THE NEED TO IMPLEMENT BASED III IN THE AFTERMATH OF THE GLOBAL FINANCIAL CRISIS

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Abstract

Prudential regulation has as ultimate objective securing protection of a bank's clients, shareholders and creditors by defining a sufficient level of bank capitalization. Given the particular importance of the banking sector's vital functions for any economy, the prudential regulations of the key components of the banking system become an essential condition for securing the economic and financial health of a country. Having become aware of the particular importance of a sound legal framework for the banking system, the international authorities have come up with proposals of improvement to the Basel II Agreement

Keywords: *financial stability, Basel Committee on Banking Supervision, Basel III, systemic risk, shadow banking.*

1. Introduction

The Basel Committee for Banking Supervision, initially referred to as the Committee on Banking Regulations and Supervisory Practices, was established in 1974 further to some big cries of the major international currencies and the financial crises experienced by large banking institutions. Thus, the very first regulations laying down the minimum capital requirements to cover for the banking risks were defined in 1988 by the representatives in charge of supervising the banking activities from the G10 countries, and were captured in the Basel I Agreement.

Due to the ever-changing content and scope of the global financial sector, the volatility seen by the financial market over the last decade, and the development of the degree of financial innovation, and further to the economic turmoil which triggered the financial crisis, the increasingly more complex risks faced by the bank, it was concluded that the Basel I Agreement of 1998 was no longer capable of efficiently ensuring that the capital requirements matched the true risk profile of a bank. Further to these critics, the Committee brought to attention a new capital adequacy scheme, in June 2004 under the Basel II Agreement.

The **Basel II Agreement** brought along several innovations in the prudential supervision plan, by defining a 3-phase risk assessment and monitoring system, as well as in consequent determination of the optimal capitalization level. The key objective of Basel II was to provide a more flexible framework for determination of the capital requirements, matching the risk profile of the credit institutions.

The **three pillars** are:

- Minimum capital requirements
- Supervision of capital adequacy
- Market discipline

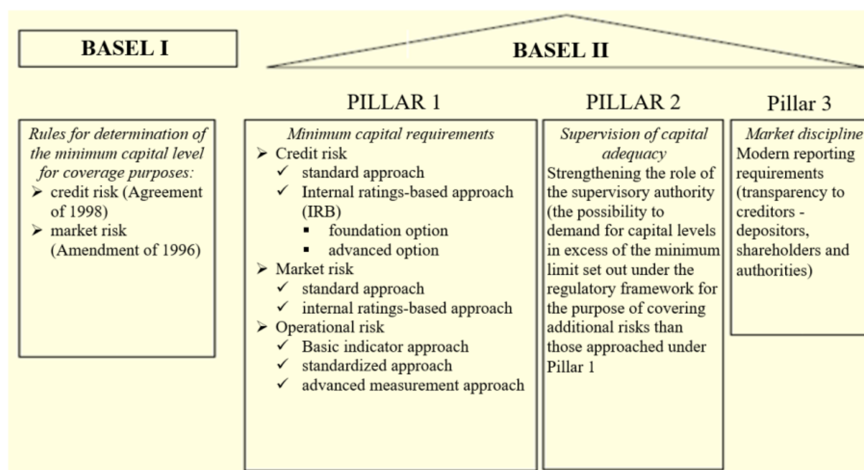

Figure 1.1. Pillar 1 - Minimum capital requirements

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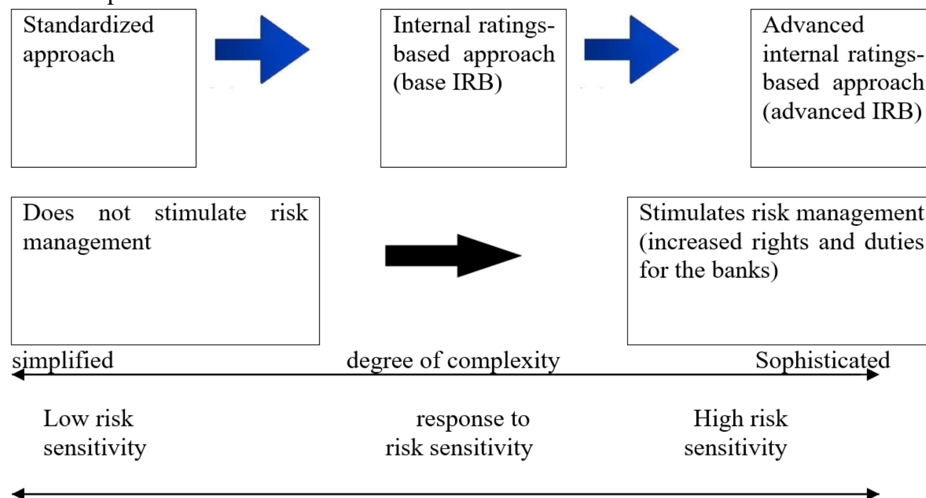
The capital adequacy rate remains 8%, whereas the assets are weighted term of the credit risk, market risk and operational risk.

The three approaches to risk entail either a low or a high sensitivity to risk, as follows:



The methods and requirements of Basel II Agreement regarding the credit risk are aimed at calculation of the risk-weighted assets and, and consist of the following alternatives:

Standard approach is the revised alternative, but significantly more complex than the one of Basel I Agreement. The most important categories of debtors are: states, including central banks, local authorities, banks and corporations. It basically provides for attachment of risk levels to each balance-sheet and off-balance-sheet asset term of the type of risk organization and the related securities based on the external evaluations carried out by the international rating agencies and other relevant institutions. The figure below shows what the standard approach of credit risk could involve:

Credit risk - Standardized approach

Exposure to central authorities and central banks

AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Under B-	not rated
0%	20%	50%	100%	150%	100%

Exposures to banks

	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Under B-	not rated
Option 1 - standard	20%	50%	50% (20% actual)	100%	150%	50%
Option 2 - short-term exposure	20%	20%	20% (idem to date)	50%	150%	20%

Exposures to

	AAA to A-	A+ to A-	BBB+ to BB-	Under BB-	not rated
corporations	20%	50%	100% (idem)	150%	100%
retail	75% (100% actual)				
housing mortgages	35%; 50% actual (only subject to meeting certain conditions)				
mortgages on retail spaces	100% (idem), subject to approval of the central bank and meeting certain conditions, a risk weight of 50% can be applied				

Figure 1.2.

Internal rating-based approaches allow higher risk term of the ratings internally determined by the credit institutions.

The **basic and advanced internal rating-based approach** reflects the credit risk management across the global banking sector.

The **foundation Internal Rating-Based (IRB) approach** allows a bank to use its own rating system, including its own determinations of the probabilities of default (PD), but the losses incurred when the partner is in default (LGD) are supplied by the supervisory authority.

The **advanced Internal Rating-Based (IRB) approach,** when the banks determine their capital requirements employing their own methods, and have such validated by the supervisory institutions, including the determinations of the probabilities of default (PD), but the losses incurred when the partner is in default (LGD).

Ratios showing the probability of loss relative to each type of loan and partner are used. These ratios are:

PD = Probability of Default;

LGD = Loss given Default – the loss incurred by the bank (as percentage from the exposure amount) in the event of the debtor's default; In case of the basic approach, LGD is determined by the supervisory authority, whereas in case of the advanced approach, LGD is determined by the credit institution, based on the historical performance of its customers.

EAD = Exposure at default

M = Effective Maturity

The Probability of Default occurs when the analysis showed the possibility that the debtor would no longer carry out its payment obligations to the bank in full, or the debtor has overdue debts to the bank for longer than 90 days. The PD estimates must rely on a monitoring period of at least 5 years. Considering that the debtor's probability of default fails to provide a complete picture of the potential loss relative to the respective loan/facilities, the banks' desire is to measure how much they would lose if a customer's liabilities become outstanding.

For a bank to be able to use its own figures for *PD* and *LGD*, they must meet a set of strict regulatory criteria which set out the minimum requirements to be met for implementation of a credit risk management system based on internally generated ratings. The principle underlying these requirements says that the risk rating and estimation systems and processes should supply:

- a relevant assessment of the counterparty and the characteristics of the transaction;
- a relevant risk differentiation; and;
- a reasonable and consistent accuracy of the risk quantitative estimates.

Additionally, systems and processes must be consistent with the internal use of such estimates. The Basel Committee, having acknowledged the differences between markets, rating methodologies, and banking products and practices among the various countries, left it to the national supervisory bodies to develop the procedures required for implementation of the internal rating-based system.

Pillar 2 - Supervision of capital adequacy demands active participation of the supervisory authorities in: revisiting the bank-internal capital adequacy assessment processes; identification of the risk factors and, later on, the necessary leverages to determine the banks to maintain an capital levels in excess of the limits set out under the quantitative regulations of Pillar 1; and adoption of measures aimed at preventing capital dropping below the minimum level imposed for risk coverage.

Pillar 3 - Market discipline demands active involvement of the supervisory authority, as well as other institutions and entities in: building the mechanisms required to make use of the market information as a tool in supervision of the banks and harmonizing reporting in line with IFRS **(International Financial Reporting Standards).**

Basel II brings along new elements, such as enlargement of the range of credit risk weights, from 4 to 8 categories, that is 0%, 10%, 20%, 35%, 50%, 75%, 100% and 150%, and diversification of the credit risk hedging tools. With the flexibility this agreement afforded to the credit risk analysis procedures, we see a shift from "one size fits all" thinking to a new approach relying on a customized risk profile.

On the other hand, Basel II facilitates expansion of retail as diversification of the credit risk portfolio helps mitigation of the global risk level. The new methodologies ask for the use of more detailed information about loan applicants, in particular in what their former behaviour in the relation with the banks and creditworthiness are concerned.

With the visible and increasing effects of the crisis, we also saw unhealthy banking practices surfacing. The lack of, or insufficient regulation of highly volatile segments of the capital market, insufficient control of hybrid financial products, as well as inadequate practices of risk management in banks were surfaced.

Specifically, the limitations of Basel II in the context of the economic and financial crisis were:

- insufficient calibration of the internal models which were unable either to predict or
- signal the financial crisis due to the underdevelopment of the stress test for the macroeconomic variables (lack of a macro-prudential component);
- underestimation of material risks and overestimation of the credit institutions' capacity to have such managed properly;
- underestimation of the true nature of the assessments run by the rating agencies in absence of any minimum professional standards or any supervision thereof;
- unreasonable up-taking of an oversized volume of risks against the capital basis (excessive emphasize of the leverage effect);
- inefficient management of the market liquidity and the interaction between credit risk and liquidity risk;
- procyclical nature of the capital requirements magnifying the market decline.

2. Content

Literature Review

The international financial crisis which started in the US as a subprime crisis, continued with a number of banking failures and was prolonged by the

sovereign debt crisis caused a large-scale effort both across the EU and at international level, in pursue of practices able to solve the root causes thereof: the weaknesses of the current regulatory and supervisory framework, characterized by deregulation, light capital requirements, and unsustainable credit growth.

Thus, in December 2010, BCBS (*Basel Committee on Banking Supervision* - BCBS)[1] published new detailed international regulatory standards on capital adequacy and liquidity of credit institutions, collectively known as **Basel III**.

The legislative package CRD IV/CRR adopted by the European Parliament, which implements the new requirements under Basel III represents a fundamental overhaul of the regulatory and supervision framework of the banking industry, the future goal being to strengthen the financial system's stability. The need to introduce Basel III relies on the following considerations (Walter, 2011, pp. 1-2):*ƒ*

- adverse effects of the banking crises (the economic literature shows that the result of the banking crises materializes in a loss of economic production accounting for approximately 60% of pre-crisis GDP);
- frequency of banking crises (since 1985, there have been more than 30 banking crises in the members states of the Basel Committee, which translates into a 5% likelihood that a member state would be faced with a crisis in a given year);
- Basel II benefits outtake the implementation costs because a stable banking system is the building block of sustainable development, with beneficial effects in the long run.

The new Basel III Agreement aims to consolidate the stability of the banking system by applying sound standards designed to enhance its capacity to absorb shocks from the economic and financial sector, as well as mitigate the risk of contagion from the financial sector to the real economy (Walter, 2010). The new standards deal with advancement of risk management, enhancement of transparency and publication requirements imposed to credit institutions, as well as addressing the problems of the banks of systemic importance. First of all, the measures envisage stricter standards for banks in respect of capital adequacy, liquidity requirements and leverage effect, with the ultimate goal of mitigating the adverse effects of the financial crises. Basel III attempts to combine micro and macro-prudential supervision, while providing a risk management framework at bank level (taken over from Basel I and Basel II) and a systemic risk management framework at banking system level.

At microprudential level, the measures target (National Bank of Romania (NBR), 2011, p. 124): *ƒ*

- enhancing the quality of the capital base by increasing the minim equity requirement (ordinary shares, profit or loss carried forward, and reserves), and the requirement for the minimum own funds in tier 1 (equity and hybrid instruments), while reconsidering the eligibility criteria for the instruments considered in determination of the own funds in tier 1;
- enhancing hedging requirements with a major focus on the risks highlighted during crisis: exposures in the trading book, counterparty credit risk (CCR, secured exposures and securitization positions;
- mitigating the leverage effect as an additional measures on top of the capital requirements determined term of risk;
- provision of international liquidity standards which would be able to support resistance to shocks/liquidity crisis in the short run (30 days), and a sound profile for the structural liquidity in the long run (1 year).

On the macroprudential side, the measures have a counter-cyclical nature and envisage (NBR, 2011, p. 124): *ƒ*

- introduction of an counter-cyclical capital buffer to protect the financial system against the systemic risks associated with the unsustainable credit growth (at 2.5% above the minimum capital requirements-own funds in tier 1 formed of ordinary shares, profit or loss carried forward, and reserves), as well as a fixed capital conservation buffer tasked with covering the losses in the event the bank is faced with financial problems (it varies within a range which reaches the maximum 2.5% term of the phase in the economic cycle). The counter-cyclical capital buffer is directly proportional with the systemic risk, and determined as the credit/GDP ratio;
- determination of a leverage effect for the purpose of limiting the debt to the level of the banking system during booms;
- the banks of systemic importance, with focus on reducing the likelihood and impact of them failing, cutting down the costs of intervention in the public sector, and imposing fair competition conditions by reducing the competitive edge of these banks in the financing segment. The Committee further considers other additional requirements aimed at absorbing losses, as well as a potential introduction of capital surcharges for these banks.

[1] **The Basel Committee on Banking Supervision** is a forum for regular cooperation in banking supervision. It aims to promote and consolidate, at global level, the supervisory and risk management practices. The Committee comprises of representatives from Argentina, Australia, Brazil, Canada, China, RAS Hong Kong, India, Indonesia, Japan, Korea, Mexico, Russia, Saudi Arabia, Singapore, South Africa, Switzerland, Turkey, United States and nine EU Members States: Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Spain, Sweden and United Kingdom.

The provisions of the new agreement are due to be fully implemented by the end of 2018. Since implementation of the new agreement implies increasing the capital of the banks, the extended implementation period is critical in order to afford institutions sufficient time to raise such additional capital. Globally, it is essential that all the countries follow the application process of BASEL III Agreement.

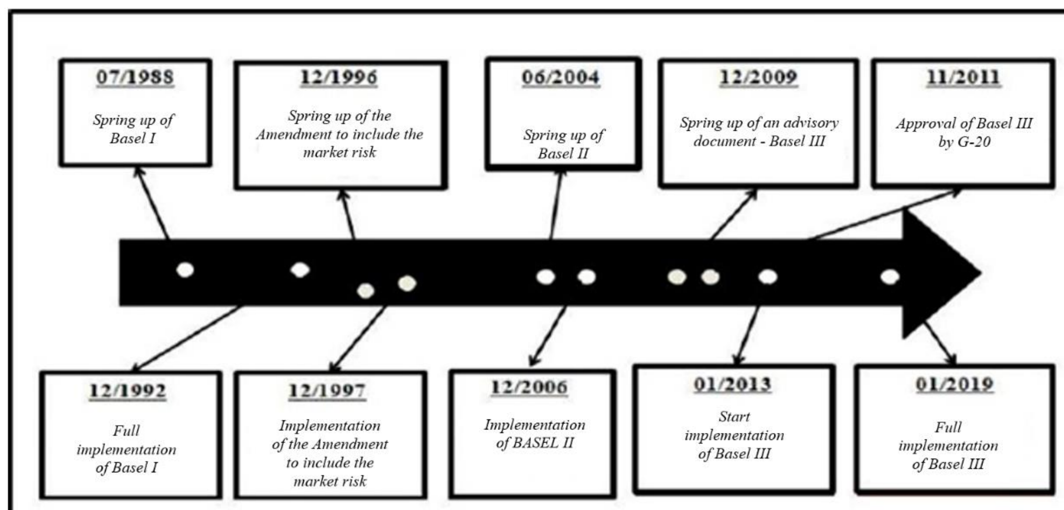


Figure 1.3 Developments in regulation of banking capital

Source: Basel Committee on Banking Supervision (November 2010), Herve Hannoun: The Basel III Capital Framework: a decisive breakthrough, p. 2.

Status of adoption of Basel III by certain states, as of end-March 2013, is as follows:

Status of adoption of Basel III (capital) regulations (as of end-March 2013) Table 1

Country	Basel III	Implementation plans
Argentina	3,4	(3) Final Pillar 3 rules published on 8 February 2013 will come into force on 31 December 2013. (4) Final rules for Pillars 1 and 2 came into force on 1 January 2013.
Australia	4	
Belgium	(2)	(Follow EU process)
Brazil	3	Final rules published on 1 March 2013 will come into force on 1 October 2013.
Canada	4	Footnote[2]
China	4	Footnote[3]
France	(2)	(Follow EU process)
Germany	(2)	(Follow EU process)
Hong Kong SAR	4	Final rules on minimum capital standards took effect on 1 January 2013. Rules on capital buffers expected to be issued in 2014. Disclosure rules scheduled to take effect on 30 June 2013.
India	4	
Indonesia	2	Consultative paper on Basel III, which contains draft regulation released in June 2012 for industry comments.
Italy	(2)	(Follow EU process)
Japan	4	Rules covering capital conservation buffer and the countercyclical buffer not yet issued. Draft regulations expected in 2014/15.

[2] Final rules for the credit valuation adjustment (CVA) issued on 10 December 2012 will come into force on 1 January 2014.
[3] Rules on banks' exposure to central counterparties (CCPs) will be issued shortly.

Korea	2	Draft regulation published on 27 September 2012. Final regulations are ready and will be implemented at an appropriate time to ensure a level playing field with other major countries.
Luxembourg	(2)	(Follow EU process)
Mexico	4	Footnote[4]
The Netherlands	(2)	(Follow EU process)
Russia	3	Final regulation for capital definition and capital adequacy ratios published in February 2013. Reporting under the new capital rules starts from 1 April 2013 with 1 October 2013 being the expected effective date of their implementation as a regulatory requirement. Draft regulations for leverage ratio are planned to be published for public consultation in 2013.
Saudi Arabia	4	
Singapore	4	Footnote[5]
South Africa	4	A directive has been recently issued which has the effect that the capital charge for credit valuation adjustment (CVA) risk on banks' exposures to ZAR-denominated OTC derivatives and non-ZAR OTC derivatives transacted purely between domestic entities will be zero-rated for the course of 2013, ie until 31 December 2013.[6]
Spain	(2)	(Follow EU process)
Sweden	(2)	(Follow EU process)
Switzerland	4	Footnote[7]
Turkey	2	Draft regulations issued on 1 February 2013 covering capital requirements. Further drafts covering buffers will follow in 2013.
United Kingdom	(2)	(Follow EU process)
United States	2	Joint notice of proposed rulemaking approved in June 2012. The US agencies intend to finalise the rule after consideration of public comments. Basel 2.5 and Basel III rulemakings in the United States must be coordinated with applicable work on implementation of the Dodd-Frank regulatory reform legislation.
EU	2	The European Parliament and the EU Council have reached an agreement on the legislative texts implementing Basel III and further measures regarding sound corporate governance and remuneration structures. The legislators agree that the acts should enter into force before the end of the first half of the year, allowing for a date of application of 1 January 2014.

Source: http://www.bis.org/publ/bcbs/b3prog_rep_table.htm

Regarding the status of adoption of the Basel III Agreement, as of end-March 2013, most of the European states are in the second stage, hence the draft regulation was published, while Brazil, Argentina and Russia are in the third stage, so that the final regulation was published and distributed to banks. The remaining countries are in the most advanced implementation stage (fourth stage - the regulation was adopted).

For implementation of Basel III, the governors of the US Federal Reserve adopted in 2013 a draft which favoured small and medium banks (they **serve smaller communities and holder lesser assets, which is why the collapse of such an institution cannot threaten the stability of the financial**

[4] Rules on banks' exposure to central counterparties (CCPs) not yet issued.
[5] Final rules on capitalization of banks' exposure to CCPs have been issued, but will come into force from 1 July 2013.
[6] This came about as a result of the limited time between the finalization by the Basel Committee of the proposed rules and the intended date of implementation, and the absence of a domestic central counterparty for domestic OTC derivative transactions.
[7] Parallel application of "Swiss approach" allowed for small banks until end-2018.

system), and introduced measures to control the very large financial institutions, the standings of which can influence the stability of the system.

Thus, Fed prepared a set of four aggressive measures which target an even stricter control of the eight American banks rated as of systemic importance, namely JP Morgan, Citigroup, Bank of America, Wells Fargo, Goldman Sachs, Morgan Stanley, Bank of New York Mellon, and State Street.

The regulation narrows down the definition of the capital considered for determination of the hedging rates, and assigns the derivative agreements and mortgage-backed securities a higher risk than the former regulations. The banks with assets up to USD 15 billion are allowed to include in the capital reserves some securities which are excluded under Basel III. Similarly, many small and medium banks shall be able to exclude certain types of debts from determination of the capital reserves. System-wise, the minimum tier 1 capital adequacy ratio shall go up from 2%, as before, to 7%.

Nevertheless, the impact of the new rules is considerable because, in absence of any mitigation action, a capital deficit of EUR 600 billion is excepted for the USA (Härle et al., 2010, p. 3). The estimated deficit of own funds in tier 1 for the United States is approximated at EUR 600 billion, whereas the long-term financing gap is expected to be EUR 2,200 billion. These shortcomings shall affect the profitability of the American banking sector, translated into a ROE lower by approximately 3 percentage points. Conversely, the leverage effect contemplated under Basel III does not amount to a major additional constrain.

Implications of Basel III on the Romanian banking system

The impact of introducing the new Basel III capital requirements of the Romanian banking system is seen as limited. In 2014, the measures adopted by NBR for the purpose of attaining the macroprudential milestones were: (i) requirements for the banks to calculate the Debt Service-To-Income (DSTI) looking into adverse foreign exchange, interest rate risk and income risk scenarios; (ii) explicit LTV limits, differentiated on loan use and currency; (iii) limitations to the maturity of consumer loans; (iv) requirements or the bank to apply stricter conditions to loans extended in foreign currencies to non-financial companies uncovered in respect of currency risk; (v) stricter risk weighting in case of mortgage loans. Other important macroprundential measures in NBR's portfolio are: (i) counter-cyclical capital buffer; NBR decided not to activate it[8]; the operationalization of the instrument was fined-tuned in 2015 to allow a careful risk monitoring, and it is to be applied whenever it shall prove necessary, and (ii) capital buffer for systemic risk - set at 0% as of 1 January 2014[9], contingent upon the balance-sheets of the banks providing for consistent capital reserves further to application by NBR of the domestic regulatory instruments within the flexibility limits permitted under CRD IV/CRR legislative package, by continuing application of the prudential filters.

Capitalization of the Romanian banking system has constantly improved since 2014, having as key contributors:

- (i) new capital contributions from shareholders, amounting to approximately EUR 394 million;
- (ii) 20% reduction in the volume of prudential filters deductible from own funds for determination of the prudential banking indicators (in accordance with the provisions of the calendar set out under the domestic legislation for gradual implementation of the new capital requirements applicable to credit institutions under the European CRD IV/CRR regulatory framework);
- (iii) maintaining of a prudent approach to lending, with positive effects on the non-performing loans' dynamics.

As of 2014, the capital requirements are regulated under the CRD IV/CRR legislative package[10] applicable across the European Union, which require credit institutions to meet the following conditions: a) a Common Equity Tier 1 ratio of 4.5%[11]; b) a Tier 1 capital ratio of 6%[12]; c) a total capital ratio of 8%[13]. The new requirements are to be gradually implemented by the end of 2018.

Consequently, across the banking sector, the capital requirements were comfortably met - the Common Equity Tier 1 capital ratio was at 14.6% in the end of 2014, similar to the Tier 1 capital ratio,

[8] NBR Order no. 7/2013 (Article 1, letter a).

[9] NBR Order no. 7/2013 (Article 1, letter b).

[10] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, repealing Directives 2006/48/EC and 2006/49/EC, and Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

[11] The Common Equity Tier 1 capital ratio is the Common Equity Tier 1 capital of the institution expressed as a percentage of the total risk exposure amount; the ratio was introduced under the CRD IV/CRR legislative package.

[12] The Tier 1 capital ratio is the Tier 1 capital of the institution expressed as a percentage of the total risk exposure amount.

[13] The total capital ratio is the own funds of the institution expressed as a percentage of the total risk exposure amount. The ratio is regulated under the CRD IV/CRR legislative package, being equivalent to the "solvency rate" ratio regulated under Basel II, applicable by the end of 2013 for the Member States of the European Union.

whereas the total capital ratio was at 17.59%, going up by 2.1 percentage points as compared to the figure reported in the end of 2013, and it increased even more to 18.69% in the of September 2015 (as per the table below). These figures give the banking system a high capacity to absorb the potential shocks.

The comfortable level of the capital adequacy ratios reflect the goods quality of total capital available to the Romanian credit institutions, thanks to the prevailing Common Equity Tier 1 capital, the high capacity to absorb the potential loss resulting from the banking business (these consisting mainly in paid capital instruments, share premiums, profit or loss, reserves, the fund for general banking risks). The gradual surrender of the prudential filters, supported by the flexibility afforded under the CRD IV/CRR legislative package, as a toolkit available to the national authorities over the transition period pending full implementation of the new regulatory framework, shall have the major consequence of increasing the capital adequacy ratios in the period to come.

In what the lending business in 2014 is concerned, it was influenced by: (i) reduction of the amounts raised by the parent banks further to the continued financial disintermediation and enforcement of the new prudential requirements imposed under the CRD IV/CRR regulatory framework, (ii) the banks maintaining credit standards characterized by restrictiveness and increased prudence in the context of a demand deficit, as well as (iii) prevalence of internal short-term funding in the balance-sheet, which can limit the availability of the banks to extend loan maturity.

A major influence on the credit stock evolution came, however, from loan outsourcing and selling, as well as the actions taken to reduce the number of non-performing loans.

Although the banks have often turned to restructuring/rescheduling and foreclosure in an attempt to reduce the rate of non-performing loans, the efficiency of these non-performing loan management techniques was but limited. In this context, in order to set the ground for a sustainable resumption of the lending business, this time on more prudent bases, the National Bank of Romania recommended the credit institutions to clean-up their banking portfolios based on a 4-stage plan: (i) the first stage consisted in the written recommendation sent to the banks to write off the fully provisioned non-performing loans (with the bank preserving the right to recover the debt); (ii) the second stage targeted loans with a debt service in excess of 360 days, in respect of which the banks have not taken any legal action, and for which full provisioning followed by writing off was recommended; (iii) the third regarded the loans taken by insolvent companies, for which establishment of additional provisions and writing off the provisioned exposures were recommended; (iv) the fourth stage implied performance of an external audit on the IFRS provisions related to the loan portfolio in balance as at 30 June 2014, as well as on the collateral valuation. The writing off of the non-collectible non-performing loans resulted into a decreasing trend for the rate of non-performing loans - the key indicator for the quality of the portfolio - from 20.4% in March 2014 down to 13.94% in December 2014, and 12.33% in September 2014 (as of Q2 2014, the ratio "Credit risk rate" has no longer been determined).

Aggregate ratios regarding credit institutions **Table 2**

	Sept. 2014	**Dec. 2014**	**Mar. 2015**	**Jun. 2015**	**Sept. 2015**
Number of credit institutions	40	40	40	40	39
of which, branches of foreign banks	9	9	9	9	8
Total net assets *(billion Lei)*	351.4	364.1	361.0	363.3	359.6
Assets of private-owned institutions *(% of total assets)*	91.7	91.3	91.5	91.6	91.4
Assets of foreign-owned institutions *(% of total assets)*	80.5	89.9	90.1	90.2	76.8
Capital Adequacy Ratio (≥8%) *(%)*	17.06	17.59	18.64	18.07	18.69
Leverage ratio[14] *(%)*	7.63	7.38	8.26	7.97	8.34
Impaired debts *(% of total loans)*	10.15	9.39	9.08	8.45	7.93
Impaired debts *(% of total assets)*	5.77	5.10	4.97	4.72	4.46
Impaired debts *(% of total debts)*	6.44	5.65	5.56	5.26	5.00
ROA[15] *(%)*	-0.60	-1.32	0.91	0.66	0.83
ROE[16] *(%)*	-5.58	-12.45	8.88	6.44	7.98
Operating income/operating expenses *(%)*	181.16	180.19	170.43	165.91	168.05

[14] Tier 1 Capital/Total average assets.
[15] Annualized net profit/Total average assets.
[16] Annualized net profit/Average own capital.

Loan-to-Deposit Ratio *(%)*	99.65	91.33	93.68	93.56	92.67
Credit Risk Ratio[1] [17] *(%)**	-	-	-	-	-
Non-performing Loans Ratio [2] [18] *(%)**	15.33	13.94	13.85	12.80	12.33

Due to the fall in the value of collaterals (a trend caused also by the limited possibilities of turning such to accounts), the banks have updated the collateral sale rate, with additional consequences on the need for provisions and, implicitly, the profit or loss. The profitability ratios worsened as compared to 2013, with the return on assets (RAO) reaching -1.32% in December 2014, and the return on equity (ROE) at -12.45%. In 2015, these ratios improved to 0.83% and, respectively, 7.98% in September 2015.

For reasons of financial stability, NBR decided that supervision of branches' liquidity should be the responsibility of the competent authorities in the host Member States, and liquidity standards should be applied at individual level too, despite such being met at consolidated level. The credit institutions are expected to react differently before the new standards, term of the transition period needed to meet the requirements. If the transition period is shorter, the banks might favour reducing their credit offering to increase the level of capital, adjusting the structure of their assets. Gradual implementation of the new standards may mitigate the impact, with the banks having the possibility to adjust by capitalizing profits, issuing shares, and modifying the debt structure.

The financial and banking groups shall be faced with the challenge of adapting to the solvency and liquidity requirements imposed under Basel III, which could lead to limiting exposures and changing the business model.

3. Conclusions

Adoption of Basel III brought along also enforcement of binding rules on the countries which approved international standards, by implementing regulatory requirements at regional and national level. The current prudential regulatory requirements were strengthened also by extending them to new areas.

Important progress was reported also in respect of the banks which were too big to fail with development of a methodology to define the banks of global systemic importance and determination of stricter internal control and reporting requirements. To this end, the Financial Stability Board published in 2011 the document "Key Attributes of Effective Resolution Regimes for Financial Institutions" which laid the foundation for recovery and resolution of systemic banking institutions.

Nevertheless, special attention needs to be paid to regulation of the shadow banking represented by the financial intermediation companies involved in lending, such as hedging funds and private equity funds, which employ comprehensive financial instruments, but remain outside any regulation.

IMF warns that this is a risk to the global financial stability, and monitoring of this sector is inadequate. The half-yearly IMF report on global financial stability shows that "shadow banking captures USD 15,000 to 25,000 billion in the USA, USD 13,500 to 22,500 billion in the Eurozone, USD 2,500 to 6,000 billion in Japan, and approximately USD 7,000 billion in the emerging economies". For comparison, the global GDP in 2013 amounted to nearly USD 75,000 billion. In the USA, shadow banking accounts for at least one third of the overall systemic risk (measures as extreme and very unlikely losses in the financial system), almost matching the formal banks. The risks faced by the Eurozone and the United Kingdom due to shadow banking are significantly lower than those caused by the formal banks, which shows that many of the companies active on this market rely more on bank financing than those in the USA.

The importance of this sector can be enhanced by the strengthening of the prudential requirements applicable to banks. According to the Global Financial Analysis Division of IMF: "Shadow banking tends to gain momentum when strict banking regulations are imposed. It develops also when the real interest rates and governmental bond spreads remain low, the investors seek to gain higher returns and there is a high institutional demand for safe assets, for instance from insurers and pension funds".

In response to the calls directed to it in the G20 meetings in Seoul (2010) and Cannes (2011), the Financial Stability Board (FSB) is currently drawing up recommendations regarding supervision and regulation of these entities and businesses.

References:

- National Bank of Romania. Financial stability Report 2011, 2014;
- Philipp, H. et al. (2010). Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation, EMEA Banking;

[17] Gross exposure of non-bank loans and interest classified as doubtful and loss/Total classified non-bank loans and related interest.

[18] Determined based on reports from all banks: both those which use the standard approach in assessing credit risk and those applying internal rating models.

- Walter, S., „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
- Walter, S., „Basel III: Stronger Banks and a More Resilient Financial System”, Conference on Basel III, Financial Stability Institute, Basel, 2011;
- Basel Committee on Banking Supervision (November 2010), Herve Hannoun: The Basel III Capital Framework: a decisive breakthrough, p. 2;
- www.zf.ro din 03.10.2014.