

BASEL STANDARDS AND THEIR APPLICATION

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ABSTRACT:

The main purpose of this study is to examine the Basel standards, which have such an important share in the banking sector. The study highlights the importance of Basel standards to determine how banks guarantee themselves and minimize their risks by applying Basel standards to the banking system. Actions and practices to be taken within the framework of banks with a strong and stable structure, affected by different levels of risks, have brought international research and standards creation to the agenda. With the establishment of the Bank for International Settlements in 1930, the global banking and financial sector was tried to be standardized and further developed. The Basel Committee on Banking Supervision, established in 1974 as part of the Bank for International Settlements; By trying to create international standards in areas such as risk management and capital adequacy, it aimed for banks to comply with these standards at an optimal level. While there are many rules created and published by the Basel Committee Standards to ensure financial stability is built on a solid foundation, the most widely recognized are: There are Basel I, Basel II and Basel III criteria.

Key Words: Banking, BASEL I standard, BASEL II standard, BASEL III standard, risk

Jel classification: E5, G2, G3

INTRODUCTION

The rapid economic developments in the world naturally affect all sectors. One of the sectors directly and most affected by these developments has been the finance sector. Because, the circulation of commercial life primarily depends on the healthy functioning of the financial sector. The most important instrument of the financial sector is the banks, which finance the real sector when necessary.

As in many areas, it is possible to see the effects of globalization in the field of banking in recent years. As a matter of fact, as a result of this, it is clearly observed that mergers and acquisitions have increased among banks that want to further increase their competitiveness. The increase in acquisitions and mergers between bank companies directly affects the distribution of power and balances. As a result of this interaction, international big banks have discovered the importance of risk management and realized the added value created for banks by preventing possible losses by taking the necessary precautions against these risks by being aware of the risks carried. Thereupon, banks had to make significant investments in order to create and retain a trained personnel policy on the subject. In addition, millions of dollars of investment to carry out R&D activities and develop information systems has been an inevitable result. At the end of these developments, some applications started to be preferred. Finally, emerging best practices inspired what are referred to as the Basel Criteria.

The Basel criteria have led to a significant change in the habits of banks and business owners requesting loans in determining the loan interest rate and which elements can be accepted as collateral. Since the process is still ongoing, it would not be a surprise if the changes continue in other areas as well.

In general, banks are balanced. Problems in the banking sector affect the general market more than in other sectors. A sudden stop in the banking system has the potential to paralyze credit situations and investments. Furthermore, compared to other sectors, a bank's weakness in the banking sector tends to weaken its competitors in the short term (Borchgrevink, Søvik & Vale, 2013).

In order to meet the requirements, the capital of banks should be increased significantly, both qualitatively and quantitatively. Thus, banks become more resistant to sudden risks. Regulators believe that banks should have systemic risk associated with their capital requirements. Adequate capital is essential to protect against systemic shocks. Banks view capital requirements as a unique buffer against shocks (Liu, 2018).

Given the vulnerability created by banking systems, the existence of legal regulatory rules and the existence of legal liquidity ratios are recommended. Margin operations make banks more resilient to liquidity shocks in the interbank and repo markets. Banks, being at the center of financial systems, create conditions for the emergence of functions such as capital markets, insurance and asset management. The fact that the central point of the financial crisis is the banks brought to mind once again how important the banks are.

Capital requirements established in the context of the Basel Committee led to the development of stronger competition in banking. The development of the capital adequacy criterion ensures that banks are not exposed to more risks. In addition, this rulemaking ensures ease of liquidity (Basel Committee on Banking Supervision, 2006).

Beginning in 2007, Basel II standards became mandatory for banks in European Union (EU) countries (Augurzky et al., 2004). In the following years, a newer version of the Basel III standards was developed and presented to market users.

The main purpose of this study is to examine the Basel standards, which have such an important share in the banking sector. By applying Basel standards to the banking system, it is to define how banks guarantee themselves and minimize their risks.

BASEL I STANDARDS CREDIT RISK IN THE BANKING SYSTEM

Members of the Basel Committee on Banking Supervision, established in 1974 and operating under the Bank for International Settlements (BIS)², in order to facilitate the understanding of important issues related to banking supervision and to improve the quality of banking supervision worldwide, are members of Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, It consists of officials from central banks and banking supervisors of 13 countries, including Spain, Sweden, Switzerland, the UK and the USA. The Committee published the Capital Adequacy Accord, called Basel-1, in 1988 in order to harmonize the national capital adequacy calculation methods and to establish a minimum standard in this regard (Arslan 2007).

The Basel Committee was created in 1974 in response to the collapse of a European-based bank. This event prompted the G-10 countries to establish the Basel Committee on Banking Supervision (BCBS) under the guidance and supervision of the International Monetary Bank. The committee is located in Basel, Switzerland. As a result of the bank's liquidation, this committee initiated the Basel I Treaty in 1988 (IBM, 2018).

The creation of the Basel I Agreement was not simply created, it was created as a result of meetings and consultations of central bank governors around the world. Basel I resulted in the issuance of a set of minimum capital requirements for banks. The agreement, also known as the Basel Accords of 1988, came into force in 1992 in ten (G-10) countries. Basel I mainly focuses on Credit Risk and Risk Weighted Assets (RWA). For risk balancing, the classification was made under the condition that the capital of banks with international presence is equal to 8% of the capital amount (Blum, 2008).

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Assets associated with this asset class; Cash is classified according to risk levels, ranging from risk-free assets such as sovereign and central bank bonds and debt to 100% risky assets such as OECD sovereign debt. Assets such as private sector debt, non-OECD bank debt for one year, real estate, buildings and equipment, and equity instruments issued by other banks are included in the adjustments. In addition, off-balance sheet items such as unused liabilities, letters of credit and derivatives are also taken into account in the calculation of RWA (Liebig et al. 2007).

Over time, with the complexity of markets, Basel-I standards have remained insufficient. In this process, criticism against the Basel I standards began to grow. In addition to the credit risk managed in Basel I standards, the concepts of market risk and operational risk are also included in Bank risks in this process. To revise the Basel I standards, market risk related to the calculation of capital adequacy was included in a document called Market Risk Adjustment published in 1996. However, the initial consensus was more risk-sensitive (Kupiec, 2007).

The capital adequacy regulation announced to the international platform by the Basel Committee has made the systems applied with different norms in many countries uniform and market risk calculation was included in the said regulation in 1996. This regulation, called the Basel-1 regulation, has been accepted by the supervisory authorities of many countries, especially the G-10 countries, and is currently in practice in more than 100 countries.

Basel - 1 (Capital Adequacy Accord) has helped to strengthen the soundness and stability of the International banking system and to improve competition among internationally active banks. However, financial markets have developed significantly over time and the world financial system has been exposed to economic turbulence to a considerable extent. Also Basel - 1; Banks did not fully reflect their risk levels, could not prevent arbitrage that may occur due to the differences created by the regulation, did not include some risks such as operational risk, and due to the inequality of competition caused by the OECD country criterion, it was insufficient to have sufficient capital and risk management in banks or to ensure the confidence and soundness of the banking system, and There was a need for a new regulation.

The most basic principle of Basel-1 criteria is to determine the capital requirement of the customer to be loaned in terms of credit risk, according to the criteria of being an OECD country or not. In lending, the principle of providing credit facilities in favor of OECD countries has been valid.

With the Basel-1 criteria, the basic criteria that banks must comply with in order to increase their resilience against crises and financial fragility and to ensure financial stability have been determined. The Basel-1 criteria recommend that banks apply certain principles while giving loans and that their risk-taking coefficients should not exceed a certain value. At the same time, international standards have been set in the capital adequacy of banks to ensure these. Accordingly, a lower limit of 8% was imposed on the ratio of capital to risk-weighted assets. While the bank allocates a resource to a certain use, it has to hold 8 units of capital for every 100 units it creates while allocating cash or non-cash risk. In other words, the bank or credit institution that will give the loan will be able to take a risk up to 12.5 times the capital. In this case, banks or credit institutions that have to allocate new loans will have to increase their capital if they have completed the risk coefficient. This obligation will naturally be reflected to the customer as a new loan cost. In this sense, the Basel-1 criteria have linked risk measurement to a single measure. This situation was insufficient in a short time and it was inevitable to change it.

Probably because it is a beginning, Basel - 1 criteria consists of the above mentioned in summary. It has not been possible to apply these fundamental principles for a long time, due to the fact that risk management adheres to a single measure, is predominantly capital-focused, and does not provide diversity in the classification and lending of enterprises. As a matter of fact, the Basel - I criteria accepted in 1988 were replaced by the Basel - II criteria in 2004 (Arslan, 2007).

BASEL II STANDARDS

The Basel-II Accord has better matched risks to regulatory equity needs, built a more comprehensive approach taking into account developments in risk measurement and management, continued to support the security and soundness of the financial system and facilitate competitive equality, and focused on international banks with a diverse level of complexity.

The Basel - II text was published in 2004 as a result of a five-year consultation process, updated in 2005 with the issues related to trading activities and double default effects, and the comprehensive version was published in June 2006. Basel - II envisages national implementation preferences left to the initiatives of countries, rather than a one-size-fits-all approach. In this respect, the effectiveness of Basel - II applications will be ensured by the countries' ability to determine their preferences in line with their national conditions.

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Although the Basel Committee does not have an official legal status or authority, it is an organization to which the public institutions of the relevant countries are members. The standards and principles established by the Committee are largely effective soft-laws and are accepted worldwide. Most of the Basel Committee recommendations have been taken into account in regulatory work by the European Parliament and the Council.

Meets Basel II minimum capital requirements. Basel II focuses on providing adequate protection by grouping the risk a bank faces into three main components. The three main risk components of Basel II standards are: Credit Risk, Operational Risk and Market Risk (IBM, 2018).

Basel-II criteria especially aggravate the lending conditions of banks and impose heavy conditions on businesses in terms of collateral. Businesses that fulfill these conditions will be able to find loans more easily and with lower interest. Businesses that have difficulty in meeting the conditions will be able to get the loan by giving more collateral and naturally with higher interest.

There are three different approaches to operational risk:

- 1) Basic Indicator Approach (BIA)
- 2) Standard Approach (STA)
- 3) Internal measurement approach.

The preferred approach for market risk is Value at Risk (VAR). The proposal of Basel II is to be phased in for each bank. Risk measurement systems organized by the banks themselves are applied for low risk levels. The Basel II regulation also has a title called audit. Under this heading are audit issues related to liquidity risk, pension risk, concentration risk, strategic risk, reputational risk, systemic risk and legal risk.

The Basel II standards have a title called market discipline. This chapter discusses the application areas of market participants, their capital risks, the operation of risk assessment processes and the evaluation of the most basic information about the capital adequacy levels of the institution. Market discipline provides explanations based on a general framework. It effectively informs the bank when the market is exposed to these risks and provides a consistent and comprehensible disclosure framework that enhances comparability. Disclosures must be made no less than twice a year (IBM, 2018).

Basel II standards primarily aim to define what the banks' business criteria are. According to the current purpose, it implements what operations, how and how these banks will do through the existing standards, and tries to eliminate changes such as different work criteria in different banks. As a result of Basel II standards, banks use their existing capital more carefully and efficiently (Nurchin and Akchakanat, 2020).

In general, banks operate as a system in which capital demand and supply are matched in the market. For this reason, they occupy a very important place in the economy. The occurrence of any event that causes a downward movement in banks affects both the operational efficiency and the negative movement of the country's economy in general. Thus, Basel II standards aim to ensure capital adequacy in banks and to use the capital used by banks in more efficient and less risky areas. If the risk ratio is high, the bank should increase the capital ratio and be more careful in order to be least affected by this risk. A strong discipline in repaying bank loans allows loans to be repaid on time, which in turn can be channeled into new investments. According to this mechanism, bank costs are reduced and the bank's current credit prices are lowered (Mathur and Skoglund, 2011).

According to Basel II standards, the real sector uses loans more efficiently. There is no problem when real sector loans are used for healthy purposes. However, many events in the past show that the loans received in this way are generally used for the personal purposes of the entrepreneurs, not within the enterprise. In some cases, it is seen that loans used for general consumption such as cars, yachts, and floors used in these areas cause problems in repayment terms and lead to the end of the life of the enterprise.

Thanks to the collateral system and rating applied through Basel II standards, the chance of using such loans for consumer-oriented expenses is reduced, and a large part of them is used for the needs of the enterprise. In this developed system, these loan purchases, which are subject to certain standards, are checked not only during the purchase process, but also until the loan repayment is completed.

With Basel II standards, capital initiatives in the banking system are accelerating and interest rates are falling. The process of globalization that started in 1990 also accelerated capital movements. Various countries were also affected by these capital movements. Although in some cases the globalization of capital has caused crises of regional or global impact, it has enabled many countries, especially countries with low capital accumulation and export-oriented production, to find credit (Heid, 2007).

One of the most important principles of Basel - 2 is that risk management is organized in a multi-focused way, not a single focus. Such that, when banks or credit institutions have to give a commercial loan to a customer, they will include the customer in one of the SME, Retail SME or Corporate SME categories. In doing so, the ratings given by the rating agencies will be taken into account. According to the ratings of the rating agencies, it will be determined whether the customer can get a loan or at what cost. Therefore, the basic principle of Basel - 2 is that crediting can be applied differently depending on the customer's own particular situation.

Basel - 2 is an important opportunity to develop effective risk management and market discipline in banks, to increase the efficiency of capital adequacy measures, thereby creating a sound and efficient banking system and contributing to financial stability.

It is an important missed opportunity. There are provisions in Basel-2 on how to calculate the capital requirement, how to manage the risks exposed, how to evaluate the capital adequacy and how to disclose it to the public.

In Basel-2, there are standard methods based on simple arithmetic for risk measurement, as well as a method that includes statistical / mathematical risk measurement methods related to credit, market and operational risk.

BASEL III STANDARDS

After each economic crisis, new searches are made in order to prevent it from happening again, and the previous ones are reviewed and the deficiencies are tried to be completed. After the last global crisis, Basel III consensus was prepared by the Basel Committee in order to eliminate the deficiencies of the Basel II consensus, which was developed and implemented before, to introduce new approaches and measures, thus to try to prevent possible crises or to minimize the damage (Ersoy, 2011).

The financial crisis of 2007/2008 revealed the management deficiencies in the banking sector. A new regulation has been introduced to protect against these unpredictable results. A new framework has been created for the new banking regulation called Basel III. In this context, it was emphasized that banks should increase their capital amounts, concepts such as liquidity and leverage ratios were included in the regulation (Şahin, 2013).

After the 2008 global crisis, the Banking Supervision Committee created the Basel III regulation, which consists of a set of new global standards that were generally expressed in 2010. These standards were approved by developing countries and industrialized countries at the G20 summit in Seoul. Basel III was developed as the top model of Basel II standards (Işık & Akish, 2020).

Basel III introduces new capital and liquidity standards to strengthen the regulation, supervision and risk management of the entire banking and financial sector. Basel III was adopted by the members of the Basel Banking Supervisory Committee in 2010-2011 and was implemented from 2013 to 2015. The changes made in Basel III since April 2013 extended the application until March 31, 2018. In response to deficiencies in financial regulation that emerged with the 2000 financial crisis, Basel III aims to strengthen bank capital requirements by increasing bank liquidity and reducing bank leverage (Gürel, 2012).

The globalized financial world requires banks to adjust their capital frameworks and new capital buffers, financial institutions according to the current Basel II rules, and to increase their capital quality. The introduced new leverage ratio provides a non-risk-based measure to complement the risk-based minimum capital requirements. The new liquidity rates are capable of ensuring the protection of sufficient funds in case of other serious banking crises that will occur (Erdoğan, 2014). Basel III is an advanced and expanded form of Basel II (Cicoğlu, 2019).

Capital requirements - Basel III rules introduce the following measures and additional capital buffers to strengthen capital requirements. The Capital Protection Buffer is designed to absorb losses during periods of financial and economic stress. It requires financial institutions to maintain a capital conservation buffer of 2.5% to withstand future periods of stress and to bring the total common capital requirement to 7% (4.5% common capital requirement and 2.5% capital conservation buffer). The capital protection buffer is met only by common equity. Financial institutions that do not provide a capital protection buffer face restrictions on dividend payments, share buybacks, and bonus payments (Özcuşa, 2018).

The Countercyclical Capital Buffer is between 0% and 2.5% of the common capital applied according to national conditions. This buffer serves as an extension to the capital conservation buffer (IBM, 2021).

High Common Equity Ratio:

- 3.5% from January 1, 2013
- 4% from January 1, 2014
- From January 1, 2015, it is 4.5%.

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In Basel III, the capital ratio remains at 8%. Basel III introduced a minimum leverage ratio. Banks are expected to have leverage ratios of at least 3% for this condition.

Liquidity requirements - Basel III introduced two required liquidity ratios (Türküner, 2016):

- Liquidity Coverage Ratio (LCR) ensures sufficient amount of assets to survive for one month;
- The Net Stable Funding Ratio (NSFR) promotes long-term resilience by creating a greater incentive for financial institutions to fund their operations with more stable funding sources on an ongoing structural basis (Giordana & Schumacher, 2017);
- Changes in Counterparty Credit Risk (CCR)-Basel III introduced capital requirements to cover Credit Value Adjustment (CVA) risk and higher capital requirements for securitization products (Fratianni & Pattison, 2015).

Basel III consists of changes in the principles related to Basel II. The goal is to minimize the losses of the banks, to reduce the probability of the banks failing. In addition to the expansion of capital requirements, another addition is the creation of leverage ratio and liquidity ratio in Basel III (Gürel, 2012).

The recent financial crisis has revealed how important the consequences of banks' difficulties in financing themselves and their collapse are in the market. Therefore, this arrangement was developed to reduce liquidity and payment problems. While the liquidity coverage ratio (LCR) tracks the short term, the net stable funding ratio (NSFR) addresses longer-term issues. Under the LCR, banks are required to hold sufficient liquidity to cover short-term disruptions. The NSFR was developed to address long-term structural problems arising from liquidity mismatches (Türküner, 2016).

The Basel III consensus was deemed necessary because of the shortcomings and inadequacies of the previous version. From this point of view, we can characterize the deficiencies of Basel II as the reasons that reveal the Basel III consensus. We can list some of the reasons that led to the Basel III consensus as follows: (BDDK, 2010).

Strengthening the capital buffers that can fall abruptly in adverse market conditions,
Increasing the quality of bank capitals,

The introduction of a leverage ratio to support Basel II,

Reducing the cyclicality in the minimum capital requirement and making provisions,

To offer capital and liquidity regulation proposals to strengthen the banking sector,

In addition to improving risk management, increasing the resilience of banks against stress environments.

The objectives to be achieved with the regulation changes called Basel III can be summarized as follows: (Cangürel et al., 2010).

Increasing the resilience of the banking system against financial and economic shocks, regardless of their source,

Developing corporate governance and risk management practices,

Increasing the transparency of banks and their ability to provide information to the public,

Increasing the resilience of individual banks through regulations made on a micro basis,

Increasing the resilience of the financial system against shocks through regulations on a macro basis.

RESULT

As a result of the proper functioning of the banking system, bank creditors have serious confidence in the bank. Trust is very important for banking. Because in the absence of trust, the bank can go from a stable state to an unstable state in a very short period of time (Calomiris, 1991).

Although there is no ideal size for banks, every bank, from small to large, can be exposed to its own risks. In addition, banking regulations are needed to minimize the complexity of banks' legal structures. Regulators set rules to forcefully reduce the complexity of banks (Eğmir & Sağbaş, 2021).

Capital requirements established in the context of the Basel Committee led to the development of stronger competition in banking. The development of the capital adequacy criterion ensures that banks are not exposed to more risks. In addition, this rulemaking ensures ease of liquidity (Basel Committee on Banking Supervision, 2006).

Beginning in 2007, Basel II standards became mandatory for banks in European Union (EU) countries (Augurzky et al., 2004). In the following years, a newer version of the Basel III standards was developed and presented to market users.

With the start of Basel II implementation, the risk level of companies and the loan to be used will directly affect the cost of the loan. At this point, the rating given to companies by independent audit institutions and banks gains importance. The lower the credit rating, the lower the bank will take on more risk, hold more capital in return, thus depriving more of its resources of return. Finally, the cost of loans to be extended to companies with low credit ratings will increase.

Another factor as important as this issue is that customer checks and bills, as well as the guarantees of partners and group companies, which have been accepted as loan guarantees until today, are not accepted as collateral in BASEL II, although a full consensus has not been reached yet and the discussions continue. Customer checks and guarantees of partners and group companies were also not accepted under Basel I. For a bank using the Basel - II standard method, there will be no change in this regard.

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