## BANK CREDIT TO THE PRIVATE SECTOR BEFORE, DURING AND AFTER THE CRISIS – EVIDENCE FROM CESEE COUNTRIES

# **Rilind Ademi<sup>1</sup>**

**Abstract:** The banking sector constitutes nearly the whole financial system in South East Europe and Central East Europe and as such is vital for the placement of loans in the economy.

The period before the global financial crisis recorded high growth in loan, averaging 30% per year during 2004 to 2008. The period during and after the crisis recorded significant falls in loan rates, generally from reductions in funding from abroad and which before the crisis were abundant.

This paper aims to examine loan rates in both periods, comparing the potential determinants of credit in the private sector. We also attempt to answer whether there was excess lending before the crisis and in addition deficient lending during and after the crisis.

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### Introduction

The banking sector constitutes almost the entire financial system in Central, Eastern and Southeastern European (CESEE) countries and is of particular importance for attracting capital into the economy in the form of lending. The credit mass that enters in the economy is often a crucial factor in analyzing a country's economic growth, which arises from the transformation of savings into productive investments. As an intermediary banks play the role of agent between traders that have excess or lack of finance. Like any financial institution, banks accumulate funds from different sources and allocate fnds by creating loan portfolios, consisting of many different instruments, and in this report of the exchange between risk and reward they orientate the maximizing of profits.

The role of providing credit for economic growth has been discussed many times (see Goldsmith 1969, McKinnon 1973, King & Levine, 1993, Rousseau & Wachtel, 1998). Although it may be difficult to show a consensus in literature, most studies seem to agree that credit has a positive effect on growth.

By the second half of the 1990s, in countries of Central and Eastern Europe (CEE) a great amount of credit started emerging in the economy in the private sector. Privatization and foreign investment in the banking sector contributed to the rise of the domestic credit in many countries, supported by the opening of the improvements in the economic outlook and monetary conditions. An evaluation of optimism and improved economic conditions, combined with macroeconomic stability and progress in financial reforms led to an optimistic expectation for state and private sector income, and this led to a 30% increase in credit for the private sector during 2002 to 2008 for an average region.

The spring of 2007 represented the beginning of a dark period for the financial markets and in general for the global economy. The strike of the financial markets affected the South East Europe (SEE) and Central East Europe (CEE) countries, where the staging of credit growth broke down, in developed countries as well as in the developing countries, with the financial crisis resulting in evident consequences. The credit rise was affected significantly and credit reached negative values in some countries, where the average credit growth of the region had never been over 3%.

This study, through statistical analytical assessment, attempts to compare the two periods, 1) when the credit rates were high and 2) during and after the financial crisis; when credit rates were significantly reduced. Based on this assessment, we also endeavor to present the factors that may have influenced the associated developments.

### Bank Credit at High Rates between 2002-2008

In most CESEE countries, the banking sector is the main channel for meeting the demand increases in loan requirements. After 2000, most countries experienced rapid growth of credit in the private sector.

<sup>&</sup>lt;sup>1</sup> Rilind Ademi, European University of Tirana, Tirana, Albania, rilind.ademi@yahoo.com

This loan growth was supported by the opening of improvements in the economic outlook and monetary conditions. The level of optimism, and improved economic conditions, combined with macroeconomic stability and progress in financial reforms led to an optimistic expectation for state and private sector income. Therefore, consumption and large investments in these countries increased the demand for loans. An additional factor was the anticipation of the convergence of the developed countries into the European Union (EU), which also played a role in the credit expansion.

The privatization and the involvement of foreign capital in banking contributed to the increase in the domestic credit of many countries. As shown in Figure 1, in the countries of SEE and CEE, there was a significant positive correlation between capital inflows and credit in the private sector, which means that the increase of foreign capital in general had increased the level of banking intermediation.

Table 1 shows the loan growth rates during 2002-2008 i.e., the period before the financial crisis, when loan increases were at high levels, with an average annual increase by 30% yearly. Ukraine had the highest increase, with a growth average credit of 60% yearly, followed by Romania and Albania, with 53% and 42% respectively; and no country had a credit growth lower than 15% over the years (Table 1), apart from the Czech Republic.

	2002	2003	2004	2005	2006	2007	2008	Average (2002-2008)
Albania	13.17	31.23	36.92	74.03	57.49	48.35	32.16	41,91
B and H	27.57	20.11	15.61	27.57	14.92	30.15	22.03	22,57
Bulgaria	42.43	48.85	44.31	34.67	24.00	63.30	31.40	41,28
Croatia	30.48	15.11	14.52	16.86	22.87	15.11	12.08	18,15
Czech R.	-30.58	7.91	15.10	21.45	24.46	24.96	17.06	11,48
Hungary	19.17	16.27	17.77	18.90	17.81	19.06	18.13	18,16
Macedonia	4.75	9.44	24.21	21.01	30.76	39.09	34.37	23,37
Moldova	37.91	44.94	21.21	30.79	38.36	60.11	16.49	35,69
Poland	- 43.24	8.07	117.07	9.54	24.29	32.04	37.91	26,53
Romania	51.18	76.56	42.40	48.99	54.92	62.36	33.96	52,91
Serbia	-34.82	29.06	46.17	53.86	17.26	40.17	33.43	26,45
Ukraine	49.87	64.66	32.20	63.75	69.89	73.72	67.04	60,16
Slovakia						24.09	18.20	21,14
Slovenia				23.51	24.06	31.98	16.26	23,95
							Average	30.27

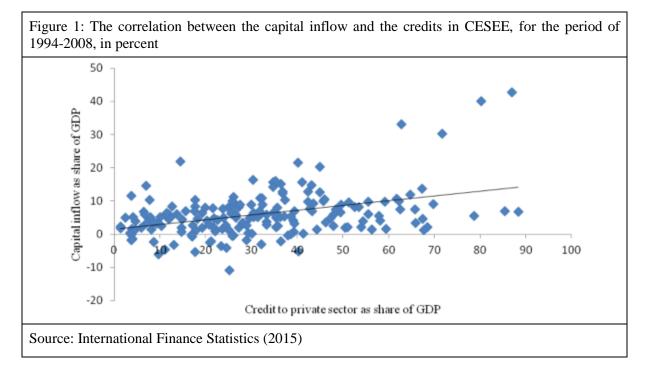
Source: International Finance Statistics (2015), World Economic Outlook Databases (2015) and author's calculation.

The high rates of credit growth in these countries is often attributed to the entry of foreign banking capital, i.e., foreign banks' involvement, and subsidiaries of multinational banks. A correlation shown between the credit and the participation of foreign banks in the market (Figure 1). Foreign banks became dominant in these countries, until 2008, on average, they controlled around 78% of total banking assets. What were the effects of this rapid transformation of ownership? Facts shows that they had a positive impact on finance depth, increasing the effectiveness and enhanced banking alignment, though it also created economic "bubbles", that were closely linked to consumer loans. The evidence regarding the effect of the entry of foreign banks in the efficiency, breadth and the stability of the banking systems in economies in transition had been extremely positive, contrary to the provisions of vague theory and experiences from other regions. Foreign banks were mostly a part of long-term strategic goals and had a stabilizing effect on financial systems and economies of their host countries (Haselmann, 2006). Their penetration helped the increase of small as well as large enterprises, particularly in industries that were more dependent on external funding (Giannetti & Ongena, 2008).

Foreign banks were often linked to the entrance of foreign capital. Indeed, an increasing capital inflow from abroad, was especially noticeable in countries with fixed exchange rates (Magud, Reinhart & Vesperoni, 2012); with a fixed and reliable mode of exchange rate limits the possibility of monetary policy actually curbing the credit expansion from large inflows of capital (as a result of the costs associated with the monetary sterilization). In addition, a fixed reliable regime will help eliminate risk for foreign capital investors and by expanding the credit form, increases reasons for banks to be financed from abroad. A similar conclusion was reached in this study (Figure 1) with the growth of capital inflows (direct foreign investment, portfolio investments and other investments) displaying a positive correlation with credit in the private sector expressed as a ratio of the GDP.

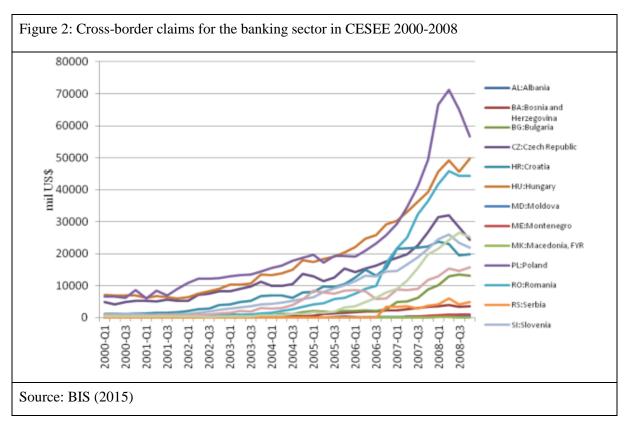
For the purpose of better elaboration, increased capital by foreign multinational banks that transfer their subsidiaries in the countries of SEE and CEE. These countries for the period before the financial crisis were perceived as haven for increased profitability and therefore more capital were oriented in these countries.

Figures 2 and 3 show that from 2002 to 2008 (before the crisis), cross-border loans (cross-border claims)<sup>2</sup> had increased by a factor of 10. Many researchers have analyzed the high credit rates during 2002-2008 and have revealed the factor having the greatest effect was the capital inflow from the internal (home) company. As shown by the correlation indicator, cross-border claims had a positive relationship with credit in the private sector (Figure 2).

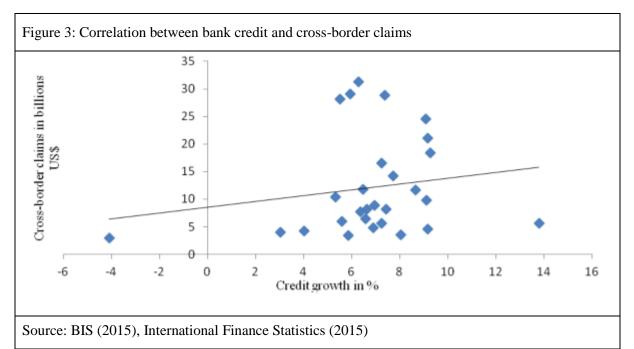


Banking credit can rapidly grow for three reasons: the financial depth (trend), the normal cyclical upgrades, and the excessive cyclical fluctuations (credit booms). It is important to note that credit typically grows faster than the economy of a country, and when an economy develops this way, this process is known as "financial deepening". More than 40 years ago, Goldsmith (1969) noted that the level of financial intermediation moves in accordance (same speed) with the level of economic development. It is believed, from the majority of the studies undertaken, that these two indicators have mutual causality. In essence, financial intermediation may be a factor influencing economic growth, but findings also indicate its positive impact and its importance in economic and financial development.

 $<sup>^2</sup>$  Cross-border claims implies crediting to the subjects in one place which is different from the residential place of the reporting bank-BIS definition. This indicator reports to the whole world the pretention of the banks with a headquarter in a certain reporting BIS country. The Bank for International Settlements (BIS) collects data from some reporting countries, which secure data for their assets and their foreign liabilities of the banking sector.

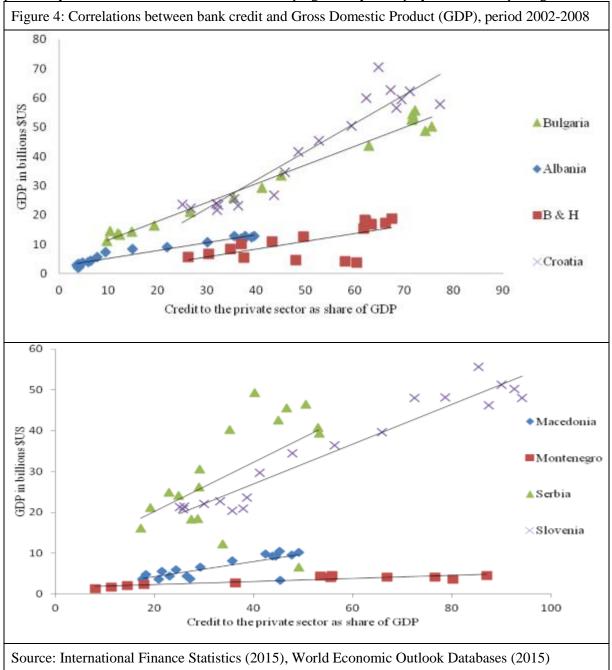


Various studies, identified by Habibullah and Eng Yoke-kee (2006), indicate that financial development promotes economic growth, based on the Schumpeterian theory. Also, a study of the report by the International Monetary Fund (2008), the Global Financial Stability Report, found a significant impact of the credit growth on the growth of the GDP. In addition, various studies have been oriented on towards finding the two-directed report that they have among themselves the financial and the economic development. Demetriades and Hussein (1996) from their study of the developing countries, found that these two indicators, i.e., the economic development and the financial development, have a two-way causality.



These theories are also confirmed in Figure 4 which shows the correlation between financial development (measured by the credit to the private sector in relation to the GDP) and economic

development (measured by GDP at market prices, in USD), with each SEE country showing a positive correlation in this respect. However, these two separate developments have impacted each other. The bank credit grew much faster than the economy. On average for the countries involved in Figure 4 crediting increased 4.5 times during the analyzed period, while the economy grew 3.4 times. As previously mentioned, it was normal for a developing country to display financial deepening.



# The Period During the Crisis and Post Crisis

In the spring of 2007, the crisis in the US subprime market, extended and quickly affected the world, especially in Europe. In an integrated financial world, where many assets are traded in the international markets, the infectious effects were immediate and significant. At its financial core, the crisis that erupted in 2007 had its origins in two important events: in the "American real estate bubble of the 2000's and the colossal losses those financial institutions and US banks were due to the "subprime crisis". Its implication with the declining values in the stock exchange and the bankruptcy of many banks, insurance companies or other financial organizations, during six months of the second half of 2008 meant that the financial crash situation tumbled into a systemic crisis and economic

recession that infected the entire world. The main burden of this crisis, evident in government strategies and policies that dealt with the crisis, fell on public finances, and this provoked deterioration of public deficits, consolidation of internal and external debts (Civici, 2011).

Even in Europe the crisis spread throughout many channels, most being closely related to cross-border financing and banking relationships. In this context, the liquidity channel was in critical condition, with loss of liquidity, driven by major global banks. There was a large drop in the movement of capital compared to pre-crisis levels. There was also a decline of cross-border claims, and as a result, banks were ordered to somehow consolidate the domestic banking system (Figure 3).

Also in CEE and SEE countries, the credit growth stages were brought to an end by the escalation of the global financial crisis, and in developed countries, as well as developing countries, the financial crisis had obvious repercussions. The credit growth dropped to very low levels, and in some countries resulted in negative values. The premise for credit risk rose, while important economic indicators, FDI inflows, industrial production and exports deteriorated. The economic activity contracted very quickly, with many countries from the region experiencing large declines in industrial production and bank lending weakened over time. The region grew by an average of 6% in real economic growth (Quarter 1 2005 to Quarter 3 2008) shaded are (figure 5, pink part). However, with the presentation of the financial crisis this growth was interrupted, especially after the collapse of the Lehman Brothers, the fourth largest US investment bank. The period from third quarter (Q3) of 2008 to the second quarter (Q2) of 2010 displayed negative economic growth, to -2.8% (blue shaded are, Figure 5). For this region, before the crisis, most countries had high deficits in current accounts, supported by capital inflows from abroad, and crediting was denominated in foreign currency with some banking systems of the Eurozone having a relatively large share in the region. With the crisis, which in the region occurred in the last quarter of 2008, the banking sector was affected by direct, indirect and secondary channels. Losses, as a result of the changes in costs of the "toxic" financial instruments, in the portfolios of financial institutions, as direct channels and transmitters of the crisis, were limited because the countries of the region lacked high level integration into global financial markets. In addition, these countries failed to reach a certain fulfillment of financial instruments to be traded. Nevertheless, the countries of the region were affected by indirect channels that were associated with developments in assets, goods and capital flows that led to the deterioration of skilled investors.

The loss of confidence by investors affected markets throughout international exchanges, and this had repercussions on the real economy through reduced consumption and investment activity. Also, local currencies were weakened, and this led to inflation, which was also a challenge for the banking systems of countries that had issued the highest credit value in foreign currency. In addition, the reduction (or termination) of capital flows affected corporations and banks that depended on foreign funds, while foreign banks began the process of delivery (reduction of the level of bank debts), and set the exposure to these markets. At the same time, banks reacted by strengthening their capital, reducing trading assets and excessive lending and focusing on key deposits as a funding source. The secondary effects pertained to the return of cycles of economic activity, that had negative impacts on financial institutions through the deteriorating quality of loans, growth of non-functional loans, reduction of profitability, and problems in maintaining adequate capital (Gallego, 2010).

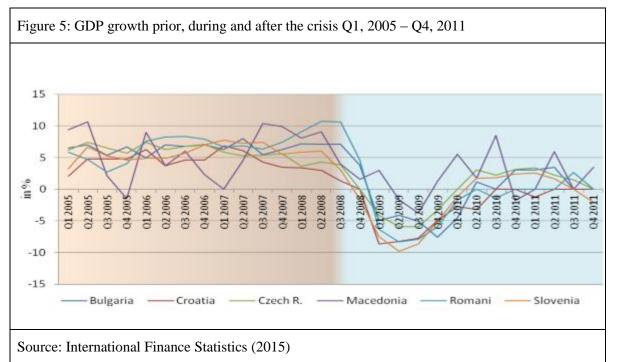
The credit growth rates fell several times. A growth rate of 31% on average in the region over 2008-2014 fell to an annual increasing rate in loans of only 3.38% (Table 2). An analysis of the quarterly biases, data showed that the average before the crisis was 6.62%, and with the occurrence of the crisis, the credit growth rate fell to 1% (Figure 9).

A study on the effects of the crisis in SEE countries (Barlett & Prica, 2012), explored the various institutional structures that were created during the transition period. The global financial crisis in different ways had an impact on countries in the region. The result of the analysis suggested those countries that had achieved greater progress in creating an institutional framework to support a market economy and private entrepreneurs, along with those which were more integrated with global and European markets were most affected by the crisis. Accordingly, countries such as Slovenia, Bulgaria, Romania and Croatia, which had a higher level of integration into the EU were those with larger

declines in GDP between 2009 and 2010 (Figure 5). This means that their progress towards a more integrated system with the EU increased their vulnerability to effects of the crisis. And these countries also had the biggest problems as a result of the crisis.

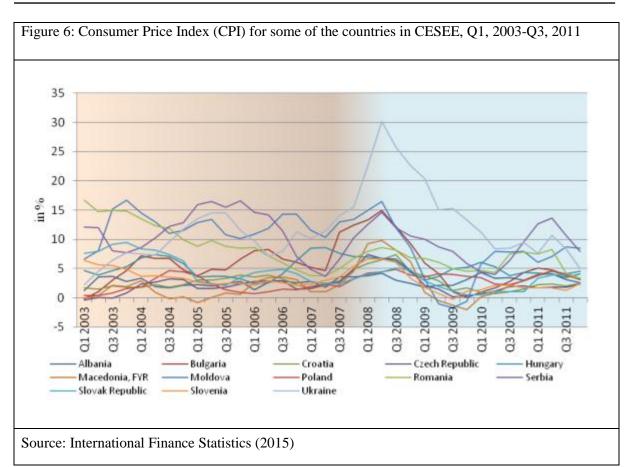
The decline in economic activity had obvious effects on other macroeconomic variables, such as inflation, budget deficits and current account deficits. Particularly, the level of inflation, became a serious problem for monetary authorities in mid-2008 (Figure 7), with double-digit figures for countries such as Bulgaria, Bosnia, Serbia and Moldova. In these times, when economic downturn, as a result of the global financial crisis and rising inflation from external pressures, were combined (with the increase in oil prices), the monetary authorities decided to increase the basic interest rate by taking measures to deal with the inflation (shown in Figure 8). We can see that we have correlation between the rate of inflation (measured by the CPI index) and the interest rate of the Central Bank (Figure 8) resulted in the monetary authorities tightening the monetary policy in 2008.

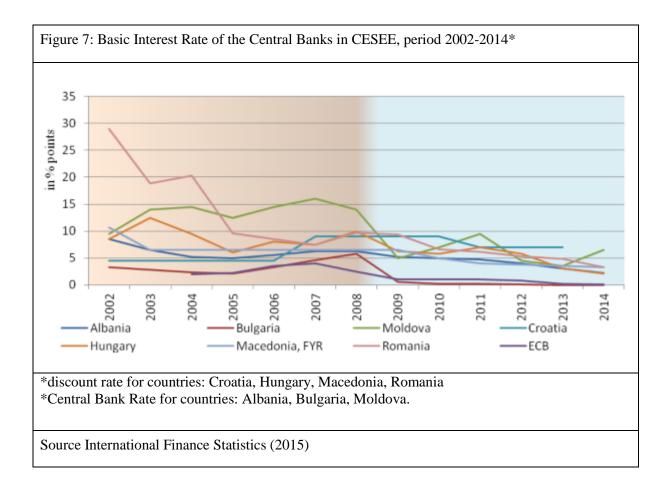
However, the reduction of domestic demand, combined with the significant decrease in the price of oil and other natural resources of 2008, contributed to the alleviation of inflationary pressures, which in 2009, the monetary authorities launched to reduce the level of the base interest rate (shown in Figure 8). Bulgaria had a two-digit inflation rate (13% in 2008), and then a low 2% in 2009 and 2010 (Figure 6). Macedonia, Moldova and Bosnia experienced deflation in 2009 (Figure 6). This, together, contributed to the reduction in inflation, easing the monetary policy and orientated the banks towards increasing the liquidity in the market, to assist in overcoming the financial crisis (Sanfey, 2011).

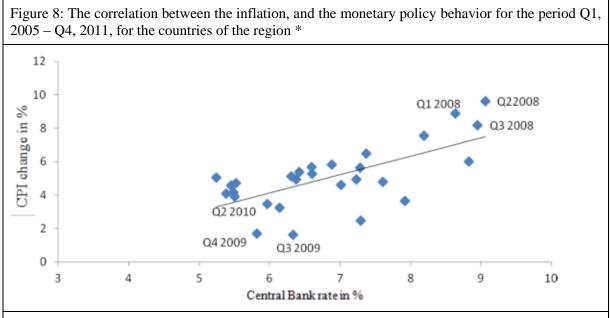


The deterioration of the economic ambience also boosted non-performing loans, and thus, banks started to respond with tighter criteria and a narrowing of credit supply. Previous studies show that rapid credit growth is an early indicator of credit risk formation (Maechler, Mitra & Worrell, 2010). Results by Foos, Norden and Weber (2010) suggested that credit growth represents a significant growth of banking risk, and Dell'Ariccia, Igan and Laeven (2012) presented evidence that rapid credit growth may be associated with a decline in credit standards and loan performance problems.

This is confirmed in data presented in Figure 11 which shows the correlation between the bank lending growth rates before the crisis (2005 to 2007) and non-performing loans during the crisis (2009 to 2012). The results indicate that the countries with the greater rates of credit growth before the crisis (such as Ukraine, Albania and Moldova) had a higher level of non-performing loans during the crisis.



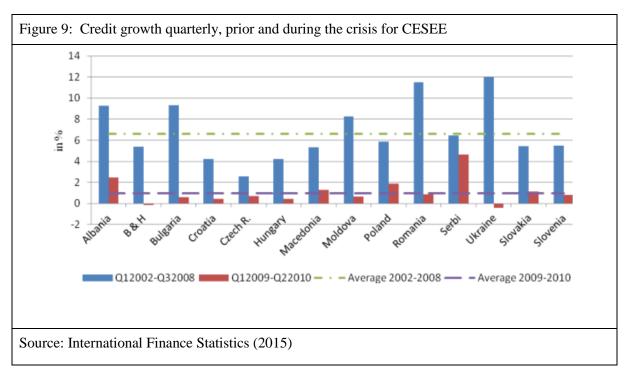




\*Graph is an average of the countries: Croatia, Hungary, Macedonia, Romania, Albania, Bulgaria and Moldova.

Source: International Finance Statistics (2015), author calculations.

	2009	2010	2011	2012	2013	2014	Average (2009-2014)
Albania	10.21	10.08	10.39	1.44	-1.42	2.07	5.46
B and H	-3.41	2.26	4.09	2.95	2.38	1.80	1.68
Bulgaria	3.52	1.21	3.69	2.66	0.14	-8.47	0.46
Croatia	-0.63	1.68	4.11	-3.93	2.73	-1.08	0.48
Czech R.	1.77	4.02	6.12	2.92	3.79	2.51	3.52
Hungary	-1.92	4.35	0.65	-12.45	-4.07	-0.02	-2.24
Macedonia	3.12	7.42	8.43	5.18	6.30	9.76	6.70
Moldova	-5.16	10.59	15.51	20.93	19.29	-4.60	9.43
Poland	6.17	9.17	14.28	1.39	3.64	6.06	6.79
Romania	1.34	5.31	6.23	1.62	-3.38	-3.66	1.24
Serbia	14.42	25.14	5.74	9.49	-4.81	0.56	8.42
Ukraine	-4.24	0.75	8.87	2.79	13.79	10.39	5.39
Slovakia	3.13	5.92	8.13	3.27	4.59	6.48	5.26
Slovenia	3.94	2.70	-1.94	-5.25	-17.11	-13.88	-5.26
<u>Average</u>							<u>3.38</u>



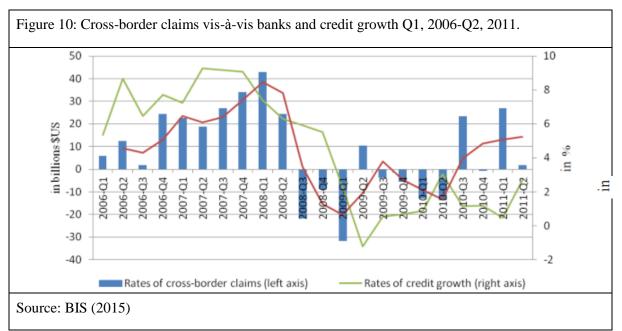
The financial crisis especially affected capital flows from abroad that were transferred in cross-border forms of bank lending, in that the stress experienced by large international banks appeared to have limited the supply of cross-border lending. This finding is consistent with the general understanding that this period of financial crisis originated outside emerging markets. Cross-border bank lending was one of the channels through which the crisis affected emerging markets (Figure 10). Banks from developed countries, in some form or another, were ordered by authorities to suspend credit to countries where they had their affiliations. The Figure 10 shows that the reduction of cross-border bank lending from the third quarter of 2008 (red line) almost agrees with the trend in bank credit (green line).

However, the crisis in the CESEE countries did not extend to the same extent evident in the rest of Europe. These countries experienced a moderate reduction of capital flows compared to other regions of the developing world (e.g., African countries and developing countries in Asia and Latin America). Although there was a reduction in cross-border lending, it was not as substantial as result from the operation of banks through "affiliates" (Allen, Beck, Carletti, Lane, Schoenmaker & Wagner, 2011). Many foreign banks had provided long-term loans in those countries and these could not be revoked.

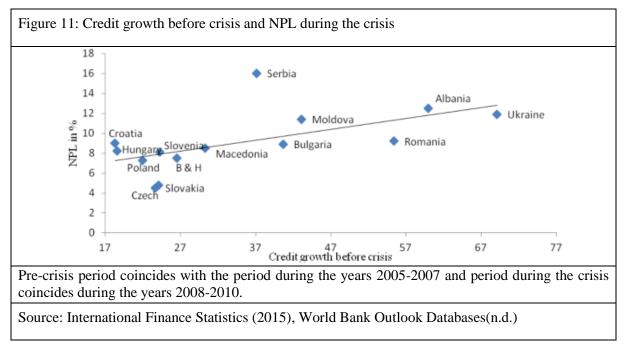
The characteristic and important feature for the region, during the financial crisis was there was no suppression of the major banks, as well as there were no significant problems such as devaluation of uncontrolled currencies, massive increases in unemployment, or disturbance of social order and no substantial slowdown of reforms in the region (Anastasakis, Bastian & Watson, 2011).

In response to the negative external impacts, that affected the region, countries began to use different mechanisms to increase economic activity. As a first step to improvement of competition, depreciation of the currency was implemented, although some places could not use that mechanism as a result of a fixed exchange rate (such as Bosnia and Herzegovina, Bulgaria and Macedonia), "euroization" (as in Montenegro), or where the currency of the Eurozone applied. Measures were taken by the monetary authorities to increase liquidity and credit growth, which was driven by the private sector, by lowering key interest rates, reducing reserves, reducing the auctions of open market operations, implementing credit growth policies especially in local currency, avoiding exchange rate risk, abolishing tax on interest earned on deposits or even in the last case of state intervention in the banking sector (as in Montenegro) for avoiding bankruptcy.

Nonetheless, looking at the steps in implementing monetary policy during the crisis, the state was more oriented towards achieving their primary aim, i.e., price stability, whereas as in 2008, there were



inflationary pressures in a large part of the country. Central banks later found themselves in difficult situations due to a stimulus of consumption with lower interest rates, to prevent the devaluation of the local currency, may have aroused inflation. Therefore, at the end of 2009, countries with floating exchange regimes began monetary easing which lowered key interest rates, whereas for countries with fixed exchange rates, the central bank through open market operations, defended their currencies (Aslimoski, 2014).



### Conclusion

High loan rates in the pre-crisis period were attributable to increased financial intermediation as a result of increased foreign capital in the banking sector in the countries of SEE and CEE. Also, these capital inflows in the banking sector, found a "hungry" market for investment in profitable projects. These pre-crisis years were also associated with a positive macroeconomic environment that helped in achieving high rates of credit growth.

Credit during this period had a positive and significant correlation with capital inflows from abroad and the development of domestic economy. Notable, the loan rates were higher than the economic growth rate, a phenomenon known as "financial deepening".

In addition in CESEE countries, had credit growth stages that were fragmented by the escalation of the global financial crisis and in developed countries, as well as developing countries, the financial crisis had obvious repercussions.

The main factor of growth before the crisis, became the main factor of collapse during the crisis. Lending from abroad fell significantly, and this intimidated local banks, mostly subsidiaries of foreign banks, and thus loan rates approached zero.

Non-performing loans increased in the period of crisis and this had a positive effect in relation to countries that had the highest rates of credit growth before the crisis.

Monetary policy in the early appearance of the crisis, related more to inflation than a liquidity situation in the banking market. Thereafter, the smoothing of inflationary pressures, was oriented in support of liquidity and credit to stimulate growth.

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