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Research Article

RISKS FOR THE TURKISH BANKING SECTOR, THE BANKING SECTOR RESTRUCTURING PROGRAM AFTER THE 2001 CRISIS AND THE EFFECTS OF THE 2008 GLOBAL CRISIS ON THE BANKING SECTOR

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ABSTRACT

The attitudes of the banking sector, which plays an important and active role in the changing and developing financial system, against the economic crises that may arise at any time, and the extent to which their financial structures support these attitudes, can be explained by dashboards. The present study investigated the continuation of the positive effects of the post-2001 crisis regulations on the financial structure of the Turkish banking sector and the risks to the banking sector and the effects of the 2008 financial crisis on the banking sector. In order to see the developments in the period of 2008-2017 in particular, it is aimed to make a comparison by taking into consideration the banking sector data and reports published in the official websites of the BRSA (Banking Regulation and Supervision Agency) and BAT (Banks Association of Turkey). A conclusion has been tried to be reached on whether the banking sector poses a risk to the financial system in the event of a crisis.

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INTRODUCTION

The concept of risk that applies to every sector in the developing and growing global world has a special place in the financial system. Correct management of risks that may arise during the evaluation of surplus funds included in the system in profitable investments is extremely important. The banking sector, in particular, has assumed an important intermediary function in making the transfer of funds between suppliers and demanders available in terms of location, time, amount and maturity. The most important elements in the fulfillment of this function are trust and stability. Healthy and strong financial structures of financial institutions are on the basis of trust and stability. This also applies to Turkey. In the first part of our study, we examined the effects of the 2001 crisis and concluded that the Turkish banking sector does not have a safe, strong and healthy structure. The state has urgently implemented measures to address the unhealthy and weak structural situation. In this context, in order to compensate the serious damages caused by the crisis, regulatory measures were primarily taken in order to ensure the stability of the country's economy and to eliminate the imbalances in the markets. The most important of these regulations is the Banking Sector Restructuring Program (BSRP) introduced by the Banking Regulation and Supervision Agency. With the global crisis of

2008, it was possible to test how useful these reforms were and see the results of the decisions taken. The present study aims to make a comparison by considering the banking sector data and reports published in BRSA and BAT's official websites in order to evaluate the developments of the 2008 - 2017 period. A conclusion has been tried to be reached on whether the banking sector poses a risk to the financial system in the event of a crisis.

The Concept of Risk

The concept of risk implies negativity. According to Bernstein, who wrote about the history of the concept of risk, the word risk is derived from the word "risicare", which means "to dare" in Old Italian. In this sense, risk refers to a choice rather than fate. The word risk, which is the same both in Turkish and English, was derived from the French "risque". (Altıntaş,). The concept of risk refers to the dangerous situations that you will enter in order to evaluate the possibilities that you may face in the future based on your past experiences and to achieve benefits for yourself. The risk is divided into two groups. Systematic risks: it is not possible to predict these risks and it is difficult to avoid them completely. These risks can be defined as uncontrollable or market risk. Systematic risk arises from the system and affects the entire system and savings owners simultaneously. However, the measure of impact

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varies. Non-systematic risk: it includes risks specific to the sector or business. This is the risk that the savings can reduce by choosing or diversifying different investment instruments.

Risk in Banking

We can argue that banks can buy and sell risks. In this sense, risk can be defined as the probability that a transaction is not concluded as expected after a certain period of time due to unforeseen reasons and that the planned and desired success is not realized.

Deposit banks, in particular, are constantly engaged in risky activities and most of the risks that banks face are included in the balance sheet. The risks that can be avoided by banks can be grouped into three groups. These are;

- a. Avoidable risks
- b. Risks that can be transferred to the other party
- c. Risks that can be managed at firm level (Mandacı, 2003)

The Risks faced by the Banking Sector are

Interest Risk: It is the risk that a bank faces due to maturity incompatibility between the bank's assets and liabilities. More specifically, this represents the interest rate risk faced by a bank due to the fact that the maturity structure of the loans and securities in the asset differs from the maturity structure of the deposits and non-deposits resources in the liability account (Ertürk, 2010). Acceptance of this risk in banking is quite natural and this may be an important reason for the increase in profitability and share value. However, excess interest risk may pose a great threat to the bank's incomes and capital base. Changes in interest rates lead to changes in the net interest income of the bank, other interest-sensitive income and operating expenses and hence affect the bank's income. An effective risk management that tries to keep the interest rate within precautionary limits is important in terms of the security and soundness of banks (Acar, 2012).

Liquidity Risk; This risk type is analyzed under the market risk heading. Banks are exposed to this risk when the maturities of their assets and liabilities are incompatible. In other words, liquidity risk is the probability of loss that occurs if the banks cannot convert their assets into cash when they need cash. One of the main functions of banks in the financial system is the creation of liquidity and the distribution of risk to different parties. Banks' ability to perform these basic functions effectively came to the agenda with the 2008 global crisis. BASEL III regulations introduced innovations in liquidity and credit risk management. These new regulations have the capacity to significantly affect banks' business processes and risk management, as well as their liquidity creation capacity. Unless banks manage the liquidity risk, which is one of the most serious risks they may encounter, they may go bankrupt even if their assets or profits are high.

Credit Risk; Banks make the most profit from lending. However, lending also includes huge potential risks. The Bank of International Settlements (BIS) defines credit risk as the probability that a debtor or counterparty may fail to meet its obligations in accordance with the agreed terms. Credit risk arises from default of debtors who have bad credit history and often have unfavorable conditions such as high interest rates to

fulfill their obligations to the bank. Factors such as unbalanced income, low credit rating, type of employment and collaterals determine the credit risk of a debtor. As is evident in the case of the US 2008 subprime crisis; quantitatively, credit risk is the most important risk that banking activities face. Although US banks adapted to the various improvements in the credit risk management promoted in the BASEL II criteria, the crisis could not be avoided. Credit risk poses a threat in terms of financial crises for countries with a weak banking sector. Credit risk may also arise from the failure of the bank to take its responsibilities seriously. In the process of lending, banks should examine the past credit records of individuals and organizations requesting loans and only after detailed investigations should they decide whether the person or organization is reliable for lending. Only in this way can the risk be minimized for unpaid loans.

Market Risk; It can be defined as loss risk in the on-balance sheet and off-balance sheet positions as a result of the reverse movements in market prices (EBA, 2018). In other words, it is the risk of loss in trading book of banks due to currency risk, interest rate risk, re-pricing risk, commodity price risk and fluctuations in stock prices depending on the nature of the financial positions. Market risk is mostly common among investment banks since they are active in capital markets. Depending on the potential cause of risk;

- Interest rate risk: Potential losses due to fluctuations in interest rate,
- Equity risk: Potential losses due to fluctuations in stock price,
- Exchange rate risk: Potential losses due to international exchange rates.
- Commodity risk: Potential losses due to fluctuations in agricultural, industrial and energy goods prices such as wheat, copper and natural gas.

Operational Risk; It is as old as the banking sector. Operational risk is defined by the Basel Committee on Banking Supervision (2006) as "a loss risk due to insufficient or unsuccessful internal processes, persons and systems or external events". This definition includes legal risk, but excludes strategic and reputational risk. (MetricStream,). Operational risk can emerge frequently in banks due to human errors (e.g. leaked confidential information, etc. due to system failure). Operational risk can be classified as follows;

- Human risk: Possible losses due to human error, either intentionally or unintentionally,
- IT/System risk: Possible losses due to system errors and programming errors,
- Process risk: Possible losses due to improper information processing, leakage or hacking.

It should be kept in mind that operational risk, when not taken seriously enough, may lead to the collapse of a bank, as in the case of Barings, one of Britain's oldest banks, which collapsed in 1995. To reduce exposure to attacks, such as security breaches where data is captured, investments should continuously be made in technology (Gangreddiwar, 2015).

Crises in the Banking Sector

Banking crises emerge as a result of sudden withdrawal of deposits from the entire banking sector or from some banks. Banks use the funds of account owners as reserves and bonds and provide depositors with the guarantee that they can withdraw their funds at any time and amount. However, if banks only invest in bonds, their asset values fall in the case of the implementation of contractionary monetary policies resulting in an increase in interest rates. This may cause account owners to think that banks are having a hard time and that they will not be able to withdraw their money, so with that thought in mind, they may rush to banks (Ari & Özkeskin 2016). If the bank does not have sufficient liquidity and liquid assets, it will go bankrupt and this situation can be reflected on the national economy in a short time and cause adverse fluctuations. In particular, the banks in Turkey are adversely affected by excessive price changes and loss of trust due to their structures. These results support the fact that banks in the sector have a fragile structure. What needs to be understood from financial freedom is taking interest rates under control, deregulation of the banking sector, permitting entry of foreign capital, privatization and adoption of international regulatory standards. In this context, Hardy and Pazarbasioğlu (1998) conducted a study that expanded the scope of macroeconomic indicators and reached the finding that if GDP growth rates decrease, domestic credit growth is fast, inflation becomes variable and domestic interest rates and capital inflows are high, risk of crisis increases (Arteta, 2000).

The most serious crisis in the history of our country was experienced in 2001 due to political instability, high interest rates, domestic capital outflow, 1998 Russian crisis and 1999 Marmara Earthquake. The crisis caused bankruptcy of thousands of businesses, unemployment of thousands of people and unexpected economic contraction. What is more, the crisis brought with it new conditions that changed the country's medium-term perspective. The political tension between the President and the Prime Minister of the time had a very negative impact on the markets, and the stock market experienced a historic decline of 15%. On February 25, 2001, the interest rate per night rose to 7500%. The state-owned banks had enormous deficits and the government switched to the floating exchange rate system in order to take the markets under control. As a result, the US dollar exchange rate increased from TL 695 to TL 900. Due to investors' panic and loss of confidence, the rapid and dramatically increased capital outflow resulted in the failure to finance budget deficits, and thus bankruptcy of companies. In addition, following the rapid capital outflow caused by political instability, interest rates also increased. Therefore, the banking sector lost its ability to fund loans and preferred to invest in bonds due to high interest rates. Meanwhile, the Central Bank became unable to finance budget deficits due to high interest rates. In these circumstances, the efficiency of deposit banks received significant damages. The factor causing the decrease in efficiency is the decrease in performance seen in the entire banking sector. Naturally, banks experienced difficulties in fulfilling their responsibilities and the banks such as Demirbank, which was believed to have a very strong structure, made long-term investments with short-term debt instruments and entered a liquidity crisis. For this

reason, these banks were transferred to the Savings Deposit Insurance Fund. Inadequacy of the regulatory measures to be taken by the state in order to ensure the stability of the country's economy and to eliminate the imbalances in the markets, the lack of supervision and weaknesses in the bank balance sheets came to light with the 2001 crisis. As a result, to re-establish confidence in the Turkish banking sector and for a sound and healthy structure, the implementation of structural and regulatory programs came to the agenda. The Banking Sector Restructuring Program (BSRP), prepared by the Banking Regulation and Supervision Agency (BRSA), was initiated on May 15, 2001. The most serious and radical measures taken during this period were the restructuring of privately-owned banks and state-owned banks, which suffered bankruptcy or serious financial losses, and more serious implementation of regulations in the banking sector. It was aimed to perform a rapid and comprehensive restructuring in the banking sector and thus establish a healthy relationship between the banking sector and the real sector.

The foreign exchange net general position limit of deposit banks was reduced to 20% of the capital. Banking Law was revised to increase BRSA's independence and transparency in its activities, to reinforce basic precautionary arrangements, to take measures related to troubled banks and to provide all necessary tools for restructuring of these banks. In addition, banks with capital adequacy ratios below the specified minimum level were obliged to strengthen their capital positions. Many regulations were implemented in state-owned banks such as financial liquidation of duty loss receivables, reduction of short-term liabilities, providing capital support to state-owned banks, making deposit rates compatible with market rates, and effective management of the credit portfolio. In addition, arrangements were made for the structuring of organization, technology, human resources, loans, financial control, product diversity, risk management and banking activities in a manner to adapt to international competition. To strengthen the capital structure of privately-owned banks whose asset quality deteriorated, it was decided to implement serious audits and to provide capital support. In addition, significant progress was made in the measures to strengthen supervision in the banking sector and in the realization of legal and institutional arrangements that would make the system more effective and competitive, reduce the fragility of the sector and increase its resistance and establish confidence in the sector. The effective positions of the supervisory and regulatory authorities in the banking market in this period also caused the banking sector to maintain its activities within the framework of strict regulations. In summary, the revision of the Banking Law, the implementation of BRSA, the introduction of the independent auditing function, and the emphasis on risk-focused supervision as well as on risk management contributed significantly to the reestablishment of financial stability. However, the 2008 global crisis emerged in the United States, which started as a subprime mortgage crisis in 2007 and in no time developed and affected the changing global financial system, and whose dramatic effects were compared with those of 1929 Great Depression. The main reason behind this crisis was a new investment tool called Mortgage-Backed Securities, which was developed in the 1970s by merging thousands of mortgage bonds by a banker called Lewis Ranieri, who

performed bond transactions. When MBSs, which had hundreds of thousands of mortgage bonds, had become a very lucrative investment tool for banks over the years, privately-owned finance and banking institutions began to demand the loosening of regulations from US governments from the 1980s. The number of regulations in the financial and banking sectors declined significantly during the Bush period (2001-2009). US banks started to offer subprime mortgages to low-income families through housing loans. However, employment statuses of these low-income families taking out loans with high interest rates and significant risks such as whether their income would be enough to pay these loans were ignored. The reason for this was the rapid rise in the return on the MBSs when the number of families taking out housing loans increased.

Banks' profits were also naturally increasing. In this process, banks used two methods to sell MBSs that had low credit rating (BBB) to investors. One of these methods was converting risky bonds with low credit ratings into a new financial derivative instrument called CDO, Collateralized Debt Obligation. According to the second method, major credit rating agencies such as Fitch and Standard and Poor's gave high credit rating to these CDOs with low credit rating, and thus showed them as having low risk. However, rapidly increasing housing prices (real estate bubble) resulted in low-income families' failure to pay their debts. The increase in the number of families failing to meet their financial obligations caused a rapid decrease in the values of MBSs and CDOs. As a result, the shares of US investment banks traded in the NY stock exchange suffered significant losses. When the value of the shares of Lehman Brothers, which held a high position in MBS and CDOs, fell to 0 in 2008, the bank declared its bankruptcy. This caused the investors to panic and US banks to sell their shares. Thus, the rising crisis influenced global financial markets and the global economy in a short time (Hürriyet Economy, 2018).

Regulation and Measures Related to the 2008 Global Economic Crisis

Aiming to achieve sustainable competitive power and to reduce the negative effects of the crisis on the real sector, the CBRT raised the export rediscount credit limit to \$ 1 billion, facilitated the use of export rediscount credits, and reduced required reserve ratio in foreign currency liabilities from 11% to 9%. In order to protect the financial structures of banks and to minimize the damage that the rapid changes in the prices of financial assets can give to capital adequacy, BRSA asked the banks not to distribute their 2008 profits and in order to ensure that credit relations between banks and non-financial institutions are not impaired, it allowed the loans to be restructured. While the banking sector increased the credit supply in the first three quarters of 2008, it preferred to be careful in the last quarter. This is because banks preferred to remain liquid and the risk had increased. While the banking sector was trying to increase its liquid assets especially in foreign currency, it increased the credit standards and slowed down the growth rate of credit stock (....., 2008).

2008 and 2017 Comparison of the Banking Sector

Number of Banks and Branches

	2002		2008		2009	
	Banka	Şube	Banka	Şube	Banka	Şube
Mevduat bankaları	40	6.087	32	8.741	32	8.991
Kamu bankaları	3	2.019	3	2.416	3	2.530
Özel bankalar	20	3.659	11	4.290	11	4.390
Fondaki bankalar	2	203	1	1	1	1
Yabancı bankalar	15	206	17	2.034	17	2.062
Kalkınma ve yatırım bankaları	14	19	13	49	13	44
Kamu bankaları	3	4	3	23	3	22
Özel bankalar	8	12	6	12	6	15
Yabancı bankalar	3	3	4	14	4	7
Toplam	54	6.106	45	8.790	45	9.027

* K.K.T.C ve yabancı ülkelerdeki şubeler dahil.

Graph 1 2002-2009 Number of Banks and Branches

	2016	2017
Mevduat bankaları	34	34
Kamu sermayeli	3	3
Özel sermayeli	9	9
Yabancı sermayeli	21	21
TMSF Devr.	1	1
Kalkınma ve yatırım bankaları	13	13
Katılım bankaları	5	5
Toplam	52	52

Graph 2 2017 Number of Banks

	2016	2017	Değişme
Mevduat bankaları	10.740	10.500	-240
Kamu sermayeli	3.702	3.677	-25
Özel sermayeli	4.132	4.013	-119
Yabancı sermayeli	2.905	2.809	-96
TMSF Devr.	1	1	0
Kalk. Yat. bankaları	41	50	9
Katılım bankaları	959	1032	73
Toplam	11.740	11.582	-158

* K.K.T.C ve yabancı ülkelerdeki şubeler dahil.

Graph 3 2017 Number of Branches

Source: Banking and Sector Information www.BAT.org.tr

The number of banks operating in Turkey in 2008 is 49. Of these, 4 were participation banks, 32 were deposit banks and 13 were development and investment banks. On bank was under the control of the Savings Deposit Insurance Fund (SDIF). In 2017, 52 banks were active. Of these, 34 were deposit banks and 13 were development and investment banks. There were 5 participation banks. Following the global crisis in 2008, there was not a decrease in the number of banks. On the contrary, new banks were included in the system. The main reason for the 2008 global crisis was the securitization. However, in the interest-free banking system, receivables cannot be securitized. For this reason, it is not possible to talk about financial transactions and speculation with high risk. Accordingly, in the second period of 2015, Ziraat Participation started its activities in response to the suggestions of BRSA to increase interest-free banking which could be less affected by the crisis. In the first period of 2016, Vakıf Participation Bank started its activities. After it was determined that the problems in its financial structure, partnership, management structure and activities posed dangers to the rights of participation fund holders as well as to the trust and stability of the financial system, Asya Participation Bank was transferred to SDIF in 2015. Total number of branches rose by 1.172 in 2008 to 8.790. The number of branches of foreign banks increased considerably until 2009 after the 2008 global crisis. While this number was 206 in 2002, it reached to 2070 in 2009. Despite the negative effects of the global crisis, as the capital structure of the banking sector was strengthened, the profitability of the banking sector increased and the number of branches of banks, excluding investment banks, increased. In 2017, the number of

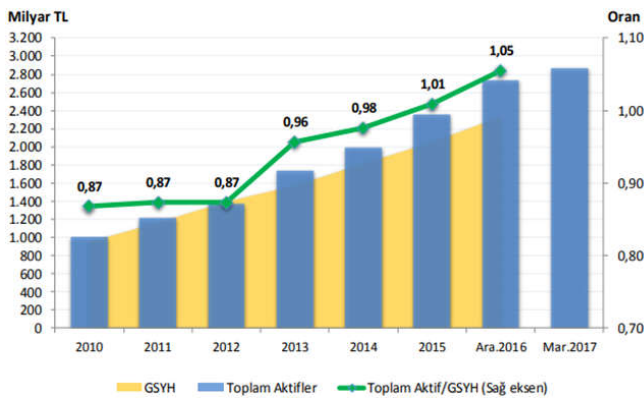
branches fell by 158 to 11.582. The decrease in the number of branches resulted from deposit banks. The number of branches of privately-owned deposit banks fell by 119, of foreign deposit banks by 96, and of state-owned deposit banks by 1.

Balance Sheet Size

	Milyar TL	Milyar dolar	Yüzde deg. TL	Yüzde pay 2016	Yüzde pay 2017
Likit aktifler	488	129	37	13	15
Finansal varlıklar	402	106	14	13	12
Krediler	2.112	560	21	64	65
Toplam aktifler	3.258	864	19	100	100
Mevduat	1.711	454	18	53	53
Mevduat dışı	903	239	21	27	28
Özkaynaklar	359	95	20	11	11
Toplam pasifler	3.258	776	19	100	100

Graph 4 2017 Selected Balance Sheet Items

Source : Banking and Sector Information www.BAT.org.tr

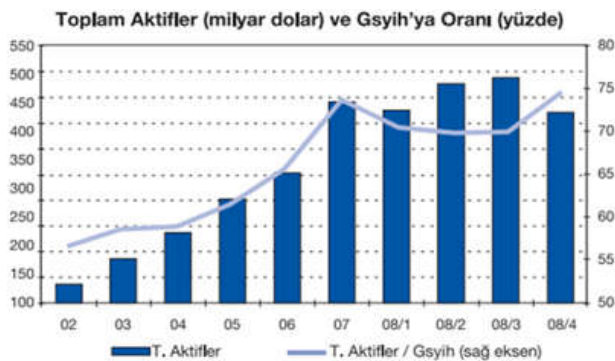


Graph 5 Total Assets

Source: Main Indicators of Turkish Banking Sector www.BRSA.org.tr

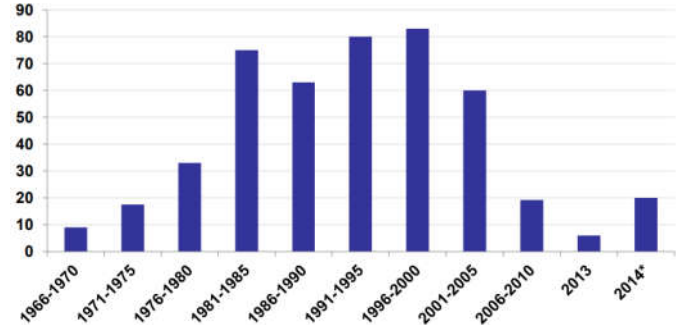
Varlıklar	
Aralık 08-Aralık 09	
Likit aktifler	1.681
Menkul değerler cüzdanı	73.123
Krediler	14.112
Diğer aktifler	3.746
Toplam	92.662
-TL	94.036
-YP	-1.374
Kaynaklar	
Aralık 08-Aralık 09	
Mevduat	53.774
Mevduat dışı kaynaklar	12.454
Özkaynaklar	23.772
Diğer pasifler	2.662
Toplam	92.662
-TL	85.448
-YP	7.213

Graph 6 December 2008-December 2009 Change in Major Balance Sheet Items (Million TL)



Graph 7 2008 Y Annual Growth (%)

Source: www.BAT.org.tr



Graph 8 Growth Ratio of Equity (Five-Year Average, Percent)

Source: Banking Sector in Turkey 1960-2014 www.BAT.org.tr

As of December 2008, total assets increased to TL 706 billion (\$ 464 billion). The ratio of total assets to GDP increased from 66% at the end of 2007 to 74% at the end of 2008. The growth in total assets in deposit banks group was 27% in state-owned banks, 26% in privately-owned banks, and 24% in foreign banks. The growth rate on the balance sheets of development and investment banks was 21%. Total asset size in Turkish banking sector increased to \$ 864 billion (TL 3258 billion) in 2017. The ratio of total assets to GDP was 1.05 at the end of 2016. Of the resources, 65% was allocated to loans, 15% to liquid assets and 12% to securities portfolio. The increase in liabilities mainly stemmed from the growth in deposits and non-deposit resources. Among the liabilities of 2017, deposits have a share of 53%, non-deposit resources 21% and shareholders' equity 11%. Shareholders' equity item increases as TL. However, the decrease in the increase may be attributed to the depreciation of TL, the increase in interest rates or the decrease in the profitability percentages.

Sector Shares

	Toplam aktifler			Toplam mevduat			Toplam krediler		
	02	07	08	02	07	08	02	07	08
Mevduat bankaları	96	97	97	100	100	100	89	96	96
Kamu ve Fon bankaları	36	29	29	39	36	36	20	23	24
Özel bankalar	56	52	52	58	50	51	65	55	55
Yabancı bankalar	3	15	15	2	14	13	4	19	18
Kalkınma ve yatırım bank.	4	3	3	-	-	0	11	4	4
Toplam	100	100	100	100	100	100	100	100	100

Graph 9 2002,2007,2008 Sector Shares of Bank Groups (%)

	Aktifler	Krediler	Mevduat
Mevduat	90	89	94
Kamu	31	32	33
Özel	36	35	37
Yabancı	24	23	24
KYB	5	6	0
Katılım	5	5	6
Sektör	100	100	100

Graph 10 2017 Sector Shares of Bank Groups (%)

Source: www.BAT.org.tr

As of 2008, the share of total assets of deposit banks in the sector is 97% while that of development and investment banks is 3%. Deposit banks' share of total assets has not changed. Foreign banks' share in total deposits fell by 1 point to 13%. Privately-owned banks' share rose by 1 point to 51%. State-owned banks' share in total loans rose by 1 point to 24% while foreign banks' share fell to 18%. According to 2017 figures, the share of deposit banks' assets in the sector was 90%, the share of development and investment banks' assets was 5%, and of participation banks was 5%. While state-owned deposit banks' share was 31%, privately-owned deposit banks' share was 36% and foreign deposit banks' share was 24%.

Distribution of Loans

	2008	Yüzde değişme (08/07)	2002	Yüzde pay 2007	2008
Kurumsal	245.103	30	86	66	68
Bireysel	122.506	25	14	34	33
Kredi kartları	37.273	29	9	10	10
Tüketici kredileri	85.233	24	5	24	23
Konut	39.433	21	1	11	10
Otomobil	5.851	-9	1	2	2
Diğer	39.949	34	3	11	11
Toplam	367.609	29	100	100	100

Graph 11 2008 Distribution of Loans (Million TL)

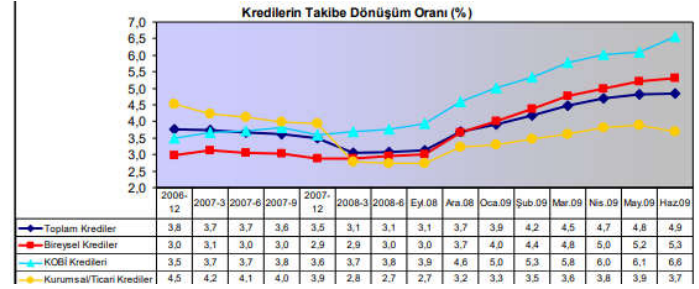
	2017	Değişme (yüzde)	Pay (yüzde)	Gsyh oran (yüzde)
Kurumsal	1.628	24	75	52
KOBİ	513	17	24	17
Bireysel	533	10	25	17
Kredi kartları	124	11	6	4
Tüketici ve konut	409	9	19	13
Konut	193	14	9	6
Otomobil	7	-6	0	0
Tüketici	209	6	10	7
Toplam	2.161	20	100	70

Graph 12 2017 Distribution of Loans (Billion TL)

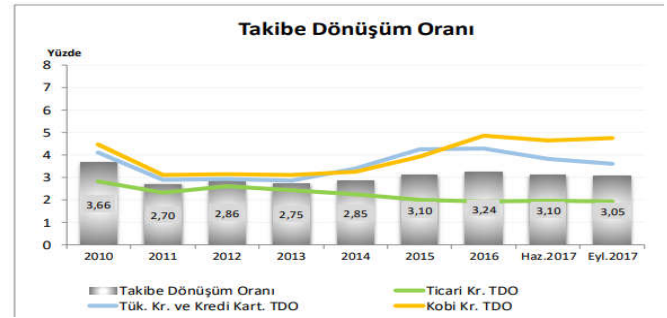
Source : Banking and Sector Information www.BAT.org.tr

It can be seen that the upward trend in total loans, which is an indicator of the depth of the banking sector, stagnated in 2008. While there seems to be a contraction in the credit volume granted to SMEs; a remarkable increase is observed in consumer and housing loans within the scope of individual loans. The risk sharing of this expansion in credit volume was realized between SMEs and personal loans. Due to the fact that the banks effectively implemented their financial intermediation functions with their financial structures that have been consolidated after the global crisis, the expansion in credit volume increased steadily. The sector has important obligations to ensure the continuity of these positive developments. The asset quality of banks can be defined by the quality of loans. An important issue that the banking sector should pay attention to in the light of current developments is the necessity to adopt more elaborate attitudes in the loans to be granted to risky sectors such as construction, energy and project finance due to the increased risks in the asset quality of banks that may arise from the increase in foreign exchange and interest rate pressure. However, in this way, the rate of increase in non-performing loans may be decelerated.

NPL Ratio of Loans



Graph 9 2006-2009 NPL Ratio of Loans



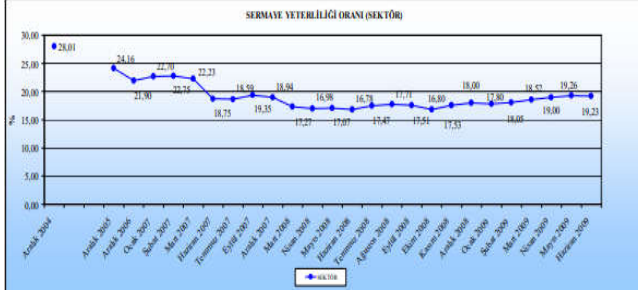
Graph 10 2010-2017 NPL Ratio of Loans

Source: www.BRSA.org.tr

The NPL ratio of loans, which was 3.7% in December 2008, increased to 4.9% in June 2009. The highest NPL ratio was 6.6% in SME loans. The highest increase in NPL ratio was observed in SME loans from September 2008 to June 2009. As of July 2009, the NPL ratio of the sector's credit card receivables was 9.7%, that of consumer loans was 3.6%, and that of total personal loans was 5.5%. Accordingly, the upward trend continued. While the NPL ratio of housing loans was 1.3% in December 2008, it increased to 1.9% in July 2009. This could be attributed to the global crisis in 2008 and the economic recession. In this period, banks were reluctant and cautious about granting loans. As a result, the number of non-performing loans increased due to the real sector crisis. The share of non-performing loans in total loans reached its highest level in 2009. As of June 2009; NPL ratio was 6.3% in foreign banks group, 5.7% in the participation banks group, 4.7% in the privately-owned banks group, 4.3% in the state-owned banks group, and 1.9% in the development and investment banks group. In a period of economic contraction, credit supply and demand will also contract normally. Moreover, a non-repayment problem will also arise in the existing loans. It is expected that some part or the whole of non-performing loans will be collected. In this process, reserves mean additional costs for the bank, which may have a negative effect on profitability. However, the ratio of non-performing loans in the Turkish banking sector shows a tendency to decline. The correct estimations and correct positions of the banks regarding the NPL ratio will be one of the most important factors in minimizing the risk of non-performing loans and increasing the profitability. Despite their profit-reducing effects, the reserves minimize the possible risks, therefore they are an important item and the reduction of the reserves may increase profitability. In addition, in order to prevent the rapid increase of non-performing loans in case of another economic crisis, banks should construct a robust credit portfolio and increase the asset quality. In December 2016, BRSA introduced a

regulation that allowed banks to reduce their general reserves for certain loans and receivables and to restructure them by December 31, 2017. This indicates that BRSA is still following the factors that cause non-performing loans and is taking fast and new measures, which, in turn, make positive contributions to the dynamic and sound structure of the banking sector.

Capital Adequacy Ratio





Graph 20 2016-2017 Bank Groups' Return on Assets

Source: www.BRSA.org.tr

While the interest income of the banking sector was TL 178 billion, the interest expense was TL 95 billion. As of September 2017 period, net profit of the Turkish Banking Sector was TL 37 billion. In the period of September 2017, state-owned, privately-owned and foreign bank groups increased their profits. Similarly, state-owned, privately-owned and foreign banks increased their returns on equity compared to the same period of 2016. Furthermore, their returns on assets for September 2017 increased likewise. There can be said to be a linear relationship between Turkish banking sector's capital adequacy ratio and return on assets. Indeed, a thorough examination of the findings of the study conducted by Karataş and Okuyan (2017) to investigate the factors affecting the profitability of the commercial banking sector in Turkey will reveal that as the capital adequacy ratio increases, the return on assets also increases. Banks engaged in deposit collection activities attach the greatest importance to trust. The more saving owners trust banks, the more savings they will invest in banks. This is because depositors who believe that banks have sufficient capital feel that their deposits are safe even in the event of a crisis. In other words, trust affects the bank's profitability in a very positive way. Also; increase in profitability can be achieved by lower ratio of non-performing loans and reduction in investments in liquid assets.

CONCLUSION

The "Banking Sector Restructuring Program" introduced reforms for the system that received fatal wounds after the 2001 Crisis. Accordingly, a number of rehabilitative applications were developed such as solving the problems of the banks transferred to the SDIF, financial restructuring of state banks thus eliminating the instability caused by them, provision of a healthy structure for privately-owned banks having hard times due to negative effects of crisis, and a strict control mechanism. Despite the difficulty, this bitter prescription had a very positive impact on the banking sector. Structural measures intended to be implemented by many countries in the world facing the global crisis of 2008 in order to weaken the effects of the crisis were experienced/implemented by the Turkish banking sector, which is why the sector was least affected from the crisis. In addition, the fact that mortgage loans that were the major cause for the crisis for US banks are not implemented in our country, that the Turkish banking sector aims at high profit, and that it does not undertake risks such as securitization and derivative products because it focuses on retail banking activities had a significant contribution to this. In the present study, the developments in

the banking sector in the period following the 2008 global crisis, and the measures taken by the banks against the risks that they may pose for themselves or that the financial system may pose for them have been compared by means of financial indicators. The Turkish banking sector got over the negative effects of the 2008 global crisis with the least possible loss. The most important reason for this is the fact that BRSA introduced tight restrictions on liquidity and capital adequacy ratios of banks with restructuring arrangements after 2001 crisis, and that it took necessary measures to implement a dynamic risk management. In addition, the government's determination in stable growth led to an increase in loans. These measures enabled the banking sector to endure the crisis in a sound manner. The stable appearance of banks in the asset quality as of 2017 is the result of the healthy structure of the banking sector. As is evident in the case of the US 2008 subprime crisis; quantitatively, credit risk is the most important risk that banking activities face. The NPL ratio of loans, which was 3.7% in 2008, increased to 4.9% in June 2009. In the 2017 period, the NPL ratio of loans increased slightly and fell to 3.05%. While banks create loans account, one of the most important asset items, they strive to provide loans that will maximize their asset quality to the highest level. A not-well-structured credit portfolio will result in an increase in the number of non-performing loans in times of economic crisis. This situation will lead to a chain of events from the banking sector to other sectors. Non-performing loans that demonstrate the asset quality capacity of banks in an economy is a forewarning risk indicator for the real economy. Well-management and monitoring of the NPL ratio is of paramount importance for the banking sector. Due to an increase in SMEs' payment problems in the first quarter of 2017, banks abstained in credit supply. This is because banks want to increase the amount of credit supply by minimizing credit risks with standard criteria. The Treasury Support provided to the Credit Guarantee Fund was increased from 2 billion liras to 25 billion liras in March 2017, which gave the guarantee problem flexibility. As a result, the amount of Treasury-backed loans increased. Furthermore, the profitability indicators of the banking sector sustained their expected positive levels. Losses of increasing capital market transactions and the limited increase in deposit interest expenses had a stabilizing effect on the horizontal direction of return on assets ratio. The fact that the Turkish banking sector operates with lower leverage ratios compared to developed countries is one of the reasons for the increase in equity. Increase in profitability and determining effect of debt instruments included in capital calculation as well as positive impact of securities valuation support strong capital adequacy ratio by means of creating internal resources. In this respect, it has been observed that the banking sector has a capital adequacy level above the standard. The reasons for the Turkish banking sector's ability to endure the 2008 global crisis with a minimum loss include its ability to provide funding through deposits due to the increase in credit volume, the fact that it did not need any funding from abroad, and its ability to protect itself against external risks. During this period, the banking sector adopted effective risk management processes, and, by following standard and sound credit policies, it could ensure a decrease in the ratio of non-performing loans. The present study concludes that after the 2001 crisis the Turkish banking sector is still consistently able

to maintain its strong capital structure, return on equity, healthy asset quality and adequate liquid asset level and is prepared for possible crisis risks. In addition, we believe that continuity of incentive packages to be introduced by economy management and regulatory authorities in order to alleviate the burdens of banks and to support their growth will have significant effects on the banks' ability to maintain a positive structure.

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