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Development of The Turkish Banking Sector In 2008-2018 Period Under BRSA's Observation, Revenue-Expense And Profitability Analysis

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Keywords
BRSA, Banking Sector, Selected balance sheet items, Return on Assets and Equity, Income-Expense Structure, Net Interest Margin.

Abstract
The shrinking world and growing economies have shown the necessity of strengthening the banking sector, which is expected to adapt effectively to the developing money and capital markets. In order to solve the problems faced due to variable factors in economies where the market mechanism is in force in a short time and with low costs, it is necessary to ensure the preferability of banking services. In this context, it is very important that the Turkish banking sector has reliable and strong financial structures. When the shares of bank groups in Turkish banking sector are analyzed, it is seen that deposit banks have the highest share in the sector (tcmb.gov.tr), so the data of Turkish deposit banks, public, private, domestic and foreign, were used in the study. Data, tables and graphs related to the Turkish banking system are obtained from TBB (tbb.org.tr) and Turkish Banking Sector Basic Financial Data prepared by BRSA and statistical information on selected financial statements of banks (bddk.org.tr). Following the 2008 global financial crisis, in Turkey, as well as in many other countries, approaches such as capital adequacy, liquidity, monitoring and supervision were adopted as a result of the implementation of effective policies for the supervision of financial intermediaries, to ensure the restructuring of the banking sector, and measures to increase the function of banks and strengthen their financial structure were taken. The precautions taken and regulations made by regulatory authorities such as BRSA prevented banks from taking excessive risks. As a result, the banking sector contributed to financial stability by keeping profitability and equity growth at appropriate levels. It has been determined that the Turkish banking sector has a strong balance sheet structure that can meet the potential risks, make payment systems work effectively and resist sudden shocks and provide funds for growth.

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1. Introduction

Financial crises in Turkey caused by global capital movements had a negative impact on key economic indicators such as GDP, inflation, foreign trade and employment. Periods of enforced stability programs applied to transform the consequences of the crises experienced in Turkey into positive failed for various

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reasons. In 2001, economic activity declined significantly, inflation increased, and systemic banking crisis occurred in February 2001 due to unsustainable public sector imbalances and structural deterioration in the banking sector. As a result of the devastating effects of the November 2000 and February 2001 crises, the authorities had to take certain precautions regarding the financial structure and profitability performance of banks already in bad condition. In May 2001, the Banking Sector Restructuring Program was put into practice in order to provide a healthy structure for the banks in the sector. Thanks to this program, the capital structures of state-owned bank were strengthened, duty loss receivables were paid and regulations allowing new duty losses were abolished. In addition, short-term liabilities of state banks were liquidated and operationally restructured. Professional staff were appointed to the banks' management positions and the number of branches and personnel was reduced to sensible levels. Some banks were transferred to the SDIF, the private banking system was improved, oversight and supervision was ensured and thus, competition and efficiency in the banking sector were aimed to be increased. These improvements proved effective after 2002 and key indicators improved. In particular, the negative effects of public banks on the system decreased and the balance sheet structures of all banks in the sector strengthened. In this environment of stability, the share of global capital also increased. Due to the negative impact of the crisis, the decline in the number of branches and personnel showed a steady growth trend in the following years. These positive developments helped to use information technologies effectively and to expand the potential customer network. With the banking sector's resumption of intermediation activities, which was its main function, loans became the item with the fastest increase, while the ratio of personal loans to total loans increased rapidly. In this way, banks helped with the economic growth with the loans extended after the crisis. Therefore, the desired financial deepening gained momentum. The positive indicators of the correct steps taken in this period became more apparent in the banking sector after 2004. In 2005, the Banking Law was passed. While these positive developments were taking place in Turkey, the global crisis of 2008 that originated in the United States in 2007 and rapidly affected all countries of the world came up. This global crisis affected Turkey's economy as well. Especially in late 2008, its effects on the Turkish economy became more pronounced. However, the Turkish banking sector did not experience the effects of this crisis intensely. We can say that this is due to the correct and serious implementation of the Banking Sector Restructuring Program. In this study, the developments related to the Turkish banking sector in the period of 2008-2018 after the restructuring were examined.

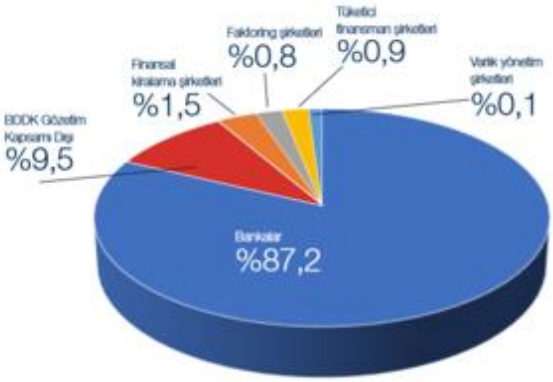
2. The Importance of BRSA for the Turkish Banking Sector

The BRSA was established as the institution in charge of supervision and monitoring for the financial sector, especially for the banking sector. In this context, with functions such as;

- Ensuring financial stability
- Contributing to the development of the banking sector

- Updating and strengthening the audit, implementation and regulatory framework
- Protecting the rights and interests of depositors who wish to add value to their savings
- Developing an effective financial system and a strong corporate banking sector by increasing corporate capacity, the BRSA has played an important role in Turkey's economy.

Chart 1. Shares of the Institutions Supervised by the BRSA in the Financial Sector



Source: BRSA 2018 Banking Activity Report www.bddk.org.tr (Red: BRSA out of scope, Orange: Financial leasing companies, Grey: Factoring companies, Yellow: consumer financing companies, LightBlue: Asset management companies, Navy blue: Banking sector)

BRSA's vision is to be an exemplary authority that implements regulation, supervision and risk management in accordance with national needs and requirements according to international standards for financial markets, institutions and consumers.

BRSA's mission is to ensure that the institutions subject to its audit within the framework of their duties and powers carry out their activities in a safe and sound manner, that the credit system operates effectively, that the rights and interests of the holders are protected, contribute to the development of financial markets and financial stability, and to maintain the necessary regulatory and audit activities to strengthen the banking system and other financial institutions within the scope of its responsibility in order to achieve our country's strategic economic objectives.[2]

The BRSA's audit activity is of great importance in terms of the healthy sustainability function of the financial sector. The audit activity covers all on-site audit activities carried out in the related institutions by the use of the powers conferred by the Banking Law and other laws to the Authority by the professional personnel. These activities are performed by, analyzing the risks faced by the institutions, analyzing financial soundness, supervision of compliance with the law and the relevant legislation, identifying potential problems and fragilities through stress tests, and informing the relevant units and decision makers in case of

[2] BRSA, 2018 Activity Reports, https://www.bddk.org.tr/contentbddk/dokuman/hakkinda_0003_10.pdf

negative developments or detections without waiting for a standard report. In performing the audit function, various sources are used, especially the database of the Agency. On-site supervision (Articles related to the banking sector);

- Risk assessment of banks and determination of risk profile,
- Analysis of banks' assets, liabilities and commitments, shareholders' equity, interest and balances between revenue and expenses and all other factors affecting the financial structure,
- Examining the adequacy and effectiveness of banks' internal control, risk management and internal audit systems,
- Audit of the compliance of banks' financial statements and records with accounting principles and standards,
- Supervision of the compliance of the activities of banks with the provisions of the Banking Law and the provisions of other laws on the institutions within the scope of this Law,
- Examining the issues related to the characteristic activities of banks,
- Audit of institutions within the scope of the Bank Cards and Credit Cards Law,
- Audit of internal models that banks plan to use within the scope of credit risk internal rating based approaches of the Basel criteria

The database of the Agency is based on data obtained from other public institutions, audit reports and other sources of internal and external information within the scope of bilateral protocols. The BRSA's oversight activities include monitoring the development of banks and banking sector indicators, compliance with legislation and risks and especially their financial performance and analyzing them with macroeconomic developments and policies implemented. [3]

After the global crisis, many countries tried to take the measures taken by Turkey pursuant to the Restructuring Program after the 2001 crisis. In this context, many countries had to take steps towards supervising and reevaluating and increasing financial institutions, strengthening the financial structures of banks in particular regarding capital adequacy, liquidity and risk management. Unlike global markets, where financial institutions tried to perform their functions in such risky and uncertain conditions, Turkey has demonstrated a more financially stable and firm stance. The BRSA's fulfillment of its duties as planned ensured the successful performance of the banks, which are the most important actors in the Turkish financial market, made a significant contribution to the positive development of key economic indicators and to the strong performance of the monetary transmission mechanism. In this context, revealing the development of Turkish banking sector after 2008 is also important in terms of its contribution to the development of the financial sector.

[3] BRSA, 2017 Activity Report http://www.bddk.org.tr/hakkimizda/faaliyet-raporlari/3

3. Overview of the Turkish Banking Sector 2008 - 2018 Period

The financial crises had a significant impact on the market structure of the Turkish banking sector. On the other hand, the precautions taken against crises led to a rapid recovery in the market outlook. In the period when the global financial crisis broke out, considering that the traditional banking sector in Turkey still had a high potential, the main focus was on corporate and retail banking activities in the sector, therefore, the risks arising from subprime housing loans and sophisticated derivative instruments, which triggered the crisis, did not arise, although not as high as in other developing countries, the high rate of credit volume growth in the said period was parallel to healthy and widespread deposit funding, non-performing loans remained limited, while, in many developing countries, foreign currency borrowing created significant exchange rate risks, in Turkey, foreign exchange denominated borrowing was kept in a limited level; it is possible to say that the banking sector's dependence on foreign funds decreased in the mentioned period and this minimized financial fragility.[4]

Determining the effects of the crisis on the banking sector requires the examination of the development of the profitability performance of the system. Return on equity (Net profit/Shareholders' Equity) and Return on Assets (Net Profit/Total Assets) have been used in many studies to measure the profitability of banks. Variables specific to banks, such as capital adequacy, liquidity, asset size of the bank, and revenue and expense management are under the control of the bank itself. However, elements that cannot be intervened apart from the control of the sector are also determinative in the evaluations. Macroeconomic variables such as inflation, growth and interest rates define the efficiency dimension of the banking sector for economies. It is a known fact that globalization in the world markets contributes to the growth of competition in the sector. Liquidity status of banks in terms of their performance can be determined with the help of variables such as ratio of total loans and receivables to total assets, ratio of liquid assets to total deposits and non-deposit sources. It is also necessary to consider the provision policy or credit risk, which may affect the profitability of banks. In the literature, the ratio of loan provision expenses to total loans is frequently used to determine the credit risk. While the ratio of equity to total assets was used for determining the capital adequacy which is emphasized especially for the measures taken after the 2001 crisis, the ratio of non-interest expenses to total assets was used for cost management.

[4] Kok, D. and Ay O.E. (2013), "A Research on the Reflection of 2008 Global Financial Crisis on Turkish Banking Sector Activity Levels: 2007-2009" http://dergipark.ulakbim.gov.tr/ulikidince/article/view/5000113888

4. Number of Banks, Branches and Personnel

Chart 2. Bank Branch and Personnel Development

Navy blue: Bank branch (thousand), Light blue: Number of personnels (thousand people right axis)

Source: Keskin E. et al., (2019) The Banks Association of Turkey in Its 60th Year and Banking System in Turkey www.tbb.org.tr

The branching and employment growth rate of the sector in 2013 reached the highest rate of increase after 2009 considering the the annual basis. The change in the number of personnel and branches in the period 2007-2013 increased by 3,864 in the number of branches and 46,503 in the number of employees. In the following years, technological developments paved the way for the development of new strategies by contributing positively to the efficiency of the sector. This is an important factor in the change of the number of branches and personnel in the sector. In addition, initiatives to reduce operational costs in the sector, the spread of branchless banking practices, and the decline in the growth trend in the economy and balance sheets affected the changes in the number of branches and personnel. After 2014, we can say that the change in the number of branches and personnel followed a horizontal course.

5. Turkish Banking Sector Balance Sheet Structure

Table 1. Balance Sheet Structure of the Sector (Billion TL, %)

	2007	2018	Share(2007 %)	Share(2018 %)
Liquid values	78	571	13	15
Securities	165	478	28	12
Loans	287	2.395	49	62
Fixed Assets	19	109	3	3
Deposit	357	2.036	61	53
Non-deposit resources	103	1.009	18	26
Equity	76	421	13	11
Other liabilities	37	325	6	8
Active/Passive	**581**	**3.867**	**100**	**100**

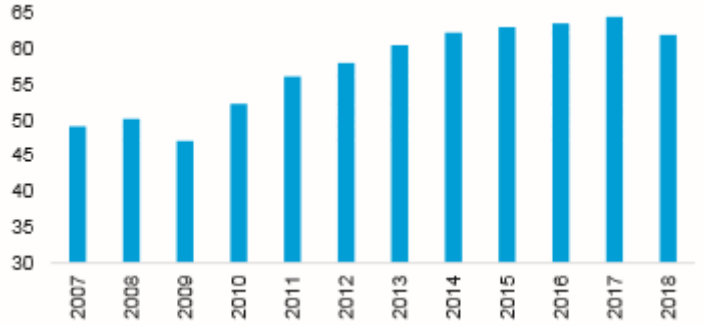
Source: Keskin E. et al., (2019) The Banks Association of Turkey in Its 60th Year and Banking System in Turkey www.tbb.org.tr

Table 1 shows that total assets of the sector increased from TL 581 billion to TL 3,867 trillion. This situation indicates that the growth trend in 2007-2018 period

was fast. In the same period, loans increased from TL 287 billion to TL 2,036 trillion. The ratio of loans to total assets increased from 49% to 62%. The majority of the securities item of the balance sheet is comprised of GDS (Government Debt Securities). The share of securities in total assets decreased from 28% to 12%. The reason for that decrease is the decline in interest rates and the decline in public sector borrowing. Therefore, the fact that the banking sector fulfills the function of lending to the private sector to the extent that it is expected indicates that the positive developments in the economy due to credit increases are realized under the leadership of the private sector. The most important item as the source of finance for assets is deposits. However, even though it is very small, their ratio within the balance sheet decreased. The amount of deposits in the balance sheet increased from TL 357 billion to TL 2.06 trillion. Non-deposit resources, which amounted to TL 103 billion in 2007, reached TL 1,009 trillion as the most growing item in the balance sheet due to loans received from foreign banks. Its ratio within the balance sheet increased from 18% to 26%. Looking at the Shareholders' Equity item, we see an increase in the 2007-2018 period. Despite this increase, we see that its share in the balance sheet decreased. The reason for this is the progress in risk management techniques and the rapid growth in credit stock.

6. Deposits and Loans

Chart 3. Ratio of Loans to Total Assets (Percent)



Source: Keskin E. et al., (2019) The Banks Association of Turkey in Its 60th Year and Banking System in Turkey www.tbb.org.tr

After the global crisis, which affected Turkey to a certain degree, the central banks of developed countries adopted expansionary policies. The reflection of this situation is the possibility of external borrowing with lower interest rates due to increasing liquidity. Turkey benefited from this with increased capital inflow. In this context, the ratio of loans to total assets continued to increase.

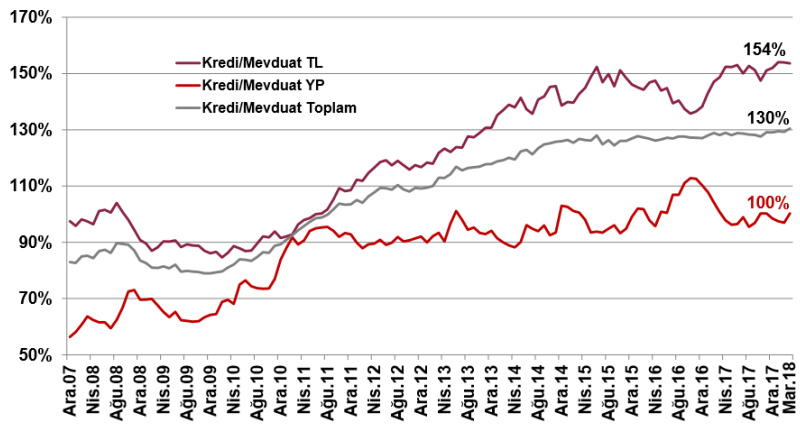
7. Loan/Deposit Rate TL-FX

The main activity of banks is to collect deposits from those who have surplus savings and to provide this resource as loan, which means that banks use deposits they collect as sources to finance loans.

Chart.4 shows Turkish banking sector's loan deposit ratios from 2008 to March 2018. The loan/deposit ratio continued to increase especially in this period due to the positive impact of non-deposit resources. As of March 2018, the credit deposit ratio of the Turkish banking sector was 130%. In other words, banks extended loans 1.30 times of the deposits they collected. We can also put it this way: 130 TL

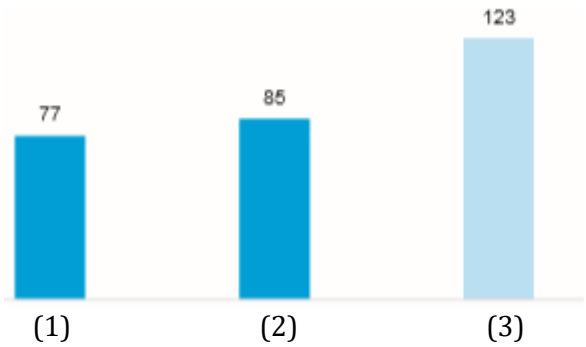
was given as a loan for every 100 TL deposit. While the loan deposit ratio was below 90% in 2010, it was around 110% in 2012. Loan deposit ratio increased to 130% at most. Banks collect deposits in both TL and foreign currencies and may extend TL or foreign currency loans. However, the type of credit granted in foreign currency (e.g. individual loans) cannot be granted in accordance with the regulations made by the authority. The chart also shows the sector's loan deposit ratio in TL and foreign currency separately. As can be seen, as of March 2018, banks converted 100% of the foreign currencies they collected into loans and provided TL loans with 154% of the TL deposits they collected. Despite the recent increase in deposit interest rates, we can say that loans increased faster than deposits in the banking sector. This results in a high rate of loan deposits. The rate of credit deposits, which reached 120 percent in 2016, was at these levels in 2017 as well. We can see that this ratio, which is one of the risk factors in the banking sector, remained at a close level in 2018 as well.

Chart 4. Ratio of Loans to Deposits (Percent)



Source: Senol S., Economic Research, BRSA (Financial data) March 2018 http://docplayer.biz.tr/ (Purple: Loans / Deposits (TL), Red: Loans / Deposits (foreign currency),Grey:Loans/Deposit Total)

Chart 5. Ratio of Loans to Deposits (2017 Percent)

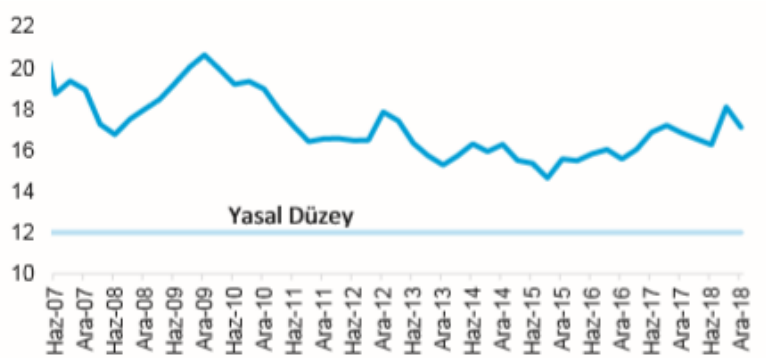


Source: Keskin E. et al., (2019) The Banks Association of Turkey in Its 60th Year and Banking System in Turkey www.tbb.org.tr (1. Developed countries 2. Developing countries 3. Turkey)

Chart 5 shows that among developing countries, Turkey's loan/deposit ratio is high. This rate was 77% in selected developed countries and 85% in selected developing countries, while being relatively higher with 123% in Turkey.

8. Capital Adequacy Ratio (CAR) and Non-Performing Receivables

Chart 6. Capital Adequacy Ratio



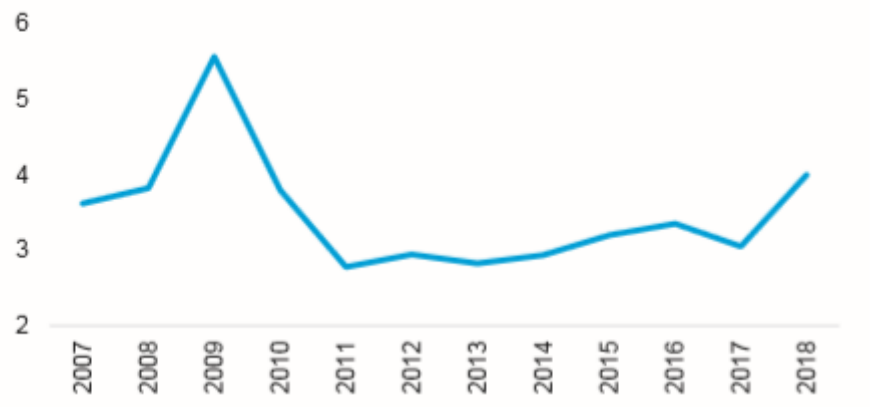
Source: TBB, (2019), Turkish Banking System, www.tbb.org.tr

The soundness and strength of the shareholders' equity of the Turkish banking sector contribute to the positive development of Turkey's economy. Therefore, the banking sector is expected to have high capital adequacy ratios. CAR is more important as it contributes to the continuity of financial stability, especially in risky periods. Although it was determined as 8% in CAR BASEL regulations, BRSA determined the lower limit of capital adequacy ratio as 12%. Chart.6 shows that following the global crisis, capital adequacy ratio increased significantly in 2009. The reasons for this increase can be explained with the facts that we retained a large amount of previous year's profits, increases in cash capital and net profit for the first months of 2009. In the first quarter of 2010, a total capital increase of TL 1.9 billion was made by 4 banks. The share of shareholders' equity in total liabilities increased by 0.3 percentage points to 13.6% in March 2010 from 13.3% at the end of 2009 due to the fact that the rate of increase in total assets remained below the rate of increase in own funds with 3.2%.[5] The capital adequacy ratio of the sector was 19% in 2010. In the global crisis environment, the Turkish banking sector increased its profitability due to decreases in policy rates and market interest rates, and as a result, its equity strengthened. This is reflected in the increase of CAR. However, after 2009, the trend regarding CAR started to decline. This can be attributed to the depreciation of the TL and the rapid growth in the balance sheet due to the fact that the capital base is based on TL assets and the presence of FX loans in risk weighted assets. In 2015, CAR started to increase again. The capital adequacy ratio of the Turkish banking sector increased by 10 percent compared to figures at the end of 2016 and was realized as 17.2 percent in September 2017 period.[6] The banking sector's capital adequacy ratio increased in September 2018 despite the rapidly increasing exchange rate. The BRSA's alleviating the burdens on banks and government stimulus packages to support growth were effective on this increase and as a result the CAR increased to 18.1%.

[5] TBB, (March 2010), Overview of the Turkish Banking System, www.tbb.org.tr
[6] Sector Overview –Banking-2018 https://assets.kpmg/content/dam/kpmg/tr/

9. Non-Performing Receivables

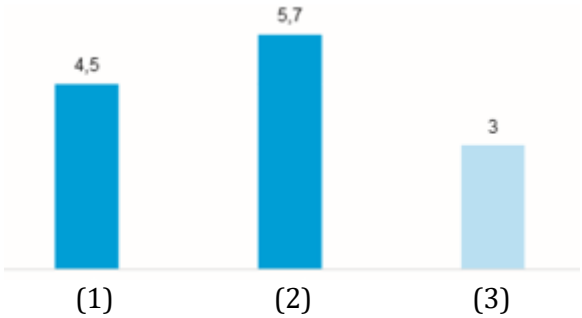
Chart 7. Non-Performing Loans/Total Loans (%)



Source: TBB, Banking System in Turkey, www.tbb.org.tr

The persistence of the global crisis, albeit a little, caused a contraction in the economy. Therefore, the ratio of non-performing loans to total loans reached a very high level of 5.3 in 2009. In the following period, the performance of banks in risk management increased and financial stability and growth were sustained. With the effect of these policies, this ratio decreased to 3%. However, this low rate tended to increase again after 2016. While the amount of non-performing loans was TL 59 billion at the end of 2016, this figure was TL 63 billion according to the third quarter results of 2017. For 2017, the majority of non-performing loans were SME loans. The NPL ratio of consumer loans decreased by 5 percent compared to 2016. This ratio increased in commercial loans. In December 2016, the BRSA reduced the general provision ratios of some of the loans and receivables of the banks and made arrangements to allow them to be restructured until 31 December 2017. In this context, a number of measures have been taken against the factors leading to non-performing loans in Turkey.

Chart 8. Non-Performing Loans/Total Loans (2017 %)



Source: TBB, Banking System in Turkey, www.tbb.org.tr (1. Developed countries 2. Developing countries 3. Turkey)

Non-performing loans/Total loans ratio in selected countrieswas 4.5 for developed countries, 5.7 for developing countries, and 3 for Turkey, as can be seen in Chart. 8. This means that the asset quality of the Turkish banking sector remains at the desired level and is in good condition.

10. Development of Net Period Profit in Turkish Banking Sector

In order to determine the changes in the profitability of banks, it is useful to examine the developments of 2008-2018 period in separate categories as public, private and foreign deposit banks.

10.1. Return on Assets and Equity

The period net profit of the banking sector increased in TL in 2008 - 2018 period but decreased in dollars. At the end of 2010, the profitability level reached TL 22.1 billion. Despite the decrease in the profits of banks due to the increase in costs in 2011, it can be said that the Turkish banking sector has a significant amount of power to generate profit. According to BRSA September 2017 data, net profit of the banking sector increased to TL 37.180 million. The return on assets of the Turkish banking sector in 2007-2018 period declined. The return on assets of the sector, which was 2.8% in 2007, decreased to 1.4% in 2018. Additional liabilities imposed on the sector and macroprudential decisions can be cited as the reason for the decline in profitability.

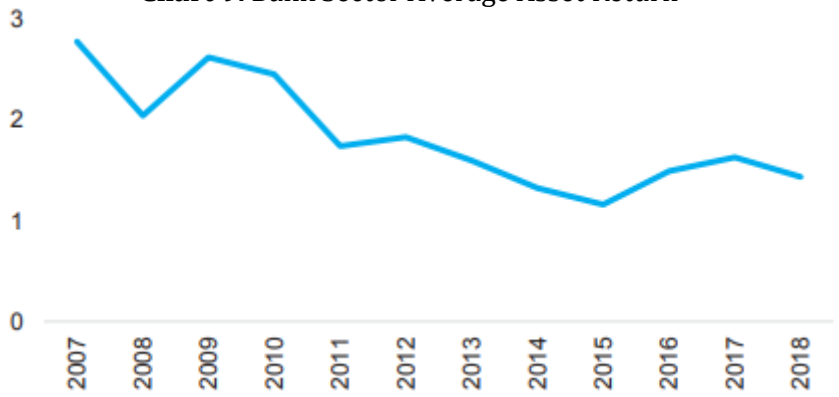
Table 2. Deposit Money Banks Net Profit/Shareholders' Equity (ROA) - Net Profit/Total Assets (ROE) (2008-2018) Profitability Development

Years (ROA)	Public	Private	Foreign	Sector	Years (ROE)	Public	Private	Foreign	Sector
2008	27.06	19.31	12.16	18.74	2008	2.16	1.96	1.42	2.05
2009	36.54	23.72	15.23	22.92	2009	2.82	2.63	1.96	2.63
2010	29.47	21.9	12.32	20.12	2010	2.55	2.63	1.64	2.46
2011	19.54	16.21	14.2	15.48	2011	1.64	1.82	1.57	1.74
2012	20.19	16.3	13.04	15.68	2012	1.9	1.88	1.53	1.83
2013	19.42	15.44	6.56	14.19	2013	1.82	1.75	1.7	1.6
2014	15.95	13.26	8.38	12.25	2014	1.54	1.43	0.82	1.33
2015	15.94	11.03	9.22	11.28	2015	1.48	1.12	0.93	1.16
2016	17.4	14.5	13.08	14.28	2016	1.63	1.51	1.38	1.5
2017	19.16	14.94	15.99	15.88	2017	1.69	1.57	1.65	1.62
2018	14.78	14.47	15.81	14.83	2018	1.26	1.48	1.6	1.45

Source: bddk.org.tr

Table 2 shows that the sector's return on equity was announced as 18.74 for December 2008 and 22.92 for the same period of 2009 and there was a 418 basis points increase. Asset profitability increased by 58 basis points to 2.63. While public and private banks increased above the sector average, foreign banks remained below the sector in terms of both return on assets and return on equity. There is a significant decrease in the return on assets from 2008 to 2018.

Chart 9. Bank Sector Average Asset Return



Source: TBB, www.tbb.org.tr

The average asset profitability of the banking sector is also in a downward trend for the period 2008-2018,as Chart. 9 shows. The main reasons for this are the additional obligations and macro-prudential measures introduced to the Turkish banking sector.

This situation posed a systemic risk in the banking sector since the loan rates of the banking sector after the 2008 global financial crisis increased and quality investment opportunities could not be found and financed at the same rate. Financial Stability Committee (FSC), which includes BRSA, the Capital Markets Board of Turkey and the Central Bank of the Republic of Turkey, was established as a decisive institution in 2011 for the implementation of macro-prudential policy in Turkey.

Macro-prudential policy tools were applied widely in Turkey between 2011-2015. While macro prudential policy instruments were preferred to control the growth in personal loans, liquidity instruments were aimed to be used to prevent the negative effects of maturity mismatches. The macro-prudential measures implemented by the BRSA in the context of the recommendations of the FSC can be summarized as follows;

- Including credit cards belonging to individuals within the scope of consumer credit
- Regulation of credit card limits and increasing minimum payment rates
- Increasing the risk weights of credit card installments
- Reducing the provisioning ratio of export and SME loans
- Regulation of measurements and evaluations of banks' capital adequacy ratios
- Increasing bank provisions for vehicle loans
- Installment restrictions on consumer loans and credit cards
- Evaluation of vehicle loans based on loan/value ratio[7]

[7] Cetin M.A. and Bakirtas I., (2018) "Conceptual Overview of Macro Prudential Policy and Turkey Experience" http://www.ekonomikyorumlar.com.tr/files/articles/1541065401.pdf

The fall in loans stemming from the growth of consumer loans particularly in the banking sector led to a decline in banks' profitability while providing a positive support for their sustainability.

11. Turkish Banking Sector 2008-2018 Revenue-Expense Structure

The absence of an increase in the number of deposit banks as of 2008-2018, (bddk.org.tr) evaluated together with the decrease in net interest margin after 2008, leads to the conclusion that there is no competition in the sector that could harm financial stability. Increasing net interest margin rates indicates that risk premiums increased especially in the crisis environment. We can say that the ratio of non-interest incomes to total assets decreased with the increase in net interest margin and that the ratio of non-interest incomes to total assets increased in the periods when net interest margin decreased. This can be attributed to the negative relationship between exchange profits and net interest margins. If interest rates increase with exchange rates, foreign exchange deficit and exchange losses of the sector can be mentioned. As of today, the absence of foreign currency deficits of the Turkish banking sector does not cause a decrease in non-interest revenue.

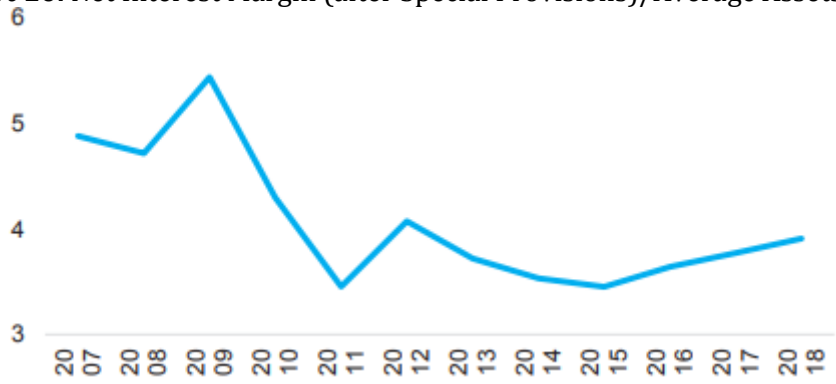
Table 3. Deposit Banks Net Interest Revenue/Assets Ratio for 2008-2018 Period (%)

Years	Public	Private	Foreign	Sector
2008	3.32	3.36	4.57	3.61
2009	3.88	3.91	5.31	4.12
2010	2.99	3.11	4.44	3.25
2011	2.37	2.32	3.16	2.48
2012	2.99	2.62	3.89	2.96
2013	3.02	2.70	3.36	2.88
2014	2.48	2.56	2.97	2.59
2015	2.42	2.50	2.84	2.55
2016	2.73	2.61	3.00	2.73
2017	2.65	2.70	3.28	2.80
2018	2.59	3.12	3.29	2.92

Source: bddk.org.tr/Bulten aylık

In the Turkish banking sector,as can be seen on the Table. 3, the net interest margin has been decreasing since 2009, when it was the highest in the sector (4.12). Due to the tightening in global liquidity conditions, the maturity structure of the balance sheet of the banking sector caused a contraction in the interest margin during a period of increasing interest rates (tbb, 2019). For the period 2008-2018, it is observed that the net interest margin rates of public, private and foreign deposit banks are similar to the sector. While the rates of public and private banks declined rapidly after 2009, the same cannot be said for foreign banks.

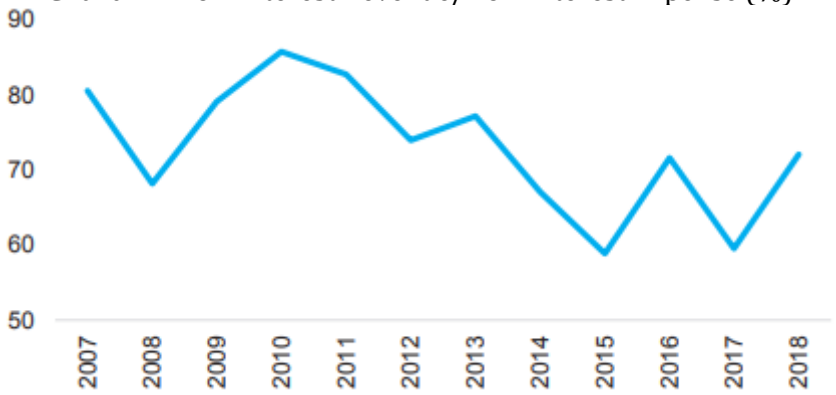
Chart 10. Net Interest Margin (after Special Provisions)/Average Assets (%)



Source: tbb.org.tr

As of 2008-2018, the share of non-interest incomes within total revenues decreased. In other words, the ratio of non-interest incomes to non-interest expenses decreased. The ratio of non-interest incomes to non-interest expenses, which was 80% in 2007, increased to 86% in 2009 but kept a declining trend after 2009. This ratio was 72% in 2018.

Chart 11. Non-Interest Revenue/Non-Interest Expense (%)



Source: tbb.org.tr

Restrictions on fees and commissions received from individual customers, one of the most important revenue sources of the banking sector, can be seen as the most important reason for the decrease in the ratio of non-interest revenue to non-interest expenses. As a result of the regulations, the ratio of fees and commissions revenue to average assets decreased after 2007.

12. Conclusion

Turkey showed a rapid development in the banking sector in 1980 as a result of financial liberalization decisions. However, from time to time, new regulations and oversight requirements occurred for the Turkish banking sector after the major crises that Turkey experienced. The Restructuring Program in particular, that was implemented after the February 2001 crisis, caused positive radical changes in the structure of the banking sector. Global or domestic economic crises definitely affect the banking sector. In this context, the Turkish banking sector directly affects the economy due to its important intermediary functions in the country's markets. As can be seen from the studies conducted on banking crises, crises cause the economy of the country to contract. In this study, the development, profitability

and revenue-expense analysis of the Turkish banking sector after the 2008 global crisis were presented using tables and charts. The 2008 crisis affected the world in a short time and had negative effects on the Turkish banking sector as well. However, it can be said that these effects were quite limited. The reason for this is that the right lessons had been learned from the 2001 crisis and that the banks had increased their capital well above the level envisaged by the BRSA, and even the CAR rose to the level of 19% in 2010 and that the banks had successful risk management policies. The precautions and regulations enabled the banking sector to recover from the 2008 crisis with the least damage and to continue its activities by preserving and developing the robust and strong structures of the banking sector in the following periods after the crisis. It can be said that the continuity of this performance depends on the successful and effective management activities of the banks in the sector, compliance with the rules on regulation and supervision and the continuity of stable macroeconomic policies. In this context, regulations and practices of the BRSA will continue to induce positive results. The precautions taken and regulations made by regulatory authorities such as BRSA prevented banks from taking excessive risks. As a result, the banking sector contributed to financial stability by keeping profitability and equity growth at appropriate levels. In 2009, when the effects of the global financial crisis were mostly felt on the real sector, the Net Interest Revenue/Asset Ratio was the highest for the Turkish banking sector, Net Interest Margin (After Special Provisions)/Average Assets ratio increased and the profitability rates also increased significantly (ROA and ROE rates were at the highest). Following the 2008 crisis, due to the decline in inflation, the fall in interest rates, the increase in net interest margins and the increase in securities interest income, the banking sector announced a net profit of TL 13.421 million in 2008, while the profitability figures decreased to TL 10.314 million after the end of 2011. (tbb.org.tr) In other words, there was a 15.2% decrease compared to the same period of the previous year. This is because CBRT increased required reserve ratios and decided in favor of not paying interest on provisions. This resulted in a decrease in interest revenue of banks. The period net profit of the banking sector increased in TL in 2007 - 2018 period but decreased in dollars. At the end of 2010, the profitability level reached TL 22.1 billion. Despite the decrease in the profits of banks due to the increase in costs in 2011, it can be said that the Turkish banking sector has a significant amount of power to generate profit. According to BRSA September 2017 data, net profit of the banking sector increased to TL 37.180 million. The fact that the net interest margin in the sector has been on a downward trend after 2009 shows that the banks' profit margins decreased. It begs the question, can there also be a question mark about the stable structure of the banking sector? However, since the high interest margin can be seen as a reflection of risky loans in banks and thus may define a sector where the banking system is inefficient or non-competitive, it prevents making an assessment in this direction. The general overview of the Turkish banking sector shows that it has a strong balance sheet structure that can meet potential risks, work effectively in payment systems and resist sudden shocks and fund growth. The positive growth in the sector will contribute to the continuation of the competitive advantage of Turkish banking in the international arena. It can be said that the Turkish banking sector has achieved a certain level of stability after the 2008 crisis

and that it has a prepared financial structure against the crises that may arise. The Turkish banking sector has a strong capital structure. Its total assets have a value greater than Turkey's GDP. Its NPL value is low. It has high credit facilities available. It has no open foreign currency position. These facts show that the Turkish banking sector has achieved a certain level of stability after the 2008 crisis and that it has a prepared financial structure for the crises that may arise.

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