SPOTLIGHT ON:

A Comparative Analysis of the Banking Systems of Serbia and South East European Countries

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All of the banking systems in South East European countries (SEEC) experienced an accelerated loan growth right until the outbreak of the global financial crisis. The crisis slowed this process down but the banking sector in the region remained stable after the first phase of the private debt crisis. Increased currency risk in countries with a fluctuating exchange rate and default risk were the major turbulences caused by the first crisis wave. The current phase of the crisis, characterized by the public debt crisis, shows that a significant share of structurally important banks in Europe lack satisfactory capital assets adequacy. New European Union legislation aims to raise the capital adequacy ratio to 9% by mid-2012. This study consistently examines the consequences of this important change on the activities of European banks in SEEC. We analyze the banking sector's three basic strategies for achieving the required capital adequacy ratio, we identify the most likely one, and we analyze the consequences of their implementation in SEEC.

Introductory Remarks

In this study we provide a comparative analysis of the performance of the banking sector in Serbia and the economies in South East Europe in the last decade, i.e. until the end of 2010. This period includes the consequences of the first crisis surge. The analysis covers six national banking systems in SEEC: Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia and, of course, Serbia. Their evolution in the previous decade has a common, dominant denominator: accelerated loan growth and the overall restoration of the banking activity both of which were deeply shattered by the crisis of the 1990s.

The entire set of national banking systems has several other important common denominators: under conditions of high dependency on foreign capital, a strong decrease of capital inflow triggers the contraction of domestic consumption and sharp adjustments of the current balance of payments. All of the observed countries, with the exception of Albania, registered a significant fall of dynamics and level of economic activity in at least one of the years during the first phase of the private debt crisis in the period 2008-2010.

The government response to the first surge of the crisis was registered in all of the countries, but with different effects. The efficiency of regulatory responses to the crisis mainly depended on the basic configuration of economic policies. Anti-crisis policies in the financial sector aimed to prevent the loan "crash" and to maintain financial stability. The basic goals of the macro-prudential regulation in most countries were twofold: maintenance of external debt stability and maintenance of loan growth. Easing of reserve requirements was registered in almost all of the countries of the region. Generally, these policies achieved that goal. Credit activity growth was maintained.

The key differences in regulatory responses to the crisis are evident in the exchange rate policies. Montenegro has officially euroized its economy, while Bosnia and Herzegovina has a currency board. Croatia and Macedonia implemented a semi-fixed exchange rate policy. Serbia and Albania pursued a controlled floating exchange rate policy for their national currency. Monetary policy transmission, the so-called interest rate channel (IRC) is inexistent in Montenegro and Bosnia and Herzegovina. These differences are important because a high level and rapid growth of the exchange-rate risk in a dual currency system combined with a strong pass-through effect on domestic prices have been known to lead to occasional episodes of accelerated inflation. Another important consequence of this policy was the spillover of the exchange-rate risk into default risk. This phenomenon is particularly significant in Serbia because of the high external debt of its corporate sector.

During the first blow of the financial crisis, all of the countries in this group averted the currency-cum-banking crises. The banking systems retained relative stability, liquidity and relative profitability. The big currency-cum-

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banking crisis was averted not only owing to the high capital adequacy of the national financial systems in the wake of the crisis, but also owing to the relatively high efficiency of macro-prudential measures adopted by the central banks in the region. Nevertheless, the risk of activating the currency-cum-banking crisis cannot be not fully ruled out yet, because some of these countries, especially Macedonia and Croatia have extremely deep external imbalances that have escalated over the decade, while the exchange rate of their national currencies has remained almost fixed.

The optimism generated by expectations that the crisis process is over – lasted only briefly. The second wave of the crisis, offset by the public debt crisis in the European Union is threatening these countries with renewed turbulences. The banking sector is becoming the basic transmission mechanism of the crisis.

The text that follows is divided into two sections: the first section is an analysis of the consequences of the first phase of crisis. The second section is an analysis of the risks faced by Serbia's banking system and the banking systems of comparable countries during the current public debt crisis.

1. Comparative Analysis of the Impact of the First Crisis Wave on the banking systems of SEEC

1.1 Rapid loan growth

The accelerated growth of bank credit activity in Serbia and comparable economies in South East Europe started relatively late, only in 2003. The initial credit level varied in these countries due to the various effects of the banking crises that these countries experienced during the 1990s. At the beginning of the renewal process, Albania and Serbia had the lowest loan stock value. Total loans in Serbia reached about 10% of GDP in late 2002, which is a consequence of the deep crisis in the 1990s and the extinction of banks from the nucleus of the banking system. The liquidation of this group of banks in early 2002, led to the contraction of the balance of the sector by about 65%.

Regardless of the different values of the loan stock in some of the countries, their banking systems can be unambiguously qualified as underdeveloped. The greatest share of the inherited loan stock was disbursed to the corporate sector. Consequently, the demand for loans, especially from households – was very high and almost not elastic in relation to the interest rate. The availability of loan sources created conditions conducive to rapid credit expansion in almost all of the observed countries. Interest rates in the EU were relatively low and loan demand in South East Europe very high. The growth potential of the banking sector was therefore unambiguously high. The process of accelerated growth activated itself. Some of the characteristics of this process would allow it to be labeled as a "loan boom", however, by type it is more similar to the financial deepening pattern.

At the initial stage of the credit expansion the greatest growth rates are recorded in the loans to households sector. Loans extended to citizens at the beginning of the acceleration process were small, both in absolute and relative terms. Consequently the loan demand in this sector was very high. The level of indebtedness of the population at the evolution stage was low, and the default rate was almost zero. The loans to households sector growth dynamic was recorded in all of the countries. In the case of Serbia, in the first three years of expansion it was significantly higher than that of total loans.

The drivers of accelerated loan growth were dominantly foreign banks. They took advantage of the great difference in interest rates between the markets in Serbia and EU member countries and brought in huge capital stocks. Domestic savings, as the primary focus of the so-called domestic banks, were insufficient for funding loan expansion, both in their volume and maturity structure, because they were dominated by demand deposits. Foreign savings imports were the primary source of the restoration of loan activity in all of the observed countries. It is in this segment that an almost typical behavior is registered in all of the SEEC's national banking systems: the loan expansion is funded predominantly from the debt contracted by banks with their parent institutions abroad. Thus, in the case of Serbia, the external debt of commercial banks started growing rapidly concurrently with the loan supply growth. The highest nominal growth rates of 257.50% and 129.65% were registered in 2004 and 2005 respectively. The capital of banks in Serbia increased significantly in 2006 (with the highest growth rate recorded at 62.34%, primarily as a consequence of the adoption of the decision on the harmonization of the loans with the bank's capital). The growth of total banking sector deposits (not including state) was slower than that of loans. The growth of the loan supply and deposits was accompanied by an increasing level of euroization: the growth in foreign currency deposits was greater than the growth of Dinar deposits over the entire observed period. [1]

1 For a more detailed description see Vuković V. (2009), "Strukturne promene i performanse bankarstva Srbije", Institute of Economic Sciences, p. 51 and further.

The central banks in the region, in principle, registered credit expansion risks and implemented mitigation and control measures. The exception was the central bank of Montenegro, which did not restrain loan growth to any significant extent. Serbia's central bank implemented the most stringent measures for curbing the loan boom. The following measures were the most significant ones:

• Reduction of the liquidity of banks and activation of operations on the open market (repo) along with increase of interest rates, which activated the mechanism of the interest-exchange rate arbitration,

• Introduction of a prohibitive system of reserve requirements,

• Limitation of gross loans to households to 200% of the bank's capital value,

• Application of prudential norms to contain the loan boom.

The results of the application of this mechanism were indeed significant but insufficient for the withdrawal of the growing liquidity surplus. High interest rates on repo transactions additionally contributed to foreign capital inflows. Another set of measures activated by the National Bank of Serbia (NBS) was the prohibitive system of compulsory reserves. It is interesting to note that the supply of mortgage loans for purchasing real estate were excluded from this system, although the growth of this type of loans was very fast. In addition to mandatory reserves, NBS adopted a set of prudential measure to curb loan growth. The first group of measures concerns the classification of balance sheet assets and off-balance sheet items according to the degree of recovery and the amount of special reserves. In 2004 several decision were adopted requiring banks to categorize all loans granted to natural persons whose monthly installment (including liabilities on account of loans that were already used) exceeds 30% of the debtor's monthly income and whose share or deposit is below 20% of the loan – as 100% risk-weight category (D category).

The banking sector responded to the strong measures aimed at reigning in credit activity by developing an alternative loan growth strategy through so-called cross-border crediting. Through the mediation of pan-European banks, domestic companies borrowed directly from foreign banks (Austrian, Greek and Italian). Although the whole process was accompanied by a decreasing interest rate trend - a high interest rate differential was maintained, defined as the difference between loan interest rates on the Serbian loan market and loan markets in the country of origin of the banks' ownership (Austria, Italy, Greece).

The growing loan supply, the changes in the real exchange rate and competition on national markets had two important consequences in all of the observed countries: (a) decrease in interest rates and (b) increase in private sector borrowing of the whole group of countries. The average growth rate of the indicator of the depth of the banking sector (total loans-to-GDP ratio) amounted to about 20% in the period 2004-2010. In some countries, the growth was extremely fast (Montenegro) and almost entirely based on foreign savings.

Table L1-1. Loan expansion in South East Europe 2004-2010

	2004.	2005.	2006.	2007.	2008.	2009.	2010.
Domestic credit to private sector (in % of GDP)							
Albania	9.5	15.2	22.1	29.1	35.1	36.6	37.4
Bosnia and Herzegovina	36.9	43.7	47.9	54.3	57.8	57.3	57.8
Croatia	48.8	53	60.1	63.1	64.4	65.9	70.1
Macedonia	21.5	24	29	35.3	42.1	43.5	45.3
Montenegro	14.6	17.9	36.3	80.2	86.9	76.4	68.6
Serbia	22.9	29	29.1	35.2	40.2	45.1	51.4
Annual changes of ratio credit / GDP, in %							
Albania	-	60.4	45.5	35.3	17.4	4.3	2.4
Bosnia and Herzegovina	-	18.4	9.8	13.2	6.5	–0.9	1
Croatia	-	8.5	13.4	4.9	2.1	2.3	6.4
Macedonia	-	11.7	20.5	22	19	3.5	4.1
Montenegro	-	22.8	102.2	121.2	8.3	–12.1	–10.2
Serbia	-	26.2	0.6	20.8	14.2	12.1	14

Source: Cocozza, E., Colabella, A. and F. Spadafor (2011),„The Impact of the Global Crisis on South-Eastern Europe", IMF Working Paper, WP/11/300;IMF, International Financial Statistics and World Economic Outlook database (September 2011).

1.2. Some Consequences of Rapid Loan Growth

The risks of accelerated loan growth, not evident at the time, manifested themselves at a later stage. The first great credit expansion risk was a result of the underestimation of the credit risk that arises due to the expansion of the client base and overestimation of their creditworthiness. This is a common phenomenon in conditions of accelerated loan growth. The consequences are evident today: after the turbulences caused by the crisis, rapid loan supply growth has triggered the growth of non-performing loans in total loans (Table L1-2). In the last three years, the banking systems in this group of countries were affected by credit risk growth and decreasing return on equity (ROE).

In 2010, the loan activity of banks in the region slowed down under the influence of growing risk aversion and tightening credit standards in parent banks. The reduction in external funding sources led to the strengthening of the competition on local deposit markets which in turn led to an increase in deposit interest rates and decrease in the net interest margin. In addition to the growth of reservations for non-performing loans led to the decrease in profitability of the banking systems in these countries and in some cases the decrease of growth potential too.

Table L1-2. NPL, Return on Equity and Capital Adequacy of Banks in SEEC

	2005.	2006.	2007.	2008.	2009.	2010.
NPL (in % of total assets)						
Albania	2.3	3.1	3.4	6.6	10.5	13.9
Bosnia and Herzegovina	5.3	4	3	3.1	5.9	11.4
Croatia	6.2	5.2	4.8	4.9	7.8	11.2
Macedonia	15	11.2	7.5	6.7	8.9	9
Montenegro	5.3	2.9	3.2	7.2	13.5	21
Serbia	–	–	–	11.3	15.5	16.9
Return on Equity (ROE, in %)						
Albania	22.2	20.2	20.7	11.4	4.6	7.6
Bosnia and Herzegovina	6.2	8.5	9	4.3	0.8	–5.5
Croatia	15.1	12.7	10.9	9.9	6.4	7
Macedonia	7.5	12.3	15	12.5	5.6	7.3
Montenegro	6.1	11.6	10.6	–6.6	–6.9	–27.0
Serbia	6.5	9.7	8.5	9.3	4.6	5.4
Capital adequacy (in % of risk-weighted assets)						
Albania	18.6	18.1	17.1	17.2	16.2	15.4
Bosnia and Herzegovina	17.8	17.7	17.1	16.3	16.1	16.2
Croatia	15.2	14.4	16.9	15.4	16.6	18.8
Macedonia	21.3	18.3	17	16.2	16.4	16.1
Montenegro	27.9	21.3	17.1	15	15.8	15.9
Serbia	26	24.7	27.9	21.9	21.3	19.9

Source: Cocozza, E., Colabella, A. and F. Spadafor (2011),„The Impact of the Global Crisis on South-Eastern Europe", IMF Working Paper, WP/11/300; IMF, International Financial Statistics and World Economic Outlook database (September 2011).

The main effects of the first surge of the crisis on the banks' balance were *growth of credit risk* (NPL) and reduction of their profitability. The capital adequacy of banks in the region is still at a high level and well above the regulatory requirements of the EU. Enhanced supervision of banks in the pre-crisis period established relatively high classification standards for loans and capital adequacy. Before the first impact of the economic crisis, in late 2008, capital adequacy of banks in these countries varied from 17% in Croatia to 28% in Serbia. The increase in NPL in these countries during the past three years led to a significant reduction of the capital adequacy of banks. Nevertheless, the current level of capital adequacy is still above the regulatory requirement of the EU of 9% for Tier 1 capital.

The second important fact is the significant reduction of the profitability of the banks in these countries. Technically, the reduction of profitability is the consequence of the reduction in net interest margins and the growth of value adjustments and reservations for potential losses. The reduction of the interest margin is a consequence of the growing competitiveness and the declining loan demand due to strong recession pressures.

The third important fact, bound to impact the medium and long term performance of the banking sector - is the high external dependency of the national banking system. Funding credit expansion by importing savings (Table L1-3) resulted in a rapid reduction of foreign assets of banks, i.e. a growth in borrowings (the negative growth in Table L1-3). Such a balance sheet structure of SEEC banking systems has the potential to trigger a shock that could rapidly activate external liquidity problems in these countries and consequently a fast depreciation of local currencies. This process would accelerate the growth of the foreign exchange risk and its conversion into credit risk in conditions of rapid currency depreciation.

Table L1-3. Trends in Banks' Net Foreign Assets in SEEC (% of GDP)

	2004	2005	2006	2007	2008	2009	2010
Albania	9.4	8.8	8.2	6.3	0.5	2.6	7
Bosnia and Herzegovina	–4.7	–8.5	–8.8	–7.4	–13.0	–11.6	–8.0
Croatia	–7.3	–11.9	12.5	–5.9	–7.7	–9.3	–10.9
Macedonia	9.7	7.9	7.1	4	0	0.4	–0.2
Montenegro	–1.1	2.3	–1.4	–17.0	–32.6	–23.9	–17.6
Serbia	–1.3	–7.4	–12.8	–8,3	–8.5	–12.4	–12.9

Source: Cocozza, E., Colabella, A. and F. Spadafor (2011),„The Impact of the Global Crisis on South-Eastern Europe", IMF Working Paper, WP/11/300; IMF, International Financial Statistics and World Economic Outlook database (September 2011).

The macroeconomic consequence of this process is the growth of the external debt of all observed countries during the first phase of the crisis. While the public component of external debt stagnated or fell in relative terms, borrowing grew. In the case of Serbia, the key cause of external private debt growth before and after the crisis is the direct borrowing of local companies from parent banks that have subsidiary banks on the national market (cross-border borrowing). This phenomenon can be defined as a special case of regulatory arbitration, by means of which the banks avoided the prohibitive system of compulsory reserves. In the case of Montenegro and Croatia, the accumulation of external debt is predominantly the consequence of the domestic banks' borrowing from their parent banks. Thus, the capacity of these countries to borrow abroad has been preserved. By means of a constant inflow of additional capital, the commercial banks in foreign ownership increased the foreign currency reserves of central banks in these countries and to a certain extent took on the role of lenders of last resort.[2] Thus, the exchange rate of national currencies in Macedonia and Croatia was maintained at an almost unchanged level during the first phase of the financial crisis. The key problem in the future is the sustainability of such a mechanism.

Table L1-4. Mandatory Reserve Rates and Trends Since the Beginning of 2010 in Selected Countries

Country	Required reserves rate	Correction from Q1 2010
Serbia	0% on dinar base, maturity over two years.	Q2 2010 – reduction in the rate
	5% of dinar base, maturity up to two years.	Q1 2011 – ntroduction of term differentiation, corrections of appropriations in dinars
	25% on foreign currency base, maturity over two years.	
	30% on foreign currency base, maturity up to two years.	
Croatia	14% flat rate	No changes
Montenegro	10% flat rate	No changes
Macedonia	10% on denars	No change in rates
	20% on denars with currency clause	
	13% on foreign currency	
Romania	15% on lev	Q2 2011 – reduction in the foreign currency base, introduction of term differentiation
	20% on foreign currency base	

Source: Central banks in the listed states

1.3 Reactions of Central Banks and Governments

Together with the state, the central banks in the region strove to preserve the loan supply and avert the loan crush. In most cases central banks reduced the compulsory reserve rates, while the Serbian government launched a subsidized loan program. Serbia had a relatively high depreciation and inflation so that only at the beginning of 2010, the NBS implemented the first adjustment of rates of the Dinar and foreign currency base, and again in February 2011. In relation to other countries in the region (Table L1-4) – compulsory foreign currency reserves in Serbia are the highest in the region, but this gap was significantly smaller during the crisis.

2 For more arguments please refer to: Cocozza E., Colabella A. and F. Spadafor (2011), "The Impact of the Global Crisis on South-Eastern Europe", IMF Working Paper WP/11/300.

The greatest risk for the banking systems in SEEC, in the wake of and after the first crisis surge, is the sudden discontinuation of capital inflow and in a dramatic case scenario, the withdrawal of capital flows. This problem was recognized at the very beginning of the crisis. Since the banking systems of this group of countries is dominated by Western European banks, a timely agreement was reached between the governments and the banks that have their subsidiary banks on these markets, thereby providing to reduce the risk of outflow of financial assets. This arrangement (European Bank Coordination Initiative – EBCI), known as the Vienna initiative, mediated by the EBRD and IMF, resulted in the maintenance of the exposure level of banks at a level equal or greater than at the end of 2008. The extension of deadlines of matured credits prevented the outflow of resources from SEEC markets. This arrangement had especially positive effects on the banking systems of Serbia and Bosnia and Herzegovina. Some countries even registered additional capital inflows, thereby averting large scale disturbances looming over the whole region.[3] Thus, the risks arising from high foreign savings dependence of the banking systems in SEEC, were successfully cushioned during the first crisis surge. Although supervision experiences varied from country to country, the region's central banks that managed to contain the loan boom proved that they rationally assessed the risks of this process.

1.4 Medium and Long-Term Structural Problems of the SEEC Banking Sector: High Level of Euroization and Spillover of Exchange-Rate Risk into Default Risk

The banking systems of all SEE countries are highly euroized. Despite the decrease of the transactions euroization (the use of foreign currency in trade) after a period of high inflation and instability, the so-called financial euroization (share of foreign currency in assets and liabilities) still remains very deep. At the beginning of the crisis in 2008, loans and other credits were euro denominated or indexed in the range from 50-60% in Macedonia to 80-90% of the total sum in Croatia.

The resilience of these two types of euroizations is the result of an exceptionally deep savings deficit present in these countries and a relatively high inflow of remittances. Domestic savings are low and the faith of the population and companies in the stability of the national currencies is low. A high level of euroization is reflected even in countries that had stable currencies (B&H) or that implemented active de-euroization policies. High level of remittances from the expatriate community of those countries living in Western Europe has helped maintain a relatively high supply and availability of foreign currency. Foreign banks are importing euro denominated savings. The conversion of these stocks into loans denominated in local currencies leads to an increase in loan interest rates for the amount of currency risk premiums. It would be realistic to assume that a rapid and repressive de-euroization would significantly increase the average level of interest rates and change competitiveness conditions on the markets in these countries.

Domination of euro denominated savings on the deposit market and foreign banks on the SEEC loan markets - imposed a dominant pattern of protection from exchange-rate risk. Foreign banks were able to transfer the exchange-rate risk onto borrowers, while at the same time maintaining currency stability in their balances. It turned out that this is not the ideal safeguard against exchange rate risk. In countries with a flexible exchange rate policy, with every major depreciation the exchange rate risk spills over into default risk because local borrowers earn most of their income in those currencies. In present conditions, when the liabilities balance sheet of banking systems in SEE is denominated in euros, the space for de-euroization is limited, and the risk of a spillover of the exchange rate risk into default risk is very high.

Default risk can grow at an even faster pace than the depreciation dynamics due to the unfavorable sector structure of bank loans. Sectors that are affected by the crisis exchange rate effects show a faster drop in creditworthiness than exchange rate fluctuations. In the previous decade, a large share of loans was disbursed to sectors producing non-tradable goods and services. The revenues of borrowers in the services sector, for instance, are predominantly in local currency. Depreciation of local currencies increases the default risk of these borrowers faster due to the unfavorable currency structure of their balance sheet. At this moment, Serbia is the South East European country with the biggest risk of spillover of exchange-rate into default risk, while countries with fixed or semi-fixed exchange rates are temporarily spared from this effect, although they are registering NPL growth.

The problem of the spillover of the exchange-rate risk into loan risk can spread to Macedonia and Croatia in circumstances when capital inflow and/or outflow have ground to a halt. In conditions of a more significant aberration of the current exchange rate from macroeconomic balanced values, depreciation pressures will grow further with decreased

3 For more details in: Cocozza E., Colabella A. and F. Spadafor (2011), "The Impact of the Global Crisis on South-Eastern Europe", IMF Working Paper WP/11/300.

capital inflow. Foreign currency demand has another strong driver, in addition to the usual sources: namely, if foreign banks decide to implement a strategy that entails the reduction of assets borrowed in SEEC to meet the new capital requirements, large balance sheet items (loans denominated in local currencies and indexed loans) will be converted into foreign currency on the national foreign currency markets. The withdrawal of these assets will additionally accelerate depreciation. Available foreign currency reserves of central banks are relatively small in relation to the value of these items in the banks' balance sheets. Consequently, foreign currency reserves will be diminishing (which is what occurred during the episodes of depreciation of national currencies in 2009 and 2010). These conditions will lead to a rapid depreciation of local currencies, the increase of the exchange-rate risk and consequently that of the default risk too, while the banks' capital adequacy will decrease.

Under such circumstances a rapid deterioration spiral can be expected in the medium and long term, characterized by the following key elements: fast depreciation, activation of the transmission mechanism of the depreciation effects to inflation, rapid growth of default risk and, consequently, increased demand for additional capital. In the short term, inflows of short-term liquidity loans and treasury bills, whose demand is fueled by foreign funds, are likely to decrease. Insufficient demand and growth of interest rates on short-term loans to the state may give rise to problems in funding the budget deficit. The expected consequence in the real sector is aggravation of the liquidity problem.

2. The Second Phase of the Crisis and Serbia's and SEEC Banking Sector Adjustment Related Problems

2.1 Defining the Problem

Table L1-5. Aggregated Shortfall Required by Country (in million Euros)

Austria	3,923
Belgium	6,313
Cyprus	3,531
Germany	13,107
Estonia	26,170
France	7,324
Greece	30,000
Italy	15,366
Netherlands	159
Norway	1,520
Portugal	6,950
Slovenia	320
Total	**114,685**

Source: EBA Press Release, 8 December 2011

The public debt crisis in the European Union and the manner in which it is being dealt with have triggered a substantial problem that can significantly impact the state and evolution of the banking systems in SEEC. Namely, on 26 October 2011, the European Council issued a decision to increase the capital adequacy ratio to a level of 9% by 20 June 2012. On 8 December 2011, the European Banking Authority (EBA)[4] published a formal Recommendations, and final figures, related to banks' recapitalization needs.[5] Banks were instructed to use private sources of funding to strengthen their capital including retained earnings, reduced bonus payments, new issuances of common equity and "other liability management measures". EBA also determined the capital shortfall amounts required by country and by bank. The aggregated shortfall amount was set at EUR 114.7bn. The aggregated shortfall required by country is given in Table L1-5.

Undoubtedly, for the countries that have deep financial markets and substantial fiscal capacity, a recapitalization of this scale is not a big problem. For Estonia and Greece it can be a serious problem. What is the possible impact of EBA's decision on the activities of the subsidiaries of European banks in SEEC? The answer to this question depends on the level of integration of the banking systems of each country with the country of origin. The problem that banks from Greece have is bound to spill over to the countries in which their subsidiary banks do business.

The impact of the crisis on each individual country depends on the growth potential, profitability and risks of their banking systems. The lower the growth potential and profitability of the banking activity, the greater the likelihood of capital withdrawal. The key internal problems of the banking sector in SEEC that are related to the structural characteristics of the economies in which they are doing business does not allow for the assumption of their high growth potential. All SEE economies are structurally flawed in the sense of the small share of tradable sectors in GDP. Because of this, their balance of payments items are a constant threat to macroeconomic stability. The high external debt, also generated by the strong credit boom in these countries, among other factors, can significantly

4 The European Banking Authority (EBA).
5 EBA Press Release, 8th December, 2011.

burden their future economic development. The default risk level is of critical importance as well. European banks will avoid economies that are burdened by a high level and expected growth of default and exchange-rate risks.

The second group of factors that will influence the future performance of banks in SEEC are located in the countries of origin of the parent banks, whose subsidiary banks control these markets. The strong expansion of multinational banking groups to East and South East Europe has increased the consolidated balances of the banking systems in countries such as Austria, Italy, Spain and Greece – far exceeding the historical values of the total loans to GDP ratio of their national financial systems. The growing risk in the last decade dramatically opened the issue of stability of their structure. The question is, to put it pragmatically, can these banking systems maintain solvency in the long term?

2.2 Potential Bank Strategies to Meet to New Capital Requirements

Current capital adequacy ratios in the EU vary significantly from country to country. According to available data, at the very beginning of the crisis, end of 2008, the aggregate capital adequacy ratios ranged from a minimum of 6.91% for Italy to a maximum of 15% for Malta.[6] One can realistically assume that the value of this indicator has decreased in the last two years. Under the conditions described herein, at different levels of practicality, there are three basic strategies for increasing capital adequacy.[7]

The first strategy can be to increase the interest margin by increasing loan (active) interest rates in order to increase and later reinvest net profit.

The second strategy can be to increase capital by issuing new equity whilst maintaining the existing asset structure. This strategy is linked with the first strategy, because raising the interest margin would in turn increase the net profit and the expected bank equity value. Shortening the adjustment period significantly influences the practicality of both of these strategies.

The third strategy is to reduce assets, specifically risk-weighted assets, which would lead to reducing exposure to risk and increasing the capital adequacy ratio to the required level.

All of the three strategies mentioned herein are realistic under specific conditions. As already mentioned, the first and second strategy would necessitate a relatively long implementation period. Further, the application of these strategies would lead to raising the cost of capital for banks (in the sense of increasing the required loan return rate). Unlike these two strategies, the third strategy can be realized in a relatively short period of time.

A relatively short adjustment period will likely be the key criteria in the choice of strategies and their mixes. If the adjustment period is relatively long, banks have the possibility to apply one of the first two strategies or a mix thereof. The shortening of the adjustment period, which is what happened with the EBA decision, rules out a gradual increase of the capital adequacy level as a concept and leaves the banks with no other option but to either reduce their assets, specifically risk-weighted assets (contraction of the balance sum) or, in the optimistic outcome scenario, to cut the loan supply, in particular to risky clients (decreasing the balance sum return). The choice of the first or second variation of this strategy depends on the following factors:

a) current bank capital adequacy in each individual country. After the first phase of the crisis, SEE countries have high capital adequacy. Because of this, additional capital on a large scale is not required;

b) GDP growth rate of a given country and, consequently, the growth potential and profitability of national banking systems are hard to predict. It would be realistic to presume that structural problems in SEE economies will halt their growth in the short and medium term. Consequently, the maintenance of high loan supply growth rates cannot be expected;

c) level of recovery of the existing loan stock. All SEE countries are registering NPL growth. This process is jeopardizing the current bank capital adequacy ration and increasing the need for additional capital.

If banks have an adequate level of capital stock and an adequate level of reserves to cover default risk, they can continue to increase the balance sum but, certainly, at lower rates than before the enactment of this legislation.

6 European Central Bank data and Nomura Emerging Markets Research, EEMEA Region View, 4 November 2011.

7 For details please see: Marzinotto B. and J. Rocholl (2010), "The Unequal Effect of New Banking Rules in Europe", *Bruegel Policy Contribution Issue*, 2010/10 October 2010.

A mix of the second and third strategy would prevent the reduction of bank assets if the costs of additional capital are relatively low. The current situation on the capital markets is characterized by a high return rate requirement. Consequently, this mix of strategies can be realistic if additional capital is provided from (relatively cheap) public sources.

We can realistically assume that banks will develop their own strategies, which in most cases will be a mix of the three basic ones. The stringent strategy of reducing assets will be applied only in extreme cases when increasing the capital stock to the required level is impossible. The second strategy is also not very likely, unless a massive nationalization of the big European banks should occur. The currently available sources for these purposes do not give grounds to believe that this is a highly realistic strategy. The outcome will depend predominantly on future decisions in the EU with regard to the public crisis debt solution.

2.3 Potential Consequences of the Adjustment Strategy Choice

The increase in interest margins geared to increase the capacity of reinvestment of the bank's net profit may increase the pressure on investment activities in the real sector. Internal return rates of new investment projects under these conditions remain below the costs of their funding. The costs of funding working capital are also increasing. Basically, this strategy results in slowing down the stop in investments and decreasing the future GDP growth in all SEEC. Loans will become more expensive and harder to get, which in the short term can strengthen the liquidity crisis.

The third strategy has the most serious macroeconomic and microeconomic consequences. The real sector is not only deferring investments but also current activity. The reason for this is the impossibility and/or high cost of working capital. The consequences are a decrease in GDP and employment rate. These phenomena are already being registered in some SEEC. The intensity of the negative impact of the implementation of this strategy depends on the following factors:

a) type of financial system – the high dependence of the real sector on banks (bank-centric systems) also entails a greater likelihood and greater intensity of this strategy's impact on the real sector. If the corporate sector has no alternative sources of funding (financial markets, institutional investors) the impact of the reduction in the loan supply stock or growth dynamics grows;

b) depth of financial system, indicated by the ratio of loans to corporate sector to GDP – shallow financial systems are more sensitive to the change in the level and dynamics of loan supply growth;

c) degree of dependence of a given financial system on import of savings – systems that have a high loans-to-deposits ratio are more sensitive to contraction of assets in large multinational banking networks. These systems are also exposed to the additional risk of the spillover of turbulences across the network.

In a more radical case scenario, i.e. in the case of reduction of the existing loan stock, i.e. contraction of the balance sum in the short term – this strategy can generate strong macroeconomic shocks. The assessment of the potential impact of changes in the behavior of banks in EU member countries on the SEEC banking sector depends not only on the choice of the dominant strategy, but also on the characteristics of their national banking systems. Table L1-6 gives an overview of the key traits of the banking systems that will impact the behavior of parent banks.

Table L1-6. Capital Shortfall and Potential Adjustment Strategies of SEE Banking Systems to the EBA New Capital Requirements

	Additional capital required (in bn. Euros and in % of GDP)		Ability to sell equity / subsidiaries	Profitability of foreign banks	The possibility of recapitalization of the parent	The risk of increasing leverage	The risk of negative growth
Serbia	0.7	2.2	Yes, but difficult	Acceptable	No	Balanced	High
Croatia	0.5	1	Yes, but difficult	Acceptable	No	Balanced	High
Albania	0.2	2.1	No	?	No	Balanced	High
Macedonia	0.2	2.1	No	?	No	Balanced	High

Source: BIS data and Nomura Emerging Markets Research, *EEMEA Region View*, 4 November 2011

If the strategy of reducing assets in members of banking groups outside home countries is the banks' prevailing option for adapting to the new capital requirements, different variants of this strategy will occur, depending on the characteristics of the parent and subsidiary banks. It can realistically be assumed that banking systems in countries with high total assets as a proportion of their GDPs have no other option than to reduce exposure in a situation

when default risks in subsidiaries are increasing rapidly. These banks will endeavor to return to their home markets as quickly as possible, either by selling their equity shares in their subsidiaries or by selling subsidiaries as a whole. This option will be realistic in markets with high growth potential and high present profitability of banking activities.

The SEE countries will be compelled to accept the predominant strategy for adaptation. A consequence of this finding is, roughly, as follows: in all countries where banks do not adapt to the new capital requirements swiftly and efficiently, the inflow of additional capital will be hampered, if not completely halted. So far, only countries with high growth potential, high profitability and low risks in the banking sector are free from this risk. Under these circumstances, the possible expansion of their banking systems will be led by bank affiliates outside the European Union or by domestic banks with sufficiently high capital adequacy and good access to the global and national deposits markets.

3. Concluding discussion and possible measures

It appears that there are, at the moment, arguments supporting the assumption that the banking evolution stage in SEEC is over, and that these arguments will multiply in the near future. The attained depth of these countries' financial systems, as measured with the total loans-to-GDP ratio, does not warrant designating these systems as developed. Yet, the revival of banking activities, in particular lending, took place in a short period of time. The next evolution stage will certainly not be characterized by accelerated growth of loan supply. There will probably be no high supply of relatively large loans in the short or medium term. The risks of maintaining financial stability will increase. It will not be possible to increase central banks' foreign exchange reserves by importing capital; therefore, additional risks of accelerated depreciation of local currencies will also develop.

Implicit evidence of this statement is provided by the stance of the EBA, which unambiguously recognized that shorter time for adaptation will be a serious obstacle to maintaining EU banks' lending activities. In spite of this diagnosis, the decision to rapidly raise banks' capital adequacy is "…part of broader efforts to restore confidence to the EU banking system..."[8]. The national regulatory authorities and the EBA will endeavor to implement measures to ensure maintaining the level of banks' lending activities.[9]

If the new regulatory rules lead to a serious contraction of loan supply, the main driver of loan growth in SEE will be inactive. Loan growth in SEEC will decelerate considerably. Its revival will be difficult in the short term owing to structural shortage of domestic savings.

SEEC, in addition to the risk of declining loan supply, also face two additional risks: instantaneous halt in capital inflow and commencement of capital outflow. Almost all SEE countries are exposed to these risks. The first current reaction to the risks of accelerated raising of capital adequacy and lowering leverage in European banking is the recent EBRD initiative for a new Vienna Agreement (known as Vienna 2.0). It is essentially an extension of the 2008 arrangement, whereby the exposure of European banks to Eastern and South-Eastern European countries should remain unchanged. The principal achievement of the original arrangement was, as mentioned above, removal of the risk of withdrawing capital from this group of countries, leading to a lower probability of shocks occurring in their financial systems. The new arrangement has not been agreed and is not very likely to be agreed.

In assessing the likelihood of concluding a new Vienna Agreement and its duration, the risks faced by capital-receiving countries during the last wave of public debt crisis should be taken into account. A problem that remained unsolved under the original agreement is the banks' long-term lending activities growth perspective in this region. The results achieved during almost three years of validity of this agreement are not satisfactory for EU banks. The main argument in favor of this assessment is the high and growing credit risk in most countries in this group. Yield rates on invested capital are relatively low in most countries. The banking activity growth potential has declined dramatically in most countries. Therefore, any new Vienna Agreement would require some mechanisms for offsetting the potential risks and losses that EU banks could sustain in the event of maintaining the same level of exposure to these markets. The likelihood of finalizing a new Vienna Agreement now depends on the EU capacity to provide sufficient funds for bank recapitalization to the level stipulated by the EBA.

An additional argument in favor of the assumption that another Vienna arrangement will not be reached is the fact that some countries' regulatory authorities (e.g. Austria's central bank) have taken measures in the opposite direction.

8 EBA Press Release, 8th December, 2011.
9 Ibidem.

The main purpose of these measures is to reduce the risk to the financial stability of their national systems by reducing banks' exposure to Eastern and South-Eastern European countries.

If the problem fails to be regulated at the supranational level, interventionist chaos of a kind may be expected as a result of various, mutually competing regulatory responses at the national level.

One type of national monetary policy response may be raising key policy (regulatory) rates, which should prevent capital flight and depreciation of national currencies. This would, essentially, support the strategy of raising interest mark-ups, which, combined with the usual restrictions on repatriation of profits from subsidiary banks, could increase their capital adequacy. Banks could respond to these measures by a counter-strategy, i.e. mechanisms of internal transfer pricing of loans and deposits. (Such occurrences have already been recorded in some SEE countries.) Raising regulatory interest rates will be reasonable, and even necessary – if the inverse process of capital outflow commences. These central bank measures could be accompanied by considerable central bank interventions in national foreign exchange markets with the same objective. If this process were dominated by capital flight, the risk of destabilization and rapid decrease of foreign exchange reserves would increase. The main reason is the high disproportion of euro-denominated and – indexed loans in relation to the amount of foreign exchange reserves. If the inverse process accelerates significantly, foreign exchange reserves will decrease even faster. An opposite effect would be withdrawal of individual banks by means of partial sale of equity or sale of entire subsidiary banks.

The other possible type of national-level response is implementing new mechanisms for capital flow control. Traditional capital flow control mechanisms are inefficient in a situation when the national banking system is controlled by foreign banks. Stringent measures to control capital outflow will probably be taken only as a last resort, i.e. only if significant inverse capital flows occur, jeopardizing financial stability. A possible development that might provoke such response is the (already observed) recapitalization of parent banks by their subsidiaries. Capital flows control is, in principle, efficient only in the short term, while in the medium and long term it has the opposite effect, as it restricts potential capital inflow in the future.

The third possible response by the national supervisory bodies could be the nationalization of some components of banks' assets. This means that governmental or para-governmental financial institutions would buy some components of commercial banks' assets. Under the present circumstances, this is not a highly likely option, as Central and South-Eastern European countries lack sufficient fiscal capacities for this type of operations. The available budget resources will probably be used to recapitalize smaller, domestically owned (predominantly state-owned) banks. Such banks and quasi-banks (known as development funds and banks) exist in all countries in the region.

In the medium and long term, banking sector development in SEEC will depend on the level and quality (term and currency structure) of domestic savings. This structural gap will be very difficult to overcome, so that non-loan inflows of capital (foreign direct investments, remittances) will become important for financing investments and maintaining financial stability. Meanwhile, national regulation should focus on increasing the aggregate savings rate and activating institutional saving mechanisms (life insurance, pension insurance). Another important strategic stream of structural reforms could be building the capacity of the financial market to finance the real and public sectors. Reforms should raise the level of safety of these instruments, in particular public debt instruments.