

# THE IMPACT OF BASEL III AGREEMENT ON THE ROMANIAN BANKING SYSTEM

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## Abstract

*Basel III Agreement is a set of regulations on the banking system, which aims to ensure the system stability, by applying new standards on the capital level and on the liquidity level adequacy and also, on the reduction of banking risk, implied by the financial crisis. Romanian commercial banks will be forced, by the Basel III Agreement implementation, to reduce the risk of capital, using the balance sheet restructuring and by improving the capital quality. The aim of this paper is to analyze the impact of implementing new capital requirements, stipulated by Basel III Agreement, on the Romanian commercial banks, how they will react to the new standards and the decisions they will be able to adopt to respect the standards.*

**Keywords:** *Basel III Agreement, liquidity level, commercial banks, capital standards, leverage ratio.*

## 1. Introduction

The stability and solvency of the banking system are a precondition for proper functioning of the financial system. In order to adapt and increase the flexibility of the current monitoring system, the authorities responsible for international banking regulation have initiated a reform process of calculating necessary capital for risk coverage, through the Basel Committee.

There are many different kinds of risk against which bank's managements need to guard. The major risk is credit risk, which means the risk of counterparty failure, but there are many other kinds of risk which could affect the bank's results, such as investment risk, interest rate risk, exchange risk or concentration risk.

Global economic and financial crises have demonstrated numerous weaknesses in banks' risk management practices. Many banks and financial institutions did not have enough capital and the capital which they had, it was not good enough to cover losses suffered. In response, Basel Committee on Banking Supervision (BCBS) has collectively reached an agreement on reforms to „strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector”, which is being referred to as „Basel III”.

Basel III focuses on three main areas – capital, liquidity and systemic risk, with their influences on the bank's activities.

The Basel Committee reforms refer both to micro prudential and macro prudential measures<sup>1</sup> and improves a new framework for risk management at the level of banking system.

Thus, at the micro level, Basel III regulates capital adequacy, introducing a higher quality of capital, improves the coverage of the risks, especially

related to capital market activities, requires much higher levels of capital to absorb the types of losses associated with crises and a global liquidity standard to supplement the capital regulations.

In addition, the macro prudential elements are: a leverage ratio (like a new element for limiting the volume of debt in the banking system in boom periods), new measures to raise capital levels or draw it down in stress periods to reduce procyclicality and, for global systemic banks, a higher capacity of loss absorbency.

## 2. Basel III Agreement Requirements

Basel III objectives are broken down in three parts:

- Capital reform
- Liquidity standards
- Systemic risk and interconnectedness

**1. Capital reform** refers to quality, consistency and transparency of capital base, the risk coverage and leverage ratio. Basel III Agreement requires banks to hold 4,5% of common equity and 6% of Tier I capital. Also, in this part, Basel III introduced “additional capital buffers”:

- A “mandatory capital conservation buffer” of 2,5%
- A “discretionary counter - cyclical buffer”, which would allow national regulators to require up to another 2,5% of capital during periods of high credit growth.

Capital conservation buffer – is intended to ensure that institutions are able to absorb losses in stress periods lasting for a number of years. This kind of capital buffer solves the regulatory paradox after which higher minimum capital should not be used to absorb losses falling below the minimum requirements, leading to a withdrawal of the banking

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<sup>1</sup> Walter, S. (2010), Basel III and Financial Stability, Speech at the 5th Biennial Conference on Risk Management and Supervision, Financial Stability Institute, Bank for International Settlements, Basel, 2010, <http://www.bis.org/speeches/sp101109a.htm>

license. With the introduced capital buffers and the associated distribution constraints falling below the requirements, a “softer” regulatory tool is introduced.<sup>2</sup>

The Basel III rules have been implemented in the EU from the beginning of 2014.

Capital requirements fall under the provisions of CRD IV/CRR regulatory package, starting with 2014. These requirements are applicable to all EU member states and establish standardized and uniform rules for covering the risk involved in banking activities. Thus, credit institutions have to respect the own funds requirements:

Total capital of at least 8% of RWA (Risk – weighted assets);

Tier 1 capital of at least 6% of RWA;

CET 1 (Common Equity Tier 1) capital of at least 4,5% of RWA.

The European Union capital adequacy rules recognize two layers of capital – Tier 1 and Tier 2. Criteria for these instruments are contained in CRR, which will have direct application in each UE member state.

Tier 1 includes only permanent shareholders’ equity (common stocks) and disclosed reserves (created or increased by appropriations of retained earnings or other surplus, e.g. share premiums, retained profit, general reserves and legal reserves, and also include general funds – such as a fund for general banking risk in certain EC countries)<sup>3</sup>

Tier 2 under Basel III includes: undisclosed reserves, revaluation reserves, general provisions/general loan-loss reserves and hybrid (debt/equity) capital instruments with a maturity of not less than five years.

Tier 1 can be subdivided into CET 1 (Common Equity Tier 1) and AT 1 (Additional Tier 1).

The capital adequacy indicators in the Romanian banking system remained at high levels, which followed an upward course (Table no.1)

**Table no. 1 - Own Funds and Capital Adequacy Indicators (Percent)**

	2013- Jun.	2013- Dec	2014- Jun
<b>Percent in total own funds</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Tier 1 capital</b>	<b>92,5</b>	<b>91,1</b>	<b>87,7</b>
<b>Tier 2 capital</b>	<b>7,5</b>	<b>8,9</b>	<b>12,3</b>
<b>Total capital ratio (a) (&gt; 8%)</b>	<b>14,7</b>	<b>15,5</b>	<b>17,0</b>
<b>Tier 1 capital ratio (&gt;6%)</b>	<b>13,6</b>	<b>14,1</b>	<b>14,9</b>

Source: NBR

(a)– Total capital ratio refers to own funds of the institution, calculated as a percentage of total risk exposure amount. This indicator stood at 17 percent in June 2014, above the requirement level of 8 percent.

(b)–Tier 1 capital ratio is calculated as a percent of total risk exposure value of an institution, and for Romanian banks recorded a high level of 14,9 percent in June 2014.

In the Romanian banking system, the quality of own funds it was always maintained at a high level, complying the requirements set by the CRD IV/CRR regulatory package. The own fund of banks, Romanian legal entities rose by about 13 percent in June 2014 – June 2014 period, as a result of the 20 percent decline of the total volume of prudential filters regulated at national level, in 2014, according to CRD IV regulatory framework, as a result of the capital increases made by shareholders in 2013 and 2014, and of course as an answer of the improvement in the financial performance of banks, during 2014.

Counter - cyclical buffer allows national authorities, like national banks, to require up to an additional 2,5% of capital during periods of high credit growth. National authorities will pre-announce the decision to raise the level of the buffer by up to 12 months, but the decision to decrease the level of the buffer will take effect immediately.

Banks may be able to use in downturns the flexibility provided by the capital conservation buffer, but in the same time, they may prefer to reduce credit extension rather than being subject to restrictions on capital distributions (dividends, share repurchases and especially discretionary bonus payments to staff) if they do not meet the additional capital requirements.<sup>4</sup>

The new CRD IV/CRR regulatory package supplements the set of capital adequacy indicators calculated based on the total risk exposure amount via the introduction of the leverage ratio. This ratio measures the risk associated with funding sources, other than equity. This is a simple and transparent indicator of the assessment risk which is not the subject to modeling errors and quantifying measures of asset risk associated.

Leverage ratio is defined as:

$$\text{Leverage ratio} = \frac{\text{Total assets}}{\text{Total equity} + \text{Subordinated debt}}$$

The leverage ratio is expressed as a percentage, being calculated as an institution’s capital measure (Tier 1 capital) divided by that institution’s total exposure measure (the sum of the exposure values of all assets and off-balance sheet items not deducted when determining the capital measure indicator). The exposure value of an asset is its accounting value, remaining after specific credit risk adjustments;

<sup>2</sup> Bundesbank (May, 2011): Basel III – Leitfaden zu den neuen Eigenkapital und Liquiditätsregeln für Banken.

<sup>3</sup> Basel Capital Accord. International Convergence of Capital Measurement and Capital Standards (July 1988, updated to April 1998).

<sup>4</sup> Rafael Repullo, Jesus Saurina – “The countercyclical capital buffer of Basel III: a critical assessment”, CEMFI Working Paper, No. 1102, Madrid, June 2011

additional regulated value adjustments and other own funds reductions related to the assets item have been applied.

A higher value of this ratio means a higher vulnerability to negative shocks which lower the value of assets or financing liquidity. An excessive leverage could increase the dependency of a bank regarding the potentially volatile short-term funding sources and to expose it to the risk of increasing funding liquidity.<sup>5</sup>

The leverage ratio was initially introduced as an additional feature, the implementation of which is flexibly decided by supervisory authorities and is expected to become a mandatory measure starting with 2018.

For the Romanian banking system, the leverage ratio level stood at 8% (at the end of 2013) and 7,9% (in June 2014), being calculated based on a methodology established by the NBR, as a ratio of Tier 1 capital to average bank assets at accounting value. These values registered by the leverage ratio reflecting the high capitalization of bank assets at the accounting value, which is a common feature of the countries in the region. (For the banks from France, Italy and Netherlands, which have subsidiaries in Romania, the level of this indicator stood at roughly 5 percent.

2. Basel III introduced new **liquidity standards**, actually 2 required liquidity ratios<sup>6</sup>, which promote the resilience of a banking sector:

LCR – Liquidity Coverage Ratio

NSFR – Net Stable Funding Ratio

LCR was published in December 2010 and refers of banks liquidity risk profile. In this way, Basel Committee requires a bank to hold sufficient high-quality liquid assets to cover its total net cash outflows over 30 days. The LCR will be introduced as planned on 1<sup>st</sup> January 2015, but the minimum requirement will start at 60%, rising in equal annual stages of 10 pp. to reach 100% to 1<sup>st</sup> January 2019. This plan of introducing LCR (shown below, Table no.2), is made to ensure the ongoing financing of economic activity.

**Table no.2 – The plan of introducing LCR**

	2015	2016	2017	2018	2019
<b>Minimum LCR requirements</b>	<b>60 %</b>	<b>70 %</b>	<b>80 %</b>	<b>90 %</b>	<b>100 %</b>

**Source: NBR**

The Liquidity Coverage Ratio (LCR) requires banks to have sufficient high-quality liquid assets to withstand a 30 days stressed funding scenario that is specified by supervisors.

$$LCR = \frac{\text{Stock of HQLA}}{\text{Total net outflows over the next 30 calendar days}} \geq 100 \%$$

“HQLA” – assets should be liquid in markets during a time of stress and, ideally, be central bank eligible.

Assets are considered to be HQLA if they can be easily and immediately converted into cash at little or no loss of value.

The LCR standard and monitoring tools should be applied to all internationally active banks on a consolidated basis, but may be used for other banks and on any subset of entities of internationally active banks as well to ensure greater consistency and a level playing field between domestic and cross-border banks. The LCR standard and monitoring tools should be applied consistently wherever they are applied.

**Net Stable Funding Ratio (NSFR)** is a longer – term structural ratio, designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.

$$NSFR = \frac{\text{Available funding}}{\text{Required funding}} \geq 100\% \quad [3]$$

The NSFR has a time horizon of one year and has been developed to provide a sustainable maturity structure of assets and liabilities.

Stable funding means all those types of equity and liabilities expected to be reliable sources of the funds under an extended stress scenario of one year.

This measure implies taking into account certain criteria:

- Notation different profiles of assets and association with their recommended levels of stable resources (depending on their risk)
- New weighting of assets requiring a certain level of funding (according to their risk):
  - Between 0% and 5% for cash accounts and government securities
  - Between 65% and 85% for personal loans and mortgages
  - 100% for all other assets

This weighting can be interpreted as a level at which an asset should be financed with stable resources.

New weighting in the quality of financing (according to their stability):

- 100% for Common Equity
- 80% to 90% for customer deposits
- 50% for loans with low collateral or unsecured

<sup>5</sup> Bordeleau, E., Crawford, A. and Graham, C. – Regulatory Constraints of Bank Leverage: Issues and Lessons from the Canadian Experience, No. 15, 2009, Bank of Canada

<sup>6</sup> <http://www.bis.org/publ/bcbs189.pdf>

This weighting can be interpreted as maximum levels at which these resources can finance an asset. This should result in getting more diversified funding by the banks so as not to be dependent on a certain type of resource.

Banks will have to assess the stability of their balance sheet resources as a percentage and the need for funding for individual assets.

Accordingly to the agency theory, the optimal financial structure of the capital results from the compromise between various funding options (equity, debts and hybrid securities) that allow the reconciliation of conflicts of interests between the capital suppliers and managers.<sup>7</sup>

The requirements of Basel III Agreement related on liquidity risk are expected to have impact both upon the internal process in the banks as well as upon the business model.

Organizational impact means<sup>8</sup>: external reporting supplemented by the new liquidity ratios; preparation of a cash flow-based liquidity gap profile; monitoring tools – regular reporting to the supervisory authorities.

On the other hand, the impact of liquidity risk requirements on the business model will be reflected by longer maturities and higher stability of liabilities, as well as reduced term transformation and higher costs for refinancing.

3. Systemic risk and interconnectedness. Systemic risk was a major contributor to the financial crisis in 2008. It can be defined as financial system instability and might be very dangerous, because “a failure of one financial business may infect other, otherwise healthy businesses”<sup>9</sup>. For this reason, the National Bank of Romania is currently considering the possibility of introducing a measure of quantify financial market stress, because isolated vulnerabilities in certain sectors may negatively affect, via contagion effects, the performance of the entire system.

### 3. Conclusions

If Basel I and Basel II agreements, by their requirements, contributed to a better capitalization of banks, after that it was felt the need to introduce more complex prudential policies, which have led to the decision to develop the new Basel III Agreement.

The new rules introduced by implementing Basel III, will put huge pressure on small banks, in particular in terms of the calculation of the risk. Thus, they will no longer be allowed to grant loans as easily, and one of the categories of customers at risk to lose the SMEs. Under the conditions in which small banks will become inaccessible to the SMEs in search of financing, they will move toward strong institutions. But, as they have not looked very pleased in the last period in to take risks, they will try to do it, most likely, to make a natural selection to customers by increasing the cost of loans.

Thus, the implementation of Basel III will have dramatic effects in a market already plagued by limitations on crediting. Basel III is a framing device on the international financial institutions for a set of minimum regulatory requirements, in particular regarding capital, liquidity and leverage. This framework, Basel III, is designed to strengthen the resilience of banks and for the entire banking system, due to the hard lessons learned from the recent financial crisis, having revealed that many banks in the advanced economies were undercapitalized, illiquid and over leveraged. In the same time, “measurement of bank performance involve analysis of both quantitative and especially qualitative indicators, primarily aimed to determinate the soundness of the bank, the extent of its exposure to the various risk categories and especially its level of efficiency.”<sup>10</sup>

Basel III Agreement is seen both as an opportunity and as a challenge for banks. This regulatory framework can provide a solid foundation for the next developments undertaken in the banking sector and ensure that excesses made in the past can be avoided. Basel III Agreement will change the way banks manage their risks, but in the same time, the equity management, too.

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<sup>7</sup> Grigore, Maria Zenovia, Stefan-Duicu, Viorica Mirela – “Agency theory and optimal capital structure”, CKS Journal, Bucharest 2013, pp. 862 - 868

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<sup>9</sup> George, E.A. – The New Lady of Threadneedle Street. Governor’s Speech, Bank of England, London, February 1998, [www.bankofengland.co.uk](http://www.bankofengland.co.uk)

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