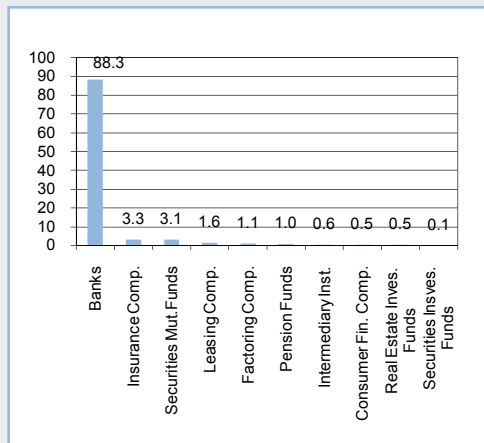


## II. STRUCTURE OF THE FINANCIAL SECTOR

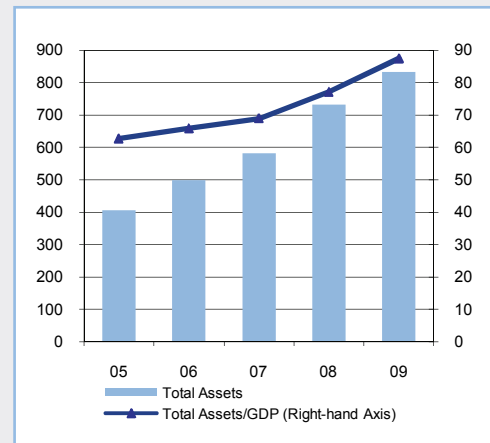
The total asset size of the financial sector, which maintained its growth in 2009, grew by 14 percent compared to the end of the previous year and reached TL 944 billion by the end of 2009. 88.4 percent of financial sector assets belong to banks (Chart II.1).

**Chart II.1.**  
Distribution of the Balance Sheet Size of the  
Financial Sector (%)<sup>1</sup>



Source: BRSA, CBRT, TSPAKB, CMB  
(1) End-2009 data.

**Chart II.2.**  
Development of the Banking Sector  
(Billion TL, %)



Source: BRSA, CBRT, TURSTAT

### II.1. Banking Sector

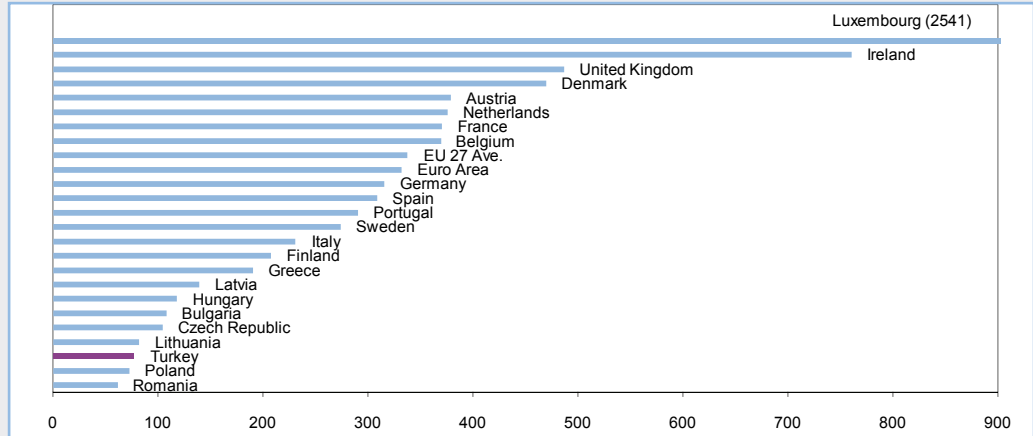
The Turkish banking sector consists of deposit banks, development and investment banks, and participation banks that operate according to profit/loss sharing principles.

The number of banks operating in the Turkish financial sector, which was 49 by end-2009, remained unchanged in March 2010. The number of branches, which was 9,308 at end-2008, increased by 271 to 9,579 in 2009 and later rose by another 20 to reach 9,599 by March 2010.

In 2009, the number of banking sector staff increased by 1,535 compared to end-2008 to become 184,205, whereas this number increased by 2,414 in the first three months of 2010 and reached 186,619 by March 2010.

By end-2009, the total asset size of the banking sector grew by 6.9 percent in real terms compared to the end of previous year and reached TL 834 billion, while it climbed by 16.5 percent to 561 billion in USD terms. While the said figure increased by 3.2 percent in nominal terms compared to end-2009, it decreased by 0.7 percent in real terms to TL 861 billion by March 2010 and became 568 billion in USD terms with an increase of 1.3 percent.

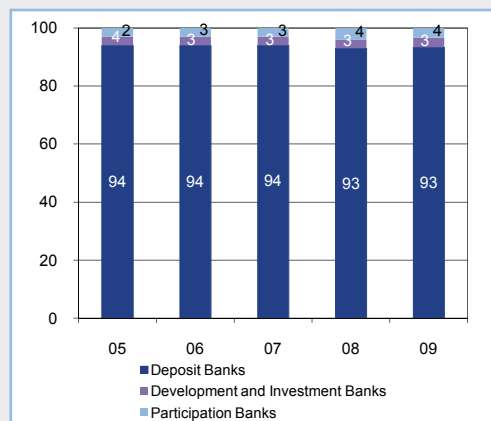
**Chart II.3.**  
**Comparison of the Ratio of the Turkish Banking Sector Balance Sheet Size to GDP with Selected EU Countries (%)<sup>1</sup>**



Source: TURSTAT, BRSA, CBRT, ECB Report – 2009  
 (1) Data belongs to 2008.

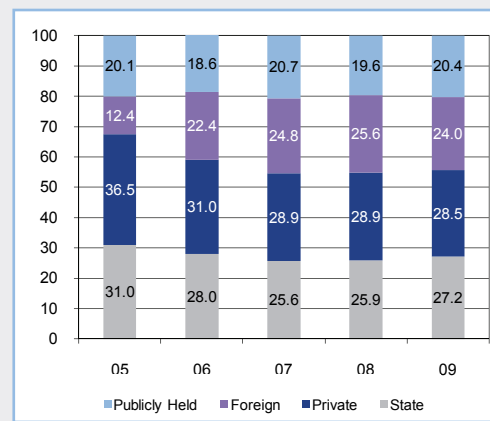
The ratio of the Turkish banking sector’s asset size to GDP increased from 77.1 percent at end-2008 to 87.4 percent at end- 2009 (Chart II.3). The share of the Turkish banking sector within the GDP is higher than that of Poland and Romania, but lower than that of EU countries.

**Chart II.4.**  
**Balance Sheet size of the Banking Sector by Groups (%)**



Source: BRSA-CBRT

**Chart II.5.**  
**Composition of Banking Sector Assets by Structure of Shares (%)<sup>1</sup>**



Source: BRSA-CBRT  
 1) For publicly held shares, no distinction is made between domestic and foreign investors.

By March 2010, of the 49 banks in the Turkish banking sector, 32 are deposit banks, 13 are development and investment banks and 4 are participation banks, thus pointing to the prevalence of deposit banking in the Turkish banking sector (Chart II.4).

Based on their share in paid-up capital, the share of foreign stockholders in assets, which was 25.6 percent at end-2008, was realized as 24 percent at end-2009 (Chart II.5). Meanwhile, according to data of the Central Registry Agency, when the share of foreign participation in publicly held shares, which stood at 17.9 percent, are included, the share of foreign participation in the banking sector reaches 41.9 percent.

**Table II.1 Comparison of Selected EU Countries<sup>1,2,3</sup>**

Countries	Deposit/ GDP (%)	Loan/ GDP (%)	Loan/ Deposit (%)	Total Assets/ Number of Credit Agen- cies (Million Euros)	Sector Share of the Top 5 Credit Agen- cies (%)	Number of Credit Agencies	Share of Foreign Stockholders in the Banking Sector (%)
Germany	123	129	105	3,959	23	1,989	11.5
Austria	112	149	134	1,330	39	803	23.4
Belgium	157	117	74	12,116	81	105	26.9
Bulgaria	63	74	118	1,228	57	30	83.4
Czech Rep.	67	52	78	2,871	62	54	90.8
Denmark	82	238	290	6,385	66	171	17.5
Estonia	60	105	175	1,296	95	17	97.3
Finland	61	90	146	1,075	83	357	69.5
France	86	117	137	9,925	51	728	13.3
Holland	168	185	110	7,401	87	302	5.7
UK	285	282	99	22,609	37	391	50.9
Ireland	165	259	157	2,819	56	501	56.6
Spain	160	181	114	9,340	42	362	10.6
Sweden	56	130	231	4,944	62	182	9.4
Italy	76	115	152	4,436	33	818	12.1
Latvia	58	99	172	949	70	34	67.8
Lithuania	35	65	186	316	81	84	84.8
Luxembourg	718	553	77	6,129	27	152	95.2
Hungary	52	72	139	633	55	197	60.4
Poland	42	44	103	370	44	712	71.7
Portugal	127	170	133	2,756	69	175	22.1
Rumania	29	37	126	1,966	54	43	79.4
Slovakia	62	47	76	2,520	72	26	92.8
Slovenia	57	93	164	2,042	59	24	30.8
Greece	116	91	78	7,000	70	66	22.2
<b>Euro Area Avg.</b>	<b>117</b>	<b>138</b>	<b>118</b>	<b>4,653</b>	<b>45</b>	<b>438</b>	<b>18.7</b>
<b>EU 27 Avg.</b>	<b>134</b>	<b>154</b>	<b>115</b>	<b>4,960</b>	<b>44</b>	<b>315</b>	<b>26.4</b>
<b>Turkey 2008</b>	<b>48</b>	<b>40</b>	<b>84</b>	<b>7,008</b>	<b>60</b>	<b>49</b>	<b>25.6</b>
<b>Turkey 2009</b>	<b>54</b>	<b>43</b>	<b>81</b>	<b>7,944</b>	<b>60</b>	<b>49</b>	<b>23.9</b>

Source: BRSA-CBRT, Eurostat, ECB Report – 2009

(1) The table includes 2008 data of the EU countries. The meaning of the term "Credit institution" varies by the EU countries and some include non-credit institutions as well. As for Turkey, data pertaining to banks are considered.

(2) Regarding Turkey, participation funds are included in deposit data and funds extended by participation banks in credit data.

(3) Parallel to the data for the EU, non-performing loans and financial leasing receivables are also included in the data for the credits in Turkey.

The ratios of deposits and loans to GDP, which reveal the financial depth and intermediation level of the banking sector, kept increasing; while the ratio of loans to deposits decreased in this period. The said ratios lag behind the EU averages.

The share of the first five banks within the total assets is above the EU average (Table II.1). Meanwhile, as of end-2009, the concentration ratios of the first five and the first ten banks were realized as 60 percent and 83 percent, respectively, and these ratios remained unchanged in comparison to end-2008.

### Box 7. Systemically Important Financial Institutions

As it has been experienced during the recent global crisis, bailing out systemically important financial institutions (SIFIs) in case of a failure imposes severe costs on the public. Using the advantage of their large sizes, SIFIs can borrow at lower costs, operate with higher leverage ratios and engage in riskier activities seeking higher profits. Additionally, the market conception of their being “too big to fail” and the provision of government support to those institutions create the problem of “moral hazard”. For this reason, in their meeting in Pittsburgh, leaders of G-20, called on the Financial Stability Board (FSB) to work on and propose measures to address the risks associated with SIFIs.

In their joint work on “Assessing Systemic Importance” in October 2009<sup>1</sup> the IMF, BCBS, and the FSB consider size, interconnectedness and substitutability as the three criteria to assess the systemic importance of an institution. Within this framework, as a measure of size, indicators such as the share of financial intermediary operations (such as total assets to GDP ratio, the share in interbank market, the dominance in a market segment for different loan types etc.); as a measure of interconnectedness, the exposures to financial institutions and markets, share in payment and settlement systems; and finally as a measure of substitutability, main indicators of concentration in the literature such as the Hirschman-Herfindahl index comes into prominence. However, it has been highlighted that indicators of financial vulnerabilities such as high leverage, liquidity risk, and maturity mismatch; and indicators of financial infrastructure (the operation of payment and settlement systems, bankruptcy regulations etc.) should also complement those three criteria. Within this framework, along with problems such as the shortcomings and disharmony in global coordination of information sharing, the overlapping nature of these principles and criteria, and the difficulty of comparing them complicate distinguishing the systemically important institutions at first place.

#### International Studies on Systemically Important Institutions

In addition to the Standing Committee on Supervisory and Regulatory Cooperation of the FSB, the issue of mitigating the risks arising from systemically important financial institutions is being discussed in two other platforms: Basel Committee on Banking Supervision (BCBS) and the IMF. FSB is developing policy reforms by taking into account the moral hazard risk that might stem from these institutions. BCBS, through its working group, is working on setting criteria to distinguish SIFIs and proposing regulatory measures of capital and liquidity for SIFIs. On the other hand, IMF, as it has been tasked by the G-20 in the Pittsburg Summit, is carrying out a study on how to share the burden associated with government interventions in support of the financial system during the crisis period. The study is based on the important contribution that SIFIs are expected to make in case of a burden sharing considering their share in the financial sector, their capacity to create systemic risk and the costs they might impose on public finance in case of a failure. Regarding this burden sharing arrangements, the IMF proposes a set of measures including systemic taxes and levies. The interim report of the work that is being carried out under the coordination of the FSB will be presented to the G-20 meeting in June and the final recommendations will be made in the November meeting. The studies in this area has three main aims:

(1) [http://www.financialstabilityboard.org/publications/r\\_091107c.pdf](http://www.financialstabilityboard.org/publications/r_091107c.pdf)

i) *Reducing the probability and impact of a SIFI failure through strengthening the regulatory framework:* The policy measures in this area includes additional capital and liquidity requirements as well as more extensive and costly prudential requirements for SIFIs, contingent capital, more effective micro and macro prudential policy implementations and steps towards reducing the riskiness of SIFIs. Within this framework, the measures (strengthening the definition of capital, leverage and liquidity ratios etc.) proposed by the BCBS towards increasing the resilience of the financial sector are expected to contribute to limiting the risks that might arise from SIFIs.

ii) *Improving the resolution capacity of the cross-borderly active SIFIs:* Studies are being carried out in the international platform on policies to improve the systematic resolution capacity of a problem institution and ex-ante crisis preparedness, emergency planning, cooperation and information sharing among authorities, the resolution of large institutions within the framework of the current national regulations, the interactions of national resolution frameworks.

iii) *Reduction of contagion risks through strengthening the core financial infrastructures and markets:* Contagion risks arising from large financial institutions could be reduced not only through limiting their exposures by imposing additional capital and other requirements but also through strengthening the financial infrastructures which link those institutions. Within this framework, work is underway on assessing and strengthening the standards on systemically important market infrastructures.

### **Turkey's Position Regarding Systemically Important Institutions**

It is possible to discuss the SIFIs from the perspective of Turkey in two aspects. Firstly, considering the position of SIFIs in Turkey, internationally active banks, which are systemically important in their home countries, are established as subsidiaries in Turkey easing their resolution in case of a crisis. The share of banks, which operate as branches, is significantly low. Moreover, all the banks, including the branches of foreign banks in Turkey, are subject to Banking Law No: 5411. Such institutions are being closely monitored due to the possible contagion effects even though they do not pose systemic risk to the Turkish financial system.

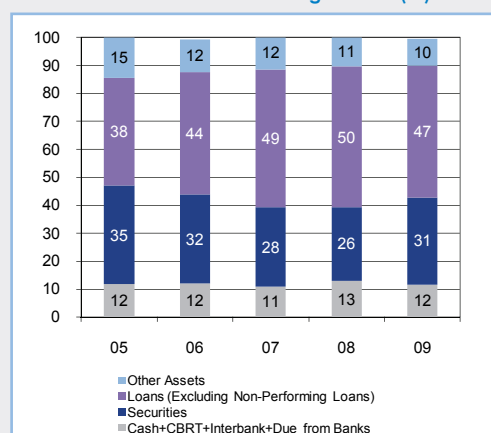
Second aspect is about the situation of systemically important financial institutions that can be characterized as SIFIs among the institutions operating in Turkey. In Turkey, banking sector, with its share of 88 percent, constitutes the most significant part of the financial sector. Among the 49 banks operating in Turkey, 10 banks have an asset share of 83 percent in total. These institutions, considering their size, potential to lead to systemic risk and important role in the payment systems, are closely monitored by the related authorities and are subject to efficient supervision and regulation. The current regulations do not encourage the creation of SIFIs and do not inhibit dealing with risks arising from those institutions. From a liquidity and capital adequacy point of view, all banks, whether small or large, are monitored within the framework of the current legal regulations. In Turkey, the framework for the resolution of problem banks and conditions of entry to and exit from the system are regulated in detail. Moreover, relevant authorities are actively involved in the international studies that are underway.

On the other hand, it is believed that provision of active entry and exit conditions, which are essential for every sector, without creating systemic risk would increase the long-term efficiency of the sector and will contribute to having a balanced concentration structure. Another important issue is the importance of economies of scale for developing countries like Turkey. As the financial institutions grow, the system may deepen and the opportunities of financial access may increase. Therefore, due attention should be given to the fact that any measures that will be taken against SIFIs will not negatively affect the growth potential of financial institutions.

As it has been experienced with the global crisis, the main problem is not the excessive growth of the institutions but the fact that regulatory and supervisory authorities of especially developed countries could not monitor and assess well enough the complex financial operations in which such institutions were involved. Therefore, when dealing with the risks arising from the SIFIs, the preferential tool should be the maintenance of the effectiveness of the regulatory and supervisory framework.

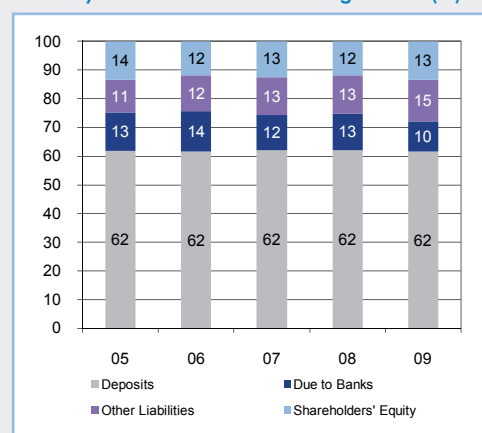
The share of foreign stockholders in the banking sector was 19 percent in the Euro area and 26 percent in EU27 at end-2008. As for Turkey, the said figure, which was 26 percent in the same period, was above the average of the Euro Area; approximately at the same level with the EU27 average and far below that of the new members of the EU (Table II.1).

**Chart II.6.**  
Asset Structure of the Banking Sector (%)



Source: BRSA-CBRT

**Chart II.7.**  
Liability Structure of the Banking Sector (%)



Source: BRSA-CBRT

The share of loans, having the largest share in asset items, decreased by 3 points in December 2009 compared to end-2008, while the share of securities increased by 5 points to 31 percent. As of March 2010, the shares of both loans and securities increased by 1 point compared to end-2009 (Chart II.6).

As of end-2009, the share of deposits as the largest source of external funds remained unchanged and the share of due to banks decreased by 3 points to 11 percent, whereas the share of other liabilities increased by 2 points to 15 percent. While the shares of deposits and

equity capital did not change as of March 2010 compared to end-2009, the share of due to banks increased by 1 point (Chart II.7).

## II.2. Banking Sector Profitability and Capital Adequacy

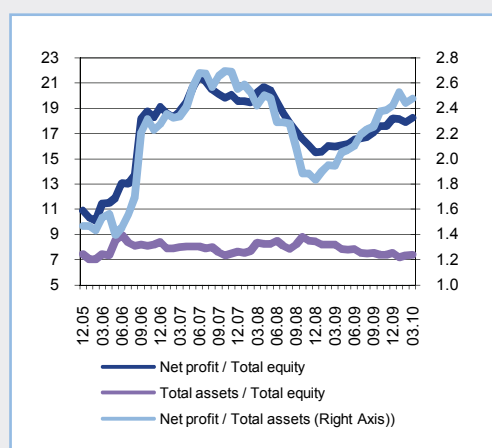
### II.2.1. Profitability<sup>5</sup>

In 2009, there was an upsurge in the profitability of the sector. The increase in net profits of the sector continued through the first quarter of 2010 as well. In 2009, net profits increased by 50.4 percent year-on-year, to reach TL 20.2 billion. Annual net profits amounted to TL 21.3 billion by March 2010.

Return on equity and assets of the sector increased in 2009 parallel to the surging net profit of the respective period. The sector was able to maintain the level of return on equity and assets by March 2010 as well. Return on equity, which was 15.5 percent in 2008, reached to 18.2 percent in 2009. Return on assets, meanwhile, increased from 1.8 percent in 2008 to 2.4 percent in 2009 (Chart II.1). The hikes in asset turnover ratio and net profit margin were instrumental in the increase in profitability ratios<sup>6</sup>. While the asset turnover ratio was 6.6 percent in 2008, it went up to 7.5 percent in 2009. Meanwhile, the net profit margin increased from 27.6 percent in 2008 to 32.1 percent in 2009 (Chart II.9).

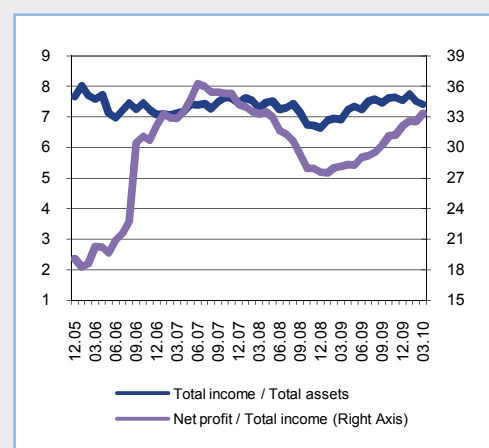
Return on assets and equity of the sector did not register a remarkable increase by March 2010 compared to end-2009 and were realized as 2.5 percent and 18.2 percent, respectively (Chart II.1). Although the asset turnover ratio eased to 7.4 percent by March 2010, the surge in the net profit margin to 33.4 percent enabled the sector to maintain the said level of return on asset and equity (Chart II.9).

**Chart II.8.**  
Return on Equity and Assets (%)



Source: BRSA-CBRT

**Chart II.9.**  
Asset turnover and Net Profit Margin (%)



Source: BRSA-CBRT

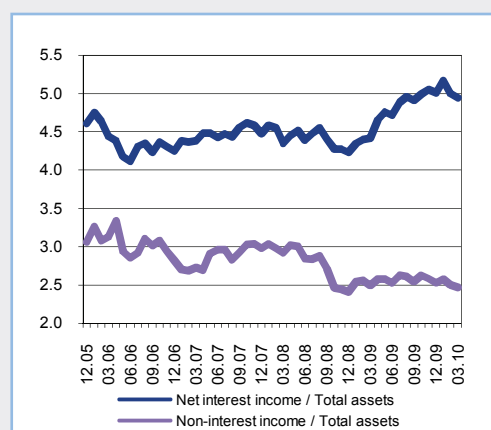
<sup>5</sup> In this section, financial ratios regarding income statement items are annualized by calculating their past 12-month-totals.

<sup>6</sup> Return on equity (Net profit / Equity I) = Return on asset (Net profit / Asset) x (Asset / Equity); Return on assets = Asset turnover (Income / Asset) x Net profit margin (Net profit / Income); Asset turnover = (Net interest income + Non-interest income) / Asset; Net profit margin = 1 - [(Non-interest expenses + Loan loss provisions + Tax expenses) / Income]

In 2009, the sector cut its non-interest expenses in the face of the economic crisis. This development, which increased efficiency, coupled with the surge in net interest margins (net interest income/asset) favorably affected the sector's profitability. The net interest margin increased from 4.2 percent in 2008 to 5 percent in 2009. Due to the short-term structure of deposits, the decline in interest rates led to an increase in the banks' net interest margins. The ratio of non-interest expenses to total assets became 2.5 percent in 2009 without a remarkable change from end-2008 (Chart II.10). In 2009, the sector cut its personnel and operational costs in particular, in order to increase its net profit margin. The ratio of non-interest expenses to total income decreased from 54.6 percent in 2008 to 44.3 percent in 2009. Despite the favorable performance of non-interest expenses, the surge in the sector's loan loss provision expenses limited the increase in the sector's net profit margin. The ratio of loan loss provision expenses to total income, which was 11.2 percent in 2008, climbed to 15.7 percent in 2009 (Chart II.11).

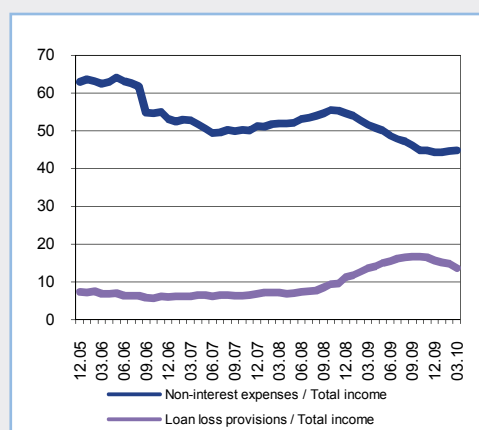
By March 2010, the net interest margin is seen to have begun to contract and the decline in the ratio of non-interest expenses to total income is seen to have halted. Meanwhile, the decline since the last quarter of 2009 in loan loss provision expenses has been positively affecting the sector's net profit margin and profitability performance. By March 2010, the net interest margin went down to 4.9 percent; the ratio of non-interest expenses to total income became 44.7 percent and the ratio of loan loss provision expenses to total income fell to 13.6 percent (Chart II.10 and Chart II.11).

**Chart II.10.**  
Sources of Total Income (%)



Source: BRSA-CBRT

**Chart II.11.**  
Ratio of Expenses to Total Income (%)



Source: BRSA-CBRT

As a result of the maturity mismatch, the fall in policy rates favorably affected the net interest margins of the sector in 2009. Despite the increase in loan loss provision expenses, the controlled behavior of the sector in non-interest expenses coupled with the surge in the net interest margin triggered an improvement in profitability performance. In the first quarter of 2010, the favorable course of the sector's profitability performance continued especially on the back of the decline in loan loss provision expenses. However, parallel to the end of policy rate cuts, the surge in net interest margins has come to a halt. Therefore, the level of profit

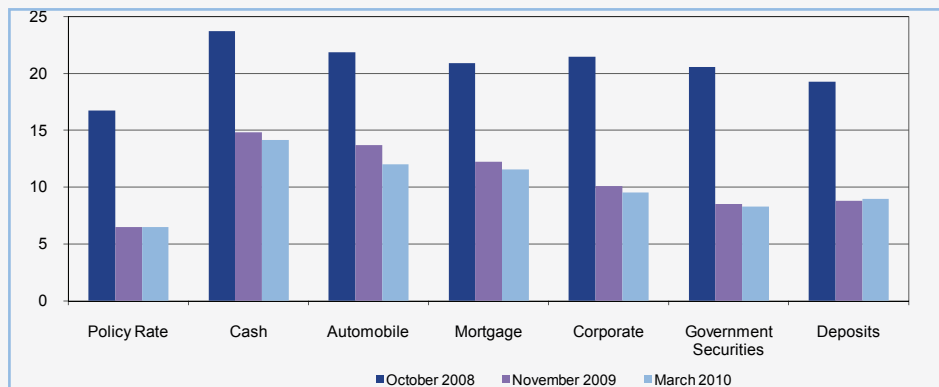


that the sector will be recording in 2010 is believed to emanate mostly from asset growth. Considering the problems in Europe, any possible contraction in the external borrowing market may exert an upward pressure on funding costs and may lead to an additional fall in interest margins. Despite the adverse effect of the contraction in interest margins on profitability, the improvement – as was the case in the first quarter of 2010 – in NPL ratios and the credit risk outlook is expected to limit the sector's loan loss provision expenses and continue to positively affect the profitability performance.

### Box 8. Net Interest Margin and Profitability

The policy rate of central bank, which stood at 16.75 percentages in October 2008, was lowered 1025 basis point to 6.5 percent until November 2008. The fall in the policy rates passed on to the interest rates of credit, government securities and deposits (Graph 1).

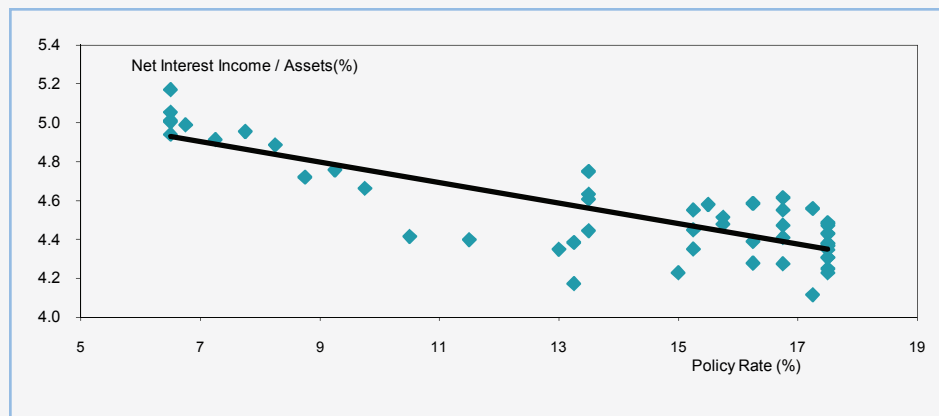
Chart 1. Interest Rates (%)



Source: CBRT

Although the decrease in policy rates affected the returns of the financial instruments, since the maturity of total assets is longer than that of liabilities, the decline in the interest rates passed on to the returns of assets with delay and this contributed to an increase in net interest margins (Graph 2).

Chart 2. Net Interest Margins and Policy Rate (Dec.05-Mar.10)



Source: CBRT

Nonetheless, analyzing the time series of the profitability performance after 2005 indicates that rather than net interest margins, management of operating expenses is the key variable for return on assets and equity. Although the net interest margin is expected to narrow during 2010, the decline in the impairment costs will make positive contribution to the profitability. Thus, taking into account the past experience, effective management of operating expenses will be important for sustaining the profitability performance of the sector during this year.

**Table 1. Correlation Coefficients**

	ROE	ROA
Total income / Total assets	-0.12	0.18
Net interest income / Total assets	0.07	0.31
Non-interest income / Total assets	-0.14	-0.12
Net income / Total income	0.98	0.98
Non-interest expenses / Total income	-0.72	-0.81
Impairment cost / Total income	-0.09	0.03

Source: BRSA - CBRT

### Box 9. Profitability Performance and Country Comparison

Although the accounting standards may differ across countries, the analysis of the profitability indicators of the US, EU and Turkish banking sectors shows the following:

1. The US banks had a higher return on assets than European banks, but the return on equity was close to each other.
2. The net interest margin was wider in US than Europe.
3. The US banks were more successful than European banks in limiting their operating expenses relative to their total income.
4. Turkish banks had higher net interest margins, return on assets and equity than the US and European banks. Meanwhile, Turkish banks managed to control their non-interest expenses as a share of total income more successfully than the European and the US banks did.

Table 1. Profitability Comparison Across Countries

	Return on equity (%)	Return on assets (%)	Net interest margin (%)	Non-interest expenses / Total income (%)
<b>European Union</b>				
2003	11.3	0.5	1.5	73.1
2004	13.5	0.5	1.2	64.8
2005	14.4	0.5	1.0	60.9
2006	15.6	0.6	0.9	59.8
2007	12.9	0.5	0.9	63.0
2008	-6.0	-0.2	0.9	76.1
Average	10.3	0.4	1.1	66.3
Standard Deviation	8.1	0.3	0.2	6.7
<b>United States</b>				
2003	15.3	1.4	3.8	56.5
2004	13.7	1.3	3.6	58.0
2005	12.9	1.3	3.6	57.2
2006	13.0	1.3	3.4	56.3
2007	9.1	0.9	3.4	59.2
2008	1.3	0.1	3.3	58.4
Average	10.9	1.1	3.5	57.6
Standard Deviation	5.1	0.5	0.2	1.1
<b>Turkey</b>				
2003	15.8	2.2	4.5	54.3
2004	14.0	2.1	5.8	58.0
2005	10.9	1.5	4.6	62.9
2006	19.1	2.3	4.2	53.1
2007	19.6	2.6	4.5	51.2
2008	15.5	1.8	4.2	54.6
Average	15.8	2.1	4.6	55.7
Standard Deviation	3.2	0.4	0.6	4.2

Source: IMF Global Financial Stability Report, April 2010

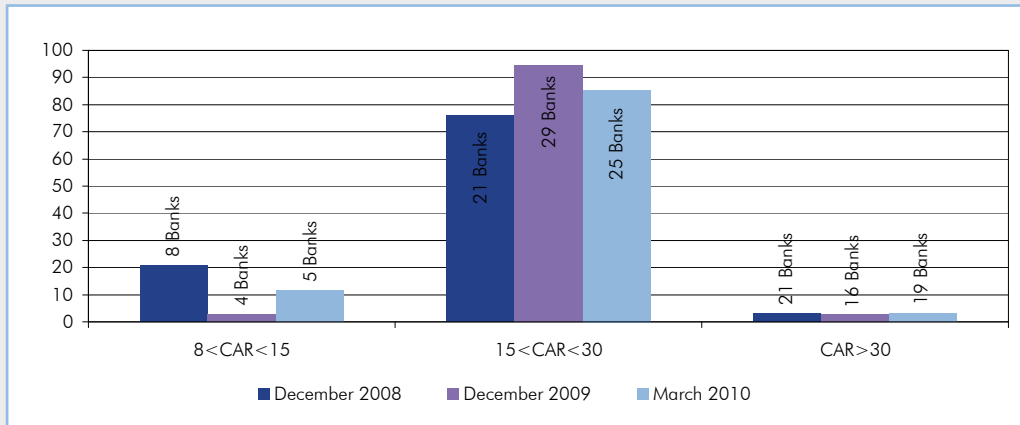
5. In addition, the return on assets and equity were 0.1 percent and 0.9 percent respectively in 2009 for US banks. On the other hand, the return on equity for European large and complex banking groups stood at 8 percent as of June 2009. Therefore, it is possible to indicate that the profitability of the European banks recovered in 2009. The profitability performance of Turkish banks continued to improve during 2009. The return on assets and equity for Turkish banks rose to 2.5 percent and 18.2 percent respectively in 2009.

## II.2.2. Capital Adequacy

While the high profits gained by the banking sector especially in 2009 underpinned its regulatory capital, the deceleration of credit growth and increasing public securities investments limited growth in risk-weighted assets. Against this background, the capital adequacy ratio of the banking sector, which was 18 percent in 2008, increased to 20.6 percent in 2009, while the Tier 1 ratio increased from 16.8 percent to 18.5 percent in the same period<sup>7</sup>. In March 2010, while regulatory capital increased by 4.5 percent to TL 120.5 billion compared to end-2009, the sum of risk-weighted items went up by 8.1 percent to TL 604.2 billion. As the increase in the sum of risk-weighted items exceeded the increase in regulatory capital, the capital adequacy ratio indicated a decrease compared to end-2009 and went down to 19.9 percent in March 2010 (Chart II.13). The surge in risk-weighted items at the start of 2010 was attributable to exposure stemming from operational risk and hikes in bank loans.

While the capital adequacy ratio of 45 banks, the asset share of which were 97.3 percent, exceeded 15 percent at end-2009; that of 44 banks with 88.5 percent asset share exceeded 15 percent in March 2010. Meanwhile, asset shares of banks with capital adequacy ratios between 8 and 15 percent went up from 2.7 percent to 11.5 percent (Chart II.12).

**Chart II.12.**  
Asset Shares of Banks Based on Capital Adequacy Ratios (%)

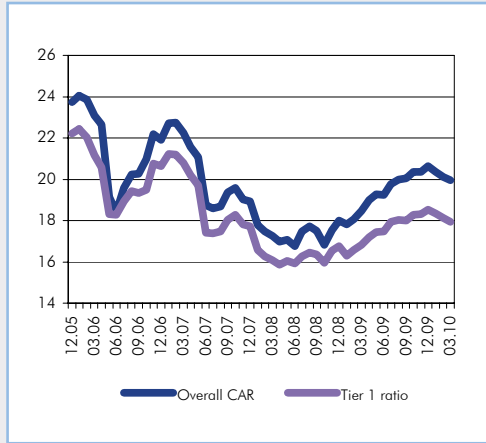


Source: BRSA-CBRT

Besides the risk-based regulatory capital adequacy ratio, the balance-sheet-based equity capital ratios are also at high levels in the Turkish banking sector. In 2009, the equity capital of the banking sector grew stronger parallel to higher profits and rising differences in securities' valuation due to falling interest rates. The share of total equity capital and free capital in the balance sheet increased by 1.5 points and reached 13.3 percent and 10 percent, respectively. In March 2010, the trend of increase in the share of equity capital and free capital within the balance sheet continued and their shares became 13.6 percent and 10.3 percent, respectively (Chart II.14).

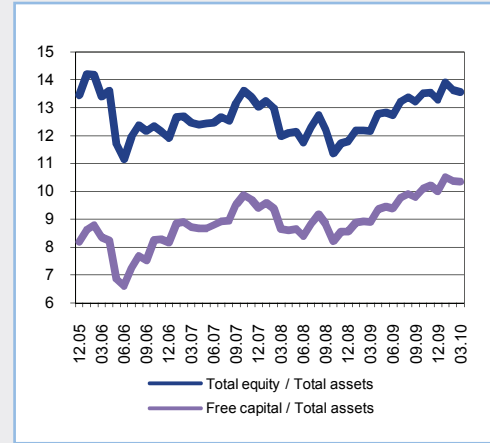
<sup>7</sup> Capital Adequacy Ratio = Regulatory Capital / Risk Weighted Assets; Tier I Ratio = (Tier I Capital - 0.5 \* Deductions) / Risk Weighted Assets

**Chart II.13.**  
Capital Adequacy and Tier 1 Ratio (%)



Source: BRSA-CBRT

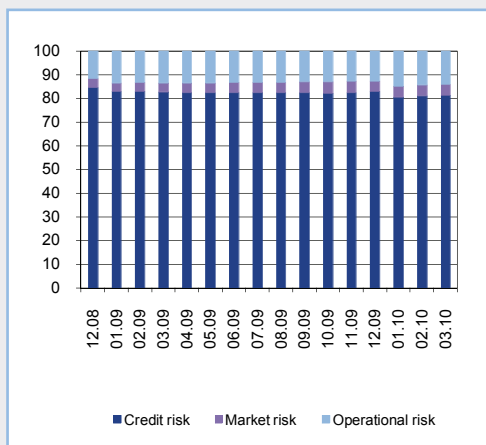
**Chart II.14.**  
Equity and Free Capital (%)



Source: BRSA-CBRT

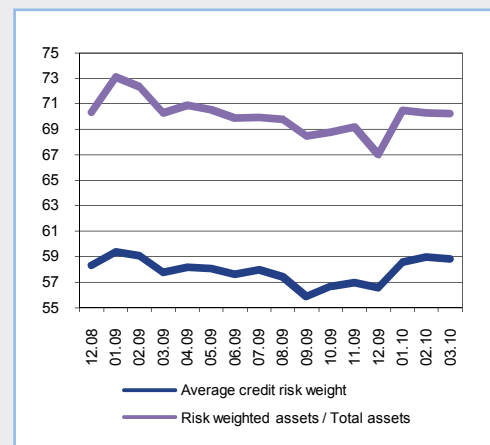
The banking sector is mainly exposed to credit risk. By March 2010, 81.4 percent, 4.6 percent and 14.1 percent of total risks consist of exposure stemming from credit risk, market risk and operational risk, respectively (Chart II.15). Recently, parallel to increasing profitability performance of the banking sector, the share of the amount exposed to operational risk within total risks has also increased, while the share of the amount exposed to credit risk decreased. The tendency of the banking sector to avert risks has been instrumental in easing the amount exposed to credit risk. The ratio of risk-weighted items to total assets decreased from 70.4 percent in 2008 to 67 percent in 2009; and the average credit risk weight, which was 58.3 percent in 2008, went down to 56.5 percent in 2009 (Chart II.16). Nevertheless, by March 2010, the ratio of risk-weighted items to total assets increased to 70.2 percent and the average credit risk weight reached 58.8 percent, which indicates that the risk-averse behavior has eased (Chart II.16).

**Chart II.15.**  
Distribution of Risk-Weighted Items (%)



Source: BRSA-CBRT

**Chart II.16.**  
Risk-Weighted Items and Average Credit Risk Weight (%)



Source: BRSA-CBRT

While elevated profitability in 2009 contributed to strengthening the equity capital of the sector, the increase in public securities investments restricted growth of risk-weighted assets and capital adequacy ratios went up. Meanwhile, the increase in risk-weighted assets parallel to the rebound in credit markets in 2010 may lead to a slight decrease in capital adequacy ratios, which are still high compared to other countries.

#### **Box 10. Basel Committee on Banking Supervision and Regulations on Capital Adequacy**

Following the global financial crisis, Basel Committee on Banking Supervision started to work on new regulations aimed at strengthening and increasing the shock absorption capacity of banks' capital. The following are currently being discussed regarding the capital adequacy of banks:

- Improving the quality of capital: The share of issued common shares and retained earnings in total regulatory capital is low for many banks operating in developed economies. Hybrid capital, which has characteristics of both debt and equity, constitutes a significant part of their capital for these banks. Therefore, Basel Committee on Banking Supervision is currently working on a new draft that aims to improve the quality of capital in order to increase the loss absorption capacity of total capital. According to the new draft, the debt instruments that may be a component of total regulatory capital should also have a feature of conversion to equity during periods of financial distress.
- Leverage ratio: During the global crisis period, it was noticed that many banks that were in trouble was too leveraged although their capital adequacy ratio was high. Basel Committee is considering introducing a new leverage ratio that will supplement the risk based capital ratios.
- Counter-cyclical capital buffer: In the current capital adequacy regulation, the minimum required ratio is 8 percent. With the new draft regulation, the minimum ratio will be increased during periods of economic boom and decreased during periods of economic bust. Therefore, it is aimed to accumulate additional reserves in periods of economic growth that will be used to absorb the losses in periods of economic contraction. This will enable banks to continue their loan growth and limit the contraction of the economy during downturns.

Compared with other banks, Turkish banks have stronger capital and lower leverage. The capital adequacy ratios of European and US banks are around 11 and 12 percent respectively. For Turkish banks, compared to the past, there has been a decline in capital adequacy ratios due to loan growth and changes in regulatory framework with the aim of convergence to international standards. However, it has stood around 20 percent in recent years. Taking into account the differences in regulatory frameworks across countries, accounting based leverage ratios give valuable information on the international comparison of capital adequacy. In

addition to higher capital adequacy ratios, the lower leverage ratios of Turkish banks are also noticeable. The total assets of European banks are approximately 30 times of their equity and it is 10 times for US banks. For Turkish banks, this is only 7-8 times. Thus, the higher capital adequacy ratios and the lower leverage make Turkish banks decouple from the banking sectors of many other countries. This will ease Turkish banking sector's adjustment to the new regulatory environment, which will increase the minimum required capital for banks.

**Table 1. International Comparison of Capital Adequacy Indicators**

	Capital Adequacy Ratio (%)			Leverage Ratio (Assets / equity)		
	European Union	United States	Turkey	European Union	United States	Turkey
2003	12.4	12.8	30.9	34.5	10.9	7.0
2004	11.9	12.6	28.8	28.6	9.9	6.7
2005	11.4	12.3	23.7	27.0	9.7	7.3
2006	11.1	12.4	21.9	27.0	9.8	8.4
2007	11.4	12.2	18.9	27.8	9.8	7.7
2008	11.7	12.7	18.0	35.7	10.6	8.5

Source: IMF Global Financial Stability Report, April 2010 and Banking Sector Stability Report, ECB.

It should be taken into account that regulatory framework for capital adequacy may vary across countries and European banks and the large banks in US implement Basel II. Convergence to Basel II in our country has already been preceded. For the implementation of Basel-II standards in our country, various regulation drafts were prepared based on EU Acquis and disclosed to public for discussions on April 6, 2010. While, relating to measurement of credit risk in the said drafts, only measurement methodology based on standard approach were included; it is planned to put into effect the measurement methodology based on internal grading in forthcoming periods.

