## BASEL III IN EASTERN EUROPEAN BANKING: CHANGES, CHALLENGES AND IMPLICATIONS

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The financial crisis brought into the light the need to review the existing regulation. For banks, the prudential trend means new rules for capital, liquidity, leverage and a double vision of risks. The aim of this paper is to analyze the situation of four European banking systems (Czech Republic, Poland, Romania and Croatia) in terms of Basel III standards. Structured on three parts, the study presents possible dangers regarding Basel III effectiveness; analyzes the evolutions of capital, leverage and liquidity indicators and points out the future actions for aligning to the new regulation. To conclude, we determine the position of the selected banking systems related to Basel III implementation.

Key words: Basel III, banking system, risks, liquidity, capital, crisis

#### Introduction

The stability of the banking system is a precondition for financial stability, but deficiencies and weaknesses of supervision ask for efficient instruments in order to prevent and manage shocks in the interbank network. The construction of a crisis is based on excessive liquidity, credit expansion and low capital levels.

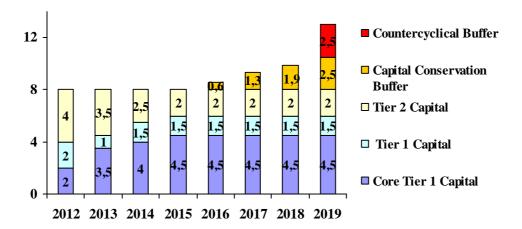
In December 2010, Basel Committee on Banking Supervision developed a new agreement: Basel III - *International framework for liquidity risk measurement* and *A global regulatory framework for more resilient banks and banking systems (BIS, 2010)*. The three main directions of Basel III are related to new capital minimum requirements, banking supervision and market discipline.

In this paper we propose to analyze the implications of Basel III implementation in four European banking systems and to find the best actions for future activities.

#### Effectivness of basel III

The fundamental changes between Basel I-II and Basel III consist of orientation to both individual and macro risks. The question is: how effective are new measures expected to be? Some voices argue that implementation of Basel III standards may affect domestic financial markets with negative effects on credit growth and economic activity. In 2000, Greenspan sustained in an interview that regulation will be the subject of future changes which could lead to reduction of living standards on long-term. After 12 years this topic might be very realistic in the lights of future demands. Restrictive capital requirements have positive impact: high capital stocks are designed to absorb losses generated by financial crises and to maintain market confidence [2]. Greenspan argues that such dimensioning of capital against risks which appear once in 50-100 years is inappropriate because will lower the living standards. Méaulle (2011) presents several hypothesis that might find inappropriate the implementation of Basel III: first of all, it should be a clear distinction between illiquid banks and insolvable banks, it is clear that the requirements will differently affect the financial institutions; secondly, new capital standards will decrease the possibility of systemic risk manifestation, but still, banks can be very well capitalized and can create the occurrence of systemic risk. Nicholas Le Pan (2008) points out other aspects, such as: differences between global banks and small banks regarding complexity and approach of new regulation; the types and the characteristics of financial supervisors in European Union countries and in non-EU countries or the business models of banks.

## Capital requirement Required capital ratio (+) = Capital (-)/ RWA (+) (1)



**Graph 1 The Calendar of Basel III Capital Requirements** 

Source: [8]

Minimum capital requirements (Graph no. 1.) are completed by leverage ratio (minimum 3%) considered flexible enough to be used as micro and macro instrument or as a countercyclical tool. As advantages, leverage reshapes the balance sheet volume, limits the excessive exposure, it is easy to monitor, its implementation does not imply significant costs and complex procedures. The main disadvantage is considered the reduced potential of growth, with effect on economic growth. Another danger is that banks are more exposed to risks, considering the fact that there is no distinction between risky assets and the balance sheet may be vulnerable. Also, there is no universal definition of financial leverage and for some banks competitive advantages may appear.

## Leverage Ratio

Tier 1 Capital/Exposure 
$$>$$
3% (2)

Basel III liquidity standards (*Liquidity Coverage Ratio and Net Stable Funding*) are designed to protect banks from short-term and long term liquidity issues [7].

# **Liquidity Coverage Ratio (LCR)**

Stock of high-quality liquid assets/ Total net cash outflows over the next 30 calendar days=100% (3)

### **Net Stable Funding Ratio (NSFR)**

Available amount of stable funding/Required amount of stable funding>100% (4)

The implementation of the liquidity standards generates concerns, considering the followings:

- **ü** The new definition of high-liquid assets reduces the stock of liquidity. There is a gap between the characteristics of refinancing instruments used by central bank and the features of the new requirements.
- **ü** The situation of cross-country liquidity support is uncertain. The application of liquidity standards was proposed for the consolidated level, but the European Commission advised to be implemented also in the host countries. Applying liquidity standards at the national level may lead to shortages of internal liquidity

transfers and to large gaps between banking systems from Euro zone and the other banking systems;

**ü** Reduction of growth and development role of cross-country banking groups. Considering Basel III liquidity requirements, the funding relations between mother banks and subsidiaries will be less fluid, with effects on increasing fragility of liquidity management inside capital markets [1].

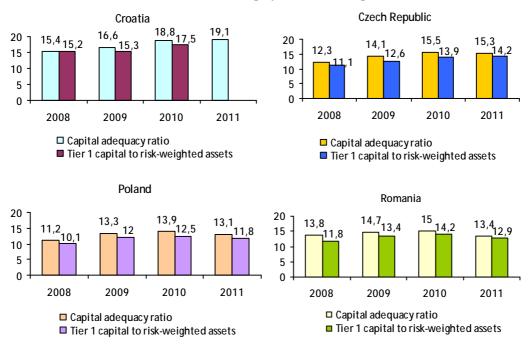
From a rational point of view, the liquidity standards aim to prevent banks from relying solely on anticipated inflows, but for some banks liquidity is trapped at a certain level even if the inflows exceed outflows and the indirect effect can be seen on profitability.

### Case study

Discussions on Basel III concluded the real impact of its implementation on European banking. Differences are to be seen considering the banking models, practices and activities. For the analysis we choose four European banking systems (Croatia, Czech Republic, Poland and Romania) based on both similarities (the membership in the European Union, Croatia will be integrated in 2013) and differences (national regulation and standards).

Increasing quality, consistency and transparency of bank capital as an important Basel III goal starts with a capital redefinition: while under Basel II capital was divided in Tier 1, Tier 2 and Tier 3, now, banks have to align to 6% minimum Tier 1 capital and 8% Tier 2 capital until January 2015, Tier 3 capital being no longer used.

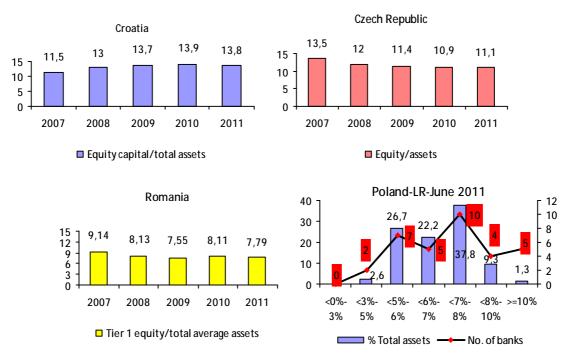
Graph no. 1 The evolution of capital adequacy ratio (CAR) and Tier 1 capital in the selected banking systems during 2004 and 2011



Source: [12]

The evolution of capital ratios in the selected banking system shows good levels of capital, above the minimum requirements. Croatian banking system is the most well capitalized, the increasing trend being determined by the growth in loans to domestic government units which led to a fall in the average credit risk weight and capital requirements. However, in June 2011 one bank reported CAR below 12%, the legal standard. The Czech banking system has similar evolutions, most banks having high

quality of capital; the Basel III requirements will have a limited impact on banking activity. In Poland, capital ratios have comfortable levels, increased capital and liquidity requirements have boosted buffers to deal with credit and liquidity risks that could arise if the zloty depreciates. The impact of new capital standards in the Romanian banking system will be limited as well. In June 2011 Tier 1 capital ratio represented 80% of total capital and CAR was 13.4%, far above the minimum 8% required (Graph no.1.). Still, banks should make adjustments of the business profile in order to increase liquidity and profitability.



Graph 2. The evolution of leverage ratio (LR) in the selected banking systems *Source:* [10] [11] [13] [14]

According to Graph no. 2, the Polish banking sector is much less leveraged compared to the rest of selected banking systems. In June 2011, 10 banks representing 37.8% of total assets had leverage ratios between 7% and 8%. Basel III 3% minimum requirement is not a concern because during 2007 and 2011, the indicator registered high values.

Table 1 Liquidity standards in the Polish banking system - June 2011

		LIQUIDITY COVERAGE RATIO (%)							
	%	0-50	50-80	80-100	100-150	150-250	250-400	>400	
No. of banks		6	3	2	8	2	4	8	
% Total assets		6.4	8.2	6.7	58.8	15.6	2.8	1.4	
NET STABLE FUNDING RATIO (%)									
	%	0-70	70-90	90-100	100-110	110-120	120-140	>140	
No. of banks		4	6	7	7	4	2	3	
% Total assets		7.5	10.5	38.2	18.8	13.5	10.3	1.1	

Source: [10]

A survey based on a sample of 33 Polish banks representing 60% of the banking sector shows that one of the main problem regarding Basel III implementation is the liquidity standard. As we can see in the Table no. 1, in June 2011, 11 banks had LCR<100%, while more than half of the questioned banks did not achieve the long-term

liquidity requirement (NSFR<100%). For several years, lack of long-term liquidity, a deficiency of the Polish banking system, caused a significant liquidity gap. In the Croatian banking system, liquidity risk is determined by significant dependence on parent banks for financing. Local banks are exposed to risks through higher funding costs and lower inflows. High level of liquidity in the Czech banking system is evidenced by low loan-to-deposit ratios (75% in September 2011) and limited currency mismatches in the balance sheet.

A short analysis of the selected banking systems strengths and weaknesses presented in Table no. 2 is the preface in determining the best individual actions for Basel III implementation.

Table 2. Strengths and weaknesses of the selected banking systems

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Strengths	weaknesses Weaknesses
• - One of the lowest loan-to-deposit ratio	• - Credit contraction (to zero in late 2009);
<ul> <li>in the European Union (73% in 2011);</li> <li>The position of net creditor to the parent-banks in Euro area;</li> </ul>	P Use a countries).  P Use a countries of assets and a confortable are countries.
<ul> <li>Capital adequacy ratios far above</li> <li>the minimum requirements.</li> </ul>	
<ul> <li>Foreign ownership;</li> <li>Internal minimum capital requirements set at 12%;</li> <li>Experience in many types of commercial banking activities;</li> <li>Extensive branch systems with positive effects on business (easy access to clients and potential clients).</li> </ul>	<ul> <li>Balance sheet exposures to foreign currency risk;</li> <li>The pressure of external debt on banking growth;</li> <li>Contagion and liquidity risks arise from dependence on foreign banks for funding.</li> </ul>
<ul> <li>Low interest in risky foreign transactions;</li> <li>Limited lending expansion ex-ante the financial crisis;</li> <li>Low dependency on loans in foreign currency.</li> <li>Good levels of solvability and liquidity indicators (above the minimum requirements);</li> <li>Agreements for maintaining the exposure of parent banks;</li> <li>The support of National Bank of</li> </ul>	<ul> <li>Reduced access to credit for Small and Medium Enterprises (SMEs);</li> <li>Liquidity and funding issues;</li> <li>Increasing borrowing costs.</li> <li>Higher costs of external financing;</li> <li>Deterioration of portfolios quality;</li> <li>Risk accumulation (contagion risk and credit risk);</li> </ul>
Romania (liquidity reserves, monetary and prudential measures, interventions for sustaining exchange rate deviation).	<ul> <li>- Credit contraction;</li> <li>- Reduction of profitability.</li> </ul>

Source: [1] [14]

As possible scenarios, the responses to Basel III changes can be operational, tactical and strategic. For example, in Poland, the new liquidity standards will probably lead to a reorganization of banking balance sheet and the withdrawal of certain products considered unprofitable. For the long-term issues, urgent expansion of local sources of

financing is required. In Romanian banking systems, the reactions could be related to the alignment period to Basel III requirements: banks will implement tactical measures as asset restructuring (credit reduction in order to increase capital levels).

Table 3. Possible scenarios to Basel III changes

Response	Operational	Tactical	Strategic	
Indicator	_			
Orientation	+Efficiency	+Profitability	+ Profitability	
	-Costs	(Short-term)	(Long-term)	
Directions	<ul> <li>Processes</li> </ul>	• Pricing	Business Model	
	<ul> <li>Methods</li> </ul>	<ul> <li>Funding</li> </ul>	• Group	
	• Data	Asset Restructuring	Organization	
			Equity	
Actions	1. RWA Optimization	1. Risk-sensitive pricing	1. Sale of units	
	2. Rethink of Credit	2. Orientation to long-term	2. Restructuring process	
	approval	funding	(HR, business units,	
		3. Lower exposure	activity)	

Source: [6]

Czech banking system will apply tactical measures as well considering that in 2011 profitability decreased 4% (a good evolution compared to other banking systems). Asset quality improved based on high degree of resilience in terms of liquidity and a reduced level of indebtedness integrated in a conservative business model.

#### **Conclusions**

Basel III was designed to protect banks from future crisis, setting new rules for capital, liquidity, leverage and risks. Apart from its benefits, Basel III generates concerns, as follows: forcing banks to maintain higher capital ratios may make them reluctant to expand credit, potentially undermining the recovery, even lower the living standards; new liquidity requirements will lead to a decreasing trend of profitability, reduction of banking activity and higher costs.

According to our analysis, the selected banking systems will not be massively affected by the new approach, but there are some problems to be solved. The new liquidity standards are going to be a real challenge for the Polish banking system. The main threats in the near term are connected with potential funding problems and with a possible deterioration of asset quality. According to financial indicators, Croatian and Czech banking systems are the most stable and prepared to face shocks. The Romania banking system deals with a credit contraction, but has good levels of capital and liquidity. A mix of operational, tactical and strategic measures must be applied in order to meet Basel III standards.

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#### **Bibliography**

- 1. Avadanei, Anamaria, Tomuleasa Iuliana, Vasile, Cocriş, The Impact of Basel III in Eastern European Banking. A Comparative Case Study, Proceedings of the 6th International Conference Globalization and Higher Education in Economics and Business Administration, Iaşi, 2012
- 2. Angelini, P., Clerc, L., Curdia, V., Gambacorta, L., Gerali, A., Locarno, A., Motto, R., Roeger, W., Van den Heuvel, S. J. and Vlcek, J., Basel III: Long-term Impact on Economic Performances and Fluctuations, Working Paper No. 338, BIS, 2011
- 3. Lehmann, Alexander, Levi, Micol, Tabak, Peter, Basel III and Regional Financial Integration in Emerging Europe. An overview of Key Issues, EBRD Working Paper, No. 132, 2011

- 4. Le Pan, Nicholas, Remarks on Basel II, February 2008, http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1088510
- 5. Méaulle, Matthieu, The Basel III Agreement: a critical survey, May 2011, http://www.astrid-online.it/Regolazion/Studi--ic/FEPS\_Basel\_III\_11\_05\_11.pdf
- 6. \*\*\* Accenture, Basel III and Its Consequences: Confronting a New Regulatory Environment, 2011;
- 7. \*\*\* Bank for International Settlements, Basel III: International Framework for Liquidity Risk Measurement, Standards and Monitoring, 2010;
- 8. \*\*\* Bank for International Settlements, Basel III: A Global Regulatory Framework for more Resilient Banks and Banking Systems, 2010;
- 9. \*\*\* Financial Stability Board, IMF, World Bank, Identifying the Effects of Regulatory Reforms on Emerging Market and Developing Economies: A Review of Potential Unintended Consequences, Report to the G20 Finance Ministers and Central Bank Governors, 2012;
- 10.\*\*\* PwC Poland, Basel III. Quantitative Impact Study for Polish Banking System: summary of findings, 2011
- 11. \*\*\* Czech National Bank, Selected Financial Stability Indicators 2012;
- 12. \*\*\* IMF Financial Indicators 2008-2011;
- 13. \*\*\* National Bank of Croatia, Financial Indicators 2007-2011;
- 14. \*\*\* National Bank of Romania, Financial Stability Report, 2011.