

## **Investigation of the Effects of Basel Capital Adequacy Ratio Change on the Turkish Banking Sector: Comparative Conventional and Islamic Banking with Ratio Analysis**

**Özgür ÇATIKKAŞ**

Marmara University  
School of Banking and Insurance  
İstanbul, Turkey

[orcid.org/0000-0002-7774-5882](https://orcid.org/0000-0002-7774-5882)

[ozgurcatikkas@marmara.edu.tr](mailto:ozgurcatikkas@marmara.edu.tr)

**Ayhan YATBAZ**

Manisa Celal Bayar University  
School of Applied Sciences  
Manisa, Turkey

[orcid.org/0000-0002-6059-4176](https://orcid.org/0000-0002-6059-4176)

[ayhanyatbaz@hotmail.com](mailto:ayhanyatbaz@hotmail.com)

**Selim DURAMAZ**

Manisa Celal Bayar University  
School of Applied Sciences  
Manisa, Turkey

[orcid.org/0000-0002-1257-0620](https://orcid.org/0000-0002-1257-0620)

[selimduramaz@hotmail.com](mailto:selimduramaz@hotmail.com)

### **Extensive Summary**

The banking sector is the most important factor in the economic development of an country. Past experience has shown that the smallest problem in the banking sector can affect the whole economy negatively. In this respect, the banking sector needs to be well regulated and monitored. At this point, possible problems in the system can be prevented and the system will continue to work properly.

The banking sector has great prospects at the global level as well as in the country. Since the 1980s, tight control in customs has begun to emerge and trade and finance transactions between countries have reached the highest level as daylight has come. The 2007-2008 Global Financial Crisis also showed that the financial crisis in a country is not limited to that country alone. Because today a bank in one country can easily withdraw from a bank in another country. Likewise, individual and institutional investors can assess their money on investment instruments in another country. Therefore, the crisis in the banking and finance sector in one country can affect investors and financial institutions in another country. In this respect, regulating and monitoring the banking sector at international level is very important for the healthy operation of the system.

The Bank for International Settlements (BIS) is an internationally autonomous body established to ensure that the banking sector is internationally coordinated and to achieve a standard structure. At the end of 1974, "Basel Committee on Banking

Supervision - BCBS” started its activities under the BIS. BIS, along with BCBS, has published a series of rules to improve financial stability in the banking sector in general and internationally in particular. These rules, known as Basel Criteria are applied today by Turkey and many other countries.

Basel I consensus was published in 1988 by the Basel Banking Supervision Committee in 1988 in order to make the balance sheet structure of the banks one of the most effective and most important representatives of the capital market to be stronger in the face of the global economic crises of 1970 and 1974 and the reflections of these crises in many countries in the banking sector. Thus, the first step of the Basel criteria has been taken into the world banking system. The Basel I criteria focuses on the amount of capital required to be recorded at a minimum to minimize the costs that may be incurred by municipalities in the event of the bankruptcy of any bank. Accordingly, in Basel I, the standards related to the capital adequacy that banks should have have been determined and a comprehensive definition of the capital of the bank has been made. Accordingly, the bank's capital is at least 8% of the risk-weighted assets. In the process, in 1996, with an arrangement added to Basel I, the banks have taken the place among the standards to allocate capital for the market risk they undertake in addition to credit risk, and they are formulated as follows.

In June 1999, the Basel Committee published three consultative texts on "Basel II- New Basel Capital Adequacy Consensus", taking into account developments in the financial markets, Basel I's lack of capital adequacy metrics and other shortcomings. The texts have been revised in the context of comments and suggestions received from the country supervisors and banks and other interested parties, and the final text under Basel II was published in June 2004.

Basel II, which is expected to move on three structural blocks: minimum capital adequacy, supervision of capital adequacy and market discipline, Basel II aims to improve effective risk management and market discipline in the banking system in general, to increase the effectiveness of capital adequacy measurements, to establish a sound and effective banking system, focused on the purpose of contributing to stability. At the same time, the Basel II consensus includes provisions on how to calculate the capital liability, how to manage the risks in the different structures, how to assess capital adequacy and how to explain the results to the public.

The transformation of large US investment banks into bank holding companies, the publicization of Fannie Mae and Fredi Mac organizations, the collapse of AIG bankruptcy, the division of Fortis Bank and then to sell, Iceland'da the largest commercial bank, then the banking system of the country to collapse completely, many countries, such as the country to provide a serious support packages in the country, such as the development of the current crisis, and the current system revealed some serious shortcomings.

The crisis that emerged in the banking sector, which is the main actor of the crisis, has spread all over the world in a short period of time by including the whole global financial sector and the country's economy in the process. On this living process, the Basel Committee on Banking Supervision presented a new capital regulation package to the public at its meeting on September 12, 2010. Because it is the third reform package presented to the public by the committee after Basel I and Basel II, this study has received the Basel III Consensus worldwide.

Basel III envisages a comprehensive set of reform measures developed by the Basel Committee on Banking Supervision to strengthen regulatory, supervisory and risk management of the banking sector. These measures primarily target:

Basel III foresees some adjustments in banks' own funds, capital ratios and leverage and liquidity ratios. However, Basel III aims to achieve both the above objectives and the main objective is to increase both the capital quality of US and European banks and to have sufficient capital for crisis periods. At this point the capital is redefined and the amount of liquidity risk is determined and the minimum capital ratios that the bank should hold for all capital components are determined separately. Accordingly, it has been stated that the capital components of the banks should be at least 4.5% of the capital ratios and 6% of the main capital ratios. Total capital ratio continued at 8%, no change was made to Basel II. With these ratios, it is necessary to allocate additional capital of 2.5% against a possible crisis of banks. Thus, the total capital adequacy ratio with capital reserve is 10.5.

Although it is not compulsory to apply in countries outside the EU countries, the Turkish banking sector has made a considerable progress with the different regulations published by the BRSA. Even Basel II regulations have been enacted and have been published in the Official Gazette dated 28/06/2012 and numbered 28337 and entered into force on 01/07/2012.

While the banks were being analyzed in the study, the banking system was divided into three categories based on the group. These; deposit banks, participation banks and investment and development banks. In order to better understand the position of the banking groups within the whole banking sector, sector information is also included. In the study, it was used traditional banks' name to express “deposit banks” and “investment and development” banks.

As a result of the study, it is observed that the capital adequacy ratio tends to decrease day by day in the Turkish banking sector based on 2010-2016 data. This can be explained by the fact that the increase in equity in general is lower than the increase in risk weighted assets. As a matter of fact, it is clearly observed that the share of own funds within total assets declined by years. Specific reasons for the decline in the capital adequacy ratio can be explained by the increase in assets exposed to credit risk, assets exposed to market risk and operational risk, which constitute the components of risk weighted assets. The most striking of these components is the exposure to credit risk assets. As a matter of fact, the credits (funds used) have continuously increased over the years, both in the participation banks and in the banking sector in general. On the other hand, the share of own funds both decreased in total and its share in assets decreased gradually.

In the analysis, it is another thing to note that the decline in the capital adequacy ratio of participation banks is lower than that of the overall banking sector. However, the participating banks have increased their net profit share increase over the years. In this point, it is very important for the sector to catch the same profit share increase rate at the same point in the conventional banks that carry out an important size of the sector.

Although capital adequacy ratios have not shown a tendency to decline in the participation banks and banking sector for years, the capital adequacy ratio at today's point is well above the ratio determined by the BRSA as a bank target. Indeed, the

Turkish banking sector in many countries outside the banking sector in Turkey and after the global crisis that needs public support is still continuing on the path accompanied by robust indicators. Therefore, in this context, it can be said that there is no danger for the banking sector within the capital adequacy ratio and therefore different risk groups.