fact.

In order to quantify the contribution of the UAIC, we have firstly tried to calculate the contribution of all institutions of higher education to the increase of the economic activity rate in 2010 in the North Eastern Region, and, secondly, we have extracted solely the contribution of UAIC. As such we have used a hypothetical scenario which assumed that if none of the higher

education institutions in the North Eastern Region had existed, the population would have attained, in the most fortunate case, a medium level of education. Therefore, we have calculated the hypothetical total economic activity rate that does not take into consideration the positive effect that a superior level of education might have, after which we have compared it to the real total economic activity rate.

Table 1 shows that the real total economic activity rate in the North Eastern Region in 2010 is 66.1%. Thus, the hypothetical total rate of activity calculated, assuming that the population which attained a superior level of education does not exist, would be 65.1%. The difference of 1% represents the contribution of all the higher education institutions – including UAIC – to the economic development of the region.

Table 2 - Total number of graduates (with or without diploma) of the accredited universities in the North Eastern Region of Romania, for all three levels of study (bachelor, master, PhD) in the last five academic years (2005/06-2009/10)

University	Total number of graduates				
	Academic year				
	2005/06	2006/07	2007/08	2008/09	2009/10
UAIC	7314	7599	11646	8459	9186
Petre Andrei University	993	1446	2044	1559	1744
George Enescu University	360	308	490	407	486
Stefan cel Mare University	2485	2745	4505	3828	3431
Vasile Alecsandri University	1040	964	1722	1580	1457
Gr. T. Popa University	1189	1518	1386	1488	1167
Ion Ionescu de la Brad University	544	723	721	1253	796
Gh. Asachi University	2979	2801	3477	5737	3506
Mihail Kogălniceanu University	286	468	348	304	248
George Bacovia University	648	848	1275	1096	1034
Apollonia University	43	122	198	225	172
Total	17881	19542	27782	25936	23227

Source: Data provided by the universities participating to the process of data and information according to OMECTS nr.4072/2011 until 23.05.2011, http://chestionar.uefiscdi.ro/public/index.php?page=punivlist, accessed on the 11th of September 2011

The contribution of the UAIC to human capital endowment is, according to Table 2, 38.8%. That means that out of the 1% representing the contribution of all the higher education institutions to the growth of the activity rate in the North Eastern Region of Romania almost 39% is attributed exclusively to the UAIC.

3. THE CONTRIBUTION OF THE UAIC TO THE INCREASE OF THE ECONOMIC ACTIVITY RATE IN ROMANIA

At the national level, UAIC's contribution to the increase of the economic activity rate will naturally be smaller, but not less valuable.

Table 3 – The economic activity rate of the population in the age of work (15-64 years) by level of education attained Romania between 2005 and 2010

Year	Level of education attained			Total
	High	*Medium*	*Low*	
2005	87.4	69.5	43.1	62.4
2006	89.5	70.5	43.6	63.7
2007	88.4	68.7	44.1	63.0
2008	88.1	67.5	44.8	62.9
2009	88.0	67.1	46.1	63.1
2010	87.1	67.9	46.3	63.6
Average 2005-2010	88.0	68.5	44.6	63.1

Source: National Institute of Statistics, www.insse.ro, accessed on the 23 of March 2011

Table 3 illustrates the evolution of the activity rate of the population per total and by levels of education attained in Romania between 2005 and 2010. The evolution of the national total activity rate is to a certain extent similar to the evolution of the regional one, meaning that it grows from 62.4% in 2005 to 63% in 2007, after which it drops to 62.9% in 2008 because of the economic downturn. In the following years the activity rate has had a positive tendency, reaching 63.6 % in 2010 and 0.5% over the average in the 2005-2010 period.

As pointed out in table 3, the only category that has a positive growth tendency is the activity rate of the population which has lower educational level, trend also observed when analysing the regional case.

Thus, having the economic recession as a background, the participation of the population with a lower educational level in the labour market has grown, both at regional and national level. The activity rate of the population with a medium level of education has had a relatively negative fluctuation, dropping from 69.5% in 2005 to 67.9% in 2010. Regarding the variation of the activity rate for the population with superior education, this study has noticed that in spite of a decreasing tendency at the regional level, at national level it maintained a constant trend: 87.4% in 2005 and 87.1% in 2010. On balance, the average activity rate by levels of education obtained in Romania between 2005 and 2010 demonstrates that the participation in the labour market of the population with superior education (88.0%) is considerable higher to those with a medium (68.5%) and lower (63.1%) educational levels.

Having the hypothetical scenario used at the regional level as a template, in this paper we also sought to calculate the contribution of all higher education institutions to the increase of the economic activity rate in 2010 in Romania, out of which we have extracted only UAIC's input. Table 3 indicated that the real total activity rate in Romania in 2010 is 63.6%. The hypothetical total activity rate that we have calculated assumed that in case the higher education institutions had not existed, the population with a superior education would have attained in the most fortunate case a medium level of education, which represents 62.7%. The difference of 0.9% represents the contribution of all higher education institutions, including UAIC, to the increase of the economic activity rate in Romania.

Table 4 - Total number of graduates (with or without diploma) of the accredited universities in Romania, for all three levels of study (bachelor, master, PhD) in the last five academic years (2005/06 - 2009/10)

University	Total number of graduates				
	Academic year				
	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
UAIC	7314	7599	11646	8459	9186
Romania (all universities)	112244	125499	232885	214826	191291

Source: National Institute of Statistics (INS), www.insse.ro

The contribution of UAIC to the human capital endowment in Romania, calculated according to Table 4, has an average score of 5.24%, which means more than 5% represents the contribution to the increase of the activity rate in Romania attributed exclusively to UAIC.

4. CONCLUSIONS

Our analysis has pointed out that UAIC has a significant contribution to the increase of the activity rate both at regional and national level. With regards the formation of human capital, UAIC contribution to the increase of the regional activity rate represents almost 39% of the total contribution of all institutions of higher education in the North Eastern Region. At the national level, UAIC contribution is situated at 5.2% of the total contribution of all the higher education institutions in Romania.

Moreover, the study of the official data has illustrated that the population with a higher educational level tend to participate more frequently in the labour market not only in the specific case of the North Eastern Region of Romania, but also at a national level.

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PURCHASING POWER PARITY INFLUENCE ON REAL EXCHANGE RATE BEHAVIOR IN ROMANIA[11]

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Abstract: *Purchasing Power Parity (PPP) represents a fundamental concept in exchange rate modeling. The main idea is given by equality between prices in two different countries when expressing in the same currency.*

This paper aims to analyze the behavior of real exchange rate between EURO and Romanian new leu (RON) under PPP paradigm. We use the Augmented Dickey-Fuller and Phillips-Perron stationarity tests in order to check real exchange deviations from PPP. Also, we investigate the existence of a connection between long-term between nominal exchange rate and industrial producer price indices from Romania and euro area. The main conclusions of this research highlight that PPP doesn't holds; real exchange rate stationarity tests doest not confirm the stationarity, thus between the aforementioned three variables it doesn't exists any equilibrium relation.

Keywords: purchasing power parity, real exchange rate, stationarity, cointegration
JEL Classification: F31, C32, E31

1. INTRODUCTION

One of the most important theories in international finance refers to purchasing power parity. In absolute form, two price indices should have the same value after the conversion in the same currency. In its relative form, the theory reflects the equality between exchange rate modifications and price indices differential among countries. In reality, the price indices are elaborated using different products and weights, making the comparison difficult in being accurate. Also, the transportations costs, tariffs, taxes (or any other trade restrictions) and arbitrage operations influence the real exchange rate.

The theory was elaborated by Gustav Cassel in 1932 and it was empirically developed until nowadays. The main studies focus on the real exchange rate stationarity tests (considered the "PPP strong form") and on the cointegration of nominal exchange rate, a domestic price index and a foreign price index (considered the "PPP weak form).

International finance theory reflects two puzzles about PPP validity: there is no consensus in obtaining similar conclusions about PPP in long term (the first puzzle) and the real exchange rate

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has a higher volatility in short term, compared with a slower mean reversion adjustment in the long-run (the second puzzle).

The empirical analysis on the Central and Eastern Europe emerging countries found arguments in sustaining PPP validity for Romania and/or the countries from region but also its rejection. In a recent study, Acaravci and Ozturk (2010) argue that real effective exchange rate is non-stationary if we neglect the structural breaks, otherwise the results being valid for Romania and Bulgaria.

As methodology we used the Augmented Dickey-Fuller (ADF) stationarity test for the real exchange rate (the equation left-side) and the Engle-Granger methodology for the relationship between nominal exchange rate, domestic and foreign price index.

The present paper is structured in six parts as following:

- theoretical formulation and model development;
- a literature review about the empirical evolution of the model and a brief Central and Eastern Europe countries presentation under PPP paradigm;
- a presentation of the methodology that we used;
- data sources and preliminary tests;
- the most important empirical results;
- concluding remarks.

2. THEORETICAL FORMULATION AND MODEL DEVELOPMENT

The purchasing power parity has two forms:

- an absolute form that reflects the same price for a good in domestic and foreign market when we are expressing it in the same currency:

$$P_{i,t} = NER_t P_{i,t}^*, \; i=1,2,\ldots,n, \qquad (1)$$

- a relative form which implies an equality between exchange rate volatility and price indices:

$$\frac{P_{i,t+1}^* NER_{t+1}}{P_{i,t+1}} = \frac{P_{i,t}^* NER_t}{P_{i,t}}, \; i=1,2,\ldots,n, \qquad (2)$$

where NER_t is the nominal exchange rate at moment t and P_t, P_t^* represent the domestic price index, respectively foreign price index at moment t.

The absolute form implies the relative form, but the influence isn't valid for the inverse relationship. The purchasing power parity is correctly elaborated if the internationally traded goods are perfect substitutable, there aren't transport cost and other impediments which can affect the international trade.

PPP is important in analyzing the real exchange rate behavior. As we know, the real exchange rate (RER_t) can be computed as a multiplication between nominal exchange rate and the ratio between foreign and national prices:

$$RER_t = NER_t * \frac{P_t^*}{P_t} \qquad (3)$$

In logarithmic form, the relationship can be written as:

$$\log(RER_t) = \log(NER_t) + \log(P_t^*) - \log(P_t) \qquad (4)$$

If we use small cases, we get the next relationship:

$$rer_t = ner_t + p_t^* - p_t \qquad (5)$$

Empirical literature on the purchasing power parity relies on the relationship no. 5. PPP can be tested using real exchange rate stationarity test or cointegration methodologies: Engle-Granger (as a bivariate approach) or Johansen methodology (as a multivariate option) for the relationship between the nominal exchange rate, domestic price index and foreign price index).

3. PURCHASING POWER PARITY IN CENTRAL AND EASTERN EUROPE (CEE) EMERGING COUNTRIES. A LITERATURE REVIEW

3.1 Evolutions in empirical literature

Early empirical PPP approaches (in '70s) had analyzed following relationship:

$$ner_t = \alpha + \beta p_t + \beta^* p_t^* + u_t \qquad (6)$$

Authors who studied the relationship 6 had applied coefficient restrictions tests: β=1, β*=-1. If the coefficients are equal and they have opposite signs we have a "symmetry condition". If the coefficients are equal with the unity and they have opposite signs we get a "proportionality condition" (Frenkel, 1981).

In the second part of '80s, economists developed the stationarity as a measure for the permanent deviation form purchasing power parity level.

In the end of '80s, Engle and Granger (1987), followed by Johansen (1988) found a strong equilibrium relationship between variables using a new concept: the cointegration. The null hypothesis is given by the permanent deviations form linear combination between exchange rate and prices. Their methodologies were considering a success and it influenced empirical research until today.

More appropriate to nowadays new approaches regarding purchasing power parity were been developed:

- tests on longer time periods, which include various currency arrangements according to what happened in the international monetary system;
- tests that are using panel data and stationarity procedures;
- new econometric techniques based on nonlinearities.

3.2 Power purchasing parity evidences in transition countries

One of the first PPP modern approaches of European Central-Eastern countries was made by Choudry in 1999. Analyzing a group of four countries (*Romania,* Poland, Russia and Slovenia) he found that PPP holds in its relative form for Slovenia and Russia.

In an extensive analyze on a large group of countries from this region (Bulgaria, Czech Republic, Hungary, Poland, *Romania* and Slovak Republic in 1991-1998 period) Christev and Noorbakhsh, (2000) identified a long-run term relationship between prices and the exchange rate, despite the law of one price, proportionality and symmetry violation. Sideris (2006) examine the PPP validity for a long time horizon using cointegration for a 17 transition economies and find the same symmetry and proportionality violation, but also evidence of PPP validity in the long-run.

Taylor and Sarno (2001) found an evident appreciation trend of the real exchange rate for the region's countries in '90s period. They consider that real shocks are more important than the nominal ones in exchange rate determination.

Kim and Korhonen (2002) studied the PPP using real exchange rate stationarity for panel series in five countries: Czech Republic, Hungary, Poland, Slovak Republic and Slovenia, and argue that PPP doesn't holds. A similar approach for the transition countries finds that PPP holds (Solakoglu, 2006).

Using the Johansen cointegration methodology in 1994-2000 periods, Barlow (2003) reached to a set of different results when combining the states between them. Koukouritakis (2009) analyzed PPP validity between twelve new member states of European Union (Bulgaria, Cypru, Czech

Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic and Slovenia) by using Johansen cointegration test. He offers arguments in favor of a long-run equilibrium relationship between the nominal exchange rate and prices for Bulgaria, Cypru, Romania and Slovenia (Koukouritakis, 2009).

Using non-linearity in PPP analyze, the theory is confirmed for Bulgaria, Croatia, Czech Republic, Hungary, Macedonia, Poland, Romania and Slovak Republic (Cuestas, 2009). A similar study on region find that PPP holds in Romania and Bulgaria, if we consider the structural breaks in the real exchange rate volatility (Acaracvi şi Ozturk, 2010).

4. METHODOLOGY

The purchasing power parity in a simplified form denotes that the modification degree of a currency is approximately equal to the difference between domestic and foreign price indices:

$$er_t = p_t - p_t^* + d_t, \qquad (7)$$

where er_t is the exchange rate in a logarithmic form and p_t, respectively p_t^* are the logarithms of the national and foreign price index. d_t denotes the deviations from purchasing power parity and it is associated with real exchange rate movements (rer_t):

$$rer_t \equiv er_t + p_t^* - p_t \qquad (8)$$

Under these conditions, we admit that purchasing power parity holds in the long-run if the real exchange rate is a stationary series. A variable is stationary if it has a tendency in returning to a constant value. In other words, its trajectory must be around a mean value or around a linear trend. Economically, this means that any shock on series is temporary and it is absorbed in time. In practice, almost every variable is stationary and must be differenced. Hence, the exchange rate is nonstationary for the most cases and the series is first order integrated (requires just one differentiation).

The econometric theory refers to a null hypothesis that claims a unit root in series. In our case, the real exchange rate is nonstationary. The most popular stationarity test were developed by Dickey and Fuller (ADF stationarity test), respectively by Phillips and Perron (1988). The difference between them is given by the less stringent restrictions on error process for Phillips-Perron test. These tests are important because it is necessarily for us to know the order of integration of our variables. If the obtained t-statistisc and associated probability reflect null hypothesis acceptance, than we conclude that purchasing power parity doesn't holds.

Testing real exchange rate stationarity through Augmented Dickey-Fuller entails three assumptions: the intercept presence, the presence of an intercept and a time trend, and finally, the absence any deterministic element. For each supposition, we have build three different relationships:

a) model A: includes both a drift and a linear time trend

$$\Delta rer_t = a_0 + \gamma * rer_{t-1} + a_2 * t + \varepsilon_t \qquad (9)$$

b) model B: random walk with a drift

$$\Delta rer_t = a_0 + \gamma * rer_{t-1} + \varepsilon_t \qquad (10)$$

c) model C: pure random walk

$$\Delta rer_t = \gamma * rer_{t-1} + \varepsilon_t \qquad (11)$$

For researchers, the most important coefficient is γ. If its value equals zero, than the real exchange rate sequence contains a unit root (the series is nonstationary). The test estimates a regression equation using ordinary least squares, in order to determine an estimated value for γ and associated standard error. In EViews 7, the associated probability indicates the rejection or acceptance of null hypothesis.

Engle and Granger (1987) tested the cointegration between a set of integrated variables of first order: I(1). Their procedure is based on estimating the long-run relationship through regression, saving the residuals and testing their stationarity. If the the residuals are stationary, then the variables are cointegrated. Their stationarity shows that the purchasing power parity holds in the long run. In order to find relevant conclusions it is necessarily to use first order integrated series I(1) which need a single differentiation.

According to Engle and Granger, if the $er_t + p_t^*$ and p_t are cointegrated, PPP holds in the long-run under following conditions (Enders, 2009):

- between $er_t + p_t^*$ and p_t of the form $er_t + p_t^* = \beta_0 + \beta_1 * p_t + \mu_t$ exists a linear combination;
- residuals (μ_t) are stationary;
- variables have the same integration order.

5. DATA SOURCES AND PRELIMINARY RESULTS

After the socialist period, Romania "fought" with a highly inflation. The National Bank of Romania is trying to sustain a stable exchange rate in its goal of maintaining the prices stability in a domestic goods market characterized by many prices reported to the euro. During the recent crisis, inflation has grown with great effects on real exchange rate volatility compared with the nominal level.

Among others, Romanian inflation rate were affected by the regulated prices – its level is appreciated at 21% in the consumer price index, but the regulation is generally applied to the non-tradable part of the economy. According to Halpern and Wyplosz (2001), if over 10% of an economic sector is oriented to exports, we say that sector is tradable. The most prosper economic sector in this sense is the industrial one. PPP principles are based on the tradable part of the Romanian economy and, hence we consider that using an industrial producer price index is more adequate in our analysis.

Purchasing power parity is analyzed for the period between 2000 (January) and the second half of 2011 (September) using monthly data taken from following sources:

- National Bank of Romania Interactive Database for the nominal exchange rate between euro and Romanian new leu;
- Eurostat for the industrial producer price index in Romania and Euro area.

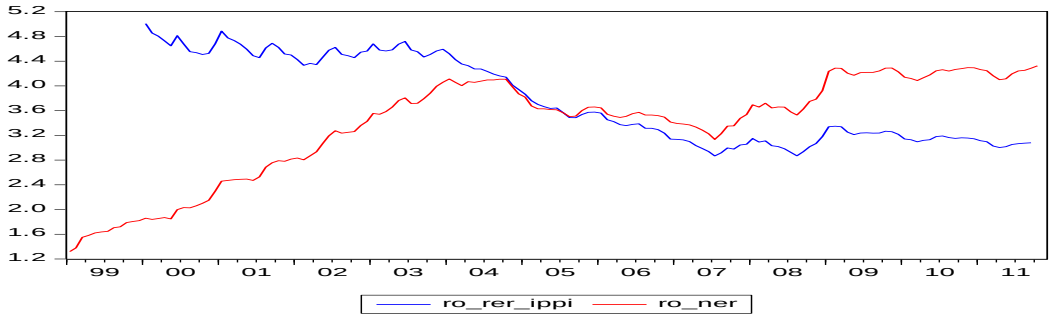
In our empirical analysis we use following abbreviations:

Table 1- Abbreviations used in empirical analysis

e_ippi	Industrial producer price index in the Euro Area
ro_ner	Nominal exchange rate between EURO and Romanian new leu
ro_ippi	Industrial producer price index in Romania
ro_rer_ippi	Real exchange rate between EURO and Romanian new leu deflated with the industrial producer price indices
d(*)	Reflects the variable in first difference
l, log(*)*	Reflects the logarithmic form of the variable

The evolutions of real and nominal exchange rate deflated with the industrial producer price index are reflected bellow, in the figure 1:

Figure 1- Nominal and real exchange rate deflated with industrial producer price index in 2000M01-2011M0 (EUR/RON)

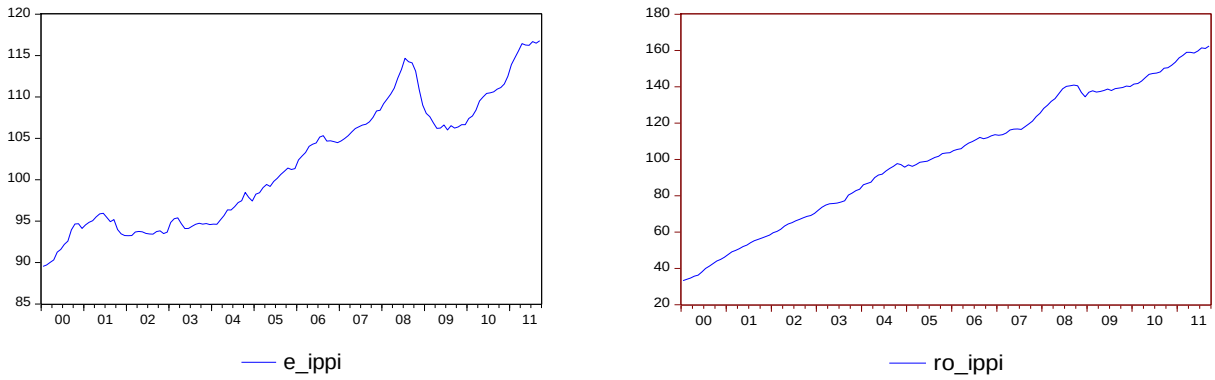


Source: graph made using National Bank of Romania Interactive Database for nominal EUR/RON exchange rate and Eurostat database for real exchange rate calculation

Based on the graphic representation it seems that our variables (nominal and real exchange rate) follow a random walk process with no visible evidence of an explosive trajectory or a deterministic time trend.

Before starting the empirical analysis we analyze the series characteristics in order to find the integration order. This information is useful in cointegration analysis, later developed in this paper.

Figure 2 - Industrial producer price index in Euro area (e_ippi) and in Romania (ro_ippi) in 2000M01-2011M09 period (2005=100)



Source: EUROSTAT

Using above graphical representation, both series look to be nonstationary. To be sure, we test this assumption using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) stationarity tests.

Table 2 - Stationarity results for nominal exchange rate and industrial producer price index for Romania and Euro Area

Variable	ADF t-statistic	ADF Prob.	PP adj. t-statistic	PP adj. Prob.
Nominal exchange rate in level (with intercept)	-2.441548	0.1324	-2.360979	0.1548
Nominal exchange rate in first difference (with intercept)	-7.325311	0.0000	-7.347952	0.0000
IPPI in Romania in level (with intercept and trend)	-2.520531	0.3179	-2.387062	0.3847
IPPI in Romania in first difference (with intercept and trend)	-8.404971	0.0000	-8.507142	0.0000
IPPI in Euro Area in level (with intercept and trend)	-2.365533	0.3959	-2.190288	0.4909
IPPI in Euro Area in first difference (with intercept and trend)	-6.420188	0.0000	-6.480072	0.0000

Source: author's calculations

According to the results from the table 2, all three series are first order integrated and they need a differentiation in order to stationaries them. We included in our analysis an intercept, respectively an intercept and a trend, using statistical significant coefficients for both of them. Hence, nominal exchange rate between euro and Romanian new leu is a nonstationary series that follows a random-walk with drift and industrial product price indices are nonstationary series which include both a drift and linear time trend.

6. EMPIRICAL RESULTS

Our methodology is based on:

- testing real exchange rate stationarity for all 3 assumptions: model A (with drift and linear time trend), model B (for a random walk with a drift) and model C (for a pure random walk);
- applying Engle-Granger two-step methodology in assessing the cointegration between nominal exchange rate, domestic and foreign industrial producer price indices.

Table 3 - Real exchange rate EUR/RON stationarity test results

Model	Variable	Coefficient	Standard error	t-statistic	Prob.
Model A	**l_ro_rer_ippi(-1)**	**-0.031514**	**0.019139**	**-1.646562**	**0.1020**
	d(l_ro_rer_ippi(-1))	0.319431	0.081396	3.924410	0.0001
	Intercept	0.047124	0.030802	1.529887	0.1284

	Trend	-0.000112	8.50E-05	-1.318190	0.1897
Model B	**l_ro_rer_ippi(-1)**	**-0.008360**	**0.007622**	**-1.096819**	**0.2747**
	d(l_ro_csr_ipip(-1))	0.302004	0.080533	3.750077	0.0003
	Intercept	0.008746	0.010085	0.867244	0.3873
Model C	**l_ro_csr_ipip(-1)**	**-0.001812**	**0.001044**	**-1.735384**	**0.0849**
	d(l_ro_csr_ipip(-1))	0.301133	0.080454	3.742948	0.0003

Source: author's calculations

For al three models, t-statistic and related probability denote that the shock have a permanent influence on the real exchange between euro and Romanian new leu. The t-statistic values for intercept and trend show that the real exchange rate can be assimilated to a pure random process. The standard error values display a high unpredictability for real exchange rate volatility. Enders (2009) argues that in Bretton-Woods post-period, the real exchange rate manifest a higher volatility. As a conclusion, we find that PPP doesn't holds.

After we tested the left-side of the equation, we apply Engle-granger methodology in order to test the bivariate cointegration. This means that we must use two series. According to Enders (2009), both series must be first order integrated. As a result, we estimate the long-run equilibrium by regressing $f\_ro_t = \log(ro\_ner_t) + \log(e\_ippi_{tt})$ on $\log(ro\_ippi_t)$.

First of all, we test the stationarity of $f\_ro_t = \log(ro\_ner_t) + \log(e\_ippi_{tt})$ and $\log(ro\_ippi_t)$ using Augmented Dickey-Fuller and Phillips-Perron tests. Granger sustains that an equation is consistent if a modification in the exogenous variable influences the endogenous variable. In this order, he reflected the importance of the same integration order for our variables. In order to find the integration order for our variables, we apply two stationarity tests: Augmented Dickey-Fuller and Phillips-Perron. The results are presented in table 4:

Table 4 - Stationarity results for regressions variables

Stationarity test type	Variable	t-statistic	Prob.
Augmented Dickey-Fuller	f_ro=log(ro_ner)+log(e_ippi) in level	-3.073500	0.1168
	f_ro=log(ro_ner)+log(e_ippi) in first difference	-8.559115	0.0000
	log(ro_ippi) in level	-2.520531	0.3179
	log(ro_ippi) in firs difference	-8.404971	0.0000
Phillips-Perron	f_ro=log(ro_ner)+log(e_ippi) in level	-2.716186	0.2318
	f_ro=log(ro_ner)+log(e_ippi) in first difference	-8.545642	0.0000
	log(ro_ippi) in level	-2.387062	0.3847
	log(ro_ippi) in firs difference	-8.507142	0.0000

Source: author's calculations

According to table no. 4, both variable have a unit root (are nonstationary). The variables are nonstationary and must be differenced one time (they are first order integrated and satisfy Engle-Granger condition in order to estimate the equilibrium equation using regression).

Table 5 - Long-run equilibrium equation estimate

Dependent Variable: F_RO				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RO_IPIP	0.006741	0.000259	26.05477	0.0000
C	5.170243	0.028013	184.5655	0.0000

Source: author's calculations

The intercept is statistically significant based on t-statistic value in the long-run equation. The coefficient $\beta_1 = 0{,}006741$ is close to the null value. In the next step we save the residuals and we test the stationarity. In order to determine if the variables are cointegrated we check residuals stationarity. The residuals from both below regression equation are tested for unit root presence, using a long-run equilibrium relationship:

$$\Delta \hat{\mu}_t = a_1 * \hat{\mu}_{t-1} + \sum a_{i+1} * \Delta \hat{\mu}_{t-1} + \varepsilon_t \qquad (12)$$

The results are reflected in table 6:

Table 6 - Residual stationarity test results

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-3.037792	0.1259
Test critical values:	1% level		-4.025426	
	5% level		-3.442474	
	10% level		-3.145882	
*MacKinnon (1996) one-sided p-values.				
Dependent Variable: D(RESID01)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RESID01(-1)	-0.038446	0.012656	-3.037792	0.0029
D(RESID01(-1))	0.322437	0.078043	4.131521	0.0001
C	0.007232	0.002914	2.481559	0.0143
@TREND(2000M01)	-8.34E-05	3.56E-05	-2.342990	0.0206

Source: author's calculation

According to the information from table 6, we find that PPP doesn't hold in long-run in Romania if we use the Engle-Granger methodology.

CONCLUDING REMARKS

Our results reject PPP validity for the Romanian case for both situations. Real exchange rate stationarity tests reflect permanent deviation of form the purchasing parity level. Using the Engle-

Granger methodology, we couldn't find a long-run cointegration between nominal exchange rate and price indices. Hence, PPP is rejected in long-run. Due to the fact that Engle-Granger methodology has many limitations, we intend to use Joahansen multivariate procedure in order to test the cointegration.

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KNOWLEDGE MANAGEMENT TOOLS FOR THE EUROPEAN KNOWLEDGE BASED SOCIETY[12]

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Abstract: *Increasingly more literature mention that in the current competitive environment, knowledge have become the main source of the competitive advantages, while recent researches regarding economic growth and development have defined knowledge as being the most critical resource of the emerging countries.*

Therefore, the organizations interest for knowledge has increased, the latter being defined as knowledge management process in order to meet existing needs, to identify and exploit existing and/or acquired knowledge and developing new opportunities.

In other words, knowledge management facilitates productive information usage, intelligence growth, storing intellectual capital, strategic planning, flexible acquisition, collection of best practices, increasing the likelihood of being successful as well as a more productive collaboration within the company.

In order to benefit from all these advantages, it is required the usage of specific tools including models and systems to stimulate the creation, dissemination and use of knowledge held by each employee and the organization as a whole.

Keywords: knowledge management, models, systems, learning organization.
JEL Classification: D21, D83

1. INTRODUCTION

Since March 2000, the European Union started to be oriented towards becoming the most competitive knowledge based economy. This goal generated a lot of interest in the management research field. As a result, more and more managers and researchers started to be preoccupied by identifying or developing tools that would facilitate the processes of knowledge creation, acquisition, dissemination and use.

More and more literature mention that in the current competitive environment, knowledge have become the main source of the competitive advantages (Wiggins and Ruefli, 2005; Joia and Lemos, 2010; Mitchell and Boyle, 2010), while „recent researches regarding economic growth and

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development have defined knowledge as being the most critical resource of the emerging countries" (Millar and Choi, 2010, p.760).

Therefore, the organizations interest for knowledge has increased, the latter being defined as knowledge management process in order to meet existing needs, to identify and exploit existing and/or acquired knowledge and developing new opportunities "(Quintas et al., 1997). On the other hand, its implementation „offers a company the opportunity to learn from organizational memory, to change knowledge and identify skills in its request of becoming a learning organization that is concerned for the future" (Robinson, 2005).

In other words, knowledge management facilitates productive information usage, intelligence growth, storing intellectual capital, strategic planning, flexible acquisition, collection of best practices, increasing the likelihood of being successful as well as a more productive collaboration within the company.

In order to benefit from all these advantages, it is required the usage of specific tools including models and systems to stimulate the creation, dissemination and use of knowledge held by each employee and the organization as a whole.

2. METHODOLOGY

Present paper aims to examine articles published from 1995 to date in order to identify which companies have the tools available to facilitate the creation, dissemination and use of knowledge.

Being in the area of knowledge management, the paper stresses to find answers to the following questions: what are the models, systems, methods and techniques on that an organization should develop to ensure the capitalization of the human capital full potential and to benefit from sustainable competitive advantages?

For answering these questions, there were analyzed the most relevant articles published in the internationally recognized journals in the period December 2010 - January 2011. Thus, there were considered EBSCO databases, Emerald Group Publishing and Science Direct. Within these databases there were searched articles which have had included the phrase "model/system for knowledge management" in the title, abstract or keywords. The journals in which these articles were published are: *Journal of Knowledge Management*, *Strategic Management Journal*, *Management Science*, *Expert Systems with Applications*, *Journal of Strategic Information Systems*, *Decision Support Systems*, *Information & Management*, International *Journal of Information Management*, *Organization Science*, *Long Range Planning*, *California Management Review*,

Journal of Management Information Systems, *Decision Sciences*, *Journal of Information Technology*, *Academy of Management Journal*, *International Journal of Information Technology & Decision Making*, *Engineering, Construction and Architectural Management*, *The Journal of Knowledge Management Systems*, *Engineering management Journal*, *EIT Software*, *Technological Forecasting & Social Change*. Subsequently, after the analysis of references of the articles found have been identified following sources: *Information Strategy*, *The Executives Journal*, *International Journal of Project Management*, *Journal of Operations Management*, *Knowledge-Based Systems*.

All these studies were analyzed in terms of their contribution for the field's development. Regarding the extra information brought, it will be presented in the following subchapters which will reflect a gradual evolution from general to particular. Initially, we shall outline the main models of knowledge management, and then we shall make a foray into the manner in which they are implemented and operationalized as systems within companies.

3. SPECIFIC KNOWLEDGE MANAGEMENT MODELS

In the literature, we encounter a series of knowledge management models, each with both strengths and shortcomings or limitations.

Guerra-Zubiaga and Young (2006) argue that specific knowledge management models are created to represent a support for the organizational environment decisions. These models are embedded in a system making use of various techniques and tools to achieve competitive advantage and a specific "know-how" specific. Knowledge is much more difficult to define because it can have many possible interpretations. For example, knowledge is defined by Guerra and Young as information which add details on how to be used or applied.

One proposed model belongs to Woitsch and Karagiannis (2005). It focuses on process-oriented knowledge management and distinguishes between three main categories (Figure 1):

1 - Process as content. KM is meant to define the process as content.

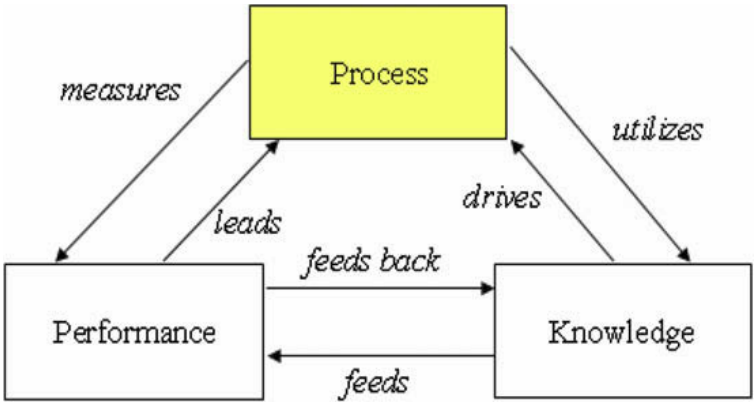
2 - Process as an entry point and integration platform. The purpose of the second category of KM is to define business process as a starting point.

3- The process from a managerial perspective. This third interpretation defines the activities related to KM. The purpose of such a KM model is to identify and classify types of knowledge to be created and accumulated in a process-centered manner. Subject of knowledge in the companies focused on applying KM process-centered model takes two forms: the knowledge process and the knowledge support task.

The purpose of such an organizational KM model is to enriching the information context in order to perform correctly the requirements. To achieve this goal it is necessary to connect the concept in a coherent manner as well as a multi-layered acquisition of knowledge. By using this model, one that is involved in performing the required tasks set is gathering more sophisticated and network knowledge than simple knowledge.

When new data are created on a specific concept such as a new product, this information is recorded in an ontologically warehouse. Common attributes of such information is ID, name, description, data type and size. Subsequently, the connection is established between the project (process court) and the remaining components. Therefore, during the process execution, participants may retrieve relevant knowledge using only project's name or ID. There can be easily retrieved multi-layered and network knowledge linked to a particular object of interest, aspect that facilitates both the context and the knowledge content enrichment.

Figure 1 – KM process-centered model



Source: Woitsch and Karagiannis, 2005

As previously mentioned, most of these models have a series of limitations. A limit of this model is the lack of a workflow engine function to control the project progress, in conjunction with the lack of measurement function for managing business performance. Molina et al. (2007) studies the relationship between quality management practices and transfer of knowledge internally and externally. Their goal is to find the foundations of knowledge confirming the relationship between practices implementation in quality management and managerial performance.

They attempt to define and explain the link between knowledge management and the companies` competitive advantages on the market. The authors studied the transfer of knowledge and have bordered two major theories which are being used on a competitive market. The first highlights the social network for any type of organization, and the second theory emphasizes the

importance of this social network using networking structures based on diversity. All these networks are based on issues laid down in the social (Liebeskind et al., 1996), physical (Almeida and Kogut, 1999) and institutional field (Kraatz, 1998).

Internal and external knowledge transfer should not be used as an alternative for the knowledge sources. The distance between the knowledge base and its implementation in organizations should be shorter than the one established between organizations and organizational environment (Postrel, 2002). Once the organization applies its resources on the useful knowledge transfer between employees and customers, this knowledge has a lower cost for internal transfer than for the external knowledge transfer. If external transfer is taken to shape the organization's performance, the benefits of knowledge transfer should be the main element which is chosen in order to achieve the organization's mission and objectives.

This points out that once the knowledge is transferred to all of the organization's area, internal and external transfer can be considered a leader of organizational performance. This idea is supported by the fact that the transfer will be high and will require a low cost, but also by a much lower perceived risk resulted in organizational structures.

Research undertaken in internal knowledge management focuses on the connections between knowledge management and organizational performance, which are produced by the innovation in knowledge management (Andrew et al., 2001). Infrastructure capabilities such as knowledge based on culture, technology and human resources are assumed to have a greater impact on knowledge management process, claim Chang and Chuang (2011).

This process subsequently influences the organizational performance. Knowledge management based on human resources describes an extension in which the companies` employees are specialized on particular areas, and this demonstrates that it creates an interaction between knowledge from different fields. Human resources are the heart of knowledge and resources creation (Holsapple and Joshi, 2001).

Wiig (1995) defined knowledge management as a well-defined group of methods and processes used to searching for important knowledge in various KM operations. KM is used interchangeably to confirm and define a new product strategy but also to strengthen the human resources management in defining the goals of an organization.

Nonaka and Takeuchi (1995) described a different definition of knowledge management: the creation of knowledge is generated by interaction between tacit knowledge and explicit knowledge. Using a model of knowledge transformation, the two authors have shown the relationship and

consequences of tacit knowledge and explicit knowledge. These links between the two types of knowledge have created a SECI knowledge management model that includes (Figure 2):

1. *Socialization*: converting tacit knowledge into tacit knowledge;
2. *Externalization*: converting tacit knowledge into explicit knowledge;
3. *Combination*: converting explicit knowledge into explicit knowledge;
4. *Internalization*: converting explicit knowledge into tacit knowledge.

Figure 2 – Nonaka and Takeuchi model

Source: Nonaka and Takeuchi, 1995

This model described by Nonaka and Takeuchi forms a well-defined system of knowledge management. When experience is gained with these transformations, it is defined by a system of active knowledge which is very valuable. Holthouse (1998) defined knowledge as a continuous flow through which the knowledge is transferred from the one who ask for it to one who wishes to obtain it. Nonaka et al. (2000) defines the relationship between knowledge creation and innovation such as being a division between individuals and groups who share the same experiences. Because the main objective of knowledge management is knowledge innovation, each organization member must share to the social group, knowledge belonging to one of four models: socialization, externalization, recombination and internalization.

A new model that uses information and knowledge structures was developed by Guerra-Zubiaga and Young (2006) and was called Development of easy information and knowledge model. Two distinct classes were formed in this model: facilitating knowledge and types of knowledge. The model described operates with these two classes which help for a description of the knowledge structure. This model shows that knowledge structures can store processes and resources which

serve for different types of knowledge. Understanding and representation of these different types of knowledge is important to build a structured and rigorous model. Each type of knowledge can have different representations showing the value of embedded knowledge.

The introduction of innovative knowledge in the basic existing knowledge will bring benefits and professional success to the organization. Recent studies present many management strategies of the innovative knowledge, these strategies can be exploited quantitatively and dynamically. The study conducted by Tsai (2009) presents a model for the diffusion of knowledge associated with innovative knowledge model to investigate the influence of the adoption of innovative knowledge in the organizational environment. The model uses many parameters simultaneously considered as part of knowledge management different subsystems. Tsai (2009) expressed a mathematical model of knowledge management. The results of the mathematical model can describe closely the relationship between the amount of existing knowledge, value of the innovative knowledge and the organization benefits. With this model, managers can evaluate the performance of knowledge management and in the future they may establish new analysis parameters to permit definition of several mathematical models. Managers can also develop effective knowledge management strategies by analyzing the parameters involved in the model of diffusion of knowledge.

Original concept of diffusion of knowledge belongs to Bass (1969) model that captures the value of knowledge that can be transformed into organizational benefits using knowledge outsourcing, and then transforming organizational benefits with the help of knowledge internalization. Knowledge management should be implemented in an open system, where the internal aspects of the organization should interact with the external environment of the organization (Tsai, 2008). The proposed model of knowledge diffusion describes interaction intra-firm and inter-firm, outlined by a relationship based on knowledge value and company benefits. The implementation of such models which outlines a knowledge management system is vital for organizations. The performance of Knowledge management can be researched only by establishing relationships between knowledge and benefits of the organization.

The paper called "The index of performance in knowledge management" (Lee et al., 2005), establishes the link between performance and knowledge management. The authors consider that firms are always oriented to accumulate and apply knowledge to create economic value and competitive advantages. To describe the relationship between performance and knowledge management, they highlighted five stages: knowledge creation, knowledge accumulation, sharing/knowledge sharing, knowledge utilization, knowledge internalization.

Sharing knowledge is also one of the methods used by Nonaka et al. (2000). He defines with this model the relationship between knowledge creation and innovation. The other four models are subject of testing and verification by Lee et al. (2005) in the index of performance in knowledge management.

Sedera and Gable (2010) describe in their paper, a cycle of knowledge management that goes through four phases: creation, transfer, retention and application. Each of these four phases is described as models of knowledge management.

Creating knowledge is the first phase of the cycle of the entrepreneurial system, which belongs to planning and implementation of knowledge in the organizations. This phase is based on knowledge requirements to outline a structured model of the cycle.

Knowledge transfer highlights a number of channels through which knowledge can be transferred, channels which can be formal or informal (Pan et al., 2007). The formal transfer of knowledge is established by a rigorous program, and informal knowledge transfer can take place even in the coffee break, for example. Informal transfer of knowledge also promotes effective socialization in small organizations. Avital and Vandenbosch (2000) argue that the formal transfer of knowledge takes place especially during training programs and is focused on knowledge transfer.

Accumulation/retention of knowledge shows that people accumulate knowledge from observations, experiences and actions (Sanderlands and Stablein, 1987). Gable et al. (1998) observed the importance of the organizational strategies of retention of knowledge by the success determined by the cycle of entrepreneurial system,

Application of knowledge highlights the fact that once knowledge is created, the transfer and the accumulation interact with entrepreneurship system. Markus (2001) suggests that the source of competitive advantage lies not in knowledge but the application of knowledge. Application of knowledge is essential in the cycle described in the outlined system of the knowledge management, in particular by the maintenance and achieving the success.

There are many articles in the literature discussing various types and dimensions of knowledge. In particular, the distinction between tacit knowledge and explicit knowledge is given special attention. Tacit knowledge is that which exists in the minds of individuals, while explicit knowledge are outsourced and shared with others. Reijers et al. (2009) identified the same patterns of knowledge interaction as Nonaka and Takeuchi (1995). Therefore, we can identify the transition from:

- Tacit knowledge to tacit knowledge - the process of "socialization" while sharing experience and interaction.

- Explicit knowledge to explicit knowledge - process of "combining" of existing knowledge with the innovative ones, the transition from basic knowledge to new knowledge.
- Tacit knowledge to explicit knowledge - process of "outsourcing" of knowledge that individuals assimilate them.
- Explicit knowledge to tacit knowledge - process of "internalization" of acquired knowledge (Polanyi, 1967).

Drew (1999) presents a classification of economic knowledge in which may appear the risk of deficiency of knowledge:

- What we KNOW, KNOW (sharing and access to knowledge);
- What we KNOW, NOT KNOW (finding and creating knowledge);
- What we do NOT KNOW, KNOW (tacit knowledge, concealing knowledge);
- What we do NOT KNOW, NOT KNOW (the discovery, exposure and opportunities).

According to this model, knowledge management is presented as two processes: the "bottom", through which are established priorities that must be handled explicitly and effectively throughout the organization and the "top", which sets strategy for the entire organization, strategies that include roles and priorities for the intellectual capital, costs and benefits for implementing knowledge management, operational models, organizational development plans, objectives and strategies for each area of knowledge, tactical details for priority knowledge and creating a favorable environment for sharing tacit knowledge in order to make them explicit.

In the last decade, many researchers and practitioners have recognized the importance of knowledge management as a key factor in fostering competitive advantages. Holsapple and Singh (2001) have divided the knowledge management into five main activities and four secondary activities. The five core activities concern to acquisition, selection, generation, internalization and externalization of knowledge.

The other four secondary activities are leadership, coordination control and measurement. These activities encompass the knowledge logistic model. Analysis of activities and resources necessary to lead to knowledge management operations leads to competitive advantages.

Logistic model of knowledge is described by the two specialists as follows:

- Acquisition, through which external knowledge must be transposed into the organizational environment.
- Selection, through which knowledge must be so selected to obtain the best results.

- Generation, through which the knowledge obtained is useful and can be analyzed to create new knowledge.
- Internalization, through which knowledge is transformed into internal resources.
- Externalization, through which knowledge is communicated.

Organizational knowledge creation is a process that includes new perspectives needed for the development of the culture and organizational environment of companies.

Han and Park (2009) proposed a model that describes business based on the ontology business. They have treated the process as a company based on knowledge, focused on knowledge management in decision support and not as a company based on automatism.

4. SPECIFIC KNOWLEDGE MANAGEMENT SYSTEMS

A strategy increasingly more common and which is designed to improve the access to reliable and timely information is the development of a knowledge management system (KMS). Typically, the mission of a KMS is to select existing knowledge in a particular area of interest, to reduce and summarize their content in manageable text, to attach key categories and then to put the material available to KMS subscribers.

The central idea is that KMS will provide instant access to updated and specialized knowledge. This perspective refers to changing the current form for production of the knowledge in an economy based on production of knowledge without addressing the existing digital divide and its tendency of increasing of it between those who have Internet access and those who do not have and most likely they won't have very soon.

Knowledge management systems are, by definition, different from the data banks. The term "management" indicates the selection of knowledge considered most relevant to the organization that coordinates the system. KMS is under the tutelage of a manager or administrator of inputs/outputs of knowledge. Under the responsibility of this person or of a small team of people will be the tasks for knowledge selection, considered valuable, synthesized in "material removed as a result of aging process" and the creation of the most relevant "knowledge classification schemes" (APQC, 1997).

One of the most important knowledge-based systems is the software able to support explicit representatives of the knowledge from specific areas. The mechanism of knowledge system is able to solve high level problems related to performance. Knowledge management system is named after specific areas of knowledge and tools used to support decision making. The engineering knowledge

system is one of the knowledge-based systems. In other words, there are many knowledge management systems, as many as the specialized fields that exist. For example we can have the knowledge management system of mathematics, physics, economics, and many other systems based on specific knowledge of each area.

Other types of knowledge-based systems are also the expert systems; they are intelligent programs of the computer that use knowledge to solve problems difficult enough for a human expertise. Expert systems can even imitate human abilities in private fields. However, the knowledge cannot be completely implemented in computerized programs. Smith (2001) proposed a number of alternative techniques for the recognition, acquisition, sharing and measurement of tacit and explicit knowledge that can help at the understanding of the knowledge role.

The knowledge life cycle begins when the new information or knowledge is identified. However, the transformation of knowledge is important for renewing of tacit knowledge, explicit and/or implied. An important element in this transformation is defining the type of knowledge that will be used to store new knowledge. If the new information is necessary it must be automatically localized and must find its roots, while the old information will be replaced with the new knowledge. Portions of the new knowledge will be expressed in different representations of tacit knowledge, explicit and/or implied. The premise from which this transformation leaves is given by the outcome which must be reached. For those that use knowledge is necessary to use valuable knowledge caused by change of form, context or content.

Borges-Tiago et al. (2007) considers that knowledge management system based on the Internet has a positive impact on business performance. Han and Park (2009) believe that while manage the knowledge through centralized processes is essential to establish a model of knowledge management which to stabilize different types of knowledge-based business and the creation of relationships between objects and knowledge so that be oriented to specific processes.

Shue et al. (2009) have introduced into organizations an expert system based on the knowledge division in the areas of knowledge and operational knowledge, applied to an ontological model of business and to production rules represented by operational knowledge.

Garcia-Crespo et al. (2011) focuses more on financial issues of the organizations than on issues relating representation and the knowledge process. This is useful for helping business process based on the previous experience, but also is not applicable to companies based on automatism and not knowledge. Tran and Tsuji (2007) created an extension of the expert system to represent "templates" that can be applied even for the business process automated. Therani (2007) created a business network based on a dynamic process that can be implemented as specific software. The

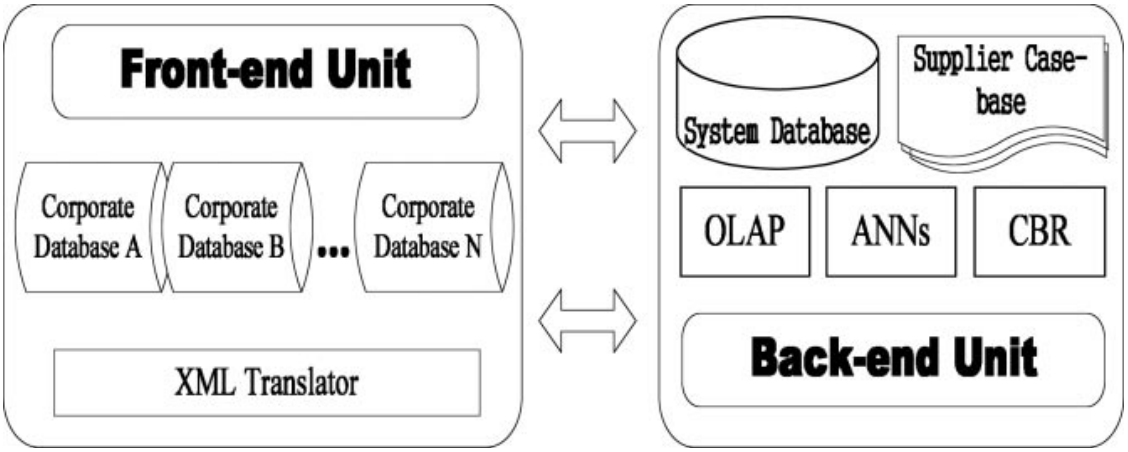
study of Garcia-Crespo et al. (2011) is focused on evaluation and measurement of information of the business, but also, on recommendations for the knowledge management. Their work is centered on knowledge and is focused on both types of knowledge management, but also on the successful execution of specific processes of the domain.

One of the systems used in the knowledge management is studying trends that define technologies which support four specific activities of knowledge management: creating, encoding, transfer and application of knowledge. For a long time, knowledge management system studies the focus on coding and representation of knowledge from IT field. Many of the knowledge-based systems focus on specific technology solutions such as discovery, representation or dissemination. Examples of specific instruments included in intelligent systems vary depending on the type of knowledge.

Such a KM system was presented by Choy et al. (2007) in order to generate the necessary knowledge in assisting decision-making process which allows the creation of a relationship between consumer demand and provider response options. By using SKMS (Figure no. 3), customer requirements are being directly related to the supplier's capacity, so that an order for products in the correct amount can be issued to certain suppliers in the correct time in order to minimize the inventory costs.

SKMS uses CBR (case-based reasoning) as both as methodology and technology. This reasoning is a technique that appeals to past situations and cases for present problems solutions. Central tasks involved in CBR methods are to identify current problem situation, find a past case similar to the present case in order to use the past experience for suggesting a solution for the current issue, evaluation of the proposed solution and updating the system by learning from that specific experience.

Figure 3 – The architecture of a knowledge management system related on supply



Aamodt and Plaza (1994) described CBR as a cyclical process comprising four phases: recovery, reuse, revision and retention. In the CBR cycle, a new problem is, first, compared with historical cases existing in the database, using heuristic recovery methods indexed with one or more similar cases. Subsequently, the solution suggested by the matching cases is reused and tested in order to be validated. At this stage, if the best case assumed is perfectly compatible, the system has achieved its goal. XML language is used to facilitate the integration of existing stock of raw data units, which is useful for estimating future needs of customers from various corporate databases to the SKMS database.

Using knowledge management systems to support professionals from organizations in the decision making process by creating organizational knowledge is a double-edged sword. Availability of explicit knowledge support within a KMS must allow people to improve their decision-making process, but the potential impact on the individuals' expertise development in an organization remains unknown.

Alavi and Liedner (2001) note that some researchers raise questions on the fact that users of a KMS cannot develop their own knowledge while basing on others expertise, which can lead to a lack of knowledge development amongst the next generation of organizational experts and ultimately to a lack of human expertise within the firm (e.g. Cole, 1998; O'Leary, 2002; Powell, 1998). The results obtained from the perspective of knowledge acquisition raise questions that require further research in order to better understanding the overall impact of KMS use. First, results indicate that KMS users show a significant improvement of their problem-solving skills in terms of interpretation.

Users of such systems continue to improve these skills as they use them. Solving interpretation issues is well supported by a KMS, whilst reducing the cognitive effort required resolving this kind of problems. From this perspective, it can be stated that beginners with easy access to examples that can support decision-making process may continue to wear the solving of interpretation problems to fix the problem and not necessarily being motivated to begin development of a high level tacit knowledge.

Multilingual knowledge management systems began to be used in a large scale, which includes government system, medical system as well as the knowledge generating libraries. Multilingual systems facilitate the communication, structure and problems related to knowledge transparency. Peters and Sheridan (2000) made a brief history of multilingual resources integration in knowledge management system.

This system includes knowledge conversion and connection. The content of the two concepts provide details on how to solve a particular problem ("things are going well"), or how not to solve various other problems ("things are going wrong"). Individual knowledge must be converted into groups of knowledge available, while other knowledge resources must be converted from one language into another language, so that in the future all people should be connected with other knowledge resources and other people. Also, knowledge resources must be sought in order to establish links between different knowledge, information and people. Searching should create related connections for everyone who use them.

Table 1 – Modules and functions of knowledge management systems

Modules	Functions
Industry and market analysis	• Industrial analysis • Technological position • Financial structure • Analysis of resources • Competitive structure
Generating ideas for dominant design	• Technology trends • Technological opportunities • The production value • Needs analysis
Project monitoring	• Selection of projects • Fusion technology • Analysis of success / failure
Design and supply planning	• Project portfolio • Technology outsourcing • Technology roadmaps
Knowledge research	• Patent • Industrial management • Test marketing
Marketing and business modeling	• Technology assessment • Predictions for the cash-flow • Production efficiency • Competitor analysis
Management process	• Work-flow analysis
Management documents	• Sharing knowledge • Exit knowledge

Source: Park, Y., Kim, S. (2006) *Knowledge management system for fourth generation R&D: KNOWVATION*, Technovation, vol. 26, pag. 599.

Kinga et al. (2008) considered that modern processes connected systems can share organizational knowledge in various ways. Researchers and practitioners have focused on

knowledge management systems to provide information and relevant knowledge for the organizational environment. Many knowledge management systems are designed to capture individual knowledge. Some individuals from different organizational cultures consider that power stands in the amount of knowledge. The paper is focused on the individual who shares knowledge and potential effects of his motivation - supervising control and organizational support - on the knowledge sharing behavior.

Park and Kim (2006) have sketched together KNOWVATION system which is one of the important systems based on knowledge innovation in research and development. KNOWVATION is a combination of words that include "knowledge" and "innovation". This system is considered as being part of the fourth knowledge generation in research and development. This system`s functions are focused on acquisition and knowledge sharing, as well as the knowledge analysis and creation. KNOWVATION is especially designed to cover five modules and twenty-five KMS functions necessary for creating and analysis of knowledge. Systems and modules are presented in Table 1.

CONCLUSIONS

Moving from industrial society to information society, then to the knowledge society through various models, tools and systems especially, we can say that the individual is the focus of the modern era.

In the recent years, many researchers have developed and implemented models and knowledge management systems. The purpose of knowledge management is to be useful to individuals working in different organizational environments, and for people in general.

Knowledge management appeal to intrinsic and extrinsic factors that help society to develop and print her actors the knowledge needs. Users of knowledge management systems are those who perceive the importance of self-discovery and self development.

Awareness of the need for knowledge-based society developed a knowledge management, outsourcing and is a first step towards knowledge society where we are. Bushy bibliography attached to this report, indicate that many of the figures in contemporary management are concerned about rigorous analysis of the knowledge society. Various models, and systems highlighted were successfully applied to the population. Rigorous documentation of those who feel the ground knowledge management was able to develop models and systems important for the organizational environment. Vulnerabilities of these determinants of knowledge management issues

highlighted possible adaptation and improvement of systems and models of knowledge management.

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THE MIGRATION OF EUROPEANS TO THE UNITED STATES AT THE MIDDLE OF THE 19TH CENTURY – THE IRISH AND GERMAN WAVE[13]

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Abstract: *This article analyses the contribution of the second wave of immigrants to the United States to the formation of the young American people. Unlike other states, the USA is a nation founded on waves of immigrants coming from different parts of the world. This paper includes the second wave of immigrants in US history in the four waves and presents the migration of the Irish and Germans to the USA at the middle of the 19th century. They had an important contribution to the increase of American population and were a source of consumption and workforce for agriculture and various industries.*

Key words: immigration, Irish immigrants, German immigrants, potato crisis
JEL Classification: J11, N31, N33

"We are a nation of immigrants!" is a common syntagm in the discourses of American politicians, taken over by mass media and the public and often forgotten, but always in the pipeline, especially when the matter of immigration becomes important again as a justification for the supporters of this phenomenon (Weisberger, 1994). Considered by some to be a cliché, the syntagm incorporates a simple, profound and undeniable truth, i.e. that the USA is a nation with a short history which is based on various waves of immigrants that came from all over the world. Unlike other parts of the Globe, the colonization of the American continent was not carried out chaotically, as the waves of immigrants flew continuously and in a calculated manner, each of them regarding America as "The Promised Land".

With respect to the various waves of immigrants that populated the American land along history, we can identify four significant periods, each of them being defined by distinctive features.

- "The first wave" of immigrants goes back to the colonial period and is considered to have started at the beginning of the 17th century, when England was trying to establish a series of colonies on the Eastern shore of America in search of new markets for their products.

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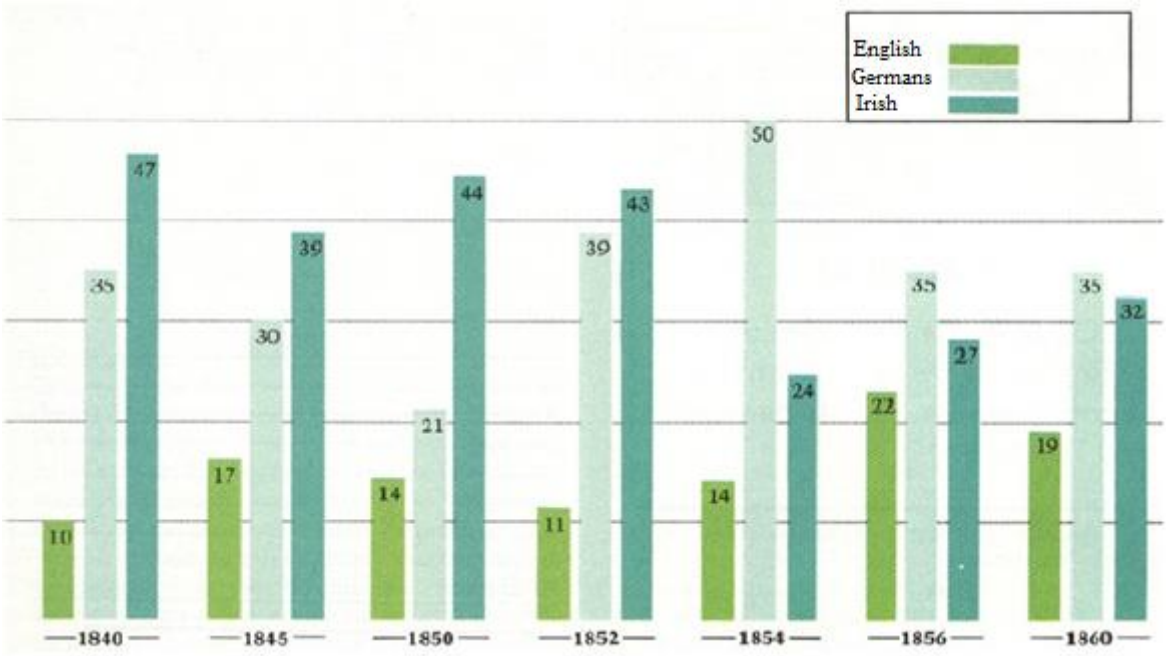
- "The second wave" starts in 1815, when Ireland prevailed over England as the main immigrant supplier to the USA. Drawn to the American land for various reasons, especially financial ones, Irish and German immigrants are the main feature of the immigrant flows in the second wave.
- "The third wave" of immigrants in the USA starts in the eight decade of the 19th century as it overlaps World War One and ends with "the Great Depression" of 1929-1933. This wave is characterized as the greatest transatlantic movement of persons in history, with over 14 million Europeans crossing the USA borders between 1860 and 1900, followed by other 18.6 million until the crisis of '29-'33. (Bryant, 1999)
- "The fourth wave" of immigrants starts in 1965, along with the change of the USA Immigration Law when, for the first time, the Mexican families which had become American citizens with full powers in time, were allowed to immigrate in the USA for the purpose of reunification.

The second great wave of immigrants which flooded the USA contributed to an unprecedented increase of the American population from 4 million only in 1790 to 32 million seven decades later, in 1860. Since 1820, Ireland had become the main immigrant supplier to the USA, outdistancing England in this respect, the latter being also defeated by Germany until 1850.

Most Irish immigrants which came to the USA were driven by the "potato crisis of 1845" which generated the *Great Irish Famine* at the middle of the 19th century – a hard moment in the history of this state which definitely changed the demography, politics and cultural landscape of Ireland. For the Irish struck by the cruelest famine in history, the immigration to America was their only hope. Once they reached the USA, the Irish settled in ports or near big cities, working to pay for food or shelter. Therefore the migration of the first Irish is also known in the literature of the field as "the beggars' migration".

As can be seen from the chart below, at the end of the 19th century, the main countries which supplied immigrants to the USA were the following, according to their importance: Ireland, Germany and England. However, the share of the three was overwhelming so, in 1840, they held together 92% of the total number of immigrants that reached the American land; among them, the Irish alone held 47% of the total number, whereas the Germans more than a third. In the decade that follows the *potato crisis* in Ireland, the tendency remains the same, i.e. the hierarchy of main countries supplying immigrants to the USA does not change in share.

Figure 1 - The share of English, German and Irish immigration within the total number of immigrants at the middle of 19th century

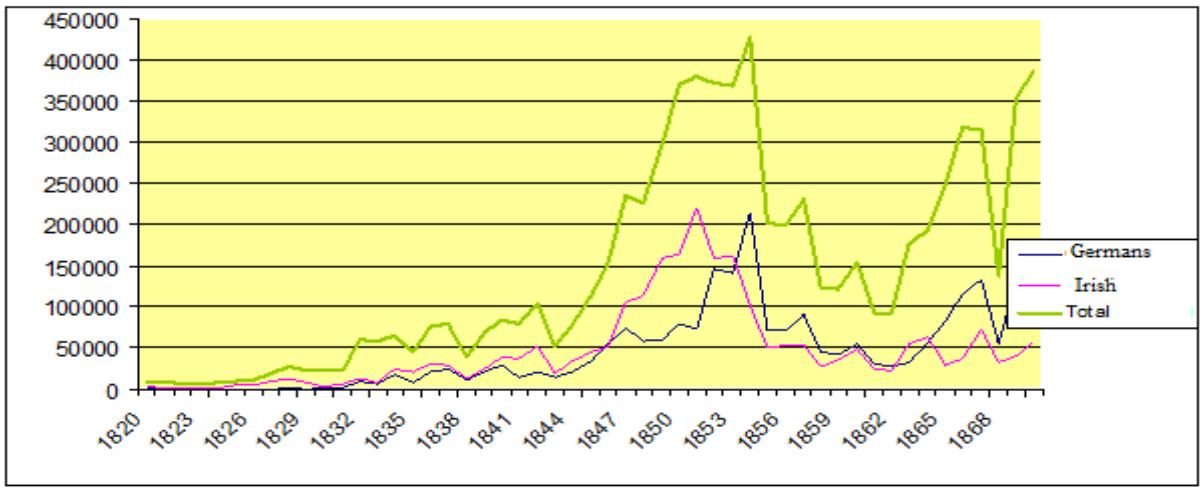


Source: *U.S. Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition*, Washington D.C., 1975 at http://www.latinamericanstudies.org/ellis-island/immigration-1840-60.jpg

In 1854 Germany became the country which sent the largest number of immigrants to America, outdistancing Ireland, for the first time. Half of the persons that reached American land in that year were Germans. Although their share within the total of USA immigrants would decrease in the following two decades, the Germans would remain the main supplying nation until the end of the second wave.

The evolution of English and Irish immigrants followed the same trend as the total of immigration, with a continuous growth until the half of the '50s, being followed by a decline in the following decade. As can be seen from the figure below, the share of the two nations decreased in time, as a result of the reconstruction of European economies (and especially the Irish one), and the occurrence of other nations issuing immigrant flows from areas such as Central and South Eastern Europe, Mexico and China.

Figure 2 - The evolution of the second "wave" of immigrants to the USA (1820 – 1870)



Source: *The Dillingham Commission Reports*, vol. 3, pp. 66-82;

The Germans could be distinguished from the Irish, the peoples that had the biggest share in the immigration to the USA at the middle of the 19th century, by their social class and financial situation. As compared to the Irish, most of the Germans were political refugees, scholars, intellectuals, some of them wealthy and eager to later invest their money in the cheap lands of the Western US states. They founded towns that survived till this day such as New Ulm in Minnesota or New Braunfels in Texas (Weisberger, 1994). In time, the German farmers spread in the central states of America, as well (Illionois, Michigan, Iowa, Wisconsin). Some of them became "Texans", which explains the 1843 German edition of the Texas Laws. In cities such as New York, New Orleans or Saint Louis, German breweries, book cover shops, butcheries and other similar industries become renowned. Over 100 000 Germans lived in New York in 1860 in the so called *Little Germany* or *Kleinedeutschland*, an area formed by many neighbourhoods which hosted no less than 25 German Catholic churches, 50 German schools, other 10 bookshops and 5 publishing houses for German books. For the Americans that witnessed the mass migration of the Germans and Irish, the German minority was a model to follow, unlike the Irish one which had been considered a problem for a long time. The hostile attitude of the common American, of the mass media and the political class towards Irish immigrants would change in time, along with the penetration of other peoples, from Eastern Europe, to the following wave of immigrants.

Apart from the two major groups, the immigrants with a significant share in the second wave of immigrants to the USA were the Nordic peoples: the Danes, the Norwegians and the Swedes which arrived to the USA and grew constantly in numbers since 1850.

The massive immigration to the USA and consequently, the creation of a larger and larger market for consumption, the rich sources of raw matters that the American nation disposed of, the foundation of the first factories and manufacturers, as well as the entrepreneurial spirit of middle class Americans of the middle of 19th century created the premises for a rapid industrialization of the country. Due to the fact that European immigrants mainly devoted themselves to agriculture and the occupation of virgin lands from the West, the lack of qualified workforce for industry largely stimulated the introduction of machinery and the most advanced technique for that period.

Considered as a rare resource from the beginning, the work of immigrants employed in industry was well remunerated, the continuous flow[14] of European immigrants of the following decades had the natural impact of decreasing real incomes; however, despite this, they were still higher than the European incomes. The lowest salaries were those of the immigrants working in the construction of channels and railways, i.e. 8-10 dollars per month. However, this amount was not a modest one for a Swedish immigrant who, in his country of origin was paid with 33.5 dollars per annum, if working in agriculture (Weisberger, 1994).

THE KNOW-NOTHING MOVEMENT

Unlike the first English colonialists who, once they arrived on the North American continent, regarded nature and the natives as their enemies, the Irish new comers at the beginning of the 19th century were facing a well-formed American society. For a long time, the Irish were confronted with the Americans' hostility, something that would also hold true for the reaction to the following "waves" of immigrants, as well.

Once a new wave of immigrants reached the land of the newly formed state, the ones in the previous wave were mandatorily becoming "Americans" and the new comers were trying to imitate the former (Stan, 2001, p. 17). The Irish immigrants were not welcomed by the American population who strongly felt threatened by them. Therefore the Irish had to accept the hardest and lowest paid jobs, living in inhumane conditions, were persecuted and despised by the xenophobes in America (Vianu, 1973, p. 65). The fear of the unknown is a feature of the human being, as well as the reluctance to strangers; the lack of trust in the new waves of immigrants, the Irish one included,

[14] Except for the periods that immediately followed the crises of 1837 and 1857, the number of immigrants on USA land unceasingly increased.

is justified. Similarly, the Irish who had become "Americans" in the meantime would also stand against the waves to come (Kennedy, 1963).

Soon afterwards most of the stores in Boston and New York started to post discriminating adverts which addressed the new immigrants - *"No Irish Need Apply"*; moreover, other organizations, mainly formed by protestants, were fighting against Catholic immigrants (Irish and Germans) that, in their opinion, were a threat both to the available jobs and their religious conviction (Kennedy, 1963). One of these organizations is the one called *Know-Nothing* which was against the Irish and German immigrants in the USA. The group formed by Protestants was to become the first political party in USA history which fought against Catholic immigrants. The Irish immigrants were mainly accused for not living a life as good as they would afford it due to their religious fanaticism. The protestant opponents claimed that the Catholic religion was always a mean to accuse and fight against one's obtaining profit (Weisberger, 1994). Among the claims of this party, the following are worth mentioning: limiting the access to the USA of the immigrants coming from traditional Catholic countries, especially Ireland and Germany, the interdiction to use another language than English on US territory, as well as the requirement, for any immigrant, to have spent at least 21 years on US territory to obtain American citizenship. As no party whose doctrine is based on bigotry and hate lives a long life in the USA, *Know-Nothing* would disappear at the middle of the 19th century, despite its fresh start.

CONCLUSIONS

USA remain a nation which was founded, along time, on different waves of immigrants coming from various parts of the world. By analyzing the economic, political and social history of the USA, we can reach the conclusion that immigrants had a leading role in the country's formation as nation, contributed to its industrial development at the beginning of the 20th century and helped it to the become the strongest world power.

The "second wave" of immigrants lasts five decades when, between 1815 and 1870, 3.5 million European immigrants, mainly Irish and German, come to the USA, most of them driven by the famine in the European countries at that time. They had a major contribution to the foundation of the American nation, setting up cities, working in agriculture and in the most important industries.

This wave of immigrants is only a sample of what would later mean the immigration phenomenon for this state, i.e. in the following decades up to World War One, both in terms of numbers and heterogeneity of supplying nations.

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***The *Dillingham Commission Reports*, vol. 3, pp. 66-82, accessed on January 2012 at http://site.ebrary.com/lib/stanfordimmigrationdillingham/EDF?id=10006581

EURO UNDER CROSSFIRE. WILL THE EUROPEAN MONETARY UNION SURVIVE?

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Abstract: *The creation of the European Monetary Union was both a political and an economic decision considered to be a success for almost a decade. Starting from 2008-2009, the EMU has been facing the most difficult moments of its existence. This paper aims at analyzing the impact of the current financial crises on the EMU member countries, the measures taken up to the present as a response to the crises and the future perspective for the European single currency. Both the breaking up of the EMU and its maintaining prove to be costly decisions. The recent evolutions have shown the political will to keep the EMU together, but we must ask ourselves at what price and risk.*

Keywords: European Monetary Union, euro, financial crisis
JEL Classification: F15, F36, E 58

INTRODUCTION

Officially launched on the first of January 1999, the European single currency was an important step forward in the European integration process. This important political and economical decision had behind strong debates regarding its opportunity and viability. For its critics, the European Monetary Union (EMU) was too big to become an Optimal Currency Area (OCA) and the criteria concerning an OCA were not fulfilled.

Despite the scepticism regarding its creation, the economic performances of the EMU up to 2007 were favourable: an average growth rate of 2.18%, comparable with the previous decades, increased employment and trade, monetary stability. In addition we may also speak about the well knows advantages of a single currency – reducing the transaction costs and exchange rate risks, increasing price transparency and competition, better perspectives especially for small and open economies regarding their trade activities, increased potential for economic and financial stability and so on.

Even with this favorable evolution the Euro Area is facing today one of the most difficult moments of its existence. The financial crisis that hit the world economy in 2007 has affected even more dramatic the European Union as it combines the debt problems with the competitiveness gap and heterogeneity. The single currency was designed to (among others) increase the performances of the European economy, but it became today a source of turbulences and disagreement that strongly affect the EMU member countries.

1. THE IMPACT OF THE CRISIS ON THE EMU AND THE MEASURES TAKEN IN ORDER TO HELP THE MEMBER STATES

The crisis hit the European economy after a period of relative stability and growth. Greece, for example, had an average growth rate of 4.2% during 2000-2007. Unfortunately, for some countries, this favorable period was hiding the accumulation of important disequilibria such as large public deficits.

In order to support the economic growth affected by the crisis, governments adopted extraordinary expansionary macroeconomic policies – the interest rate was reduced in order to lower the borrowing costs, the central banks provided liquidity to compensate the problems of the banking system, fiscal stimulus were offered. All these led to huge budget deficits, more than twice than it has been predicted (European Commission, 2009).

It is not easy to say weather these measures were opportune or not, but it its obvious that they did not solve the problems. Crisis times demand for urgent measures, usually short time oriented, but the European economy urges for structural long term reforms in order to increase aggregate demand and household income on the short run and growth and employment on the long run.

These measures transformed the global financial crisis into a government deficit crisis and then into a sovereign debt crisis for the Euro Area, affecting many countries, especially (but not only) Greece, Ireland, Italy, Portugal, Spain (the so-called "PIIGS").

The rating agencies penalized the countries confronted with big government deficits and this led to a lack of confidence of the financial markets. Greece was the first country seriously threatened by the sovereign default risk. Legally, the European Central Bank was not responsible for rescuing Greece or other countries in a similar situation. In fact, in the beginning, the ECB officials stated that they would not change the rules for one country's sake. But the dramatic evolution of the events determined the ECB and the EU to support countries in difficulty in order to save euro. A rescue package of 110 billion euros was agreed for Greece (later supplemented by 109 billion euros), an 85 billion one for Ireland and 78 billion for Portugal, but the problems are far from being solved yet. Greece's debt burden has become unsustainable, as the government debt exceeds the country's annual output and the interest rate for government credits is around 6.5%.

Another measure for helping the most affected countries was the creation of the European Financial Stability Facility (EFSF) in May 2010. EFSF helps the countries in need by buying bonds of the heavily indebted countries at a lower borrowing cost. Up to the present Greece, Portugal and

Ireland used this facility and it is possible for Italy and Spain to do it too in the future.

On the 27th of October 2011, the European leaders and the representative of the international finance agreed on a set of measures in order to save Greece of the imminent sovereign default and also the other European economies affected by the debt crises. Despite the fact that the Greek economy is only 2.5% of that of the EMU, a sovereign default would have certainly affected the entire Union and especially the countries confronted with similar problems – Portugal, Ireland, Spain. The most important measure was the reduction of Greece's debt burden by 50%, representing 100 billion euros. The remaining 100 billion will be guaranteed by EFSF up to 30 billion euros. The bailout package of 109 billion euros agreed in July 2011 was increased at 130 billion and the EFSF increased from 440 billion euros to 1000 billion. Jose Manuel Barosso, the president of the European Commission, affirmed that these were exceptional measures for exceptional times and Europe should never find itself into this situation again.

Another important measure is the recapitalization of the European banks affected by the sovereign debt crisis. The banking system needed this recapitalization because it has been strongly affected by the Greek debt cut, as many European (and especially French) banks invested in Greek bonds. Initially Germany did not agree with de debts cut, considering that the sharing of the debts cost is a mean of rewarding the irresponsible governments, leading to moral hazard. In addition, saving countries with large deficits is also forbidden by the Maastricht Treaty. On the other hand, France, strongly affected by the Greek debt crisis insisted that the entire euro area participate to the bailout plan.

The measures adopted during this summit seem like oxygen to the Greek economy, but, in reality, they are not solving the problems, but only postpone a tragic end. In addition, it is not known yet how these measures would be effectively financed and where would the money come from. Increasing EFSF with the help of investment funds from other countries (China, Singapore, Arabian countries) is not a completely un-risky option.

Recently, during the December European Council, it has been agreed on several reforms for solving the euro debt crisis, including a stronger control over the national budgets and sanctions for the member countries that are not meeting the criteria regarding the budgetary deficits. The reactions of the financial markets to these new measures were confused, proving that the uncertainties still persist. The UK refuse to accept the change of the EU Treaty created a negative reaction and grew the already existing pessimism.

2. WHAT FUTURE FOR THE EUROPEAN SINGLE CURRENCY?

There are two points of view regarding the EMU during this economic crisis. On the one hand, there is the opinion that the single currency protects the member states against global turbulences and provides the necessary help for the countries in need. That justifies the desire of other new countries to enter Euro Area (Slovakia adopted euro in 2009, Estonia in 2011 and other countries are preparing for it). On the other hand, the crisis has shown that the competitiveness gap and heterogeneity of the member states create huge economic difficulties. The heterogeneity regarding employment or wage and labor dynamics are not only the result of the crisis, but rather the result of the structural differences among he member states in terms of revenue, employment structure (part time and full time), labor market conditions before the crisis, the financial situation of the firms etc.

It is interesting to notice that while the theoretical debates about the euro stressed the real convergence of the member states (in terms of factors' mobility, the flexibility of wages and prices, the openness of the economy and production diversification), taking into account the danger of the asymmetric shocks caused by structural differences, the Maastricht criteria targeted the nominal convergence in terms of inflation, interest rate and public finance. In addition, Greece was proved to have cheated statistics regarding the public debt and the government deficit, meaning that it has probably never been prepared to adopt euro. Looking back through the eyes of the recent developments, one could notice that EMU was in the first place a political project that ignored the economic gap among the member states, because the EU leaders did not want to separate the Union into two groups – core and periphery – as suggested by the theoretical and empirical studies. EU probably bears now the consequences of such an approach, not talking about the fact that even the nominal criteria were not met. Taking into account the theoretical criteria of the optimal currency area, only Germany, France, Belgium, Netherlands, Luxembourg and Austria would have qualified for the EMU in the first place and the periphery (Italy, Spain, Greece, Portugal and Ireland) would have been let outside – certainly with less dramatic consequences than the breaking of the EMU.

The breaking of the Monetary Union would be a strong blow for the European Union, for its credibility and competitiveness. Nevertheless, there are voices suggesting that this would be a good decision for the European economy and for the European citizens. Professor Philipp Bagus suggests that the European single currency is a mean of centralising the European economy and that an integration process based only on the four freedoms would be far more helpful for the economy

(Bagus, 2011b). This idea is today hard to be combated taking into account that the stronger intervention in the Euro Area economy does not seem efficient in solving the problems, but more in postponing their effects.

The analysts are taking into account different scenarios for the future of the EMU. A first scenario is maintaining the Euro Area with its current member states. As we said earlier, the breaking up would make the EU situation very complicate. But the costs of preserving euro seem also very high. We think, first of all, about the costs involved in the bailout plan that implies an inflationary perspective for the future. Secondly, we think about the long term perspective, where a political union would be necessary in order to prevent other uncontrolled government deficits. Although this could be seen as a great accomplishment for the European integration process, it is important to seriously consider its consequences in terms of loosing the national sovereignty and the existence of a huge supra-national structure coordinating 27 or more very different member states. A political union would be indeed beneficial for the single currency but very costly for the European citizens and nations. In addition, we must take into account that the common fiscal policy implemented inside the political union does not necessary mean the end of all problems, since it would not be implemented only by Germany, with a strong fiscal discipline, but also by other countries less fiscally responsible, but more numerous.

A major problem for the EMU is that the most productive and disciplined countries have to pay for the most unproductive and wasteful ones. Even if the current crisis was regarded as an extraordinary situation demanding for extraordinary measures, if this process goes on, the already affected population will not accept it any longer. And even if they did, this would still be a loss of economic efficiency. Professor Philipp Bagus resumes this by saying that "irresponsible governments benefit at the cost of more responsible governments." (Bagus, 2011a). The Germans, for example, are not willing to pay for the Greek welfare state and there are voices denouncing the Greek social contract that involves buying the social peace through public sector jobs, pensions and other social benefits.

Another possible scenario is the breaking up of the EMU.

If Greece leaves the monetary union, the short term consequences would be dramatic. This would be an extremely costly option as it would lead to increased debt burden and to the run of the national deponents, willing to protect their savings of the imminent depreciation of the national currency.

Another possibility would be for Germany to leave the euro area and start a new union with

countries that have a positive current account balance – Netherlands, Austria, Finland, Luxembourg, Denmark, Sweden, Switzerland and the Baltic countries. Such a monetary union would be the world largest creditor, bigger than China. The remaining countries could eventually form another monetary union, targeting job protection rather than low inflation.

At any rate, the Maastricht Treaty does not refer to the possibility to exit the monetary union. This opens the possibility to speculate – some analysts even consider that leaving EMU would be illegal or that a country that leaves EMU should also leave EU. Anyway, if a country decides to leave EMU, the technical problems would probably be the less serious among all the other consequences. We must not forget that the Maastricht Treaty has already been violated by the bailout plan.

France and Germany proposed in February 2011 a pact for competitiveness in order to reduce and even eliminate the differences that weakened the Euro Area. The proposed measures imply constitutional limitation of public debts (accepted during the December European Council), increasing the retirement age, elimination of the wage indexing with inflation. Even if some countries are reluctant to apply such measures, the surviving of the Euro Area is conditioned by the structural economic reform as the present criteria for the EMU seem not enough to allow its good functioning.

CONCLUSIONS

There are in our opinion two issues of major concern for the EU during the current crisis – one is the rapid increase of public indebtedness affecting not only the internal stability of a country, but also the stability of the entire Union, and the other is the decline of potential growth, with all its consequences – low investment, low employment, low R&D expenditures, huge budgetary deficits and so on.

The turbulences affecting the Euro Area represent a major thread for the EU. The European leaders seem willing to do all that it takes to save the Monetary Union and the members that are the most affected by the crisis are neither interested in giving up euro. The breaking up of the monetary union would have hard to estimate consequences on the European economy. Since no one from inside is really interested in the breaking up there is only one problem left – the effective ability of the member states to surpass this crisis.

Although the question on everybody's lips is whether the EMU will survive this crisis, in our opinion that is not the most important issue. EMU might survive as a result of a political decision to strongly support it, but the real question is at what price and risk. The internal competitiveness gap will not disappear with this crisis and this gap has the potential to create other disequilibrium in the future. Overwhelming these disequilibria implies huge financial transfers from the core to the periphery. As long as these transfers are not use for investment and economic developments they only mean loss of welfare for donors with no effective results for the receivers.

The current economic crisis might also change the face of the European Union, transforming it into a more powerful supra-national institution that would receive a great part of the member states sovereignty. We have to seriously ask ourselves if we want such an evolution and if we are aware of its consequences. We are speaking today more and more about the disappearance of the borders, thinking that this implies more freedom, but decisions taken far away from us could mean, in fact, less freedom.

We do not doubt about the political will to keep the Union working. Although very important, this is not enough. The economic disparities among the member countries are, in our opinion, bigger than the capacity of the wealth economies to contribute for their reduction. On the other hand the European Union and particularly the EMU cannot properly work with such disparities and especially the economic crises are very difficult to surpass. The European economy needs serious structural reforms, painful for many of its citizens and therefore long postponed by the leaders. In addition, the solutions that have worked in one part of Europe are inefficient in others because of the different economic systems and cultural values. That is the reason why we cannot share a strong optimism about the future of the European Monetary Union and even (or consequently) of the entire European integration process in its current form.

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PUBLIC DEBT MANAGEMENT – FUNDAMENTAL COMPONENT OF PUBLIC POLICY[15]

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Abstract. *The global financial crisis has put considerable pressure on public finances, particularly on government debt. Public debt in many countries of the world have increased in recent years to levels that were not registered by the end of the Second World War, facing today with a high risk regarding fiscal sustainability.Debt portfolio is usually the largest financial portfolio of a state, with a complex structure that can generate high risks that may affect public balance and financial stability of the country. Thus, proper management of public debt must become a priority for both the creditor and debtor countries. This paper aims to highlight the importance of effective management of government debt and to make a brief assessment of Romania's public debt structure and dynamic.*

Keywords: public debt management, Romania's public debt structure, financial stability
JEL Classification: F34; H12

1. WHY IS IT IMPORTANT THE EFFICIENT MANAGEMENT OF PUBLIC DEBT?

Government Debt Management is the process of designing and implementing a strategy for prudent management of public debt in order to meet funding needs of the government, to achieve the cost and risk objectives and other management goals of the government debt that itcan establish, as developing and maintaining an efficient market for government securities (Wheeler, 2004).

Government debt portfolio is usually the largest financial portfolio of a country, containing complex structures that can generate substantial risk, with implications for the public balance and financial stability. In general, debt service costs are very high and their payment involves reducing the amount of available resources for other purposes.

A debt management strategy poorly designed, implemented and communicated may send a negative signal to investors, increase debt service costs, damage the reputation of the government and exacerbate the financial market instability. Inefficient structure of government debt portfolio was, historically, a very influential factor in the induction or propagation of economic crises in

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many countries. For example, most crisis were based on the use by governments ofloans with short-term maturity and/or floating interest rates, leaving government budgets exposed to financial markets conditions changes, including to the government creditworthiness changes. Even insituations where there are sound macroeconomic policies, riscky public debtmanagement practices increases economic vulnerability to economic and financial shocks. Poor practices in terms of debt management have often been citedby agencies as reasons fordemotions sovereign rating.

Sound public debt management policies can reduce the volume of service debt and mayalso reduce susceptibility to contagion and financial risk by assuming a catalyst role for broaderfinancial market development and financial deepening.

2. GOVERNMENT DEBT MANAGEMENT OBJECTIVES

Based on a survey conducted in 2000, members of the Organization for Economic Cooperation and Development have identified four general objectives of debt management policies (Kappagoda, 2001):

- Ensuring the financing needs of government;
- Minimising borrowing costs;
- Maintaining the risks to an acceptable level;
- Support the development of domestic markets.

While these objectives are suitable mainly for developed countries which access international capital markets and which has well-developed domestic capital market, many developing countries will give priority initially to cover public sector borrowing needs at low cost. In the initial stages of development, countries have little choice in terms of funding sources and currencies, loans coming generally from official sources. While access to international capital markets increases, the objectives should take into account also the risk tolerance of the government.

The main objective of public debt management should be to ensure that public sector financial needs are met at the lowest possible cost, maintaining an acceptable risk level on medium and long-term. It should be included in the mandate of the responsible office for public debt management.

It is vital that public debt management objectives to be clearly stated and, where possible, be developed the medium-term strategic objectives, which reflect the government's preference on risk, including policy directives of risk management of public debt. Table no. 1 provides examples of debt management objectivesin some countries (Currie, Dethier and Togo, 2003):

Table 1 - Public Debt Management Objectives

Country	Objectives
Australia	The main objective of debt management is that debt portfolio to be created, managed and retired at the lowest cost long term, according to an acceptable level of risk exposure.
Denmark	The main objective of the government debt policy is to achieve the lowest borrowing costs in the long term potential. The objective is supplemented by other considerations: maintaining an acceptable risk; building and supporting a functional and efficient financial market; facilitating government the lon-term access to financial markets.
Ireland	The debt management objective isto funddebts outstandingandannualgovernment loandemand, so as to protect both the long and short-term obligations, maintaining the level and volatility of annual debt service fiscal costs, to minimize government exposure to risk.
New Zealand	To maximize financial assets income of government debt in the context of government fiscal strategy, particularly risk aversion.
Portugal	The mission is to raise funds and perform other financial transactions, so as to meet loan requirements in a stable manner and minimize the cost of government debt in a long term perspective.
Sweden	The main objective of government debt management is to minimize costs, in the long run, given the risk associated with debt management. However, management should always be held in the directives imposed by monetary policy, and according to the guidelines estabilished by the Council of Ministers.
England	To meet annual reductions set by the Treasury for the sale and purchase of debt securities with fixed rate interest, taking into account long term cost minimization. In this regard, the office will take into account several policy considerations that may constrain strict cost minimization.

Source: Currie, E., Dethier, J.J., Togo, E.(2003) *Institutional Arrangements for Public Debt Manangement*, World Bank Policy Research WP 3021, p. 32

In Romania, according to the *Strategy of public debt management for 2011-2013*, developed by the Ministry of Finance, the main objectives of debt management are:

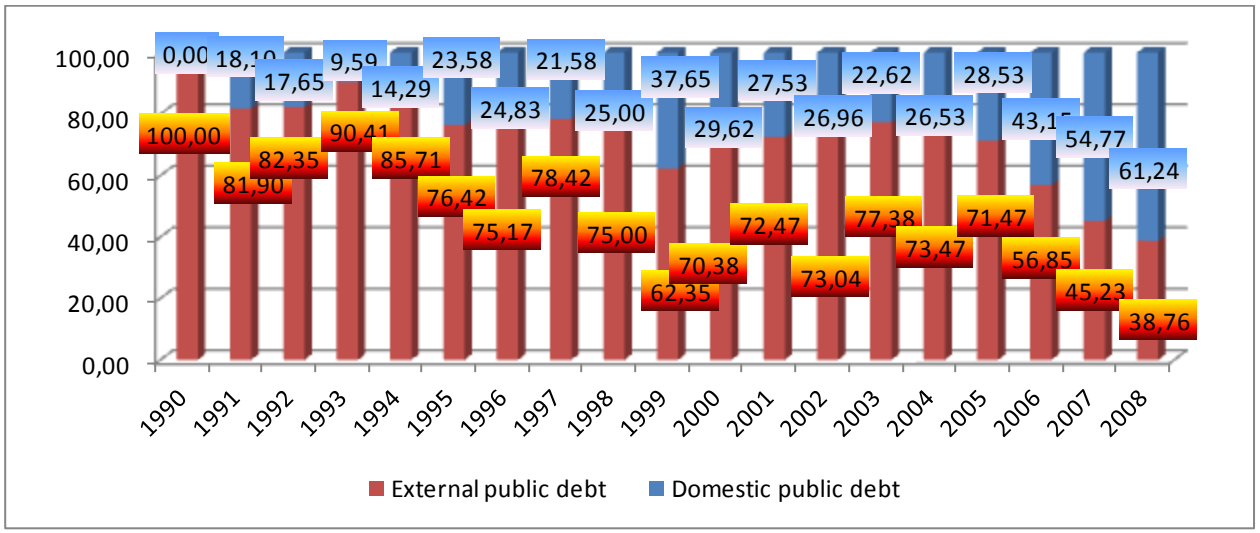
- Controlled growth and maintaining a sustainable level of public debt;
- Reduction of long term government debt costs in terms of an acceptable level of government debt stock;
- Development of the government securities market.

3. THE STRUCTURE AND DYNAMICS OF ROMANIA PUBLIC DEBT

In terms of *provenance*, Romania's public debt was contracted, in period 1990 – 2008, mostly from the outside, mainly justified by the underdevelopment of domestic capital market, lack of regulations on the main techniques and tools for debt contracting and poor development of foreign trade, thus increasing financial dependence on foreign countries.

Due capital and government securities marketregulation, since 1996, the domesticpublic debt recorded a considerably growth, reaching in 2008 the share of 61.24% in total debt.

Figure 1 - Romania's total debt structure in the period 1990-2008



Source: Elaborated by author based on data from the Ministry of Finance

Until 2007, when the Ministry of Finance has given priority to the process of financing by issuing securities on the domestic market, the budget deficit financing and debt refinancing fromdomestic sources was achieved by temporary loans from the general treasury current accountavailability.

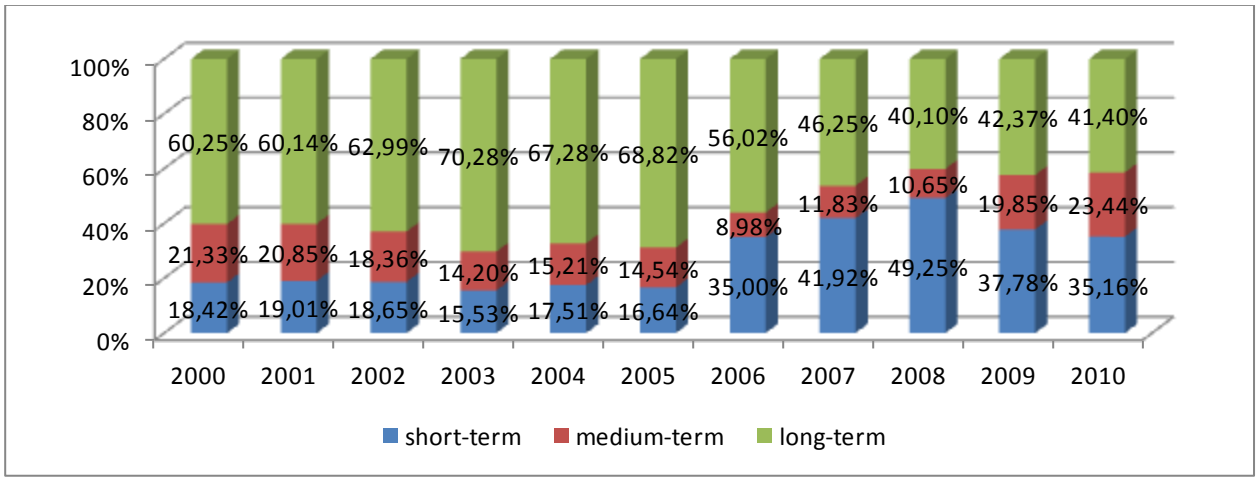
First for the Romanian market, were launched benchmark bonds with maturities of 3, 5and 10 years in order to create the necessary conditions to develop the secondary market forgovernment securities.

Structure by *initial maturity* of the debt portofolio shows that long-term debt (over 5 years), although decreasing as a share of total debt from 60.25% in 2000 to 41.40% in 2010, is an important share, mainly due to the borrowing from international financial institutions, which have a duration between 12 and 17 years.

Short-time debt has increased significantly, reaching a maximum of 49.25% in 2008, because ofthe bond issuance as a result of ministry's strategy for financing the budget deficit mainly from domestic sources and due to the temporary financing of budget deficits, inprevious years, from thetreasury general current account.

In the years 2009 and 2010, short-term debt declined because for the budget deficitfinancing were not used loans from treasury general current account availability but issuanceof government securities on domestic market and external borrowing. Thus, in 2009, temporaryloans from treasurygeneral current account availability decreased by 11.5 billion from theend of 2008 and,at the end of 2010, stood in absolute value at a level of 31.4 billion RON.

Figure 2 - Romania's public debt structure according to the initial maturity

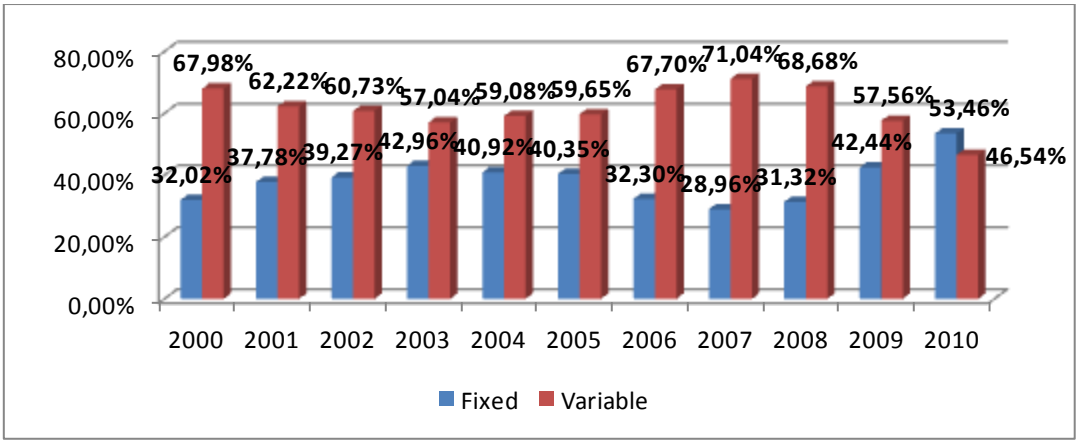


Source: Elaborated by author based on data from the Ministry of Finance

High share of short-term debt, although under a downward trend, highlights yet a refinancing risk of the government debt portofolio, as a result of temporary financing fromthe treasury general current account, but also as a result of issuance of treasurybills in 2009 andfirst half of 2010.

The structure of government debt on *interest rate type* shows a countinuous increase, in the last three years, of the loans share with fixed interest rate from 31.32%, as recorded in the late of 2008, to 42.44% in the late of 2009 and 53.46% at the end of 2010, primarily due to loans from the EU, domestic loans in foreign currency, the issuance of medium-term benchmark and the issuance of Eurobonds in March, 2010. This dynamic reduces the interest rate risk of the government debt portofolio.

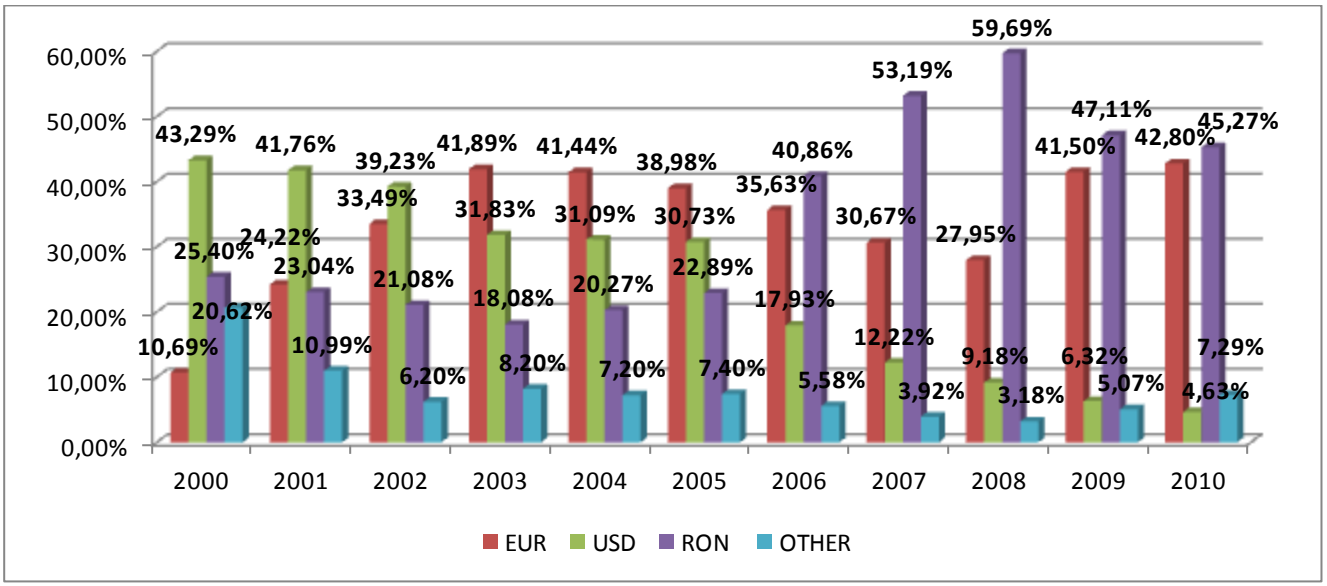
Figure 3 - Romania's public debt structure by type of interest rate (%)



Source: Elaborated by author based on data fromthe Ministry of Finance

Currency composition of government debt shows an increase in lei denominated debt from 25.40% in 2000 to 45.27% in 2010. Euro denominated debt recorded a decrease in the total public debt ratio from 41.89 % in 2003 to 27.95% in 2008, followed by a return to 42.80% in 2010. Regarding the debt contracted in dollars, its share has been in constant decline, reaching 4.63% in 2010, mainly due to the default strategy of the Ministry of Finance to reduce currency risk and to contract foreign loans only in euro, in the perspective of euro adoption in 2014.

Figure 4 - Romania's public debt structure by type of currencies(%)



Source: Elaborated by author based on data from the Ministry of Finance

It is noted that in 2009 – 2010, exposure to some market risks increased, the fact reflected by the decrease of public debt denominated in lei. Thus, in 2009-2010, the share of government debt denominated in lei in total debt has declined as a result of government foreign borrowing from domestic market, of foreign loans and of Eurobonds issuance, required to support high levels of budget deficits for the years 2009 - 2010 and to balance the maturity of the debt portofolio.

CONCLUSIONS

Debt portofolio contains complex financial engineering that can generate a substancial risk o state property an financial stability of the country. A well structured debt enables the state to reduse its exposure to interest risk, foreign exchange and more. In this sense, the main objective in the

government debt management is to ensure that public sector financial needs are met at the lowest possible cost, maintaining an acceptable risk level on medium and long-term.

Analyzing the Romania's public debt structure in terms of provenance, we observed the preference of Romanian authorities for external financing, so that domestic public debt lower values correspond to the external public debt much higher levels in the period 1990-2006.Given the large needs of budget deficit financing-according toestimates of the publicfinancial imbalances, the need to strengthen and develop the internal market for government securities and high external volatility existing on capital market, we believe that the best scenariois one in which budget deficit funding will be done in balanced proportion from internal andexternal sources.

Regarding the public debt structure by initial maturity we noted that, although long-term debt hasthe largest share, there is a significant increase of short-time debt.The accumulation of financial deficits temporary financed is another item for which is required that temporary financing to be refinanced gradually by government bond over a long period of time, in order to reduce the impact on the domestic market and do not affect major cost of this funding.It is recommended therefore limiting refinancial risk by extending the maturity of government securities and issuance of a significant degree of borrowing with maturities over the medium and long-term.

Structure analysis by currencies shows us, for the period 2000-2010, a change in public authorities preference for the currency of debt, loans ub euros taking the place of the loans in dollar. This change was mainly due to the Ministry of Finance strategy to reduce currency risk and contract loans only in euro, in order to reduce currency risk in the perspective of euro adoption in 2011. To reduce the currency risk, we consider necessary to increase the share of government debt denominated in lei in total government debt, taking account also the important role of foreign currency loans to reduce refinancing risk and to minimize costs for medium and long-term loans.

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LABOUR MOBILITY AS AN ADJUSTMENT MECHANISM IN THE EURO AREA[16]

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Abstract: *The aim of this paper is to assess the capacity of labour mobility in the euro area to act as an adjustment mechanism in the event of an asymmetric shock. According to the optimum currency area theory, labour mobility has been emphasized as one of the main adjustment mechanism. Given the present situation, where there are major concerns about the future of the euro area, it is necessary to study if the mechanism for stability works and if it can be improved. Considering the difficulty of quantifying the labour mobility, we have analyzed the net migration and the regulations regarding labour market. The empirical evidence shows that labour mobility does not act as a sufficient adjustment mechanism.*

Keywords: geographical mobility, optimality, asymmetric shock, endogenous effect.

JEL Classification: E42, F33, J61

INTRODUCTION

The theoretical fundament for all the studies regarding currency areas is represented by the optimum currency area theory, introduced by Mundell in 1961. He describes the concept of an optimum currency area as the space where production factors, especially labour, are mobile.

Thus, according to the theory, in order to achieve optimality in the functioning of a currency area, labour mobility has been advanced as fundamental criterion. Mundell argued the fact that, if the exchange rate regime within a region causes unemployment in one part of the region or forces another part of the same region to accept inflation as the cure for unemployment, then the regime cannot be considered optimal. Essentially, what Mundell wanted to say is that optimality for a currency area is reached when people within the area can move easily.

Before the introduction of the European currency, there were many concerns about the lack of homogeneity between the economies willing to adopt the single currency. Sceptical opinions were based on the risk posed by forming a currency area without adjustment mechanisms against asymmetric shocks. Largely, these debates created by American economists, worried about the capacity of the newly created currency area to withstand asymmetric shocks.

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Despite all these concerns, the euro was introduced and, at its tenth anniversary, it was considered a success. Still, it remained an open question if national economies will prove to be flexible enough in order to allow the smooth adjustment in the event of a significant asymmetric shock or a financial crisis.

In 2007, the financial crises came and exposed the euro area to a number of asymmetric shocks. The economic diversity and the small level of labour mobility made it difficult to benefit from a proper adjustment, some countries being hit harder than the others. The concerns raised before introducing the single currency seem mild comparing to the present ones, which talk about the break-up of the euro area.

This paper analysis the degree of labour mobility in the member states of the European monetary union. Taking into consideration that labour mobility has been emphasized as an important adjustment mechanism to asymmetric shocks, it is important to study if its level is high enough in order to counteract the negative effects.

The paper is structured as follows: Section 2 summarizes the theoretical aspects of labour mobility as an adjustment mechanism. Section 3 analyses the methods used to quantify labour mobility and Section 4 investigates the degree of labour mobility through net migration rate and the restriction faced by labour mobility.

1. THEORETICAL FOUNDATION OF LABOUR MOBILITY AS AN OPTIMALITY CRITERION

The optimum currency areas theory outlined the role of labour mobility as an adjustment mechanism. This theory considers that labour mobility can re-establish the balance in the absence of the independent monetary policy. In a currency area, where regional monetary and exchange rate policies are no longer available options, it is important that market adjustment mechanism functions properly.

Migration plays an important role in increasing the efficiency of the labour markets. Under flexible exchange rate regimes, the economic imbalances between countries are reduced through the appreciation and depreciation of currency. This mechanism is no longer available in a monetary union. Thus, there have to be found other adjustment mechanisms that can reduce the negative effects of short term and structural imbalances between countries. Considering that prices and wages are inflexible, labour mobility has to facilitate the adjustments.

For a better understanding of this adjustment mechanism, let us take the example of two countries hit by adverse shocks, with unemployment increasing in one other and decreasing in the other one (De Lucia, 2010). A demand decrease in a country or region would not determinate a high unemployment if the labour is geographically mobile and it can move in other areas where the demand is higher. Labour mobility could help the rapid re-establishing of the balance in both countries. This is one of the means through which the United States of America have been capable to face structural and cyclical demand changes.

Migration does not represent the only adjustment mechanism. Wage flexibility is another factor that can quickly re-establish the balance in both countries. Labour flexibility has two main sides: wage adjustment and geographical mobility (Goodhart, 2006). At the same time, labour mobility has two dimensions: geographical (spatial) and non-spatial, through the job exchange and occupational mobility, which does not imply necessary location exchange. Thus, recent studies investigate labour market integration in terms of geographical and occupational mobility.

This view is also shared by many other economists, who consider that labour mobility should in fact be interpreted as "labour market flexibility", encompassing not only geographical labour mobility, but plenty of other elements.

The need to rely on labour mobility as an adjustment mechanism depends on the degree of wage flexibility. A negative demand labour shock in one country has to be transformed in a decrease of its relative price level. Even though is increasing, the wage flexibility among euro area members is in general reduced. Thus, labour mobility should adjust the imbalances. Unfortunately, this mechanism is also extremely low, especially when comparing to the level registered in the United States of America (Siedschlag, 2008).

The ability to achieve a sufficient labour mobility degree depends on many characteristics. The variety of languages clearly inhibits labour mobility in euro area (Feldstein, 2008). The main debate considers the extreme low level of mobility in the euro area as a result of exogenous factors or exogenous factors.

The exogenous factors deal with linguistic and cultural barriers, while the endogenous refer to the lack of harmonization of pension and taxation systems and of professional qualification recognition (Monastiriotis and Zartaloudis, 2010). Without any doubt, low labour mobility makes it difficult to operate the quantitative adjustments. Thus, if an economy is hit by an extern shock, labour flows to and from euro area countries are expected to be insufficient to re-establish the balance. The quantitative adjustment has to come from the inside of the discussed country. As a

consequence, the labour mobility criterion does not refer only to external mobility (migration), but also to a complete range of intern mobility factors.

The euro area is a subject of numerous shocks that can have divergent consequences for member states taken individually in terms of economic growth or inflation. In 1999, Coppel and DeSerre stated that labour mobility is important when the shocks are permanent and structural, since the adjustment requires inevitably a relocation of product factors. The nature of shocks that are affecting the European currency area is influenced also by the structure of the economies in the area. The similar economic structure can reduce the probability of asymmetric shocks since the existent shocks will affect all the areas in a similar way; thus the negative effects can be addressed through the monetary policy strategy of the European Central Bank (Copaciu, 2004).

Another important feature of the role of labour mobility as an adjustment mechanism is offered by the study of the National Bank of Netherlands (Cavelaars and Hessel, 2007). This study addresses the question if regional migration is an adjustment mechanism or a source of disturbances. The results are the following: the importance of migration as an adjustment mechanism is reduced, thus suggesting that migration in Europe is more an imbalances mechanism than an adjustment one. Another important conclusion is that the establishment of internal European market and euro's introduction did not have a significant positive impact on labour mobility as an adjustment mechanism in the European Union. The conclusion is that the contribution of labour mobility between regions at the economic adjustment in the Europe is almost negligible. As long as this fact does not modify, a greater burden will fall on the other adjustment channels.

The recent financial crisis exacerbated the imbalances in the labour markets within the euro area. Since the beginning of the crisis, labour markets registered downside trends. Many EU countries faced record unemployment levels. Though, labour mobility can represent a modality to reduce unemployment rate in some regions and to smoothen the reduction in others. The problem is that, in the last decades, this mechanism had just a small impact and was very slow to be functional for the internal European market.

2. EMPIRICAL EVIDENCE OF QUANTIFYING LABOUR MOBILITY

Considering the importance of labour mobility in addressing negative effects of the asymmetric shocks in a currency area, many economists tried to find a suitable measure for it.

First, empirical studies demonstrated the fact that wage and unemployment differences are important determinants of migration flows. The studies conducted by Eichengreen (1993) and Barro

(1995) used statistical tools in order to point out the relationship between migration and its determinant factors. The first study found that immigration is positively related to high wages, the relationship being reversed when it comes to unemployment rates. The second one found that the effect of income on migration is lower in the Europe than in the US.

Two major contribution from 1990 showed that labour mobility was lower in Europe as an answer to asymmetric shocks than in the United States. Blanchard and Katz (1992) for United States and Decressin and Fatas (1995) for EU15 obtained results in this direction. The latter study investigated a panel data set for several states in the USA and European regions between 1975 and 1990. They found that unemployment shocks are absorbed in a different manner. In the EU a negligible proportion of the demand shock of the labour is absorbed during one year after the shock appeared, while in the United States the proportion is significantly higher, being quantified at 52% after one year.

The first important study that focused only on euro area countries was the one of Puhani in 1999. The author estimated the elasticity of migration with respect to unemployment rate and income changes on panel data set for three countries: Germany, France and Italy. Labour mobility is higher in Germany, but even here it will take at least four years until more than half of the shock created by unemployment to be annihilated by migration. This fact leads to the conclusion the labour mobility has small chances in becoming a sufficient adjustment mechanism in the event of asymmetric shocks in the euro area.

The previously mentioned studies have been conducted before any solid experience of the euro area as a currency union. Since the introduction of the single currency, many studies tried to determinate the level of labour mobility and, more specific, its capacity to address asymmetric shocks.

In 2007, a French study conducted by L'Angevin showed that labour mobility as a response to asymmetric shocks is lower in the euro area than in the United Stated. Another important and surprising conclusion of the study is that the responsiveness of labour mobility to asymmetric shocks has been improved since the introduction of the single currency.

Most recent studies, appeared as a result of the strong imbalances faced by the euro area, show that, despite the significant progress, the geographical mobility of labour is still extremely low. Thus, this level of labour mobility constitutes an obstacle to euro-zone cohesion.

An important feature of the empirical research in this field is the fact that states measuring labour mobility as being a difficult task.

There are many different barriers that cause this difficulty. Geographical mobility in the euro area is low and this makes it hard to observe it. Another barrier is created by the fact that the international migration cannot be measured through surveys which capture only the population before and after migration. Also, transnational surveys are missing; migrants are not followed over countries and the definition of migrants is not clear (Zaiceva and Zimmermann, 2008).

More recent research of Zimmerman emphasizes the difficulty of measuring labour mobility in Europe by introducing other factors. The problems that stay in the way of quantifying the degree of labour mobility are: macro data regarding migration are incomplete and contradictory; international migration process can be observed only in micro segments and those who migrated are registered in the statistics of the receiving country. Many statistics treat foreigners as migrants, neglecting nationality. Studies regarding microeconomic migration are facing problems with data compiling and, thus, can overestimate the actual level of migration.

Another important feature of the empirical studies regarding labour mobility is that they provide a comparison with the situation registered in the United States. Many studies showed that geographical mobility is three times higher in the USA than in Europe.

Migration between countries has small chances to respond to economic shocks in the euro area and this is motivated by permanent factors. Those factors within the euro area that made labour mobility low are: high overall levels of unemployment; income convergence linked also to economic catching-up and reduced wage differentials across countries. Differences in relative unemployment rates between regions are more persistent in the Europe than in the US.

3. THE DEGREE OF LABOUR MOBILITY IN THE EURO AREA

The current euro area situation is very unstable. The second major currency area after the USA is the subject of numerous shocks that can have different consequences on the individual member states in terms of growth and inflation. In this context, losing direct control on monetary policy and exchange rate policy can be considered a loss in terms of flexibility. For euro area to be considered an optimum currency area, as it is mentioned in the literature, the flexibility should increase in other fields in order to compensate the loss.

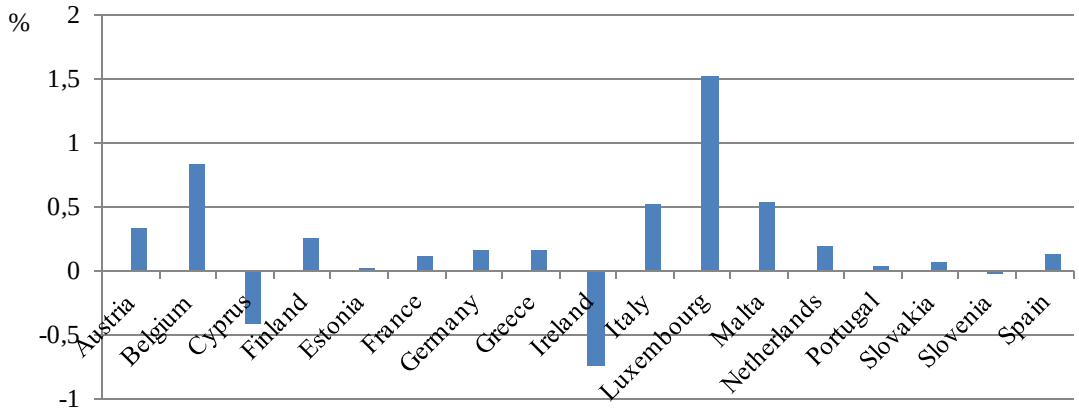
Internal labour mobility deals with movements of working age population between euro area regions. As we stated in the previous section, measuring labour mobility is not an easy task. Another shortcoming of the empirical findings is the lack of clarity regarding the appropriate rate of labour mobility. In addition, there are no EU data sources to indicate the arrivals and departures and

a data from the census conducted in 2011 are not compiled, leaving us with few alternative indicators for labour mobility.

One of the most important indicators for quantifying the degree of labour mobility is the net migration rate (Gakova and Dijkstra 2010). This indicator shows the difference between the number of people who arrived and left during one year as a percentage of the total annual population. More specifically, we used the crude ratio of the net migration during 2010 as a proportion in the average population from that year. This rate of net migration is equal to the difference between the crude rate of change and the crude rate of natural change.

The limits of this indicator are: it covers the entire population, rather than just those of working age and it includes movements in and out of the euro area instead of just movements within the EU. Despite all these limits, net migration rate is a good source for identifying regions losing and gaining working age population from within the EU.

Figure 1 - Net migration rate, 2010



Source: Author (based on data from http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/, accessed on November 2011)

Latest available data on net migration rate, presented in Figure 1, shows that the highest level of the net migration rate is registered in Luxembourg, while the lowest, showing a negative value, is registered in Ireland. Overall, these values indicate a low level of labour mobility.

Table 1 - Net migration in the euro area countries

(Average annual net migration as a share of population in per cent)

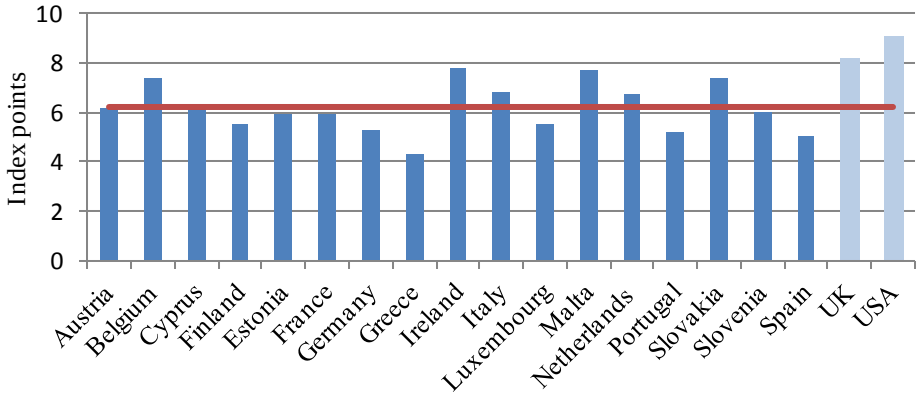
Country	1991-00	2001-10	Country	1991-00	2001-10
Austria	0.30	0.45	Portugal	0.19	0.34
Belgium	0.14	0.49	Spain	0.33	1.12
Finland	0.12	0.19	Greece	0.68	0.33
France	0.05	0.22	Cyprus	1.01	0.98
Germany	0.41	0.11	Malta	0.18	0.43
Ireland	0.30	0.68	Slovakia	-0.09	0.06
Italy	0.06	0.65	Slovenia	-0.05	0.34
Luxembourg	0.95	1.17	Estonia	-0.98	0.01
Netherlands	0.24	0.08			

Source: Author (based on data from http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/ accessed on November 2011)

Also, data considering net migration in the euro area can be analysed by comparing the available data on longer periods of time, which comprise the situation before and after adopting the euro. As Table 1 shows, the higher net migration average is registered in Luxembourg and the lowest in Estonia.

Another indicator that can be used in analysing labour mobility refers to labour market regulation. The sub-indices provided by the Economic Freedom of the World Index on labour market freedom comprise an evaluation of minimum wages, hiring and firing regulation and centralised wage bargaining. The values of this index can range between 1 and 10; higher levels indicating a higher level of freedom (Zemanek, 2011).

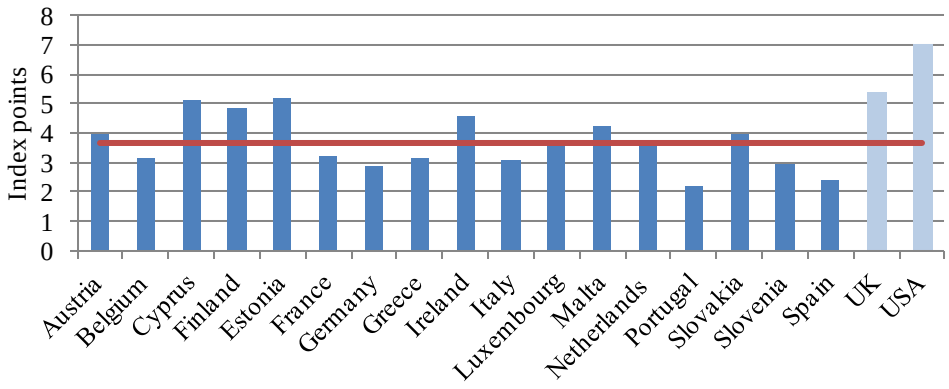
Figure 2 - Overall labour market regulations in the euro area, 2009



Source: Author (based on Fraser Institute (2011) *Economic Freedom of the World 2011*, Annual Report, accessed on November 2011 at http://www.freetheworld.com/2011/reports/world/EFW2011_complete.pdf)

As Figure 2 shows, the euro area countries registered in 2009 lower levels of the overall index for labour market regulation, indicating this way that the labour market freedom is higher in the United States and the United Kingdom.

Figure 3 - Hiring and firing regulations in the euro area



Source: Author (based on Fraser Institute (2011) *Economic Freedom of the World 2011*, Annual Report, accessed on November 2011 at http://www.freetheworld.com/2011/reports/world/EFW2011_complete.pdf)

The second indicator represents the sub index for firing and hiring regulation. Figure 3 also confirms the fact that labour market freedom is higher in the United States and the United Kingdom.

The figures previously presented are in accordance to many other studies that analysed labour mobility, showing a low level, especially when comparing to the situation from the USA.

This is not surprising taking into consideration the fact that there has been registered low geographical mobility of workers within the member countries themselves (Broyer, Caffet and Martin, 2011). The internal mobility in one country can be measured by the dispersion of intra-regional unemployment rates which is far greater in the major member countries of the European Monetary Union comparing to the United States. Thus, taking into consideration that the citizens of the euro area are relatively reluctant to change regions within a given country, it is not hard to understand why they are not willing to change countries.

Even though there have been registered unfavourable results in previous studies, it is possible that dynamic adjustment mechanisms to improve in the euro area. It is common to argument the fact that a monetary union will encourage changes endogenously in the economies of the member countries in order to become compatible with optimum currency areas theory ex post even though this could not be realised ex ante (Goodhart, 2006).

Given these endogenous prospects, many thought that it is interesting to test if, after so many years since euro's introduction, the results are still relevant and if the dynamics of labour adjustments have been modified comparative with those observed in the United States. Thus, there are few evidences about ex post improvements regarding euro area's experience. More pessimistic opinions show that there is no indication that labour mobility has increased in Europe.

Even though every citizen of the European Union has the right to work or live in another member state, few people choose to do so. Free movement of citizens is one of the fundamental rights guaranteed to the European Union citizens. Low labour mobility levels prove the fact that there are other barriers that determine people not to move from a country to another.

The most important barrier, which is almost always mentioned by the surveyed populations, is the distance from the family. In 2011, a study of Natixis, gathered the most suggestive eight types of obstacles to the geographical mobility of workers (Broyer, Caffet and Martin, 2011, p.9):

- The language and, in general, cultural barriers;
- The lack of available information;
- Legal and administrative barriers;
- Recognition of diplomas;
- The heterogeneity of tax and social systems;
- Accommodation;
- The lack of transport infrastructure;
- Employment for the partner/spouse.

These barriers do not only prevent mobility but also lead to potentially negative effects. As a consequence of these restrictions, people can be affected by the employment beneath the real level of their qualification.

The geographical mobility of labour is therefore still extremely low in the euro area. In order to address economic divergences, the solution is to create a coherent framework to eliminate the impediments faced by the European citizens who are willing to move to another country in the area.

CONCLUSIONS

The economic divergences in euro area have raised the question if the European Economic and Monetary Union is really an optimum currency area. According to the theory, in order to increase the resilience to asymmetric shocks of the countries in a monetary union, real adjustment mechanisms are crucial. Labour mobility was emphasized as an important factor that tends to facilitate faster adjustments to economic shocks.

Our study showed that labour mobility is still low even though there are more than ten years since the introduction of the euro. This situation was caused by several obstacles, especially the language barrier. Though, one of the most important factors is, in my opinion, the weak inclination for mobility of the citizens in the euro area. This is already visible at the national level. Also, there is small evidence that endogenous forces have improved labour mobility in euro area after the introduction of the single currency.

Thus, the lesson that should be learned from the experience of the euro area is that a monetary union should not be formed without sufficient labour market flexibility which will allow the adjustment in the face of contradictory evolutions of competition through labour mobility or wage restrictions. The lack of sufficient labour mobility will make the adjustment process longer and more painful.

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ISLAMIC BANKING IN EUROPEAN UNION COUNTRIES: CHALLENGES AND OPPORTUNITIES

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Abstract: *Islamic banking is a relative young industry, with a high rate of growth, which in the last years became a highly discussed subject, due to the challenges and opportunities that it brings. Due to the fact, that in the last decade, the Islamic banking made its presence in the European Union market, too, in this paper we try to describe the main features of the Islamic banking transactions and to identify the challenges and opportunities that its brings.*

Keywords: Islamic banking, European Union, regulation, Islamic banking products and services
JEL Classification: G21, G24, G28

INTRODUCTION

The Islamic banking is a financial industry with a very high growth rate, nowadays. It is a relatively young, the first bank, functioning on the base of the ShariahLaw, was founded in 1963 in Egypt – the "MitGhamr Savings Bank", renamed afterwards in "Nasser Social Bank", but the first Islamic banks were the "Dubai Islamiquebanque", "Kuwait Finance House" and "Bahrain Islamic Bank".

The factors which prompted the evolution of the Islamic banking were: financial deregulations and innovations, which allowed the development of the pure Islamic banking products and services;the presence of the "visionnaires" - persons with deep knowledge of banking and Islamic doctrine and oil shocks from the first decade of '70s, which support the accumulation of the great amount of the petrodollars in the Arabic countries.

Nowadays there exist more than 300 Islamic banks over the world. The main centres of Islamic banks, are still, mainly situated in the Middle East and Gulf region: Iran, Kuwait, Malaysia, Saudi Arabia and the United Arab Emirates. The total amount of assets, controled by these banks is considered to be about 200-500 mld.$, with a growth rate of 10-15% per year, according to the statistics provided on the web-site of the Financial Services Authority of United Kingdom.

Following the Asian banker rankings, the largest Islamic banks by assets are: Al Rajhi (28,053 mln USD), Kuwait Finance House (21,724 mln USD), Bank Of Islam Malaysia (4,136 mln USD), Dubai Islamic bank (9,799 mln USD), Qatar Islamic Bank (4,072 mln USD), Boubyan Bank (504 mln USD), Abu Dhbi Islamic Bank (9,799 mln USD) etc..

In the last decade, many Islamic banks entered the European Union market and in this context have arised many questions: what are the challenges and opportunities for the Islamic bank on the European Market and what are the benefits and drawbacks for the resident countries of these kind of banks, which will be treated in the next sections.

1. THE MAIN FEATURES OF THE ISLAMIC BANKING

The main principles of the Islamic banking are:

- *Mutual trust and transparency of all transactions*
- *Partnership between the bank and its clients – "profit and loss sharing"*
- *The priority of the ownership - "don't sell what you don't know"*

Comparing to commercial banks, the Islamic banks are prohibited for:

- *Speculative transactions (masir)* - according to the Sharia Law, the investments in speculative transactions, such as derivatives, are considered to be illegal;
- *Prohibition of interest (riba)* – the charging and the receiving of interest is strictly forbiden by Islamic laws. According to these laws, money cannot be considered as a commodity and can be used exclusively as a medium of exchange and store of value;
- *Economic purpose* – while the main purpose of the conventional banks is profitable investments of their assets, the Islamic banking is more oriented on business partnership and financing of trading activities or industrial projects;
- *Sanctity of the contract* – before approving any banking transaction, both counterparts should make sure that this transaction is in compliance with Islamic laws;
- *Risk sharing* –unlike the traditional banks, the Islamic banks apply the "profit and loss sharing" principle, which assumes, that the bank will not just charge a fixed procent of reward, but it will share both the profits and losses of its business partners;
- *Uncertainty about the terms of contract (gharar)* – that Shariah law requires a complete transparency of the contract terms. Any uncertainty about price, delivery issues and other terms are prohibided.

Over the time, the complexity of the products offered by the Islamic banks increased a lot. If, back in the '70s Islamic banking started with commercial banking activities, at present we can see

that they offer a more diversified range of products and services tailored to the needs of clients: liquidity management tools, asset management, project finance etc.

The main products and services offered by Islamic banks can be described as follows:

- ✓ *Mudaraba* – is a partnership contract where one or several investors (Rabbul Mal), provide capital to an entrepreneur (Mudarib), for investment in a commercial enterprise. The Mudaraba can be restricted if Rabbul Mall specify the business in which to invest, if not, the contract is considered to be unrestricted.
- ✓ *Musharaka*(active partnership) – is an agreement between two or more parties to finance a project. Losses and profits from the projects are shared proportionally to the amount of investment. These types of contracts are usually performed on a long-term basis.
- ✓ *Ijarawaiktinaa*(financial leasing) – is a medium and long-term financial leasing contract, where a bank buys an asset, which further is leased out for a specific period. The lessee has the possibility to buyout the asset.
- ✓ *Morabaha* – is a contract for the selling of goods, at a price equal to the cost of the product to which is added a profit or a mark-up which is known to the buyer. This type of contract can involve only two parts (buyer and seller), or also an intermediary bank which performs the deal between parts for a specific commission.
- ✓ *Bai al salarm* - contract under which the buyer pays the seller at a bargain price for the goods which are further delivered in installments.
- ✓ *Istisna'a* - is a contract under which a bank is financing the working capital of a company. Here are included especially those goods that cannot be financed by leasing.
- ✓ *Sukuk*– are bonds, issued by a bank for the financing of a specific medium- or long-term project, which can be implemented by both public and private companies.
- ✓ *Quardhassan* – are loans offered by the bank or deposits attracted, zero interest rate being charged.

2. ISLAMIC BANKING IN THE EUROPEAN UNION

In the last decade, the European Union became an atractive market for expansion for the Islamic banks, due to its big potential. Following the Statistics provided by the Institute for Islamic banking and Finance, there are about 14 million of the Muslim inhabitants in the European Union, most of them living in United Kingdom, (2.4 mln, about 2.8% of total population), France (5.5 mln,

8% of total population), Germany (4.3 mln, 3.9% of total population). Also, following these statistics, a great percent of Muslims, live mainly in the big cities of the mentioned countries.

Figure 1 - The Islamic Finance across the European Union

Source: Institute for Islamic Banking and Finance

The largest Islamic banks are mainly present in three countries: France, Germany and United Kingdom:

- United Kingdom: the Islamic Bank of Britain (IBB), the European Islamic Investment Bank (EIIB) – first Islamic investment bank from Europe, the Bank of London & the Middle East (BLME), Securities House (UK), the European Finance House (EFH);
- France: National Bank of Kuwait (NBK), Tejerat Bank (TB), Qatar National Bank (QNB) etc.;
- Germany: the Irani Bank Sepah, KuveytTurk.

Challenges and opportunities of Islamic banking for the European Union countries

As I described above, the presence of the Islamic banking in the European Union is higher and higher and have a great potential in order to continue its growth.

But in this context we can ask ourselves, how benefic is this presence for the economy and financial system of the resident countries of the Islamic banks, what challenges and opportunities can be faced by both sides?

Reffering to the European Union countries the main challenge can be considered the proper regulation and supervision of these banks.

The first one is that many Islamic banks combines commercial banking activities with investment banking, making more complicated supervision of this institutions.

Also, the Islamic bank activity imply a higher level of risk comparative to the conventional banks, making some problems for regulatory authorities in the fields of capital adequacy and transparency requirements and customers protection: depositors of these banks participate not just in the bank profits, but losses, too.

Further the Islamic banks apply different resource mobilisation ant investment methods, from that of conventional banks, challenging in this way the regulatory institutions.

But the Islamic Banking may offer great opportunities too, for the financial systems and economies of the resident countries:

First of all, the Islamic banking services can increase the social inclusion of the Muslim minorities, which nowadays represent the biggest minorities in Europe.

Also, the presence of the Islamic banks can be considered as an attraction of the important part of oil wealth from the Gulf region, and as an additional source of liquidity and finance for the national economy.

Besides, the presence of the Islamic banking industry in Western countries can be viewed as bridge for international financial groups, seeking to diversify their investments, to Islamic world.

Nowadays there are activating many conventional banks, which, also offers banking products and services in compliance with the Islamic laws. For example, in Germany such banks are: Commerzbank, Deutsche bank, Dresdner Bank: in France the Credit Agricole, in United Kingdom, many international groups opened divisions, which provide islamic products and services, some of them being: HSBC Group, UBS Group, Barclays and Lloyds.

Challenges and opportunities for Islamic banking

Competition with conventional banking products: the potential Muslim clients can be devided into two segments: muslim customers, who agree to pay, even a higher price, in order to benefit from services, which have a prominent level of compliance with the Shariah Law and Muslim

customers, attracted by the competitive rates, too, accepting sometimes services only in part with Shariah Law, but more attractive from the financial point of view. Due to this fact, in order to cope with local competition coming from conventional banking products, the Islamic banks, entering foreign markets, should make their products and services price competitive, too.

Lack of standardisation of the Islamic banking products, which can be a cause of ambiguity, theoretical existence of a wide range of transactions and activities which can be performed by this banks.

Lack of trained Islamic staff with possesion of deep financial and religious knowledge, in order to assure a strict compliance of all performed transaction with Shariah law.

Higer risks - the Islamic banks are exposed to higer risks comparativ to conventional banks: the Islamic banks can make use of less risky instruments, such as derivatives and also, the secondary and interbank markets are in the process of development.

Because the Islamic banks undertake higher risks, they should imobilize a greater amount of resources on the central bank account of the resident countries and corespondent account, making their activity less eficient.

Reffering to the opportunities for the Islamic banking on the European continent, these can be mentioned as follows: new customer base, diversification of their investment portfolios and new business opportunities; new tools for financing banking activities from cooperation with conventional banks, which offers Islamic banking products and services, and also new customer base.

CONCLUSIONS

The Islamic Banking entrance on the European Union market can be seen as an opportunity to attract the additional oil capital from the Middle East countries for the resident countries and as a substantial enlargement of the customer base for the Islamic banks. But there is still a great amount of work to be done, due to the challenges, that can be faced by the both sides, especially in the field of supervion and regulation. The concept of the Islamic banking is relatively new and completely different from that of conventional banking, because of that, the resident countries of this banks should adjust their legislation, and should account for all potential risks that can bring this new financial industry.

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CHALLENGES AND DILLEMAS WITHIN THE RELATIONS BETWEEN RUSSIA AND THE EUROPEAN UNION

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Abstract: *Every EU enlargement signified a step towards Central and Eastern Europe, therefore, the 2004 „big bang enlargement", followed by the one in 2007, modified the geopolitical context within the „old continent" and also increased the importance of the European Union regionally, as well as globally. Integrating the ex-soviet countries into the EU meant taking them out of the Russian sphere of influence, as well as attempting to super size the EU territory in order to increase the European power on a long term. Despite the weakening of Russia after the Cold War, the federation still represents a challenge regarding „pax europea", as Russia still has an amazing military capacity, as well as important natural resources. The entrance into the Russian sphere of influence, the European energetic dependency on Russia, the conflicts within the separatist regions situated at the EU eastern borders are just few of the many challenges regarding the relations between the European Union and Russia.*

Keywords: European Union, enlargement, Eastern neighbourhood, power, natural resources, dependence
JEL Clasification: N44, N74, R58, F59

1. INTRODUCTION

Following the latest EU enlargements, Russia became the main security "challenge" that stands in front of the European Union. Therefore, in my paper I intend to analyse the main setbacks and dilemmas within the relations between Russia and the European Union (EU) from different dimensions: political, economic and military.

I consider this topic extremely relevant as the Russian Federation is undoubtedly the most important neighbour of the EU from all kinds of perspectives: economic, political, strategic and military. Therefore, the second section of the paper entitled *Challenges and dilemmas in the EU/Russia relations* will further develop the following issues: the importance of the EU enlargement towards East, the European Neighbourhood Policy (ENP), the importance of the Buffer Zone between Russia and the EU as well as a brief analysis of a "*new*" Russia.

The last section of the paper will present the main conclusions as well as possible prospects and solutions that could lead to a better cooperation between the two powers. The basic conclusion is that for a better future, free of conflicts, prosperous, dominated by peace, freedom and tolerance

we should hope for Russia to replace all, or even part of its own imperial system and for the EU to learn how to speak with "one voice".

Therefore, twenty years after the end of the Soviet totalitarian communism, Russia remains a major challenge for Europe. Russia's future and evolution is a mystery that raises an endless debate. Will it move eventually towards a Western-style democracy, by continuing to strengthen and develop a middle-class? Or it will remain for a long time a corrupt and authoritarian regime, likely to turn in certain circumstance to aggressive nationalism as announced in August of 2008?

2. CHALLENGES AND DILLEMAS WITHIN THE EU-RUSSIA RELATIONS

Robert Schuman, one of the EU founding fathers considered that *we have to build Europe not only for the free people in the West, but also for the Eastern peoples who need our support and our moral adhesion* (IS1, 2000). The founding fathers' purpose was to build a wider European Federation which would ensure unity, peace, security and economic development in the European Continent (Mikulitsch & Busek, 2005, p.13). According to **Bronislaw Geremek**, the ex-Foreign Affairs Minister of Poland, „The EU *enlargement* will bring *history* and *geography* in harmony with each other".(IS2, 2002) In order to accomplish this major objective of conciliation between the history and geography of Europe, EU encounters major challenges, especially when it comes to the Eastern countries which are situated within the Russian sphere of influence. Despite its decline, Russia still represents the biggest „***existing security threat***" to the peace and stability of Europe (Kahn, 2007, p.160).

The relations between EU, U.S. and Russia are of great importance not only for Europe's future but also for the well functioning of the EU. By establishing bilateral partnerships with more Member States, both U.S. and Russia virtually became „inside" players in the EU, because some EU countries represent the views of these external powers. When it comes to US, these circumstances rely on a common history and a mutual set of democratic values while with Russia is different. The unpredictable evolution of Russian foreign affairs, as well as the geographic proximity are strong and valid arguments for the impetuous necessity of establishing a ***common European policy*** towards this country.

2.1 The EU enlargement towards East

Within the Eastern enlargement decision, the geopolitical aspect had primacy over the economic one. After the 2004 enlargement, the continent's division of East and West was overcome. Walter Hallstein, ex-President of the European Commission, stated: „*Europe can develop again as a whole. All these countries that defeated communism through revolutions worthy of our entire admiration, have successfully entered in a struggle for freedom, democracy and self-determination. Through this, they earned the right to take part in the integration process. They still remained Western oriented countries, which for more than 50 years have been victims of ideologies of force, specifically Nazism and Communism. Therefore, they rightfully expected not to be buffer states destined with an uncertain future in a marginal Europe, but to ever become full members of the European Democracy Family*" (Pottering, 2007, 166).

At the *moral* and *historical* duty of the enlargement process we can definitely add an interest of a more *political* and *strategic* nature. It lies within the EU interests to acquire a deep stabilization of the entire territory between the Baltic and Back Sea. By the fall of the Soviet-dominated regimes emerged a political vacuum, which itself bears the risk of further instability. Stability in this area must be the main priority of any EU action, as anxiety in one part of Europe will have consequences and affect the entire continent (Pottering, 2007, 167). *Geopolitically*, the EU succeeded in including within its borders countries from Central and Eastern Europe, and also managed to eliminate the appreciable expansion risk of the inter-ethnic conflict in former Yugoslavia (Ivan, 2007, p.3). By doing so, it has enhanced its negotiating capacity, becoming a major player in the international security system.

The Eastern Enlargement has also an *economic dimension* apart from the historical and political ones which should not be underestimated, although the beneficial effects will be more visible on a medium/long term (Mikulitsch, Busek, 2005, p.83). To summarize, the enlargement towards East has increased the quality of life in both new and old Member States.

When we speak of EU-27, we can assert that the enlargement process, despite all the challenges that characterized this process, was a real success within several aspects: geopolitics and security matters, economy and culture or common identity.

Whereas for the EU the enlargement process was an accomplishment, for Russia we cannot say the same thing. The Russian leaders, as well as the public opinion perceive their country as a world power. In many ways, Russia is still a post-colonial country which has not "mourned" its empire yet (Kahn, 2007, 161). This perception of power encountered a real obstacle starting May

2004. Until then, Russia has never been contradicted by its partners in the years after the Cold War. Russia was invited to join G7 which became G8. Russia's colonial domination policy, regarding the autonomous republics in the Caucasus has not been criticized by the US or the EU Member States. Its military actions against Chechnya, which left 100,000 dead which represented 10% of the population, is tolerated by the same United States, on behalf of the fight against Islamic terrorism, particularly after September 11th, 2001 (LeVine, 2009, p.73).

It seems like only a limited amount of leaders or elites in Russia gave credit to the scheduled date May 2004 regarding the EU accession of eight former communist countries, including three former republics of the USSR. The Russian leaders reckon that joining NATO is the same with joining EU so the association of these two processes is opposed to the interests of their country and its logic of power (Kahn, 2007, 162).

As to the areas of *political and ideological influence*, Russia lost the Cold War but makes considerable efforts to keep the focus of its geopolitical interests, at least on the remaining parts of its areas of interest. Following the EU and NATO enlargements, the Russian sphere of influence, or that considered as such by this country, was considerably and undoubtedly reduced. Therefore, the NATO enlargement to the East is often seen by Russia as *new intrigues* of the Western World against the Federation. In turn, the West sees in Russia's protest to NATO enlargement, a manifestation of „*new imperialist ambitions*".

Kosovo's Status and the EU enlargement in the Balkans are themselves subjects of dispute in relation of Europe with its largest neighbour.

2.2 The European neighourhood policy and Russia

Despite the European major interest of having at their borders countries with dynamic economies and a stable political background, the European Union cannot promise nor guarantee an automatic or unconditional ascension of these bordering states. On the other hand, the new neighbouring countries have also a great interest in establishing and developing close relations with the EU, some having even the perspective on a long term, to become a full part of the European project.

To develop relations with those countries considered to be strategic partners, but with no foreseeable prospects of integration into the European structures, the EU launched its European Neighbourhood Policy (ENP), within the European Commission Project in March 2003. (IS3, 2011)

The relations with the "new neighbours" will represent a challenge as the EU expands. Therefore, the aim was to develop an EU neighborhood policy in order to promote prosperity and good governance in the surrounding countries with the objective to create a "circle" of stability and safety. The Policy applies to the countries on the southern bank of the Mediterranean (the countries of the Barcelona process of 1995) and to Russia, Ukraine, Belarus, Moldova and the republics of the Caucasus.

Not only that Russian leaders do not appreciate that their country is put on the same footing as the others, but the ENP is seen as a competition or even a threat (Bordeianu, 2007, p. 24). This is why Russia chose not to join the ENP, in order to be „*an equal partner*". As a result, the EU and Russia agreed to create four "common spaces" of cooperation in various fields such as: *Economic issues and the Environment; Freedom, Security and Justice; External Security;* and *Research and Education, including cultural aspects* (IS3, 2011).

Despite the ongoing financial crisis and the several conflicts and political instability during the last decade, Russia is the EU's third biggest trade partner which, in turn, is the main partner of Russia. (IS3, 2011) EU is also the main foreign investor in Russia, estimating that 75% of the FDI shares in Russia come from the EU (IS4, 2011). When Russia will join the WTO, the bilateral economic relations between these two powers will develop and become more solid (IS4, 2011).

Without its former socialist republics, the Russian Federation is on its own a great continental power, extremely diverse, militarily strong and weaker economically- at the opposite end of the EU. "Russia still has a long way to go in order to meet the European standards of democracy, governance and market economy" (Tsoukalis, 2005, 221). The Russian Federation has not developed a political culture compatible with the European standards. For this matter, in December 2001, the European Commission has expressed concern regarding the lack of "media pluralism, possible political intolerance and weak civil society concluding that the actual respect of human rights principles in Russia continues to lag behind the country's formal commitments."(Marsh, 2005, p.200)

2.3 The buffer zone – hopes and disappointments

The recent disagreements and tensions in Europe are a living proof of the collision between two *geopolitical projects* on the „old continent": the project developed by the European Union collides with the interests and views of the Russian leaders and authorities.

The stability of the countries lying between the enlarged EU and Russia should concern both sides and provide an opportunity for close cooperation, not the fuel of a dangerous race for spheres of influence. The border consists of a number of economically underdeveloped countries most of them being internally divided, with one part of the country „looking" towards East and the other towards West. This is especially true for Ukraine, an important and very unstable neighbour of the enlarged European Union. This situation is also valid for Georgia and Moldova, but less for Belarus, which gradually approached the status of a Russian satellite (Rusu, 2007, 36). The European Union does not have too much to offer at the moment to these neighbouring countries, except for the ENP. At least for now, Europe's borders stop at these countries.

The ***geopolitical rivalries*** that existed in Soviet times were maintained until today, in a more veiled manner. These circumstances complicate the cooperation and strategic partnerships established between the EU and Russia, the U.S. and Russia. From this point of view, it is believed that **Ukraine** is important for the West only in the position of a buffer state in relations with the unpredictable Russia. When these relations and political context are favorable, Ukraine is forgotten and left aside.(Bordeianu, 2007, 31) Therefore, Kiev is required to refrain from any coalition with Russia, but is not being promised an eventual membership of the EU or NATO in return for missing possible benefits from the Russian scheme (Kahn, 2007, 112).

The EU contribution and initiatives to create a stable and prosperous region at its borders by launching the ENP seem to be silently approved by Russia. Even so, the tensions and disagreements tend to rise when it comes to the *Black Sea Synergy* or the *Eastern Partnership*. Within this context, the Black Sea becomes the heart of animosities between EU and Russia, with all the issues that lie within: the frozen conflicts in the **Commonwealth of Independent States** (**CIS**) regions, the gas pipes and projects which are part of the Kremlin's geopolitical agenda (Kahn, 2007, 174).

After August 2008, when the invasion of **Georgia** took place, the EU-Russia relations have become more tense. Most of the European deputies underlined the necessity to respect Georgia's territorial integrity, saying that Russia's reactions were disproportionate and called for a strengthening of EU's neighborhood policy. It was also underlined the importance of reducing dependence on energy supplies from Russia (IS6, 2009).

The "*Gifts*" received by the young post-Soviet republics after the collapse of the USSR, in particular the separatist areas, represent a strategy and a highly efficient method to manipulate and cause instability within these republics. Therefore, each of the former Soviet states has within their borders an area which is causing political and social instability, armed conflicts, civil wars and even

invasion: Moldova with Transnistria, Ukraine with Crimea, Georgia with Abkhazia and South Ossetia.

For the last decade, Russia has provided the ethnic fighters with money, weapons, support and refuge and helped them to pass the borders. For various reasons, such as political correctness, ignorance or fear, the international community chose to deal with these conflicts in an isolated manner, trying to mediate the conflicts between governments and rebels of the small states, ignoring the critical role which the external actors play within these countries.

In this respect, it is very fair to admit that the failure of such states, like Moldova and Georgia, is not exclusively due to them. For example, Russia has decided to refrain from arming the Russian minorities in the Baltic States, when the West has hinted they would not tolerate such an approach but at the same time, the same West allowed the arming of Moldova and Georgia. Consequently, the Baltic States are currently members of the European Union, when Moldova, Georgia and other states are being threatened with failure.

2.4 The "New" Russia – A Gazprom State

Energy has become a strategic stake for the independence of the European construction members. EU countries are largely dependent on external supplies. The EU currently imports 50% of its energy. The Russian supplies of natural gas imported into the EU are of approx. 40% (representing 25% of the EU needs) and the oil of 15% (IS5, 2008). The Russian government seeks to become indispensable to EU by increasing their dependence, as the beneficial cooperation projects prove, that are organized between the Russian Gazprom and Sonatrach its counterpart from Algeria, which is the second supplier country of the EU (Bahgat, 2006, pp.967-969).

From an ***economic*** perspective, the relations between the Russian Federation and the EU became more tense when the membership of Russia to the WTO came to question. The EU has an intransigent attitude in negotiating with Russia, especially when it comes to energy. The dialogue between the two regarding energy takes place on the premises that Russia supplies 40% of the European gas demand and 15% of its oil (IS5, 2008). The most recent unpleasant event within the EU-Russia relations was stopping the supply of Russian gas to the European users in January 2009 (IS7, 2009).

Europeans suffer from the bilateral disputes between Russia and Ukraine and should increase their efforts to diversify their energy supply. Following the dispute between Gazprom and Naftogaz,

the European Union faced interruption of gas supply. It is important to mention that some Member States have a dependency of almost 100% on the Russian gas.

The Russian leaders do not refrain from using this energy relationship as means of pressure on the EU. Thus, in January 2006 and January 2009, they stopped for 48 hours each export of gas to Ukraine, arguing that its leaders refused to pay the price almost five times higher, demanded by Gazprom (IS7, 2009). This has caused dissatisfaction and worries among the EU states as several pipelines carrying Russian gas transit through Ukraine.

Russia, which holds one third of world gas reserves, is in turn, dependent on European Union: in 2006, it exported to the EU nearly 90% of its oil and nearly 60% of its gas. Therefore the dialogue between the two powers can be classified as a "bargain"- Europe's investment in turn for Russia's oil and gas (Bahgat, 2006, p.969). With the right attitude and fruitful cooperation, this asymmetric interdependence could advocate for a "win-win" cooperation between Russia and the EU.

Despite Russia's return to power, through economic development, political stability and strategic ambitions, we should not overlook its demographic disaster and lack of technology. These aspects push Russia to form strategic partnerships and to understand the interdependent relation which it develops with the EU (Gomart, 2008, p.8).

Beyond the facade of a new charming and arrogant Russia-which is taking advantage of the soaring energy prices in order to assert itself on the world stage once again-, the social catastrophe that befell this country remains completely impressive. The quasi-absence of a scoial assistence system provided by the state, as well as the Russian social body diseases (alcoholism, drug abuse, domestic violence, child abandonment etc.) heavily weigh upon the country's demography. The deeply rooted criminality within the State's structures- which lasts since Soviet times- is based upon an „incestuous relation" between the political power and the business sector (LeVine, 2009, p.212).

On top of all these severe challenges that Russia is facing, one can definattely add the Northen Caucasus problem. Far from being a stable region, the Northen Caucasus represents an explosive mixture within the Russian borders. Apart from this specific issue of the Caucasus region, there is a strong nationalistic wave which rises from the depths of Russia, fueled mainly by the recent conflicts in Chechnya and Georgia. The issues of Russian nationalism can be partly explain by a deep nostalgia shared by a large part of the Russian population (Gomart, 2008, p.5).

When it comes to the concept of ***power***, Russia's power system is based on a close association between the prestige of the state and that of the army (Gomart, 2008, p.5). Within the World Stage, Russia craves for recognition, to have the status of a potential global player once again (Allison,

2008, p.1171). That is why, Roy Allison considers that the Georgian conflict did not express the desire of territorial enlargement but a desire for respect, image and recognition of power (Allison, 2008, p.1171).

On the other hand, the EU is more of a political prototype as well as a bureauocracy (The Commission) reluctant to submit to democratic control (Gomart, 2008, p.8). Therefore, regarding the concept of power, Russia behaves as a great power while the EU still questions its own identity without managing to become a really ***credible security player*** (Gomart, 2008, p.8).

The two major ***geopolitical challenges*** that Russia must face are quite clear. To the East, the growing economic and demographic power of China represents a real threat (Brezinski, 2009, p.72). In the South, Islam is laso an importnat threat to Russia that has over 20 million musilims. Even so, it seems like Russia has no other obsession but to prevent the extension of NATO or any other Western or European influence beyond its borders. Convinced that it is the target of an encirclement policy orchestred by Washington DC –which is not always necesarily wrong- Russia tends to strike once in a while by its available harmful means: energetic blackmail in Ukraine, recognizing the independence of the Georgian separatist regions of Abkhazia and South Ossetia or provoking the Russian speaking population in Crimea and Transnistria.

Within this context, Russia should reflect upon the terror it provokes among its neighbours. Most of them, even the most rusophile among them -which are intimately connected to Russia through family or cultural ties- are dreaming about fleeing towards the West or particulary towards NATO, as what they desire is a partner, not a master.

In the 1990s, EU member states gathered around a strategy of "democratizing" and "westernizing" a weak and indebted Russia, and managed to get the Russians to sign up to all major international standards on democracy and human rights. But since then, soaring oil and gas prices have made the Russian governing elite incredibly powerful, less cooperative and above all, less interested in joining the West.

The regime in Kremlin, led by Vladimir Putin considers that the EU tries to weaken Russia, in order to obtain the transport infrastructure of oil and natural gas. In this context, dominated by mistrust between the two parties, Brussels is trying to solve problems step by step. Some European officials believe that such level of misunderstanding between the European states and Russia has not been seen since the end of the Cold War (Gomart, 2008, p.1). Each suspects the other of double standards. Each thinks that the other uses the energy weapon as a political instrument.

If Russia would get rid of their own past and imperialist mentality, which still has repercussions over the Russian politicians' way of thinking, it is assumed that "a democratic Russia

who is adapted to market economy principles would be more sympathetic to Europe."(Brezinski, 2009, 64)

CONCLUSIONS

The potential for a solid cooperation with the Russian Federation is directly proportional to the challenges and difficulties which the European Union must face. As we saw, for the last decade the buffer countries faced protests, conflicts, corruption, violence, human rights violations, and their problems tend to emphasise. The indifference to the political instability of those countries would threaten in time the peace and stability of the entire European Union, as Russia's involvement in the frozen conflicts could have repercussions over all Europeans.

In conclusion, the complexity of EU - Russia relations raises questions such as: To what extent the EU, as a political and economic actor, truly understands Russia? Is the European policy effective in dealing with this country? Is it required a change of attitude?

Given the great differences between these two powers, in all aspects: economical, political, military, ideological, historical as well as the contexts in which they have formed and developed, the mentality, unity or territory, it is not difficult to comprehend that the EU meets difficulties in understanding Russia. The European Union and the Russian Federation are two powers that lie at ***two opposite poles***: *the EU is economically strong, militarily weak and with democratic principles, while Russia is weaker economically and stronger militarily and has imperialist tendencies*.

Currently, there are two "***schools of thought***" within the European Parliament which reflect the ambivalent attitude of the member countries. A first "school" suggested that Russia should be responsible for any alienation from the European democratic principles. The second "school" is more moderate, bringing the "pragmatism" as main argument. In this respect, it should be adopted a position that combines pragmatism with integrity.

Indeed, after analyzing the relations between Russia and the EU, it is not difficult to grasp the importance of a buffer zone between these two powers. The EU should be more involved regarding the unstable situation which is threatening the newly formed democracies of these young former soviet republics that are likely to fall again under the Russian influence. Therefore, we can definitely state that these countries are extremely important for the EU security, peace, stability and beyond. If in the future these countries will have a membership perspective and will be offered the candidate status, this will strongly encourage the liberals in Russia who are the only ones who can bring democracy in the Federation. If the EU wants to turn the new Russia to be a predictable and

viable neighbour, it must build its partnership with Russia on the same foundations that made European integration a success – interdependence based on stable rules, transparency and consensus. But these foundations will not build themselves. The Union must be much more determined about agreeing rules of engagement with Russia, and then defending them.

After analyzing the relations between the two powers from different perspectives we can conclude that the maturing process of the EU-Russia relations seems to be long and painful Therefore, when the two sides, Russia and the European Union could start discussions on security, trade, energy supply and oil routes, when Russia will join the WTO and the EU will form a true common market for energy; when Russia will bury the past and its imperialist tendencies and the EU will no longer be "*an economic giant, a political dwarf and a military worm*" and will "*unite in diversity*", maybe *then* Russia will no longer appear in the position of danger, or "*the sick man of Europe*", but in that of a cooperating neighbour and a key trading partner.

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