

*Journal of Central Banking Theory and Practice*, 2012, 1, pp. 91-106  
Received: 27 January 2012; accepted: 22 February 2012.

UDC: 336.7(497)

**Zoran Grubisic\***, **Perisa Ivanovic\*\***

## **Influence of different monetary regimes on financial stability in see countries**

*\* Belgrade banking academy - Faculty for banking, insurance & finance, Associate Professor*

*Email:  
zoran.grubisic@bba.edu.rs*

*\*\* Belgrade banking academy - Faculty for banking, insurance & finance, Associate Professor*

*Email:  
perisa.ivanovic@bba.edu.rs*

**Abstract:** This paper aims to address different monetary regimes in SEE countries and its performances regarding financial stability in the context of the current financial crisis. SEE countries seem to have been more pre-crisis vulnerable to financial and real shocks. Five countries are observed in this paper – Serbia, Croatia, Montenegro, FYR Macedonia and Bulgaria. Nowadays international capital flows are very important in determining performances of different monetary regimes. It shows the level of financial integration which is important element of the Mundell-Fleming's model and the related principle of impossible trinity. In today's economy with most countries being financially integrated, they are moving to either pure float or monetary union, and analysis in the SEE region supported the bipolar view regarding the exchange rate regime. However, the emergence of the crisis has caused a significant drop in FDI in these countries. This once more highlights the standpoint that FDI can be described as a double-edge sword. The massive inflow of foreign capital that made the boom years possible is now the source of a very large problem for the region because this region is highly indebted externally. Authors try to find the best definition of systemic financial risk and financial (in)stability in order to consider the key aspects of macro prudential policymaking in the SEE region. Recommendation in the paper for all SEE economies is immediate adoption of the Basel III standards with the argument to give macro prudential policy mandate to an explicit authority to conduct efficient and timely decision making.

**Key words:** FDI, public debt, credit rating, monetary union, financial stability, macroprudential policy.

**JEL Classification:** F31

## 1. FDI debate in emerging markets

In spite of the fact that free-market enthusiasts emphasize that foreign investments act as a motor of industrialization and development, FDI can be described as a double-edge sword. Foreign investments provide required capital and may boost productivity, bringing positive effects on economic growth and global integrations. Most SEE countries are nowadays considered to be the countries that entered the process of transition a bit later in comparison with CEE countries. This brings both advantages and disadvantages; SEE countries are still economically not sufficiently developed but, as a matter of fact, they have a good chance and a great opportunity to use experiences of other transitional economies (for example: countries from Central Europe) in order to go through this inevitable process smoothly. For many countries (especially developing countries), foreign direct investments are significant sources of funding. In the last 20 years, this kind of capital inflows had a significant effect on macroeconomics and growth of an economy. However, the impact of the global financial crisis has changed the conditions for attracting foreign capital. Blanchard et al (2010), claim that different trade and financial exposures and different growth performances of partners in trade explain a large portion of the heterogeneity of growth performances across countries during the crisis.

Foreign direct investments have proved to be resilient during financial crises. There are many examples to support this hypothesis. In East Asian countries, this kind of investments was remarkably stable during the global financial crisis in 1997-1998. On the contrary, other forms of private capital flows, portfolio equity and debt flows, and particularly short-term flows, were subject to large reversals during the same period. The resilience of FDI was also evident during the 1994-1995 Mexican crisis, along with the Latin American debt crisis in 1980s. Consequently, the resilience of FDI could lead many countries to favour FDI over other forms of capital flows. Despite the strong theoretical advantages of free capital flows, the conventional understanding seems to be that many private capital flows pose countervailing risks. Hausmann and Fernández-Arias (2000) suggest why many host countries, even when they are in favour of capital inflows, view international debt flows, especially of the short-term variety, as "bad cholesterol":

*"Short-term lending from abroad is driven by speculative considerations based on interest rate differentials and exchange rate expectations, not on long-term considerations. Its movement is often the result of moral hazard distortions such as implicit exchange rate guarantees or the willingness of governments to bailout the banking system. It is the first to run for the exits in times of trouble and is responsible for the boom-bust cycles of the 1990s."*

Quite the opposite, FDI is viewed as “good cholesterol” because it can award benefits listed previously. An additional benefit is that FDI is thought to be “bolted down and cannot leave so easily at the first sign of trouble.”

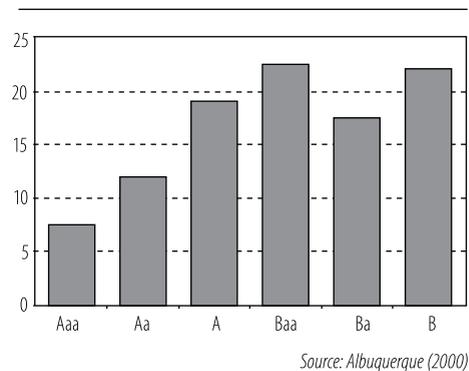
Regardless of the evidences presented in various studies, other work indicates that countries should be cautious about taking too uncritical attitude toward the benefits of FDI. Hausmann and Fernández-Arias highlighted reasons why a high share of FDI in total capital inflows may be a sign of, just the contrary, a host country’s weakness rather than its strength.

One striking feature of FDI flows is that its *share in total inflows is higher in riskier countries*, those with risk measured either by countries’ credit ratings for sovereign (government) debt or by other indicators of country risk. There is also evidence that FDI share is higher in countries where the quality of institutions is lower.

One explanation of these paradoxical findings is that FDI is more likely to take place in countries with missing or inefficient markets than other forms of capital flows. In such settings, foreign investors will prefer to operate directly instead of relying on local financial markets, suppliers or legal arrangements.

The policy implications of this view, argued by Albuquerque (2000), are that “countries trying to expand their access to international capital markets should concentrate on developing credible enforcement mechanisms instead of trying to get more FDI.” Similarly, Hausmann and Fernández-Arias suggest that “Countries should concentrate on improving the environment for investment and the functioning of markets. They are likely to be rewarded with increasingly efficient overall investment as well as with more capital inflows.” Although it is very likely that FDI, as a share of capital inflows is higher, where domestic policies and institutions are weak, this cannot be regarded as a criticism of FDI by and in itself. Indisputably, without them the host countries could well be much poorer.

**Figure 1: FDI share in total inflows (percent) and credit ratings**



## 2. Credit boom in SEE region and its consequences

The boom years between 2001 and 2007 in South East Europe led to a surge in foreign borrowing to spur consumption at home. This region has traditionally been credit-starved due to decades of political instability. In order to understand how SEE countries became the emerging market and one of the main destinations for international capital, one has to understand the scope of worldwide geopolitical changes. Geopolitical changes in the region therefore acted as a funnel for international capital, diverting much of the money available after 2001 into SEE countries. The region was seen as one of the last true unexploited lending markets in the world.

Before the crisis, the region was flying high on foreign direct investment, overtaking East Asia as the main destination for international capital. However, the massive inflow of foreign capital that made the boom years possible is now the source of a very large problem for the region because this region is highly indebted externally. Most of this debt is held privately, which means that governments themselves are not greatly indebted. However, massive defaults in the private sector are a problem for a government, which, at the end of the day, is the guarantor of last resort. Furthermore, a large proportion of the debt, taken out by both households and businesses, is denominated in foreign currency. Because of this, SEE governments have to make sure that their own domestic currency does not depreciate since this would appreciate the real value of the debts and cause a cascade of defaults throughout the system.

Unfortunately for these countries, the abundance of cheap international credits made it possible to gorge on foreign credit without much thought of the consequences. Consumers in the region, some of whom had never taken out a mortgage or car loan, were suddenly introduced to consumer loans, while businesses flocked to corporate loans for infrastructure and real estate development.

Western countries at the edge of the region – particularly Italy, Austria and Greece – looked to profit from geopolitical changes by re-establishing their former spheres of influence through financial means. These foreign banks brought with them a concept perfected in Europe by the Austrian banks: foreign currency-denominated lending. Austrian banks had experience with the financial mechanism of lending a low interest-rate currency in a higher interest-rate country due to Austria's proximity to Switzerland, which traditionally has had low interest rates. Italian, Austrian and Greek banks therefore bought up local SEE banks or simply established subsidiaries of their own banks and began offering loans in euros and Swiss francs. This financial tool allowed SEE countries with

endemically unstable currencies and/or high interest rates to piggyback on the low interest rates of the euro and Swiss franc to spur consumption which subsequently led to overall economic growth and the real estate bubble in the region. The table below shows the share of credits nominated in foreign currencies.

**Table 1: Credits nominated in foreign currencies**

	<b>% share of credits nominated in foreign currencies in total credits, July 2011</b>
Montenegro	3%
Serbia	63.8%
Croatia	74.0%
Bosnia and Herzegovina	68.1%
FYR Macedonia	55.9%
Bulgaria	62.2%
Romania	65.9%
Hungary	58.4%

Source: Central banks web-sites

As the mass exodus of foreign capital from emerging-market economies causes domestic currencies to depreciate, loans that consumers and corporations took out in foreign currency started to balloon in real terms due to the foreign exchange discrepancies. In the next table we can see credit ratings of SEE countries according to the relevant rating agencies:

**Table 2: Credit rating of SEE countries**

Country	Standard & Poor's	Moody's	Fitch Ratings
Montenegro	(BB) / negative	(Ba3) / stable	-
Serbia	(BB) / stable	-	(BB-) / stable
Croatia	(BBB-) / negative	(Baa3) / stable	(BBB-) / negative
Bosnia and Herzegovina	(B+) / negative	B2 / negative	-
Macedonia	(BB) / stable	-	(BB+) / stable
Bulgaria	(BBB) / stable	Baa2 / stable	(BBB-) / positive
Romania	(BB+) / stable	Baa3 / stable	(BBB-) / stable
Hungary	(BBB-) / negative	Baa3 / negative	(BBB-) / stable

Source: Websites of rating agencies

According to the rating agencies, there is no SEE country with sufficient foreign currency reserves to cover foreign debt maturing in 2012, should today's problem evolve into a crash that forces the state to step in. That said, foreign banks and foreign companies with subsidiaries in the region holding most of the debt will not bolt or ask for their loans back en masse. They will be amenable to rolling over the debts or restructuring them so as not to pull the rug out from under their own markets in SEE. However, these foreign "parent" banks active in the region cannot afford to refinance during the global financial crisis, and since the SEE states cannot help them finance by setting aside funds, that leaves the IMF and the EU.

### **3. The principle of impossible trinity in SEE countries and its consequences**

While currencies have stabilized as a result of external bailouts and with no sudden devaluations expected in the near future, the threat of further currency collapses will continue in the medium and long term. This had created a difficult political dilemma for the governments in the region: defend their currencies or stimulate growth.

The advantage of using the exchange rate as a nominal anchor lies in a higher probability that private agents will adjust fast. The exchange rate is much more transparent and thus more credible than money supply or even an anti-inflationary commitment in general. Its significance increases when the exchange rate is pegged to a certain currency, for example the euro, rather than to the currency basket. The negative side of using the exchange rate as a nominal anchor lies in the fact that the exchange rate targeting may trigger the balance-of-payments problem and that the possibilities of pursuing an independent monetary policy under such circumstances would be limited.

The role of an exchange rate in the setup of monetary policy is no longer new and it still remains a hot topic for debates among researchers. Over the last decade, global exchange rate arrangements have undergone momentous changes, with many countries revising their exchange rate policies. Compared to late 1970s, the number of the IMF members with the officially pegged exchange rates has halved, whereas that of floating has doubled. Within the group of pegged regimes, the share of hard pegs increased over the past decade, as a growing number of countries have adopted the currency board, joined currency unions or formally dollarized.

Frequent arguments in the literature are those that the only sustainable regimes are free floating and hard exchange rate commitments. Naturally, apart from free floating and hard peg regimes, there is a wide spectrum of intermediate regimes which can be applied.

The set of emerging market crises in the 1990s has led attention to the plight of these countries which have opened up their financial markets. Many observers have put forward the bipolar view – that the only option for these countries is super-hard peg or floating. But, there are two problems with this view. First, in the case of hard pegs such as currency boards or dollarization, currency crises are ruled out, but banking crises are still possible and without a monetary authority they cannot be contained (Chang and Velasco, 2001). The second problem is that of “original sin” (Eichengreen and Hausman, 1999). Because many emerging countries are financially underdeveloped and they have had history of high inflation, they are not able to borrow externally except in terms of foreign currencies such as the US dollar. This exposes them to the serious problems of both maturity and currency mismatches. In the face of a currency crisis, devaluation can lead to serious balance sheet problems, widespread bankruptcies, and debt defaults (Grubisic et al, 2010). The only solution is to achieve future dynamic growth. In the opposite case, this structure can pose a serious problem of maintaining foreign exchange liquidity or exchange rate stability. This is in accordance with the Mundell-Fleming model which states that creators of economic policy are faced with two principle choices:

1. to choose effective instruments of economic policy with the given level of financial integration and exchange rate regime;
2. to choose level of financial integration and exchange rate regime under certain preferences to the instruments of economic policy

For SEE countries, interest rate discrepancy with the Euro area is not a simple problem to overcome. Larger and more stable economies have lower rates, while smaller and less stable economies have higher rates because investors demand a better return for the risk. SEE countries have to compensate for latent political risks and inflation concerns with high rates, while in the Euro area, the robust and inflation-averse German economy allows the euro to enjoy low rates. Of course, it is always going to be tempting to borrow in euros at low interest rates instead of in forints, dinars, kunas, lei or leva at higher interest rates. SEE countries can either legislate against foreign-currency lending, which would severely curtail credit in the region and thus stunt economic growth (and violate EU rules on the free flow of capital), or they can make a mad dash for the Euro zone. The latter, of course, depends on the Euro area’s welcoming the SEE countries into

the club, which would require the EU to significantly curb its Euro area accession requirements to lower the bar for SEE countries rocked by recession.

#### 4. Defining financial instability

After the recent crisis, trying to look forward, SEE economies “need to be clear what we mean by the phrase financial stability and its close cousin systemic financial risk” (A. Milne, 2010) how we could establish a set of measures and develop adequate macro prudential framework and policy. All over the world, many academic economists were trying to define systemic financial risk and financial (in) stability<sup>1</sup>, but one of the most arguable definitions was given by Besar et al (2010)<sup>2</sup>: “A systemic risk materialises when an initial disturbance is transmitted through the networks of interconnections that link firms, households and financial institutions with each other; leading as a result, to either the breakdown or degradation of these networks”. We could extend this definition with definition of A. Milne (2009) arguing that this occurs when there is “widespread breakdown of financial flows”. Indeed, we could break down each crisis to the main financial system elements: financial institutions (systemically important or not, through the network of financial intermediation); financial markets (through prices and quantity reflecting funding and/or market liquidity as well as booms and busts); and a major disruption of financial infrastructure and financial flows<sup>3</sup>. The aftermath of these elements then leads to loss of confidence and transmitted loss of output and employment.

Following the aforesaid definition, we can add the next complementary definition (P. Tucker 2011): “financial stability prevails where the financial system is sufficiently resilient that worries about bad states of the world do not affect confidence in the ability of the system to deliver its core services to the rest of the economy”<sup>4</sup>, respecting two very important categories: “confidence”<sup>5</sup> and “resilience”. Confidence is the key product of financial system. Over the past three

---

<sup>1</sup> See CGFS Papers, (2010) No38, Macroprudential instruments and frameworks: a stocktaking of issues and experiences, BIS, May 2010, page 17th.

<sup>2</sup> Besar D., P.Booth, K.K.Chan, A.Milne and J.Pickles (2010), „Systemic Risk in Financial Services“, British Actuarial Journal 14.

<sup>3</sup> See, Haldane A. (2009), ”Rethinking the Financial Network“, Bank of England Publications

<sup>4</sup> Tucker P. (2011),”Macroprudential policy: building financial stability institutions”, speech at the 20th Annual H.P.Minsky Conference, N.York

<sup>5</sup> See, Ingves S. (2009),”A Cure Crisis: Confidence, Confidence and Trust”, Sveriges Riksbank, Eurofil Forum, Gothenburg, September 2009.

years, many economies, central banks and governments have demonstrated that we need to preserve the key services that the financial system provides to the real economy and that they have instruments, measures and actions to maintain stability and offer relatively quick and relatively successful response in the area of basic financial services of its financial system: payments and transactions deposits (central bank money); and liquidity of banks and/or segments of particular markets (with certain costs). On the other side, considering financial services related to intermediation of savings and investment via credit and equity (leverage); and insurance and risk transfer; measures and actions have shown relatively powerless to fulfil expected effects. Thus, we can be sure that instability is characterized by problems in one part of the financial system, and practically we have seen that authorities are more effective in the “money” area than in the “credit” area. Therefore, it will be useful for SEE countries and their supervisors to consider the future role, quality and quantity of credit (debt) cycles.

## 5. Key aspects of macro prudential policy

Post-crisis debates have resulted in the emerging consensus that financial stability should be an objective of central bank delivering, but the opinion is divided to what extent it can be considered an additional objective. In the meantime, many SEE economies had financial stability as an additional objective of their monetary policy framework and therefore used multiple instruments, including quantitative tools, ratios and limits, to moderate and control the rate of domestic credit growth as well as monetary impact of large capital flows (Serbia, Croatia). However, while a large number of arguments speak in favour of acceptance of financial stability as a central bank objective, there is an open discussion about what should be covered in the financial stability framework and how it should be implemented.

After all, the SEE economies are aware that they must adopt the “third arm of macro-economic policy, so-called macro prudential policy”<sup>6</sup> and consider financial stability like an instrument as equal as price stability. In that sense it will be very useful to follow two global-wide initiatives:

1. Adopt the proposed Basel III standards simultaneously with banking systems in developed countries which are home countries for banking groups operating in CEE-SEE. The Basel Committee has recently devel-

---

<sup>6</sup> Haldane A., (2011), „Risk off“, Paper by Mr Andrew Haldane, Executive Director, Financial Stability, of the Bank of England, 18.08.2011.

oped a set of prudential tools to strengthen the resilience of the financial system and mitigate systemic risk. Some elements of the new liquidity and capital regime under Basel III should help mitigate systemic risk. Higher level and quality of capital should improve self-insurance of financial institutions and ensure enhancement in loss absorption capacity of regulatory capital. In addition to, the new leverage ratio should prompted banks to increase capital commensurate to asset expansion and will appropriately integrate off-balance sheet items that had been the major source of leverage in a crisis. Also, in a meantime, BCBS has developed guidelines for one potential macroprudential tool – bank’s countercyclical capital buffer, intending to “control” deviations in the credit-to-GDP ratio from their long-term trend. The BCBS believes that it can be a reliable early warning indicator of future crises across a wide range of countries. Capital conservation buffer, countercyclical buffer and forward looking provisions are some of the measures that have been set in Basel III to address procyclicality. The financial strength and risk management capability of the banking sector are therefore important in ensuring that the sector will be able to withstand potential difficulties.

2. Establish an explicit macroprudential regime, as the UK government did in July 2010 – when it announced the new Financial Policy Committee (FCP) to execute macroprudential policy<sup>7</sup>. Studying this case we can conclude that FCP is housed in the central bank and its objective is to protect and enhance the resilience of the financial system against risks including “unsustainable levels of leverage, debt or credit growth”. If we know that each crisis (see Reinhart and Rogoff, 2009) has been driven by unsustainable increases of indebtedness supported by widespread availability of credit and over-extension of private sector balance sheets (leverage) – which on the other side led to substantial rises and subsequent correction of asset prices (foreign exchange 1970s; shares 1980s; bonds 1990s; mortgages 2000s...) – we can understand that therein lies a key challenge for FCP. As Haldane A. said, “in framing macroprudential policy today, both these factors need to be weighted: on the one hand, enhancements to the risk-bearing capacity of the financial system to repair balance sheets;

---

<sup>7</sup> The institutional set-up across countries: EU-The European Systemic Risk Board (ESRB) was established in January 2011; Malaysia-Under the 2009 Central Bank of Malaysia Act, the bank has been given the financial stability mandate; Mexico – in July 2010, a Presidential decree led to the creation of the Financial Stability Council; USA-The 2010 Dodd-Frank Act established a new Financial Stability Oversight Council.

on the other, encouragement for the risk-taking capacity of the system to boost credit supply”<sup>8</sup>.

Considering the key aspects of macroprudential policymaking, the first step for the SEE economies will be to identify a macroprudential authority that should have clear mandate and objectives and which should be given adequate powers, matched with strong accountability. Following the practice and recent experience in developed countries, and respecting the role of central banks, we can conclude that the central bank should be given a prominent role in macroprudential policymaking. In the second step, the macroprudential authority (body) must develop a set of instruments brought under its direct control and trying to encompass all important providers of liquidity, maturity, credit, risk and asset transformation. As we can see, macroprudential policy seeks to limit the build-up of systemic, or system-wide, financial risk. In that sense, just like the third step, the monitoring of systemic risk should cover all potential sources of systemic risk, regardless of their nature or dimension (internal or external; time dimension or cross-sectional dimension).

On this basis, the single authority would start with analyses of two dimensions of the system-wide risk: time dimension (ample credit availability; rapid increases in asset prices; leverage; maturity mismatches) and cross-sectional dimension (similar exposures; direct balance sheet linkages) of risks to financial stability (Borio and Crockett, 2000)<sup>9</sup>. The next step would be to separate macroprudential policy into a cyclical part and a structural part. This is necessary, bearing in mind that the cyclical part relates to the build-up of financial imbalances over time and contains time-varying instruments for effective stabilising of financial imbalances, while the structural part contains instruments for effective addressing risks to financial stability due to externalities within the financial system.

Trying to be effective, we should develop an integrated macroprudential policy framework that will demand from us to understand the objective, intermediate targets, a scope of analysis, decision-making, a set of powers and instruments and their governance. In this context, it is very useful to develop a coherent framework and define the macroprudential policy based on three defending lines. The first line aims to prevent any impact on the system (risks are out of the door) actively limiting the build-up of risks. The second line must focus on strengthening

---

<sup>8</sup> Haldane A., (2011), „Risk off“, Paper by Mr Andrew Haldane, Executive Director, Financial Stability of the Bank of England, 18.08.2011.

<sup>9</sup> See Schoenmaker D. and Wierts P., (2011), ”Macroprudential Policy: The Need for a Coherent Policy Framework”, Duisenberg School of Finance, DSF Policy Paper Series.

the system resilience and preparing it to build-up to resist the pressure of incoming problems (risks are at the door). The resilience of the system will depend on that of its component parts and relationship among them (firms, infrastructure and markets). The third line is when the crisis is “in the door – in the house” and we must have adequate crisis management framework and with the focus on the entire financial system and systemic risk.

Considering equally each of these steps each SEE macroprudential authority must respect a specific structure of their own financial system, macroeconomic situation, monetary and fiscal policy. For example, majority of the SEE economies have very characteristically significant capital flows. Obviously, the primary concern in the SEE economies about large capital inflows is the fear of sudden stop of capital inflows with all pursuing impacts on current account and economic growth, from one side, and effort to provide painful restructuring of the economy from non-tradable to tradable goods, and a large correction in the exchange rate with potentially large balance sheet effects, which could result in high volatility and output losses. Therefore, there is a concern in the SEE economies about resuming and maintaining capital inflows and the challenges they impose on monetary and macroeconomic policy that must provide a landscape in which capital inflows are to be driven primarily by medium-term growth prospects rather than interest rate differentials.

## Conclusion

The example of SEE countries strongly supports the case that FDI can be described as a double-edge sword. In the period of great expansion, a feature of FDI flows is that their *share in total inflows is higher in riskier countries*, those with risk measured either by country credit rating for sovereign (government) debt or by other indicators of country risk. It also shows that FDI share is higher in countries where the quality of institutions is lower. In the context of the current financial crisis, FDI seem to be very sensitive to macroeconomic instability and relevant country risk. This is the case with all SEE countries and it suggests that countries should be cautious about taking too uncritical attitude towards FDI benefits. It is the reason why a high share of FDI in total capital inflows may be a sign of, a host country's weakness rather than its strength. However, it is not the criticism against FDI itself. It is just the reason more for SEE countries to concentrate on improving the investment environment and market functioning. In that way, FDI inflow would be more stable during a financial crisis.

The massive inflow of foreign capital in SEE countries that made the boom years possible is now the source of a very large problem for the region because this region is highly indebted externally. Most of this debt is private, which means that governments themselves are not greatly indebted. However, massive defaults in the private sector are a problem for the government which, at the end of the day, is the guarantor of last resort. Furthermore, a large proportion of the debt, taken out by both households and businesses, is denominated in foreign currencies. The danger of foreign currency loans, however, is that they are exposed to the exchange rate fluctuations.

Considerable dilemmas were also raised by the recent IMF study which recommended euroization as a monetary policy regime for Central and East European countries as a mechanism for overcoming the consequences of the global financial crisis more easily. The key long-term challenges for the SEE economies are how to ensure that the economic and financial system can adjust flexibly to the key drivers of change. Looking ahead, it is crucial to avoid the re-emergence of macroeconomic imbalances in the future and to ensure a sustainable convergence process towards the EU and the new Basel III standards.

## References

1. Albuquerque, R. (2000) The Composition of International Capital Flows: Risk Sharing through Foreign Direct Investment, *Bradley Policy Research Center Working Paper* No. FR 00-08 Rochester, New York: University of Rochester.
2. Altman Caspar T., (2007), 'Cross-Border Banking in Central and Eastern Europe, Issues and Implications for Supervisory and Regulatory Organization on the European Level, Wharton School, University of Pennsylvania, 2007.
3. Bank of England (2009), „The Role of Macroprudential Policy: A Discussion Paper“.
4. Berg, A., Papageorgiou, C., Pattillo, C., Spatafora, N. (2010) The End of an Era? The Medium- and Long-term Effects of the Global Crisis on Growth in Low-Income Countries. *IMF Working Paper 10/205*, Washington: International Monetary Fund.
5. Blanchard, O., Das, M., Faruqee, H. (2010) *The Initial Impact of the Crisis on Emerging Market Countries*, Washington: International Monetary Fund.
6. Besar D., P.Booth, K.K.Chan, A.Milne and J.Pickles (2010), „Systemic Risk in Financial Services“, *British Actuarial Journal* 14.
7. BIS - CGFS Papers, (2010) No38, Macroprudential instruments and frameworks: a stocktaking of issues and experiences, BIS, May 2010, page 17<sup>th</sup>.
8. Borio C. (2003), “Towards a macroprudential framework for financial supervision and regulation?”, *CESifo Economic Studies*, vol49, no 2/2003, pp 181-216.
9. Borio C., Furfine C. and Lowe P., (2001): “Procyclicality of the financial system and financial stability: issues and policy options” in “Marrying the macro and micro-prudential dimensions of financial stability”, *BIS Papers*, no1, March, pp1-57.
10. Borio C. (2010), “Implementing a macroprudential framework: Blending boldness and realism”, *BIS*.
11. Brunnermeier M., Crockett A., Goodhart C., Hellwig M., Persaud A., and Shin H., (2009): “The fundamental principles of financial regulation”, *Geneva Reports on the World Economy*, no11.
12. CGFS (2009), ‘Capital flows and emerging market economies’, report submitted by a working group established by the CGFS, *CGFS Papers*, No. 33 (January); and G20 (2008), “Study group on Global Credit Market Disruptions”, paper prepared by Australia.
13. Chang, R. and Velasco, A. 2001. “A Model of Financial Crises in Emerging Markets”, *Quarterly Journal of Economics*, Vol. 117.
14. Constancio V., (2010)‘Catching-up strategies after the crisis’, Keynote lecture at the Conference on European Economic Integration (CEEI) 2010, Vienna

15. ECB (2010), The Impact of the Financial Crisis on the Central and Eastern European Countries, ECB Monthly Bulletin, July 2010.
16. Eichengreen, B., Hausmann, R. (1999) "Exchange Rates and Financial Fragility". *NBER Working Paper*. National Bureau of Economic Research. No. 7418.
17. FSB, IMF, BIS, (2011), "Macroprudential policy tools and frameworks", Update to G20 Finance Ministers and Central Bank Governors.
18. Fullani A., (2010) Macrofinancial stability in EU candidate countries and potential candidate countries – lessons to be learned, High –level Policy Workshop on Macro-prudential Policy, Frankfurt am Main, December 2010.
19. De Gregorio J., "Macroprudential regulation, financial stability and capital flows", 13th Annual International Banking Conference, Chicago, September 2010.
20. Grubisic, Z., Djukic, M., Redzepagic, S. 2010. "The Principle of Impossible Trinity: Does it Count for Serbia during the Pre-crisis and Post-crisis Period?", *Influence of Global Economic Crisis on CEE Region: Possible Way Out*. Kosice: Technical University of Kosice, Faculty of Economics, p.161-170.
21. Haldane A. (2009), „Rethinking the Financial Network“, Bank of England Publications, speeches.
22. Hausmann, R., Arias, F. (2000) Foreign Direct Investment: Good Cholesterol? *Research Department Working Paper*, No 417, IADB.
23. Herzberg V. and Watson M. (2007), 'Economic Convergence in South-Eastern Europe: Will the Financial Sector Deliver', SUERF, Vienna, 2007.
24. IMF, (2011), "Macroprudential Policy: An Organizing Framework", Prepared by the Monetary and Capital Markets Department, Approved by Jose Vinals, March 14, 2011.
25. Ivanović P. and Balaban M. (2009), The Impact of Global Financial Crisis on Serbian Banking Sector – The NBS Response, University of Nice-Sophia Antipolis, CEMAFI Nice, October 2009.
26. Mersch Y., (2010), 'Shaping a new regulatory framework – international banking at the crossroads', speech at the conference 'the Emerging Framework to Strengthen Banking Regulation and Financial Stability', Abu Dhabi, November 2010.
27. Milne A. (2009), „Macroprudential Policy: What Can It Really Achieve“, *Oxford Journal of Economic Policy*25(4), 1-22.
28. Rohatinski Ž. (2009), Economic Crisis and Monetary Policy, Speech prepared for a round table at the HAZU Department of Social Sciences: Crisis and Economic Policy Frameworks, Zagreb 7 July 2009.
29. Stratfor, (2010) State of the European Banking System, The Market Oracle, Newsletter, July 2010.

30. Schoenmaker D. And Wierts P., (2011), "Macroprudential Policy: The need for a Coherent Policy Framework", Duisenberg School of finance, DSF Policy Paper, No 13 Series.
31. Tucker P. (2011), "Macroprudential policy: building financial stability institutions", speech at the 20<sup>th</sup> Annual H.P.Minsky Conference, N. York
32. Watanagase T. (2010), Strengthening the banking and financial sector – what needs to be done?, Speech, Seminar organised by The Banker Magazine and Financial Times Business, Bangkok 22 February 2010.
33. Wellink N., (2010), "Rebuilding the financial sector", speech at the Colloquium of the Centre for Financial Studies, Frankfurt am Mein, December 2010.