ANALYSIS OF BANKING RISKS IN THE CONTEXT OF THE BASEL AGREEMENTS

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Abstract
In this article, the authors briefly outlined the evolution of the regulatory framework provided by the standards developed by the Basel Committee. These regulations / norms were created and approved by the Basel Committee for Banking Supervision (BCSB), which was set up in 1974 and operates within the Bank of International Settlements (BIS). These institutions are based in Switzerland, Basel, from which derives the generic name of its regulations. BCSB’s goal is to synthesize the experience gained in banking, to understand the key factors governing this activity, and to spread good practice rules to reduce the risks associated with financial-banking activities and improve the efficiency of banking supervision.

The Committee provides a common and coherent framework in which banking supervision elements are analyzed and addressed and, through the exchange of information, approaches and publications, expresses its view on the promotion of banking supervision standards, which are ultimately part of a common vision, the purpose of preventing significant crises or, at least, limiting their effects.

Keywords: Basel Committee, bank regulations, stress test, loans, bank risks
JEL Classification: G21, G28

Introduction
It can be said that the size of the last economic crisis would have been more devastating if most financial and banking institutions did not implement the provisions of the Basel Committee agreements. Over time, several versions of the recommendations have been developed that have marked the banking financial market over the last 30 years. The banking financial market has evolved a lot and has become increasingly complex and diversified, which has led to the inclusion of new factors that have become significant and, as a result of the global crisis, have led to the extension and improvement of the
provisions. At this point, after the crisis, we are working on a new version (still at the advisory level), which is known as BASEL IV.

**Literature review**

Anghel, Diaconu, Niţă and Marinescu (2016) approached a series of theoretical aspects regarding the credit risk analysis and conducted a study on the evolution of the credit risk rate in Romania. Anghelache, Anghel and Bodo presented the importance of information in decision-shaping (2017). Anghelache, Marinescu, Diaconu and Dumitrescu (2016) studied BASEL III Regulations, aggregated credit institutions indicators, and developments in the Romanian Financial Sector. Blum (2008) investigated regulatory capital requirements if the amount of capital required depends on the level of risk reported by banks. (2009) investigated the way banks act and how to prevent and minimize their effects. Blundell-Wignall and Atkinson (2010) analyzed Basel III capital proposals related to a leverage ratio, a capital buffer, and a proposal to address pro-cyclicality through dynamic provisions based on expected losses. Young (2012) examined an important institution of global financial governance that was subject to intense transnational lobbying, namely the Basel Committee on Banking Supervision. Gordy and Howells (2006) demonstrated that the marginal impact of Basel II’s introduction is highly dependent on the extent to which market discipline causes banks to pro-cyclically modify lending standards in the absence of mandatory regulation. Anghelache and Bodo (2016) analyzed the context in which a risk can be categorized as having the systemic risk level and identified the main external or internal factors that may cause this process. McPhilemy (2014) analyzed the integration of prudential banking regulation and supervision in the European Union.

**Research methodology, data, results and discussions**

- **The BASEL I Agreement** was developed in 1988, the first to regulate the minimum capital requirements that banks must have to deal with contingencies - risk items. This agreement has three objectives: to ensure that banks have sufficient capital to cover their assumed risks; to balance the conditions of competition between international banks operating at international level; to facilitate the comparability of banks’ capital positions.

  Basel I provided a first coherent definition of eligible capital and introduced a set of weighted risk factors according to the institutional nature of the bank’s partners. The norm was revised in 1996, which included a new component for market risk. On this occasion, and for the first time in Basel, banks were allowed to use internal risk assessment models.
The BASEL II Agreement was adopted in 2004 and introduced changes to the existing framework, which were largely based on the availability of statistical data and models that allowed for more and more complex calculations, but also the inclusion of new risk categories (operational risk, market risk). The agreement introduces a structure of risk factors, which are grouped on three pillars, as follows: Pillar 1: Minimum capital requirement, for calculating the capital ratio, weighing credit risk was included both operational risk and market risk; Pillar 2: Surveillance process whereby supervisors on the basis of their own assessments have the right to impose higher capital requirements than Pillar 1 requirements, based on supervisory judgment; Pillar 3: market discipline introduced the principles of transparency and access to information on capital markets, which require the regular communication of risk-weighted capital.

In addition to these changes, the agreement also introduced risk treatment (for Pillar 1) or Standard Approach (SD) based on a set of predefined indices or internal rating based (IRB) models based on self-regulation validated by the supervisory authority. Also in the agreement we meet for the first time the obligation of banks to make sensitivity simulations on the modification of some factors.

Under Basel II, for the first time, we come across concepts that have become commonplace both in the financial and banking market and in those related to risk rating systems: PD - Probability of Default - Probability failure to pay the creditor’s obligations; LGD - Lost Given Default - loss due to non-payment; EAD - Exposure at Default - risk exposure in case of non-payment; EL - Expected Loss - Early Loss. The relationship between the four indicators is according to the equation:

\[ EL = PD \times EAD \times LGD \]

The above indicators and their relationship are based on average values (the principle of large numbers) under normal market conditions - relative stability when variations caused by some participants may be absorbed by the system, but no longer meet the requirements in extraordinary situations which may lead to a discontinuity of markets - crisis situations (e.g., excessive growth, major / unilateral exposure, systemic risk, etc.).

Although much of the banks have gone through the implementation of the BASEL II requirements, the crisis started in 2007 has caught a significant part of them unprepared, which has led to a worsening of the situation. Thus, it was necessary to revise standards and adopt more stringent regulations that could predict or even prevent similar situations in the future.

The BASEL III Agreement was triggered by the crisis that triggered a new wave of reforms that led to the adoption of new rules in 2010. They set
much stricter performance and prudential criteria that would be able to absorb larger shocks absorption of losses), namely: raising the minimum required capital level; introducing the notion of capital quality, defining different capital ranges, each having a specific coefficient; a non-risk lever (leverage factor) has been considered; the Liquidity Coverage Ratio (LCR) was introduced; the Net Stable Funding Ratio (NSFR) was introduced.

In addition to the above, the regulations envisaged the adoption of additional anti-cyclical capital buffers that would function as an additional shock absorption mechanism for losses. Another issue relates to systemic risk and provides for capital add-on for institutions that have a significant role on the market, ie those that can induce systemic risk and cascade spread of problems from one bank to another, which can generate losses in chain.

Another new approach is the differential treatment of banking (in the classical sense) and financial (speculative) investment activities. Thus, banks are required to manage differently the portfolio of assets related to the Banking Book and the Capital Market (Trading Book) respectively. The major difference between the two approaches is reflected firstly by the nature of the transactions, the former refers to historical value when the transaction was recorded in the stock and the second to the expected market value at maturity. On the other hand, from the point of view of the risks related to each one, we find that the premium is associated firstly with the credit risk, the liquidity risk, the interest rate, and the second with the risk of change in the value of the shares, which depends on a lot of external and internal factors.

From the possibility of using internal rating rates (IRBs) introduced by BASEL II, some banks have implemented dedicated organizational structures and developed a lot of evaluation and simulation models to enable them to optimize the Risk-Weighted Assets (RWA) risk index Assets) - minimum capital for maximum exposure to risk. These calculations and modeling are difficult to track and validate by external factors - such as national or European supervisory structures, which has led to an inability to compare institutions belonging to different geographic regions (or subject to different regulations). Thus, at a level that apparently identical RWA aggregate can in fact institutions with profiles and risk exposures very different.

These additional provisions make it increasingly difficult to apply the BASEL provisions, and require considerable (and increasing) effort on the part of financial institutions to meet these requirements. So BASEL I, which was simple and transparent, reached BASEL III which is complicated and does not provide the expected transparency.

However, the implementation of the provisions continues and is due to be completed by the end of 2018 at the latest. At the same time, analyzes
are carried out continuously, and hypotheses and proposals are proposed to improve the situation - and predictability, in order to strengthen the financial-banking system that the impact of a future crisis has a controllable (as predictable) impact.

• **Difficulties encountered**

With all the diversifications and related complications from the analyzes, BASEL III is not sufficiently developed to maintain the stability of the world financial banking system, and some adjustments and additional measures are needed to cover these shortcomings. Thus, some opinions and ideas have already been published, which at present are at an advisory level, contributing to greater market stability. These initiatives take shape and are marketed on the market under the generic name **BASEL IV**.

Thus, national / regional supervisory authorities have already taken measures to increase prudential and tighten up capital requirements and also reduce exposure to high risk assets. In addition, banks have changed the balance sheet structure, and have increasingly focused on increasing short-term liquidity. This led to a tendency to clear the credit portfolio (bad performance), to the considerable reduction of credit appetite, banks until recently focused on attracting deposits and strengthening the capital position, facts that led to a significant degradation of their profitability.

This fall in profitability is a real challenge for European banks given the current low economic growth context, negative interest rates, relative stability in the financial markets, seemingly new restrictive measures to increase regulatory pressure could further increase the competition gap with US banks, reason why the adoption of new measures is not a priority at this time.

• **New initiatives** in the work, take into account the following:

- A new fundamental standard for the capital market (Trading Book), (as the largest bankrupt banks were in the field of investments - capital markets). A first variation has already been published and involves an increase in required capital (RWA) of at least 40%, and requires complex and sophisticated follow-up and obvious rules that will increase the operational costs of business management and risk tracking.

- A revised Banking Book Approach is aimed at a more unitary approach to specific risk assessment models based on indicators to be calculated on the basis of information that no longer has a local component, or regional;

- Reviewing credit methodologies - still at an early stage of discussion - are considering a change in selecting and evaluating customer creditworthiness (for example, it is proposed to increase three times for companies whose financial statements are not verified);
- Review the impact on operational risk, which is expected to increase the impact on capital requirements by 40%. This is explained by an increase in technological and processing processes and the vulnerability of the human factor;
- Limiting the use of the Internal Assessment (IRB) approach, and increasing the external index based approach - the Standard Approach (SA). This is about reducing the use of internal methods that did not provide an adequate degree of transparency and controllability and imposing sector specific minimum limits for each indicator. This could lead to a significant increase in the minimum capital for some banking areas;
- Increasing transparency on risk reporting, and the use of similar indicators and models - whether a bank operates internationally or locally. This involves a much higher data collection rate and adequate processing resources
- Changing the approach to external rating agencies - these scores will not be used directly to calculate the required capital but will be taken into account in market and customer valuation and pricing policies.

These proposals are in various stages of development and are intended to be finalized and adopted by the end of 2018, when the implementation of BASEL III must be completed.

Conclusion

The new directives, although not yet completed, have raised many comments from stakeholders, who agree with the improvement of the legal framework and on the other hand they want the proposals to focus on minimizing the impact and not significantly increases the efforts to implement the proposed measures. The credit market is still at a considerably reduced level, and new measures could lead to even greater reductions, perhaps even in the few cases of blocking activity. An even greater reduction in lending could have significant negative effects on other branches of the economy, which could lead to a new global crisis, this time an economic one. Initially, during the crisis, the fundamental review of the Trading Book and the imposition of a drastic approach to the capital increase imposed on these activities was considered. This increase in complexity could have led to market foreclosure, further studies have shown that there is no need for such significant growth, and solutions can be found where exposure can be associated with the degree of transparency. Consultation and follow-up of stakeholders’ response to the measures at work would reduce the undesirable impact on the business environment and provide a broader view of the impact on European banks. Thus, the provisions should have similar effects on all world economies, as European banks are seen as more cautious than those in the United States.
References