# Impact of Basel III Agreement on the European Union 's Banking Sector

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https://doi.org/10.53465/EDAMBA.2022.9788022550420.140-148

**Abstract.** The aim of this article is to analyze the impact of the Basel III agreement on the European Union's banking sector. This article is divided into three parts. The first part is introductory, which describes the basics of the mortgage crisis in the USA, the causes of its beginning and its development into the global financial crisis. The second part deals with the reaction of the G20 countries to the financial crisis itself in the form of the implementation of the Basel III Agreement and the impact of this agreement on the European banking sector. This chapter then deals with quantitative cash release and negative interest rates, as it is a consequence of the Basel III Agreement. The Basel III Agreement had a significant impact on the monetary policy of the European Central Bank and its impact on business in the countries of the European Union. We deal with this issue at the end of this section. In the third part of this article, in its conclusion, we summarized the key findings of this article and defined the impact of the Basel III Agreement on the European banking sector.

**Keywords:** Basel III, mortgage crisis, banking sector

**JEL classification:** *E58*

## Introduction

The financial crisis that started in the USA in 2007 quickly spread and affected many countries. This crisis began as a real estate crisis that erupted as a result of providing mortgages to people with a lower standard of living. Banks offered them mortgages with low interest rates, which this group of people had trouble repaying. When approving loans to risky clients, not only banks but also rating agencies failed. As a result of the outbreak of this crisis, discussions began in the banks about why this crisis happened, what were the reasons and what measures should be taken in the future to reduce the risk of a financial crisis of this magnitude. One of the results of these discussions was the introduction of the Basel III agreement by the G20. The purpose of this agreement was to increase the level of capital in banks and reduce risky banking operations. However, this significantly influenced the European banking sector. The financial crisis hit financial markets all over the world, affecting the banking and finance sector. Banks began to experience problems in the area of liquidity and capital adequacy. As it turned out, the capital adequacy introduced by Basel II were not sufficient. Therefore, the Basel Committee issued the new Basel III rules, detailing compliance with the regulatory standards of bank capital adequacy and liquidity. The new rules established higher and better capital for banks, better coverage of risks, introduced a leverage ratio, measures to support the building of capital that they could draw on in crisis periods, and introduced global liquidity standards, namely the short-term liquidity cover indicator and the net stable funding indicator. At the same time, established requirements for higher and better quality capital and conditions for better coverage of risks.

The financial crisis began in 2007 as real estate crisis in the USA. Banks in the USA wanted to maximize their profits and began lending to low-solvent clients. In addition to banks, some credit rating agencies, whose role was to assess the solvency of future borrowers, also played a significant role in this crisis. From those with the AAA / Aaa designation to the insolvent ones, which were included in Group D. "However, it was not a problem to obtain proof of the required income from the rating company for a bribe" (Financial Crisis, 2016). Banks were too light-hearted about such assessments and relied on rating results, while no longer verifying client data. It was not long before interest rates began to rise, with debtors no longer able to repay these higher interest rates. This situation quickly resulted in a sharp drop in property prices and banks found themselves in a situation where the value of the property they lent to clients a few months ago was significantly lower than the amount borrowed by the bank. In the following chart we can see how big the price drop was.

**Graph 1** Market value of median-priced homes, adjusted for inflation, 1970 to 2014


Source: Lessons from the financial crisis: The central importance of a sustainable, affordable and inclusive housing market (Calhoun, 2018)

The economies of European countries avoided the first wave of the financial crisis without major consequences, but financial institutions, their products and rating agencies began to lose their reputation and the European Commission began to criticize them for negligent investment practices, risky liquidity management and irresponsible lending. The impact of this financial crisis began to show itself in the EU in the first quarter of 2008 and the global economy began to slow down. There are several causes for this crisis, but "the core of the crisis has been unsustainable housing mortgages combined with general undercapitalisation and insufficient guarantees in the financial system" (Calhoun, 2018).

## 1. Methodology of work

The purpose of this article is to review the implementation of Basel III agreement and its impact on the EU banking sector. To achieve this goal, several theoretical methods were used, which were used in the form of general methods (synthesis, analysis, induction, deduction and comparison). Graphical representations were used to make interest rate data clearer. In the part where we deal with the characteristics of the Impact of the Basel III agreement on the EU banking sector, the method of synthesis will be used, which combines information about the economic situation. The method of induction and deduction will be used to draw conclusions about the importance and opportunities of this agreement for EU countries.

## 2. Results and discussion

However, over time, as the crisis weakened, there was more and more talk in the banking community about the need for some changes in the functioning of the banking system, as this crisis revealed significant shortcomings in the banking business. Basically, we could highlight three primary shortcomings in the way banking works:

1. many banks had insufficient capital,
2. some banks have artificially increased their capital balance sheets in an effort to comply with capital adequacy conditions,
3. Banks usually had short-term resources invested in long-term assets, which made them weakly liquid.

For these reasons, the Basel Accords had to be changed. The G20 approved the Basel III agreement at the Seoul summit in 2010. The changes compared to the previous two Basel Accords have been significant, such as:

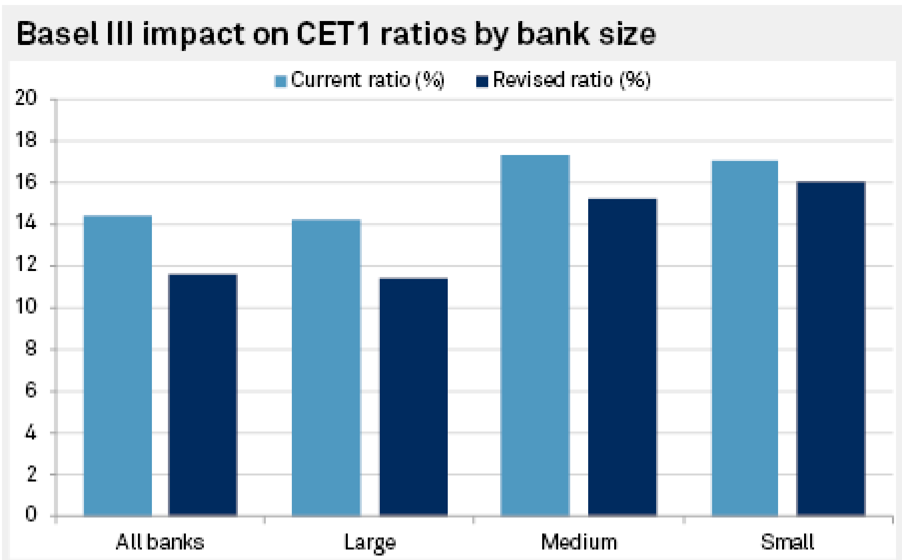
- higher and better quality capital, while creating the conditions for better risk coverage, namely the ratio of assets in the balance sheet and off-balance sheet to capital,
- support for capital that would be drawn primarily in times of crisis,
- the introduction of two liquidity standards that would operate at a global level,

coverage and an indicator of net stable funding, which secured less risky mortgage lending by banks.
In addition to the capital rules, the Basel III agreement contains other measures such as:
- increased G20 financial supervision of systemic risk at local and global level,
- standardization of derivatives trading,
- the obligation for hedge funds from a certain size to include restrictions for non-EU fund managers,
- common global accounting rules,
- credit rating agencies must be registered and supervised by European Union.

### 2.1 The effects of Basel III on the European Union's banking sector

These measures have reduced banks' incentives to take excessive risks and are a prerequisite for a lower probability of financial crises. "The Basel III framework was introduced in the wake of the global financial crisis as a way to strengthen risk management and regulation in the banking sector" (Damyanova, 2020).
For example, the average CET1 ratio, which means the degree of solvency of banks that measure the bank's capital against its assets, in the case of European banks fell to 11.5% from 14.4%, as the following chart shows.

**Graph 2** Impact of Basel III on CET 1 ratio by bank size:




Source: EU at risk of missing 2022 deadline for final Basel III capital rules (Damyanova, 2020)

Common Equity Tier 1 (CET1) is a component of Tier 1 capital that is mostly common stock held by a bank or other financial institution. It is a capital measure introduced in 2014 as a precautionary means to protect the economy from a financial crisis, largely in the context of the European banking system. It is expected that all Eurozone banks should meet the minimum required CET1 ratio of 15.1% of risk-weighted assets in 2022, up from 14.9% in 2021. Following financial crisis, the Basel Committee formulated a reformed set of international standards to review and monitor banks' capital adequacy. These standards, collectively called Basel III agreement, compare a bank's assets with its capital to determine if the bank could stand the test of a crisis. Capital is required by banks to absorb unexpected losses that arise during the normal bank's operations. The Basel III agreement framework tightens the capital requirements by limiting the type of capital that a bank may include in its different capital tiers and structures. A bank's capital structure consists of Tier 2 capital, Tier 1 capital, and common equity Tier 1 capital Tier 1 capital is calculated as CET1 capital plus additional Tier 1 capital. Common equity Tier 1 comprises a bank's core capital and includes common shares, stock surpluses resulting from the issue of common shares, retained earnings, common shares issued by subsidiaries and held by third parties, and accumulated other comprehensive income. CET1 ratio measures a bank's capital against its assets. Because not all assets have the same risk, the assets acquired by a bank are weighted based on the credit risk and market risk that each asset presents. For example, a government bond may be characterized as a no-risk asset and given a zero percent risk weighting. On the other hand, a subprime mortgage may be classified as a high-risk asset and weighted 65%. According to Basel III agreement capital and liquidity rules, all banks must have a minimum CET1 to risk-weighted assets ratio of 4.5%. A bank's capital structure consists of Lower Tier 2, Upper Tier 1, and CET1. CET1 is at the bottom of the capital structure, which means that any losses incurred are first deducted from this tier in the event of a crisis. If the deduction results in the CET1 ratio dropping below its regulatory minimum, the bank must build its capital ratio back to the required level or risk being overtaken or shut down by regulators. During the rebuilding phase, regulators may prevent the bank from paying dividends or employee bonuses. In the case of insolvency, the equity holders bear the losses first followed by the bondholders and then Tier 2 capital.

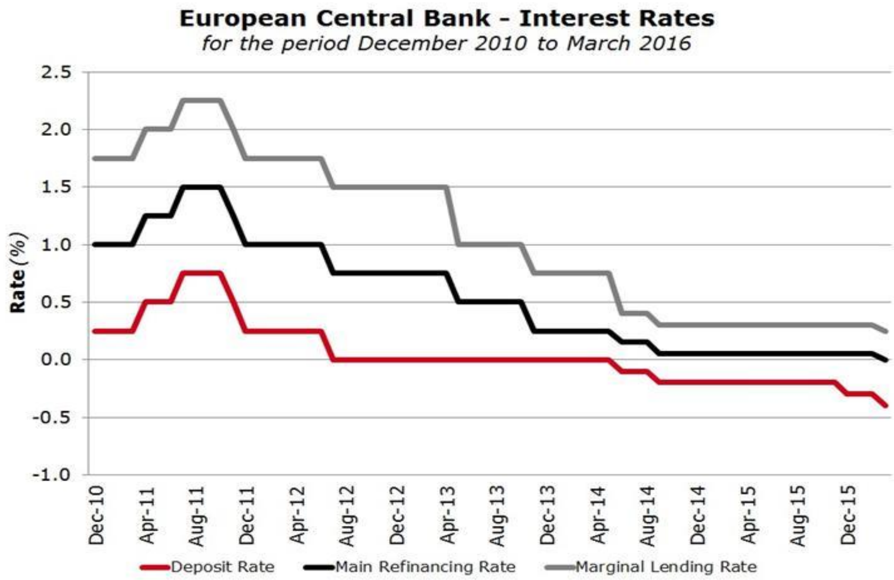
The Basel III agreement has a significant impact on the European banking sector, which by 2019 needed around 1,1 trillion € in additional short-term liquidity capital and around 2,3 trillion € in long-term financing.

Thus, the banks were forced to obtain a huge amount of capital that they did not need before. If we wanted to interpret this very simply, the Basel III agreement limited banks' profits but increased the security of the banking sector. Although banks also had additional costs, they also had opportunities to seek additional capital in the form of cost reductions, product revaluations, improved capital adequacy management and asset and liability restructuring. The retail, corporate and investment banking segments were affected in different ways. The impact of Basel III on retail banks was minimal, but corporate banks limited Basel III in structured finance and trade finance. Investment banks operating in the capital markets were more severely affected than retail and corporate banks, as many had problems with capital adequacy, such as covering short-term loans with short-term resources for some banks. As far as Slovak banks are concerned, the Basel III agreement has had an impact on the management of long-term resources. As they became more expensive, which had an impact on the price of long-term loans to clients. However, as a whole, we can evaluate the Slovak banking sector in such a way that it is in good condition and has managed to adapt to the Basel III agreement.

### 2.2 Quantitative cash release and negative interest rates as one of the consequences of the Basel III agreement

Another indirect consequence of the Basel III agreement was the situation when “in March 2015, the ECB began purchasing assets from commercial banks as part of its non-standard monetary policy measures. These asset purchases, also known as quantitative easing, support economic growth in the euro area and help us bring inflation back to below but close to 2% ”(European Central Bank, 2014). The European Central Bank has begun quantitative easing in a way it has not preferred for a long time, following the example of the US Federal Reserve. Subsequently, in the winter of 2015, it expanded this quantitative easing and thus made it possible, for example, not only to buy government bonds, but also to give central banks the opportunity to buy regional bonds. That is, the bonds of the regions of the Member States. Subsequently, there was a further expansion of quantitative easing, when national central banks could also buy corporate bonds, which meant that they could directly buy so-called high-quality corporate debt. The following chart shows how the European Central Bank has been cutting interest rates over several years.

**Graph 3** European Central Bank interest rates for the period December 2010 to March 2016




Source: Towards a Redesign of Fiscal Consolidation For a Consistent Policy Mix in Euro Area, Progressive Economy, Annual Forum 2016 (Researchgate, 2016)

### 2.3 The impact of the European Central Bank's monetary policy on EU business

The European Central Bank's monetary policy is based on two pillars that help maintain price stability. These pillars of monetary policy are monetary and economic analysis. In order to maintain price stability, the European Central Bank observes the direction in which the money is moving in the economy and the outlook for the macroeconomic trend and its impact on inflation in the future. The European Central Bank's monetary policy has an impact on the economy through various channels, such as the interest rate channel, the credit channel, the exchange rate channel and the wealth channel using monetary policy instruments. A change in market interest rates in the short term will set in motion several mechanisms. This change affects the development of economic variables such as product or price. When the amount of money in the economy changes, the change is reflected at the level of the general price level. However, it will not cause a permanent change in variables such as product or unemployment. Income or the level of unemployment in the long run are determined by factors such as the development of technology and population growth. "The most important instruments of the ECB's standard monetary policy are open market operations and the maintenance of minimum reserves" (Verbeken, Rakić, Paternoster, 2019).

## Conclusion

In 2007, the mortgage crisis began in the USA, which subsequently grew into a global financial crisis. Banks in the US wanted to maximize their profits and started lending to less solvent clients. In addition to banks, some rating agencies also played a role in this crisis, whose task was to assess the solvency of future borrowers. However, it was a common practice that a better rating could be easily obtained, for example by a bribe. However, soon a large number of low-solvency clients began to have problems repaying such loans. This situation quickly resulted in a sharp drop in real estate prices, and the banks found themselves in a situation where the value of the property they had lent to clients a few months earlier was significantly lower than the amount the bank had lent them. Subsequently, the mortgage market in the USA began to collapse and the global financial crisis broke out.

Developed countries realized that it is necessary to modify the way the banking sector functions in order to reduce the risk of such financial crises in the future. It was therefore necessary to change the Basel Agreements. The G20 approved the Basel III agreement at the Seoul summit in 2010. And the changes compared to the previous two Basel agreements were significant.

Higher quality capital was increased, creating conditions for better risk coverage, creating capital support that would primarily be drawn on in times of crisis, and setting global liquidity standards and net stable funding ratios that secured less risky mortgage lending by bank. Another indirect consequence of the Basel III agreement was the situation when the European Central Bank started using negative interest rates and quantitative easing.

The requirements of the Basel III agreement had a significant impact on the European banking sector. By 2019, the banking sector needed about 1, 1 trillion € of additional Tier 1 capital, 1,3 trillion € of short-term liquidity and about 2,3 trillion € of long-term financing. The return on equity ratio of European banks decreased by approximately 4 percentage points. Banks prevented a possible decrease in profitability, for example, by reducing costs, repricing products, increasing capital by improving capital adequacy and liquidity management, or restructuring assets and liabilities. The retail, corporate and investment banking segments were affected in different ways. Retail banks were minimally affected, while this segment is significantly represented in the Slovak banking sector. Corporate banks are limited by the Basel III agreement in structured financing and trade financing. Investment banks active in trading on the capital markets were hit the hardest. Slovak banks do not have problems with capital adequacy and have a capital adequacy ratio above the threshold of 10,5%. For Slovak banks, the Basel III agreement has the strongest impact on the management of long-term resources, because they have become more expensive due to the adjustments necessary for the introduction of the Basel III agreement. In general, however, we can consider the Slovak banking sector to be healthy.

The new rules will force banking institutions to increase their capital by hundreds of billions € over the next ten years. In an effort to mitigate the impact on the banking sector and financial markets, regulatory authorities have given financial institutions time to comply with the new rules.

The impact of Basel III on the banking sector of the European Union is great. Profits for banks have decreased, but on the other hand, the risk of repeating the financial crisis of 2007-2009 due to the irresponsible behavior of the banking sector has significantly decreased.

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