

Varazdin Development and Entrepreneurship Agency  
in cooperation with  
Azerbaijan State University of Economics (UNEC)  
University North  
Faculty of Management University of Warsaw  
Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat



## Economic and Social Development

37<sup>th</sup> International Scientific Conference on Economic and Social Development –  
"Socio Economic Problems of Sustainable Development"

### Book of Proceedings

Editors:

Muslim Ibrahimov, Ana Aleksic, Darko Dukic



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## **INTERNATIONAL STANDARDS OF FINANCIAL SUPPORT STABILITY OF THE BANKING SYSTEM**

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### **ABSTRACT**

*Ensuring financial sustainability of the banking sector is connected with effective system development of crisis management and regulation at the micro-, macro- and mega-levels. The main reasons for the development of crisis management systems for ensuring sustainable development of the banking sector are:*

- *the extreme complexity of the mechanism of the international banking system and the use of a significant number of new financial instruments;*
- *variety of operations and the movement rate of financial capital;*
- *financial globalization and integration, that enhance the effects of systemic risks on the process of extrapolation from the banking sector to capital and derivative markets;*
- *the availability of information asymmetry in the financial market;*
- *the process of introducing common standards in the field of bank management;*
- *improving the management of banking activities, particularly anti-crisis management, based on the harmonization of international and national regulatory systems.*

*The conclusion is that the transformation of international standards for providing sustainable development of the banking sector contributes to the recognition of the scale of the impact of the crisis factors on the solvency, liquidity and capital adequacy of banks; there were identified preventive measures to avoid crisis situations, crisis management techniques and measures to overcome the threat of a crisis with the least losses for the banking sector.*

**Keywords:** *anti-crises management, Basel principles, financial stability, macroprudential policy*

### **1. INTRODUCTION**

Ensuring financial stability of the banking sector is connected with development of an effective system of crisis management and control at the micro-, macro- and mega-levels. The world central banks are responsible for the implementation of an effective monetary and credit policy, which implies the application of effective anti-crisis regulatory instruments affecting the financial stability of the banking system. Assuming that the crisis management at the mega-level is associated with the development and transformation of international standards of banking business, besides the central banks, other state structures should be involved in these activities which have the authority to do in this sphere.

### **2. ANALYSIS OF LAST PUBLICATIONS**

Scientific works of many domestic and foreign researchers are dedicated to the issues of implementation of international standards for the functioning of national banking systems.

Among them are: (Keller, 1999); (Juglar, 1962); (Piet, 2010); (Eichengreen, 2003); (Dovhan, 2011); (Mischenko, 2013); (Naumenkova, 2015); (Osadchy, 2010), and many other scientists. But issues of the formation of anti-crisis systems relating to the financial stability of the banking sector remain unresolved both in global and national economies. The main reasons of these issues are: the extreme complexity of the mechanism of the international banking system and the use of a significant number of new financial instruments; variety of operations and the movement rate of financial capital that increases the banking risks and the uncertainty of the impact of their implementation; financial globalization and integration, reinforcing the impact of systemic risks on the process of extrapolation from the banking sector to capital markets and derivatives markets; availability of information asymmetry on the financial market, which requires improving the explication of information processes and ensuring transparency through the use of macro-prudential indicators that reflect the functioning of the interbank money market, repo markets, shares, bonds, derivative financial instruments; the process of introducing common standards in sphere of bank management; improving supervision over the banking activities (particularly in the conditions of crisis), based on harmonization of international and national regulatory systems; providing technical compatibility of infrastructure, transparent price policy for the appropriate banking and financial services (Makarenko, 2008); (Kuznietsova, 2009). The aim of the work is to systematize the basic concepts of the provision of anti-crisis financial sustainability of banking systems in accordance with international standards.

### **3. THE FORMATION OF THE PRINCIPLES OF ANTI-CRISIS FINANCIAL STABILITY OF BANKS MANAGEMENT**

Formation of the anti-crisis principles of financial sustainability of the banking system requires taking into account the factors which should be considered at the mega, macro and micro levels: mega-level factors (global financial imbalances, the cyclical economic development, the problem of ensuring international financial stability and liquidity); macro-level factors (disproportions in the financial market development, the formation and spread processes of systemic risk, disintermediation, financial innovations and communications, information asymmetry on the financial market); micro-level factors (systemic nature of the financial banking instability). The purpose of crisis management of financial stability of the banking sector system is to recognize the full extent of the impact of the crisis factors; to identify ways and methods of crisis management, measures to overcome future crisis with the least losses (table 1).

*Table following on the next page*

*Table1: Levels of anti-crisis management of financial stability in the banking sector  
 (Kovalenko, Dadashev, 2016, p. 58).*

Elements of level system	Mega-level the leading system	Macro-level the leading and led system	Micro-level the led system
Managing the realization process	stress testing; macro-prudential regulation; forecasting, corrective measures	monitoring, methodical approaches to the assessment and formation of financial stability reports; corrective measures	choice of management strategy, development and implementation of anti-crisis programs for financial stability
Agents of management	international regulators	internal system regulators	banks
The object of influence	destabilizing external environment factors	the formation and spread processes of systemic risk	internal banking risks
The aim of influence	recognizing the full extent of the impact of the crisis factors; identifying ways of anticrisis regulation and levelling crisis leverages	timely identification and minimization of crisis factors	timely identification and minimization of crisis factors
Instruments of influence	standardization and unification of the anti-crisis laws around the world; the development of financial stability indicators; a common system of financial reporting standards and transparency of banking activities	the implementation of preventive measures over the bank supervision; early diagnostics of the bank financial problems; improvement of banks and deposit insurance system; setting standards of banking activity, taking into account the specifics of state	stress testing; establishing internal limits and regulations; reorganization of the banks on their own initiative; special measures: benchmarking, outsourcing

There are a lot of organizations engaged in improving the regulation and supervision over financial institutions in the international area (table 2).

*Table following on the next page*

Table 2: Institutions and instruments of crisis management at the international, national, regional levels (Dovhan, 2011, p. 224; Kovalenko, Harkusha, 2015, p. 64)

	Institutions	Instruments
Anticrisis regulation at the international and regional levels	<p><i>International regulatory organizations:</i></p> <ul style="list-style-type: none"> <li>- International Monetary Fund;</li> <li>- The World Bank;</li> <li>- Basel Committee on Banking Supervision;</li> <li>- Financial Stability Board;</li> <li>- The United Nations.</li> </ul> <p><i>Regional regulatory organizations:</i></p> <ul style="list-style-type: none"> <li>- regional development banks;</li> <li>- EU regulators;</li> <li>- multilateral regional organizations;</li> <li>- Forum of Banking Supervisors SEANSA;</li> <li>- GCC;</li> <li>- Caribbean Group;</li> <li>- Arabic Committee.</li> </ul>	<ul style="list-style-type: none"> <li>- standardization and unification of anti-crisis legislation around the world;</li> <li>- the development of financial stability indicators;</li> <li>- the allocation of general standards of financial stability in banking sector;</li> <li>- the financial, informational and professional assistance during the financial crisis.</li> </ul>
Anticrisis regulation at the national level	<p><i>Central banks and national regulators:</i></p> <ul style="list-style-type: none"> <li>- Federal Reserve System (USA);</li> <li>- Office of the Superintendent of Financial Institutions (Canada);</li> <li>- Financial Market Authority (Austria, the Netherlands);</li> <li>- Financial Supervisory/Services Authority (Denmark, Estonia, Hungary, Sweden);</li> <li>- Financial and Capital Market Commission (Latvia);</li> <li>- Financial Sector Supervisory Commission (Luxembourg);</li> <li>- Financial Service Centre (Malta);</li> <li>- Kredittilsynet (Norway);</li> <li>- The Interministerial Committee for Credit and Savings (Italy);</li> <li>- Bank of England. Prudential Regulation Authority (Great Britain).</li> </ul> <p><i>National megaregulators:</i></p> <ul style="list-style-type: none"> <li>- Central Bank of Ireland (Ireland);</li> <li>- Banque de France, Prudential Control Authority (France);</li> <li>- Bank of Greece Capital Market Commission (Greece);</li> <li>- Bank of Lithuania (Lithuania).</li> </ul>	<ul style="list-style-type: none"> <li>- the implementation of preventive measures over the bank supervision;</li> <li>- early diagnostics of the bank financial problems;</li> <li>- cooperation with the "problem" banks;</li> <li>- improvement of banks (provision of additional financial resources, changes in the organizational bank structure, the personnel policy optimization);</li> <li>- the formation of a deposit insurance system;</li> <li>- setting standards of banking activity</li> </ul>

Based on previous mentions - the main purpose of anti-crisis measures is to ensure financial stability, stability and solvency of banking. Therefore, governance and banking supervision should ensure the stability and sustainability. Public administration process of selecting and implementing anti-crisis measures should be coordinated on methodological, macro and micro levels, taking into account the specific characteristics of functioning of banks, its importance for the state, including state participation in the capital of banks and the economy as a whole (table 3).

Table following on the next page

*Table 3: Matrix participation of management in the operation of banks and systems  
 (Kovalenko, 2017, p. 138)*

Governing bodies	Normal operation	The appearance of the first signs of crisis	Crisis
Legislative power	x	-	x
Institute Presidency	x	-	-
The government, as a body of higher executive	x	x	x
Central Bank, Ministry of Finance and other state authorities involved in the management	x	x	x
Shareholders and managers of banks	x	x	x
International organizations	x	x	x
The supervisory authorities of other countries	x	x	x

The main anti-crisis measures to overcome the financial crisis included: the development assistance programs of troubled banks, measures to strengthen deposit guarantee systems; recapitalization of banks. Thus, international experience implementing anti-crisis measures to counter effects of the financial crisis demonstrates the existence of various mechanisms and schemes braking crisis. In general, the advantages and disadvantages of the implementation of anti-crisis measures largely depend on regional characteristics of their implementation and how practical tools linked with a set of anti-crisis model of action in each country. The efficiency and effectiveness of anti-crisis measures, which conducts the Central Bank can be estimated using the values of the profitability of the banking business (table 4).

*Table 4: Top 1000 World Banks 2018: Top 5 by Tier 1: Global  
 (Top 1000 World Banks ranking, 2018)*

no	Bank Name	Country	World Region	Tier 1, Capital, \$m
1	ICBC	China	Asia-Pacific	324,126
2	China Construction Bank	China	Asia-Pacific	272,215
3	Bank of China	China	Asia-Pacific	224,438
4	Agricultural Bank of China	China	Asia-Pacific	218,104
5	JP Morgan Chase & Co	US	North America	208,644

#### **4. PLACE OF MACRO-PRUDENTIAL REGULATION TO ENSURE FINANCIAL STABILITY OF THE BANKING SECTOR**

It is necessary to refer to the implementation of the concept of macroprudential policy to measures for ensuring financial stability to the banking sector. The main features of macroprudential regulation are the following:

- macroprudential regulation – a complex of the preventive measures directed to minimization of systemic financial crisis;
- the purpose – management of systemic risk, that is the risk connected with the terms of providing financial services caused by the deterioration in terms of all financial system or its part having potentially negative consequences on real economy;
- objects of regulation – relationship between financial intermediaries, the markets, infrastructure of the financial market, and also between a financial system and real sector of economy;
- problems of regulation – support of resistance of the financial system to aggregate shocks; restriction of excessive financial risks which are assumed by a financial system in general; smoothing of a financial cycle (Kovalenko, Dadashev, 2016).



Macroprudential regulation is concentrated on systemic stability of financial sector, but not on insolvency of separate banks. At the same time special attention is paid to systemically important banks and their interrelations in the financial market as the risk of systemic stability depends on collective behavior of participants of the financial market therefore risks in a financial system for regulation will gain endogenous character (table 5).

*Table 5: Systematization of macro prudential measures*

No	Problem	Tools
1.	Macroeconomic risk and risk of "financial bubbles"	<ul style="list-style-type: none"> <li>• taxes on consumer crediting (tax on the main amount of debt)</li> <li>• reserve requirements;</li> </ul>
2.	Credit risk and market risk	<ul style="list-style-type: none"> <li>• limits of crediting volumes;</li> <li>• standards of a ratio of credit volume and cost of pledge (loan-to-value ratio – LTV ratio);</li> <li>• standards of a ratio of the sum of debt and the income (debt-to-income ratio – DTI ratio);</li> <li>• creation of counter cyclic / dynamic reserves (countercyclical/dynamic provisioning), formation of reserves for possible losses according to loans;</li> <li>• change of coefficients of risk on different types of crediting;</li> <li>• restrictions for "short sales";</li> <li>• restrictions for operations with CDS (credit default swap).</li> </ul>
3.	Currency risk and risk of flows of the capital	<ul style="list-style-type: none"> <li>• taxes on operations with the capital;</li> <li>• restrictions for open currency positions of banks;</li> <li>• restrictions for investments of assets in foreign currency;</li> <li>• restrictions for loans in foreign currency;</li> <li>• restrictions for investments for nonresidents in national assets;</li> <li>• special requirements for licensing;</li> <li>• administrative measures;</li> </ul>
4.	Documents BKBN; realization of banks monitoring by "Basel III", realization of Basel reforms in member countries of BKBN; stress testing	

Thus, process of transformation of the international standards to ensure financial stability in banking system is directed, first of all, to development of crisis responding measures of systemic risk, involving sharp growth of interest rates, increase of banks problem and debts, essential reduction of crediting, chain bankruptcies, transition to unprofitable model of banking activity, a prevalence of speculative activity over investment financial activity, large-scale fall of price of securities, a delay of calculations, bank panic. Macroprudential tools is a wide range of tools that are used to prevent the occurrence and spread of systemic risk in the financial sector in order to minimize losses from irregularities in financial services. The global financial crisis led to review approaches to supervision of systemic their relationships and their regulation, and the need for introduction, sophisticated tools of identification and limiting systemic distribution:

- First, provide to regulators and oversight a special mandate to monitor systemic risk;
- Second, the nomination additional requirements for financial institutions with regard to their "contribution" in the generation of systemic risk.

International regulatory practices identified tools for identifying systemic risk (table 6).

Table 6: Tools for identification and measurement of systemic risk (Michenko, Naumenkova, 2014; Blancher, Mitra, Morsy, and others, 2013)

№	Tools	coverage			Information requirements	
		Institutions	Markets	Sectors	Periodicity	Type of data
1.	Conditional Value at Risk, <i>CoVaR</i>	+		financial	high	these bank balance sheets and asset prices
2.	Joint Distress Indicators	+		financial	high	asset prices
3.	Returns Spillovers	+		financial	high	asset prices
4.	Distress Spillovers	+	+	financial	high	asset prices
5.	Market-Based Probability of Default	+		financial and corporate	high	these bank balance sheets and asset prices
6.	Debt Sustainability Analysis			external and state	low	these payments balance and tax information
7.	Indicators of Fiscal Stress			fiscal	low	tax information
8.	Sovereign Funding Shock Scenarios		+	financial and state	average	the investment framework and data bank assets
9.	Asset Price Models		+		average	prices of assets and data of cash funds
10.	Balance Sheet Approach			key sectors	low	these intersectoral the balance
11.	Systemic Contingent Claims Analysis	+		financial	high	these bank balance sheets and asset prices
12.	Cross-Border Interconnectedness	+		bank	low	cross-border transfers and data balances
13.	Cross-Border Network Contagion	+		bank	low	cross-border transfers and data balances
14.	Systemic Liquidity Risk Indicator	+		financial	high	these balances and prices asset
15.	Regime Switching		+	financial	high	asset prices

The implementation of monetary policy is based on the implementation of Central Bank principles.

- Independence - Macroprudential policy has be independent of other central functions banks and regulators (monetary policy, micro-prudential supervision) and from external ones influences of the financial sector or authorities.
- Transparency - Goals and grounds for application macro-prudential instruments should be understandable for financial market participants and the public.
- Preventive approach - The central bank should Identify systemic risks in advance and on time take measures to minimize them.
- Predictable (rational) flexibility (guided discretion) - Macro-durability tools should be apply according to advance defined rules.

- Coordination - Efficiency of macroprudential the policy depends on its coordination with others politicians that are competent the central bank and other authorities.
- Proportionality - As a result of application macroprudential instruments to financial ones institutions will be subject to certain requirements. They should be proportional to the contribution specific institution in the total size of systemic risk.
- Avoiding Regulatory Arbitration - Macroprudential policy will only be effective if the financial market participants do not will be able to avoid restrictions by migrating to less regulated segments.
- Taking into account national peculiarities - Macroprudential policy should be taken into account national features of the financial system, so that the selected tools are effective and contributing achievement of goals.

## 5. CONCLUSION

Transformation of the international standards of a sustainable development of the banking sector are possible through formation of system of anti-recession financial stability which main goal is recognition of influence of crisis factors on solvency, liquidity and capital adequacy of banks; definition of preventive measures for prevention of crisis situations, methods of crisis management and measures for overcoming the threat of crisis with the minimum losses for banks. The main requirement to a banking capital is its use for compensation of financial losses. "Basel III" provides an exceptional structure of own capital with not enough liquid assets which can't be used for covering losses. According to the results of empirical researches which are carried out by western experts, measures for increase of standards of banking capital, introduction of coefficients of liquidity, adoption of more tough standards of the capital provided by the Basel III program for large international banks will lead to decrease in growth rates of GDP. But at the same time new rules can promote increase of stability in world economy and decrease in probability of bank crises. At the present stage of development of the financial market great attention is paid to the question of development and realization of the macroprudential policy providing stability of development in banking sector. In this regard special attention deserves identification of tools of macroprudential policy, in particular, defined by "Basel III" – as creation of the buffer and countercyclic capitals. Realization of macroprudential policy provides the solution of the following tasks. First, definition of institutional bases of macroprudential regulation. Secondly, measurement of systemic risk. For measurement of systemic risk the macroprudential body traces credit risks, risks of liquidity, market risks, and also concentration of these risks with the purpose of making decisions on the most effective measures for their overcoming. Thirdly, in terms of globalization of the financial market it is necessary to coordinate macroprudential regulation that can be promoted by universal tools and the international agreements on uniform use of such tools. In our opinion, each commercial bank needs to develop organizational and economic mechanism of the analysis and an assessment of future tendencies of capital sufficiency while introducing new regulatory requirements according to requirements of "Basel II" and "Basel III". The algorithm of the similar mechanism can include four main stages: choice of scenarios of testing, payment under this scenario, analysis of results of calculation, development of recommendations taking into account the received results. As the experience of many countries, especially in times of crisis, a prerequisite for implementation of functions enabling monetary policy to ensure exchange rate, price and overall financial stability is its coordination with fiscal policy. Lack of coordination of monetary and fiscal policy affects the state of public finances, bank-lending conditions and the stability of the financial system as a whole. The result of this inconsistency can be high yield on government bonds, which stimulates increased cost of funds in the money market and thereby undermine the efforts of the Central Bank to reduce of interest rates.

The most important task today is to coordinate the monetary policy and macroprudential measures as among the causes of the financial crisis are structural weaknesses in financial systems. In the arsenal of monetary policy is no effective tools to address these deficiencies. In this case, the macroprudential regulation will be more effective. However, it is necessary to evaluate the effect of macro-prudential measures on monetary policy transmission channels (for example, limiting the dynamics of loans). Thus, the effective coordination of monetary policy and macroprudential policy - the key to financial stability. The practice of recent years has shown that central banks have accumulated considerable experience in monitoring macroeconomic changes affecting financial stability. Therefore, they will continue to play a crucial role in both price and overall financial stability. In determining the discount rate of the Central Bank should focus on its approach to the maximum base rate "overnight", which provides real levers of money market liquidity. The implementation of tight monetary policy is an obligatory condition for restoring macroeconomic and financial stability. In a crisis, with the aim of curbing inflation, ensuring stability and restore confidence in the banking system the central bank should conduct a restrictive monetary policy, while ensuring positive real interest rates. In terms of implementation of tight monetary policy fiscal policy should not be expansionary. The degree of hardness or softness of the policy should be consistent with the nature of other policies through their coordination.

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