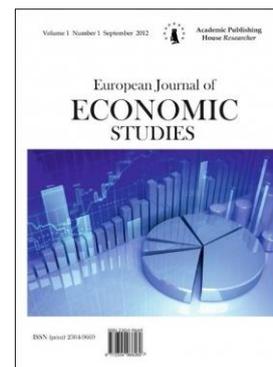


Copyright © 2016 by Academic Publishing House *Researcher*

Published in the Russian Federation  
European Journal of Economic Studies  
Has been issued since 2012.  
ISSN: 2304-9669  
E-ISSN: 2305-6282  
Vol. 18, Is. 4, pp. 486-491, 2016

DOI: 10.13187/es.2016.18.486  
[www.ejournal2.com](http://www.ejournal2.com)



UDC 33

## Characteristics of Basel Principles and Standards in Banking

Branimir Kalaš<sup>a,\*</sup>, Nada Milenković<sup>a</sup>, Jelena Andrašić<sup>a</sup>, Miloš Pjanić<sup>a</sup>

<sup>a</sup> University of Novi Sad, Serbia

### Abstract

International banking devotes considerable attention to the minimum supervisory standards, which banks have meet in order to get and therefore retains the license to do business. Today, banking organizations have to ensure three fundamental principles like security, stability and profit. Security and stability in banks is relevant, because only in this way they can gain the customer trust and confidence. The subject of this paper is importance and implementation of Basel standards in banking. First, it's presented history of Basel Committee on Banking Supervision and basic principles for effective banking. Second, authors reflect three main Basel standards like Basel I, Basel II and Basel III and determine difference between them by using equations and tables.

**Keywords:** banks, Basel, principles, standards.

### 1. Introduction

Banks are faced with problem of high level of instability and concentration of different risk types which is basic characteristic of current state of the world financial system and banking markets. Acceptance of exposure to high risk caused the emergence of crisis and inability to collect overdue receivables, which implied destruction of the large number of banks in the world. Inadequate collateral and highlighted volatility of fundamental economic parameters as price, interest rates and exchange rates requires exceptional expertise and professionalism in risk managing, as well as precisely determined mechanisms and measures of supervision by regulatory financial institutions. With development of modern banking and industry, exposure to different types of risk is growing in business. Timely identification and quantification of all kinds of risk as well as adequate preventive measures of protection has become extremely relevant factors of business success in an increasingly complex economic conditions. It's illusory to not notice that there isn't sincere encouragement towards improving of banking regulation at the right time and thereby support the Basel Principles. Namely, all previous principles were adopted only after escalation of the crisis period and they were corrective characters, rather than preventive and protective function of the entire banking system. Their relevance is manifested through the regulatory framework raise the level which is necessary for successfully overcoming all obstacles in the banking field. It's important to give greater support to these standards as they are a prerequisite for successful business in the banking sphere. With the aim of stability in the

\* Corresponding author:

E-mail addresses: [branimir.kalas@ef.uns.ac.rs](mailto:branimir.kalas@ef.uns.ac.rs) (B. Kalaš)

development of their operations and equal participation in the robust market competition, banks have to include them in their strategic objectives and strategies of banking risk management. Application management and risk management in the banking sector promote a necessary process of expansion of a stable and sound banking system. Avoiding insolvency of banks and maximizing the rate of return on risk adjusted capital are the two main objectives of the risk management policy in the banking business. Without the presence of relevant rules in the banking sphere it's unlikely that the banking system can operate adequately. Reinhart and Rogoff (2009) researched the historical experience that regulation, surveillance and macroeconomic policy aren't enough to prevent crisis. Many authors highlight importance of financial regulatory framework and reform (Goodhart, 2009; Dewatripont et al., 2010; Kotlikoff, 2010; Duffie, 2011; Admati et al., 2013; Myerson, 2014). Dewatripont et al. (2010) defined banking as one of the handful industries subject to prudential regulation on top of consumer protection. They notice that banks are faced with accelerating financial innovations which incurred as a result of customers' desire and pure regulatory arbitrage. Some financial institutions used weakness of regulatory framework which was inadequate designed to achieve abnormal high profits wherein they didn't respect basic principles of ethics and endangering social interests. Myerson (2014) determined that banks are vital financial institutions which intermediate between surplus and deficit units. In particular, banks get substantial funds from deposits and therefore security has to be one of the top principle in banking operations.

## 2. Basel principles and characteristics

Basel Committee on Banking supervision was established under the auspices of BIS in Switzerland by the central bank governors from G10 countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, UK and USA) in cooperation with the monetary authorities of Luxembourg and Switzerland (Jablecki, 2009). The Basel Committee on Banking Supervision was founded in 1974 as one of the committee at the BIS (Bank for International Settlements) with aim of improving the banking supervision at the global level. This is a forum for discussion between national supervisory authority for mutual exchange of information, including the exchange of experiences on implementation of performance techniques and methods of surveillance activities of internationally active banks. The Basel Committee on Banking Supervision provides a platform for regular cooperation between countries – members on issues related to the control of banking organizations. This important aspect of international coordination was caused by major turmoil in the global economy emerged from the beginning of 1970. The first oil shock and bankruptcy of the German bank Bankhaus Herstatt. It's also the debt crisis had an impact on development of Basel principles with the task of equalizing conditions for banks which operate on the global market (Milenkovic, 2011). The main objective of BCBS is to improve the understanding of key supervisory challenges and increase the quality of banking supervision worldwide (BIS, 2006). The Basel Committee on Banking Supervision defined the core principles for effective banking supervision which promote safety and soundness of banks and the banking system.

An effective system of banking supervision needs to be able to effectively develop, implement and monitor supervisory policies under normal and stressed economic conditions. There are a number of preconditions for effective banking supervision (BIS, 2012): a) sound and sustainable macroeconomic policies; b) a well established framework for financial stability policy formulation; c) a well developed public infrastructure; d) a clear framework for crisis management, recovery and resolution; e) an appropriate level of systemic protection and f) effective market discipline.

## 3. Tendency from Basel I to Basel III

Global standards for capital are a relatively recent innovation. Basel I came into force in 1988, related only to credit risk and before then, there were no standardized rules on capital adequacy for banking organizations. In 1996, market risk rules were added and in 1998, the BCBS recognized Basel I revision by using more sophisticated internal models to measure risk. After that, Basel II was born as new regulatory framework which included calculation of three method like SA (Standardized Approach), FIRB (Foundation Internal Ratings Based approach) and AIRB (Advanced Internal Ratings Based approach) that was the most popular method at large international banks (Barfield, 2012).

**Table 1.** Core principles in banking

<b>Supervisory powers, responsibilities and functions</b>	<b>Prudential regulations and requirements</b>
Responsibilities, objectives and powers Independence, accountability, resourcing and legal protection for supervisors Cooperation and collaboration Permissible activities Licensing criteria Transfer of significant ownership Major acquisition Supervisory approach Supervisory techniques and tools Supervisory reporting Corrective and sanctioning powers of supervisors Consolidated supervision Home-host relationships	Corporate governance Risk management process Capital adequacy Credit risk Problem assets, provisions and reserves Concentration risk and large exposure limits Transactions with related parties Country and transfer risks Market risks Interest rate risk in the banking book Liquidity risk Operational risk Internal control and audit Financial reporting and external audit Disclosure and transparency Abuse of financial services

Source: BIS (2012)

**Table 2.** Key aspects and differences among Basel I, II and III

<b>Basel I</b>	<b>Basel II</b>	<b>Basel III</b>
Released rule July 1988	Released rule December 2007	Released rule July 2013 with phased in implementation by 2019
<b>Providing a paradigm to address risk management</b> from a bank capital adequacy perspective	<b>Somewhat forward looking risk sensitive approach to capital calculation</b>	<b>Emphasis on reducing systemic risk</b> by minimizing procyclicality and promoting countercyclicality via capital conservation and countercyclical buffers
<b>Not as risk sensitive</b> as Basel II and Basel III	<b>Provided smaller banks the option</b> of adopting the more risk sensitive advanced approaches or a less sophisticated standardized approach which was created after Basel I	<b>Forward looking</b> , addresses risks relevant to bank specific portfolio and the macroeconomic environment
<b>Focused on existing assets</b> rather than the future composition of a bank portfolio	<b>Introduced a three pillar approach to risk management</b>	<b>Mandates requirements</b> for higher minimum capital and higher quality capital
<b>Credit risk only</b> – no other risk types	<b>Pillar I</b> – established minimum regulatory capital requirements for credit, market and operational risks	<b>Introduces leverage ratios</b> with the intent of improving financial system resilience  <b>Introduces liquidity risk:</b> thirty day liquidity ratio (LCR), one year net stable funding ration (NSFR) and liquidity monitoring

		tools
<b>Fixed, predetermined risk weights</b> for different asset classes	<b>Pillar II</b> – established principals for a banks Internal Capital Adequacy Assessment Process (ICAAP) which is intended to identify additional risks that are material, but not easily recognized	<b>Mandates:</b> enhanced disclosure requirements, interaction between LCR and the provision of central bank facilities
<b>Differentiated assets</b> between banking and trading books	<b>Pillar III</b> – established enhanced reporting requirements for market disclosure, such as credit risk exposure in different rating banks and credit quality of securitization holdings	<b>Revises Basel II methodology for securitizations, enhances risk coverage</b> by quantifying counterparty risk, credit value adjustments and wrong way risk
<b>No advanced measurement of risk</b> , based upon bank specific portfolio	<b>Improved oversight</b> by increasing the bar on supervisory responsibilities and expectations to normalize the way banks reported risk identification, measurement and management	<b>More conservative market risk requirements</b>
<b>Simple tier calculations</b> - tier 1 capital ratio of 4 % and total capital ratio (tiers 1 and 2) of 8 %		<b>Increases the standardized approach risk sensitivity</b> for residential mortgages, certain commercial credit facilities, exposures to foreign banks, public sector entities and sovereigns <b>Stricter data governance and data requirements</b>

Source: Agarwai and Ravitz (2014)

The basic requirement is that all financial institutions hold the capital at least 8 % of risk weighted assets. The first part is called Tier 1 capital and it must represent the half of total capital or 100 % of Tier 2 capital (Hasan, 2002).

According to Basel I, banks assign different types of risk weights to their assets:

- if assets having 0 % risk weight then banks required no capital for this type of assets;
- if assets having 20 % risk weight then banks must require capital 1.6 % of the value of assets;
- if assets having 50 % risk weight then banks must require capital 4 % of the value of assets;
- if assets having 100 % risk weight then banks must require capital 8 % of the value of assets.

Basel I measures risk by next formula (Hussain et al., 2012):

$$\text{Risk Based Capital Ratio} = \text{Capital} / \text{Risk Adjusted Assets} \quad (1)$$

Mohanty (2008) determined that after ten years of Basel I implementation, many changes of technology, finance and other things are showed a lot of weakness of this standards. BCBS decided that they have change the existing standard into more risk sensitive Basel and introduced Basel II (Akhtar, 2006). This standard measures risk by the next formula:

$$\text{Risk Based Capital} = \text{Capital} / \text{Credit Risk} + \text{Market Risk} + \text{Operational Risk} \quad (2)$$

Ahmad (2008) emphasized fact that this regulatory framework include credit risk, market risk and especially operational risk which is main difference between previous regulatory standard Basel I. Also, Basel I only covered minimum capital requirements and Basel II adds two other pillars which is manifested through supervisory review process and market discipline (Dierick et

al., 2005). Blundell-Wignall et al. (2014) Basel II proposed changes to the capital requirement rules which allowed large banks to run their own internal models to calculate the riskiness of the assets.

The new regulatory framework Basel III improves the capital and liquidity requirement whereby common equity increase from 2 % to 4.5 % and Tier 1 capital reserve rise from 4 % to 6 %. Also, there is additional reserve namely Capital Conservation Buffers of 2.5 % which can be use in stress situations. Further, Countercyclical Buffer is included and it vary from 0 %-2.5 % and Liquidity Coverage Ratio with basic purpose that bank must have high quality assets which can easily transformed in cash and this ratio must not less than 100 % (Mehta, 2012).

**Table 3.** Individual bank minimum capital conservation standards

Common Equity Tier 1 Ratio	Minimum Capital Conservation Ratios (expressed as a percentage of earnings)
4,5-5,12 %	100%
> 5,12 - 5,75	80%%
> 5,75 – 6,375	60%
> 6,375 – 7,0	40%
> 7,0	0%

Source: BIS (2012)

Table 3 reflects the minimum capital conservation ratios of banks in the five ranges. For example, a bank with a CET1 capital in the range of 5.75 % to 6.375 % is required to conserve 60 % of its earnings. Also, a bank with 8 % CET1 and no additional Tier 1 or Tier 2 capital would meet all minimum requirements but would have a 0 % conservation buffer and therefore by subject to the 100 % constraint on capital distribution (BIS, 2010).

#### 4. Conclusion

The global financial crisis, spurred in part by inadequate regulatory standards, provoked the financial regulatory reform at the national and international level. The world economy and global financial market survive one of the most difficult periods in history, accompanied with a significant slowdown, whose escalation is started on the banking market or mortgage market in US. Excessive foreign debt, budget and trade deficits, expressed volatility of currencies and prices of basic products, great unemployment and a general price increase with political instability are just some of the reasons of disturbed and disrupted economic stability of modern civilization. All of this contributes to increasing the bank's exposure to risks. In the past, not a small number of banks and financial institutions have closed their doors to the harsh impact of global economic crisis, because of inadequate preparedness to respond to unfavorable global trends. Quality risk management, bank supervision and monitoring, as well as coverage of business activities through banks' capital adequacy are just some of the measures that seek to avoid the mistakes made in the past. Maintenance and control of adequate capital ratios inspire a certain dose of security and enable a base frame for appropriate international supervision and discipline. The base frame creates conditions on the reference level where banking organizations and financial institutions can respond to economic shocks and difficulties which they are exposed. It's necessary form of implementation and unification of rules and procedures to increase the free capital flows and facilitate international banking business with the adequate control to maintain all the risk on a defined level. Banks as financial drivers of national economies present a global circulation of financial funds where the stagnation can cause serious slowdown in money circulation and economic prosperity. Banks will give contribution by investment in less risky operations, where profits will be compensated by a lower probability of loss. It remains to be seen whether the international standardization and regulation on the one hand and the entire banking industry and financial establishment on the other hand, are able to face with global challenges. Only health banking system, based on realistic grounds and respecting defined standards with adequate control, can respond to the problems and difficulties.

## References

- Admati, Hellwig, 2013** – *Admati, A., Hellwig, M.* (2013). *The Banker's New Clothes: What's Wrong with Banking and What to Do about It*. Princeton and Oxford: Princeton University Press
- Agarwai, Ravitz, 2014** – *Agarwai, V., Ravitz, M.* (2014). *The ABCs of Basel I, II, & III, Key Aspects and Differences*, Capgemini, People matter, results count. April, available at: [https://www.capgemini.com/resource-file-access/resource/pdf/the\\_abcs\\_of\\_basel\\_i\\_ii\\_iii.pdf](https://www.capgemini.com/resource-file-access/resource/pdf/the_abcs_of_basel_i_ii_iii.pdf)
- Ahmad, 2008** – *Ahmad, N.* (2008). *Basel II Capital Adequacy Requirements: Implementation Challenges for Islamic Banks*, International Islamic Finance Conference, pp. 15-17.
- Akhtar, 2006** – *Akhtar, D.S.* (2006). *Demystifying Basel II. Global Banking: Paradigm Shift at Mumbai, India*, pp. 5-8.
- Barfield, 2012** – *Barfield, R. A.* (2012). *Practitioner's Guide to Basel III and Beyond*, Thomson Reuters, available at: <https://www.pwc.com/gx/en/financial-services/pdf/introduction-and-chapters-final.pdf> ISBN: 9780414045385
- BIS, 2006** – BIS. (2006). *International Convergence of Capital Measurement and Capital Standards, A Revised Framework, Comprehensive Version*, Bank for International Settlements, Basel.
- BIS, 2010** – BIS. (2010). *Basel III: A global regulatory framework for more resilient banks and banking systems*, Bank for International Settlements, December, Basel.
- BIS, 2012** - BIS. (2012). *Core Principles for Effective Banking Supervision*, Bank for International Settlements, September, Basel.
- Blundell-Wignall et al., 2014** – *Blundell-Wignall, A., Atkinson, P., Roulet, C.* (2014). *Bank business models and the Basel system: Complexity and interconnectedness*, OECD Journal: Financial Market Trends 2013, Vol. 2013/2, pp. 17 available at: <https://www.oecd.org/finance/Bank-Business-Models-Basel-2013.pdf>
- Dewatripont et al., 2010** – *Dewatripont, M., Rochet, J.C., Tirole, J.* (2010). *Rebalancing the Banks: Global Lessons from the Financial Crisis*. Princeton and Oxford: Princeton University Press.
- Dierick et al., 2005** – *Dierick, F., Pires, F., Scheicher, M., Spitzer, K.* (2005). *The New Basel Capital Framework and Its Implementation in the European Union*, European Central Bank, Occasional Paper Series, No. 42/December.
- Duffie, 2011** – *Duffie, D.* (2011). *How Big Banks Fail and What to Do about It*. Princeton and Oxford: Princeton University Press.
- Goodhart, 2009** – *Goodhart, C.A.E.* (2009). *The Regulatory Response to the Financial Crisis*. Cheltenham: Elgar.
- Hasan, 2002** – *Hasan, M.* (2002). *The Significance of Basel I and Basel II for the Future of The Banking Industry with Special Emphasis on Credit Institutions*. Information Alliance Regional Meeting, pp. 2-5.
- Hussain et al., 2012** – *Hussain, M., Ramzan, M., Ghauri, M., Akhtar, W., Naeem, W., Ahmad, K.* (2012). *Challenges and failure of Implementation of Basel Accord II and reasons to adopt Basel III both in Islamic and Conventional Banks*. *International Journal of Business and Social Research*, Vol. 2, Issue 4, pp. 149-174.
- Jablecki, 2009** – *Jablecki, J.* (2009). *The impact of Basel I capital requirements on bank behavior and the efficacy of monetary policy*. *International Journal of Economic Social Sciences and Applied Research* 2(1), pp. 16-35.
- Kotlikoff, 2010** – *Kotlikoff, L.J.* (2010). *Jimmy Stewart Is Dead: Ending the World's Ongoing Financial Plague with Limited Purpose Banking*. Hoboken, N.J.: Wiley and Sons.
- Mehta, 2012** – *Mehta, M.* (2012). *Demystifying Basel III for Indian Banks*, International Conference on Technology and business Management, pp. 269-272.
- Milenković, 2011** – *Milenković, I.* (2011). *Međunarodno bankarstvo*, Univerzitet Novi Sad, Ekonomski fakultet Subotica.
- Mohanty, 2008** – *Mohanty, S.K.* (2008). *Basel II: Challenges and risks*. Academy of Banking Studies, pp. 2-10.
- Myerson, 2014** – *Myerson, R.* (2014). *Rethinking the Principles of Bank Regulation: A Review of Admati and Hellwig's the Bankers' New Clothes*. *Journal of Economic Literature*, Vol. 52, No. 1, March, pp. 197-210.
- Reinhart, Rogoff, 2009** – *Reinhart C.M., Rogoff K.S.* (2009). *This Time Is Different: Eight Centuries of Financial Folly*. Princeton, Princeton University Press.