Available online at www.sciencedirect.com

ScienceDirect

Procedia Economics and Finance 16 (2014) 336 – 341

Procedia Economics and Finance

www.elsevier.com/locate/procedia

21st International Economic Conference 2014, IECS 2014, 16-17 May 2014, Sibiu, Romania

International Concerns for Evaluating and Preventing The Bank Risks - Basel I Versus Basel II Versus Basel III

Ioana Raluca Sbârcea [a,*]

[a]*Faculty of Economic Sciences, University "Lucian Blaga", Sibiu, Romania*

Abstract

An ongoing concern of the banks at international level is implementing and respecting the international banking standards, in order to align with the rules imposed by the practice field and in the recognition of the national commercial banks by business partners and by customers worldwide. In this paper I proposed an approach to evolution and comparative of the main agreements governing the international banking activity, namely Basel I, Basel II and Basel III, in order to reflect the motivations for which they have appeared and to show the main changes that must be made by the commercial banks in order to accommodate to the requirements imposed.
© 2014 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/3.0/).
Selection and/or peer-review under responsibility of Scientific Committe of IECS 2014
Keywords: risk, risk reglementation, capital adequacy

1. Introduction

Internationally, the concerns regarding credit risk management began in 1974 with the creation of the Committee for the Regulation and Supervision of Banking Practices, named subsequently the Basel Committee on Banking Supervision, the need to establish this committee is linked to the financial crisis through which certain financial institutions in 1973 have passed.

In the period since the creation of the Banking Supervision Committee, its work has resulted in documents regarding banking supervision and minimal capital requirements, the most important being (Negruş, 2008):

- *The Concordat of 1975* through which were established the general principles of banking supervision on banks' foreign offices

* Corresponding author. Tel.: +0-000-000-0000 ; fax: +0-000-000-0000 .
E-mail address: ioana.sbarcea@ulbsibiu.ro (S. I. Raluca)

2212-5671 © 2014 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/3.0/).
Selection and/or peer-review under responsibility of Scientific Committe of IECS 2014
doi:10.1016/S2212-5671(14)00811-9

- *The Basel Accord of 1988, subsequently amended by the Basel II and Basel III Accord*
- *The Concordat of 1992* which sought to improve the previous regulations on international banking.
- *The Core Principles for Effective Banking Supervision 1997*, a document which sets out certain general standards for the prudential supervision of the banks.

2. The evolutionary analysis and in comparison of the Basel Agreements

Three of the most important documents issued by the Basel Committee and that underlie coordinate international activities are the Basel I (1988), the Basel II (2004) and Basel III (2010). These agreements define the main objectives of bank capital, a measure of the degree of risk related to bank assets, the rules relating to minimum capital that must be held by a credit institution, for covering risks and analysis measures, supervision and market discipline.

THE FIRST BASEL ACCORD refers to the capital standards imposed on credit institutions and provided the following (Toma, 2007):

- ***the definition of capital*** as composed of core capital and supplementary capital (representing up to 100% of core capital);
- ***determining the risk weights*** of bank assets, respectively: 0% - zero risk, 20% low risk, 50% medium risk and 100% high risk and also establishing the assets that fall into each risk category;
- ***the capital adequacy capital***, respectively the minimum level that banks had to maintain between capital and assets weighted by risk level; the minimum value of this indicator varies depending on the calculation method, meaning it must be of minimum 8% when it expresses the total capital ratio (the core capital plus the additional capital) and the assets weighted by risk level or at least of minimum 4% if it is calculated as the ratio between the core capital and the assets weighted by risk level.

Thus, through this international agreement is aimed at international level to maintain a minimum level of commercial banks solvency, a level that is required to be complied with at all times. For example, an accelerated increase in the loan portfolio (assets that have 100% risk) must be accompanied by an increase in capital because a drop of the adequacy capital indicator under 8% is unsupported by the supervisory authority bank. Thus, through this indicator is intended to maintain the bank capital to the minimum agreed level, but usually, this ratio exceeds 8% in banking practice, just for reasons of caution expressed by managers of banks.

A relatively new approach, at international level, regarding the risk to which commercial banks are subjected, is the one established by the **NEW BASEL ACCORD (Basel II)**, which is based on three pillars:

➢ ***Minimum requirements of own funds*** – the capital adequacy ratio must be at least 8%, calculated as the ratio between the Bank's equity and assets, but this time the assets are weighted according to three risks:

- credit risk
- market risk
- operational risk

➢ ***The supervisory process for the bank activity*** that involves:

- internal performance assessment procedures of its own equity
- the supervisory authority is responsible for the assessment mode conducted by banks
- improving the bank-supervisor dialogue
- rapid intervention to prevent the decline in capital

➢ ***Market discipline*** which requires more detailed reporting requirements by the Central Bank and by the public regarding the ownership structure, risk exposures, capital adequacy to the risk profile. These requirements involve regular publication of information (every six month by the national banks and quarterly by the internationally active banks).

Regarding this, the Basel II Accord brings as new elements from Basel I the expansion of the risk weights range, the diversification of the credit risk mitigation instruments through the use of the derivative financial instruments (credit default swaps, total return swaps, credit linked notes), using ratings to assess clients and internal models developed for determining the expected loss value, given the risk profile. Thus, this approach highlights the fact that the credit risk, although it is the one that can have serious repercussions on the banking activity is not the only

important one, so the risk of losses due to the exchange rate volatility, the interest rate or due to some technical or human errors should commensurate and the capital must be adequate and based on these risks.

For assessing the credit risk, the Basel II Accord proposes three implementation options (Căpraru, 2011):

- The standard approach (standardized approach) is similar to the one proposed by Basel I, but uses different shares and enables the using the financial instruments derived to limit the credit risk capital and to reduce the capital requirements.
- The methodology based on basal internal ratings (Foundation Internal Rating Based - IRB approach) - allows a bank to use their own rating system, including their own calculations on the probability of entering into insolvency, but the losses recorded when the counterparty enters into insolvency are provided by the supervisory institution.
- The advanced methodology based internal ratings (advanced IRB approach) according to which banks calculate their capital requirements based on their models, with the approval of the supervisory institution.

Between the two agreements there are also differences in approach in terms of risk shares (table no. 1) and the influences of the new methodology for determining the capital requirement for credit risk towards Basel I requirements are the following (Georgescu,2007):

- ➢ the diversification of exposure classes;
- ➢ diversification of risk shares;
- ➢ considering the ratings provided by the external credit assessment institutions;
- ➢ diversification of the eligible technique categories of mitigation of the credit risk;
- ➢ the possible reduction of its own funds, offset by the reduced capital requirement (8%).

Table 1 - Differences between Basel I and Basel II Accord in terms of risk shares

EXPOSURE	Credit risk associated to the local exposures in the version :	
	Basel I	Basel II
Central governments, central banks and international financial institutions similar (for exposures denominated and funded in local currency)	0	**0**
Central governments, central banks and international financial institutions similar (for exposures other than the ones denominated and funded in local currency)	0%	**50%**
Credit institutions - short-term exposures financed and expressed in local currency	20%	**20%**
Credit institutions - long-term exposures	20%	**50%**
SSIF - short term exposures financed and expressed in local currency	100%	**20%**
SSIF- long term exposures	100%	**50%**
Exposures towards institutions in the group	20%-100%	**20%-100%**
Regional and local administrations	20%	**100%**
Entities of the public sector	100%	**100%**
Retail exposures (includes exposures to population)	100%	**75%**
Exposures to corporates	100%	**100%**
Loans secured by commercial properties	100%	**100%**
Loans secured by real estate	50%	**35%**
Exposure with high risk (investment in shares in unlisted entities)	100%	**150%**

Source: processing after Georgescu, F., - "The preparation stage for applying the Basel II regulations in the Romanian banking system," FINMEDIA – Risk Management in the Basel II perspective - Third Edition, February 22, 2006

Both the supervisory authorities and the large financial groups have said at the time in favor of alignment with Basel II, considered among the advantages:

- the credit risk will be evaluated by the banks through the use of different calculation methods (internal rating systems);
- improving the risk management by expanding their coverage area;
- increasing the stability of the financial system and the existence of a closer link between the required risk and capital;

• banks will consider the operational risk and the market risk in their assessments;
• strengthening the market discipline;
• the central banks will have discretion to determine whether a bank has sufficient resources to financial intermediation;
• developing new professional structures to deal with risk monitoring;
• transparency regulations will require the provision of information to the public regarding the level of reserves, risks and management.

Although it was appreciated that the Basel II Accord will contribute to a banking supervision designed to provide a more stable banking system, there were many opinions through which it is criticized the fact that it is based on historical data for at least 3-5 years, when the normal activity probably took place, which raised doubts about future work and the emergence of potential crises.

The projections of the skeptics regarding the capacity of the Basel II to provide stability for the international banking system did not fail to appear, so that once with the onset of the financial crisis in 2008, the Basel Committee has set up **A NEW AGREEMENT - BASEL III** in september 2010 – with initial implementation in 2012 - 2019, and later postponed to 2014-2019.

The Basel II limits in the context of the transatlantic crisis relate to the following aspects (Georgescu, 2011):
• underestimating the importance of the systemic risk.
• overestimating the credit institutions' capacity to accurately measure the major risks
• overestimating the true nature of the assessments provided by rating agencies in the absence of some minimum professional standards and supervision thereof;
• inadequate reflection of prudential requirements of the liquidity risk both on the financing component and on the recovery of assets.

The motivation for introducing Basel III is based on the following considerations (Walter, 2011):
- *the negative effects of the banking crises.*
- *the frequency of the banking crises.*
- *the benefits of the Basel III outweigh the costs of implementing it*, because a stable banking system is the cornerstone of a sustainable development, with long-term benefits.

The Basel III Accord proposes to impose higher standards for improving the banking sector's ability to absorb the shocks from the economical and financial sectors, as well as measures to reduce the contagion effect. It also aims to analyze the banks with systemically importance (too big to fall), a good management of the risks and increasing transparency of the banking institutions. Practically Basel III will mean changing the capital structure used to obtain the minimum level of capital adequacy, increasing the capital requirements, imposing a minimum level of liquidity and introducing of requirements for leverage (ratio between its own funds of level 1 and the total assets considered average). Thus structuring their funds will suffer significant changes to the previous agreements and the same will happen with their minimum own funds requirements (table no. 2).

Table no. 2 - Comparison between the capital structure and the capital adequacy level under the Basel Accords

Indicators	**Basel I**	**Basel II**		**Basel III**
Own funds	Oqn funds of level 1+2+3	Own funds of level 1+2+3		Own funds of level 1+2
Level 1 own funds	Equity capital + hybrid capital instruments	Equity capital + hybrid capital instruments		Equity capital + hybrid capital instruments of superior quality
Level 2 own funds	- **maximum 100%** of its own level 1 funds Securities of indeterminate duration + subordinated loans with maturity> 5 years	- **maximum 100%** of its own level 1 funds Securities of indeterminate duration + subordinated loans with maturity> 5 years		- **maximum 33%** of its own level 1 funds Securities of indeterminate duration + subordinated loans with maturity> 5 years
Level 3 own funds	- **maximum 150%** of its own level 1 funds Term subordinated loans for at least 2 years	- **maximum 150%** of its own level 1 funds Term subordinated loans for at least 2 years		-
Own funds / weighted assets according to risk	**8%**	**8%**		**8%**

Level 1 own funds / weighted assets according to risk	**4%**	**4%**		**6%**
Equity / weighted assets according to risk	**2%**	**2%**		**4,5%**

Source: Georgescu Florin - "European economic governance", Constanta, September 9, 2011

This comparison reflects the major difference that will be made by Basel III towards the internal agreements and the capital effort that banks will need to accomplish in order to meet capital ratios.

This Accord aims at a consistent capitalization in the banking sector, with capital elements of high quality capital and / or modification of the bank assets structure, respectively decreasing the share of high-risk assets in the favor of the ones with a lower risk. Most global banks in order to meet the requirements of the new Basel III regulations while maintaining the profits level and without requiring additional capital from the shareholders, initiated and carried out in the last year comprehensive plans for operational efficiency, and have optimized the internal processes, repositioned the businesses, significant redundancies and cost reductions in most lines of business (Financial Newspaper, December 2012). These affected the real economy in particular by reducing lending; limiting the access to finance companies and increased financing costs, all coming at a time that could not be more difficult, the moment of economic recovery after the global financial crisis.

3. Conclusions

From the analysis of the main international regulations on risk management, we observe a permanent interest of the international bodies for establishing more accurate assessment techniques in order to reduce the risks to which a bank is subjected.

Watching the evolution and comparing the Basel I, II and III Accords, we have shown on the one hand the reasons for their occurrence and on the other the significant changes that were made by each Accord in addition to the previous ones. I reflected that Basel II comes mainly with an enlargement of the areas covered by the risks to be taken in the calculation of the capital adequacy indicator but also with a diminishing of risks share related to the retail exposures and to those towards SSIF. The international economic and financial context has shown that these changes, along with other causes have contributed to the onset of the financial crisis of 2007-2008. Thus, at international level it was decided a tightening of the conditions imposed on banks, this aspect is reflected in the Basel III Accord. Therefore comparing the Basel III Accord to the previous ones, we showed the capital increases which the international banks must undertake in order to comply with the requirements imposed. This aspect, however, now puts into question the implementation deadline and also the implementation method of the new agreement without it causing the termination of a substantial proportion of the medium and small banks.

Acknowledgment

This work was supported by the strategic grant POSDRU/159/1.5/S/133255, Project ID 133255 (2014), co-financed by the European Social Fund within the Sectorial Operational Program Human Resources Development 2007 – 2013.

References

Căpraru, Bogdan – "International Banking – Teorie şi practici", Editura C.H. Beck, Bucureşti 2011, pg. 132

Georgescu, F., - "Piaţa creditului din România şi Reglementările Noului Acord de Capital – Basel II", Prezentare la seminarul "Activitățile de creditare şi management a riscurilor" în contextul Basel II, Bucureşti 4 decembrie 2007, www.bnro.ro

Georgescu, F., - "Stadiul pregătirii pentru aplicarea reglementărilor Basel II în sistemul bancar românesc", FINMEDIA – Managementul riscului în perspectiva Basel II – Ediția a III-a, 22 februarie 2006

Georgescu, Florin – "Guvernanță economică la nivel european", Constanța, 9 septembrie 2011

Negruş, M. – "Produse şi servicii bancare. Marketing bancar", Editura Fundației Romania de maine , Bucureşti 2008, pg. 337

Toma, R. - "Politici şi tehnici bancare", Editura Univesității Lucian Blaga, Sibiu, 2007, p.74

Walter, S., - „Basel III: Stronger Banks and a More Resilient Financial System", Conference on Basel III, Financial Stability Institute, Basel, 2011, pg. 1-2

www.financiarul.ro - “Veşti bune pentru bănci: UE amână implementarea reglementărilor bancare Basel III” – 11 decembrie 2012,
www.bnro.ro
www.bis.org