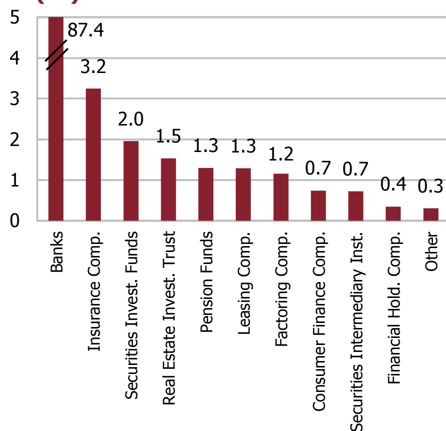
III. RISKS AND DEVELOPMENTS IN THE BANKING SECTOR

Due to the CBRT's policy mix and measures taken by other authorities, the annual loan growth rate was brought back to reasonable levels in terms of financial stability in 2012. On the back of strong capital inflows and the decline in loan rates, the loan growth started to accelerate from the final quarter of 2012; and this trend has continued in 2013. Potential adverse effects of short-term capital movements have been contained by ROM, which reduced banks' TL liquidity needs as well as borrowing from the Central Bank and allowed them to keep Turkish lira reserve requirements in gold and foreign exchange. Following the adoption of Basel II/2.5, the banking sector's capital adequacy has continued to remain strong. The preparation process for Basel III, covering regulations on liquidity and leverage in addition to capital adequacy, has been continuing. The Financial Stability Committee (FSC) has been functioning effectively and keeping a close eye on structural and cyclical developments for a sound operation of the financial sector.

The Turkish financial sector, which is predominantly composed of the banking sector, continued to grow in 2012, too. By the end of 2012, the balance sheet of the financial sector grew by 13.3 percent compared to end-2011 and reached TL 1,568 billion, while its ratio to GDP materialized as 110.7 percent. A total of 87.4 percent of the financial sector belongs to the banking sector (Chart III.1).

While total assets of the banking sector increased by 12.6 percent year-on-year in 2012 and became TL 1,371 billion, its ratio to GDP reached 96.8 percent at the end of 2012 (Chart III.2). In March 2013, the sector's asset size became TL 1,428 billion. This asset concentration, which is quite below that of the EU-27, points to a growth potential that is likely to attract new inflows. As a matter of fact, there have recently been several applications for establishing and opening new bank branches, among which, one bank was granted an establishment license, while the other was licensed to open a branch (Table III.1).

Chart III.1. Balance Sheet Size of the Financial Sector (%)[1,2]

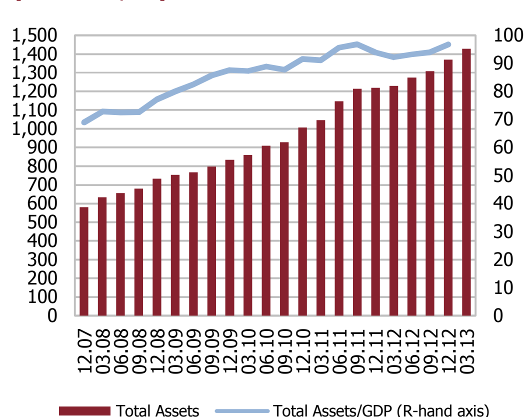


Source: BRSA –CBRT, ACMIIT, CMB, AIRCT

(1) Data for Portfolio Management Comp. and Credit Guarantee Fund belong to December 2011 period, while data for Asset Management Comp. belongs to September 2012.

(2) "Other" item includes the data on Credit Guarantee Fund, Venture-Capital Trust, Portfolio Management Comp., Asset Management Comp., Sec. Invest. Funds and Reinsurance Companies.

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

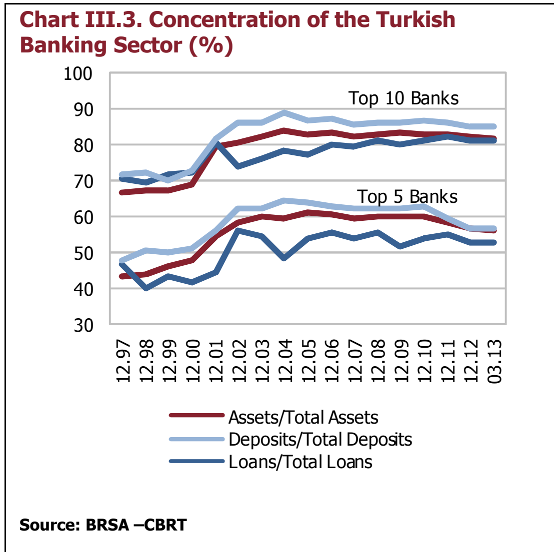


Source: BRSA –CBRT, TURKSTAT

As of March 2013, among the 49 banks operating in the Turkish banking sector, the share of the first five banks with respect to asset size was 56.1 percent while that of the first ten banks was 81.9 percent. It is noteworthy that the concentration is mostly on deposits (Chart III.3).

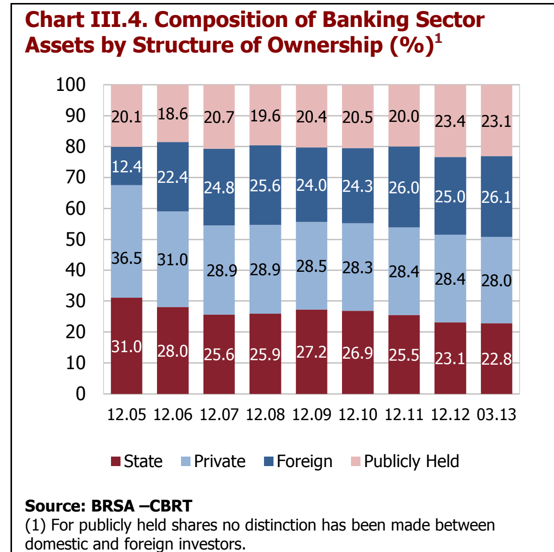
Based on their share in paid-up capital, the share of foreign shareholders in asset size became 26.1 percent in March 2013. According to data from the Central Registry Agency (CRA), when the share of foreign participation in publicly held shares, which accounts for 20 percent, is included as well, the share of foreign participation in the banking sector, which was 44.9 percent in 2012, became 46.1 percent in March 2013. (Chart III.4).

Chart III.3. Concentration of the Turkish Banking Sector (%)



Source: BRSA –CBRT

Chart III.4. Composition of Banking Sector Assets by Structure of Ownership (%)[1]

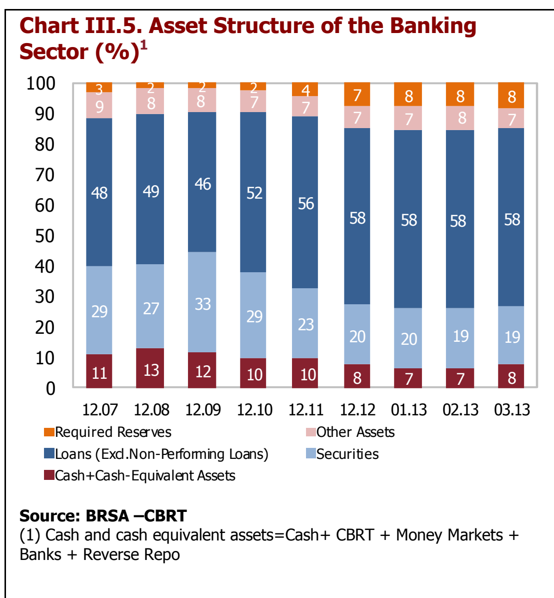


Source: BRSA –CBRT

(1) For publicly held shares no distinction has been made between domestic and foreign investors.

In March 2013, while the loan portfolio share as the largest asset item was 58 percent, the share of securities declined by 1 point compared to end-2012 and became 19 percent (Chart III.5). By March 2013, the share of deposits as the banking sector's largest source of funds decreased to 55 percent due to the increase in the use of non-deposit funds (Chart III.6).

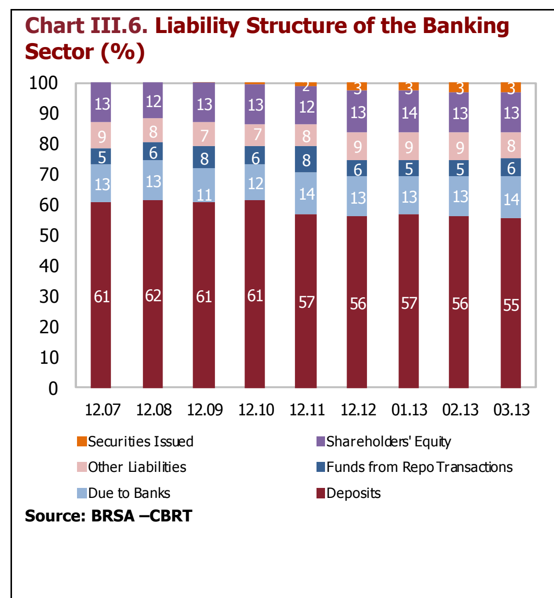
Chart III.5. Asset Structure of the Banking Sector (%)[1]



Source: BRSA –CBRT

(1) Cash and cash equivalent assets=Cash+ CBRT + Money Markets + Banks + Reverse Repo

Chart III.6. Liability Structure of the Banking Sector (%)



Source: BRSA –CBRT

By the end of 2012, the ratio of deposits to GDP, one of the ratios that signify the developments in depth and intermediary functions of the banking sector, remained steady at 54 percent compared to the previous year, while the ratio of loans to GDP and deposits increased by 3 points each to reach 57 percent and 104 percent, respectively. In EU-27, these ratios stand at 131 percent, 190 percent and 145 percent, respectively. Turkey ranks quite below EU averages in terms of the number of banks in the banking sector (Table III.1).

Table III.1. Comparison of the Selected Financial Indicators with the EU Countries[1]

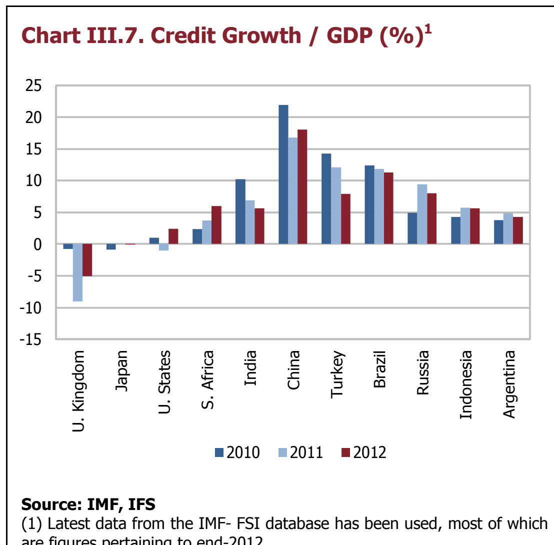
Countries	Total Assets / GDP (%)	Deposits / GDP (%)	Loans / GDP (%)	Loans / Deposits (%)	Total Assets / No. of Credit Institutions (Million Euro)	No. of Credit Institutions
Germany	313	119	189	158	4,381	1,891
Austria	384	176	271	155	1,558	763
Italy	185	69	124	181	3,925	737
Polond	84	51	60	119	456	698
France	340	124	184	148	10,555	654
Ireland	667	149	279	188	2,288	477
United Kingdom	597	200	227	114	30,439	373
Spain	384	184	259	141	12,164	331
Finland	335	84	124	147	2,069	315
Netherlands	472	213	326	153	10,060	282
Hungary	114	65	74	115	587	189
Denmark	381	94	257	274	5,792	161
Portugal	309	149	229	154	3,322	154
Luxembourg	1773	623	1210	194	5,587	141
Belgium	309	143	180	125	10,879	107
Lithuania	70	39	59	151	248	92
Czech Republic	115	81	70	86	3,075	57
Greece	211	95	153	162	7,572	54
Romania	64	35	39	110	2,102	40
Bulgaria	102	71	79	112	1,310	31
Slovak Republic	77	55	54	99	1,839	30
Latvia	121	72	91	126	932	29
Malta	794	293	501	171	2,063	26
Slovenia	148	76	113	149	2,104	25
Estonia	117	70	91	130	1,248	16
EU-27 Av.	**355**	**131**	**190**	**145**	**5,718**	**296**
Turkey - 2012	**97**	**54**	**57**	**104**	**11,896**	**49**

Source: BRSA-CBRT-ECB, Eurostat

(1) The figures of EU countries are as of 2012/06. GDP data belongs to 2012.
(2) In parallel to EU data, non performing loans (net) are included in Turkey's loan data.

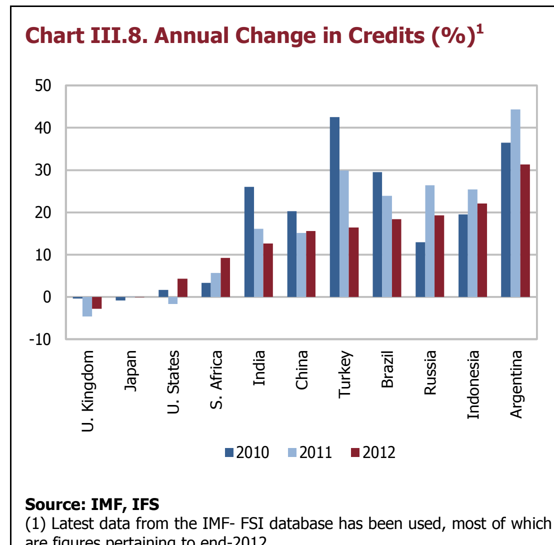
The lingering uncertainties in international financial markets affect the credit growth of countries (Chart III.7 and Chart III.8).

Chart III.7. Credit Growth / GDP (%)[1]



Source: IMF, IFS
(1) Latest data from the IMF- FSI database has been used, most of which are figures pertaining to end-2012.

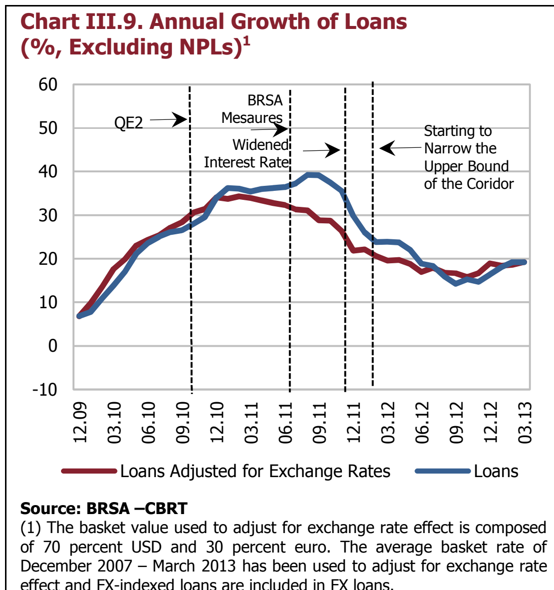
Chart III.8. Annual Change in Credits (%)[1]



Source: IMF, IFS
(1) Latest data from the IMF- FSI database has been used, most of which are figures pertaining to end-2012.

Due to the strengthening capital flows toward Turkey and the decline in loan rates, loan growth that has accelerated continues to hover above the reference level. In response to the ongoing slowdown in the global economy, the flexible monetary policy implemented in Turkey and timely measures taken by the authorities, the credit growth rate, which began to lose pace as of the third quarter of 2011, maintained its trend until the last quarter of 2012. Since the second half of 2012, the CBRT has implemented a monetary policy geared towards, from time to time, increasing liquidity and gradually decreasing funding costs. Moreover, acceleration of capital inflows on the back of a relative improvement in risk perceptions regarding Turkey and a moderate recovery of domestic demand in the first quarter of 2013 have led to an acceleration in the credit growth rate since November 2012. In December 2011, the annual growth rate of loans adjusted for the exchange rate effect was 21.9 percent and the annual nominal growth rate of loans was 29.9 percent while in December 2012 the rates materialized as 19 percent and 16.4 percent, respectively. In March 2013 the both said ratios were calculated as 19,2 percent (Chart III.9). According to the annualized daily data adjusted for the exchange rate effect, the trend of increase in total loans has recently hovered close to the average of past years (Chart III.10).

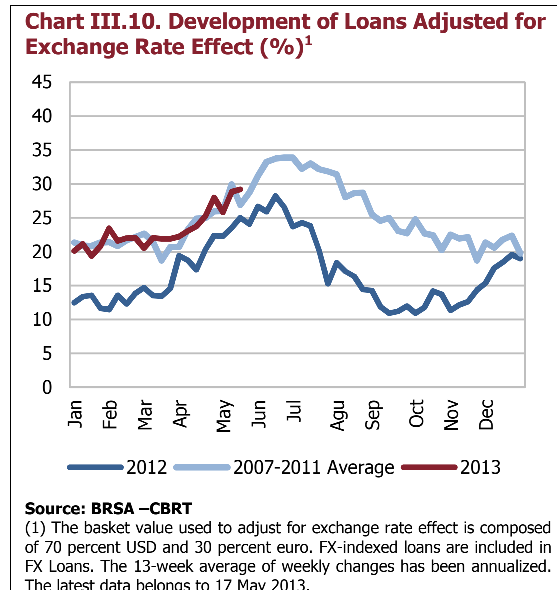
Chart III.9. Annual Growth of Loans (%, Excluding NPLs)[1]



Source: BRSA –CBRT

(1) The basket value used to adjust for exchange rate effect is composed of 70 percent USD and 30 percent euro. The average basket rate of December 2007 – March 2013 has been used to adjust for exchange rate effect and FX-indexed loans are included in FX loans.

Chart III.10. Development of Loans Adjusted for Exchange Rate Effect (%)[1]

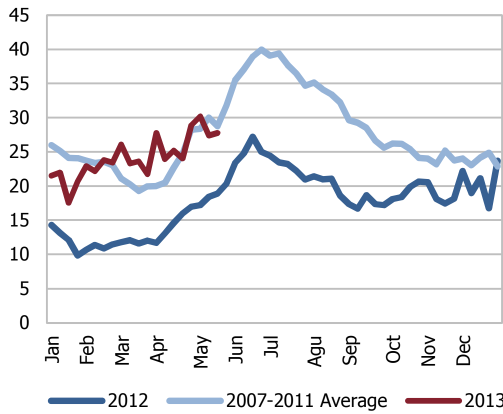


Source: BRSA –CBRT

(1) The basket value used to adjust for exchange rate effect is composed of 70 percent USD and 30 percent euro. FX-indexed loans are included in FX Loans. The 13-week average of weekly changes has been annualized. The latest data belongs to 17 May 2013.

Since November 2012, retail loans have grown faster than corporate loans. It is considered that both supply- and demand-side factors have been instrumental in loan acceleration, primarily in acceleration of consumer loans. An analysis of the results of the CBRT Banks' Loans Tendency Survey for the first quarter of 2013 suggests that standards applied to SME loans and other consumer loans have been tightened, while those applied to other corporate, housing and vehicle loans have been eased. The demand for SME loans narrowed, whereas the demand for loans for large enterprises has increased moderately. The increase in demand for housing and vehicle loans continues with a slower pace. By 17 May 2013, the annualized daily data adjusted for the exchange rate effect indicated that the growth rate of corporate and retail loans was hovering close to the averages of past years (Chart III.11, Chart III.12).

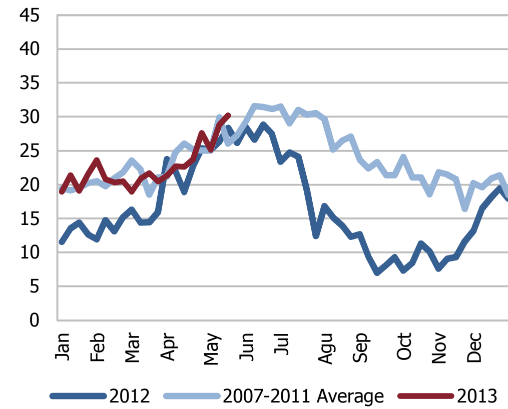
Chart III.11. Development of Retail Loans Adjusted for Exchange Rate Effect (%)[1]



Source: BRSA –CBRT

(1) The basket value used to adjust for exchange rate effect is composed of 70 percent USD and 30 percent euro. FX-indexed loans are included in FX Loans. The 13-week average of weekly changes has been annualized. The latest data belongs to 17 May 2013.

Chart III.12. Development of Corporate Loans Adjusted for Exchange Rate Effect (%)[1]



Source: BRSA –CBRT

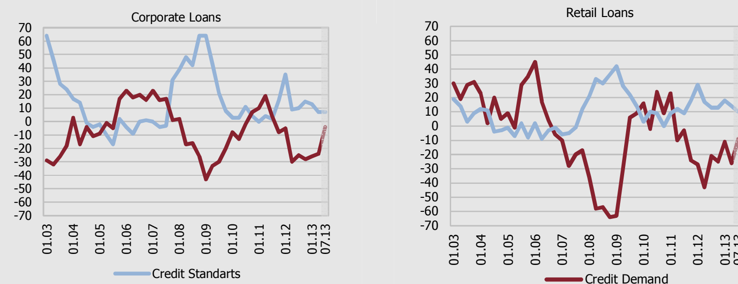
(1) The basket value used to adjust for exchange rate effect is composed of 70 percent USD and 30 percent euro. FX-indexed loans are included in FX Loans. The 13-week average of weekly changes has been annualized. The latest data belongs to 17 May 2013.

Box III.1. Bank Lending Surveys

Lending surveys are widely used by several central banks to evaluate supply and demand conditions in the credit market. In this context, lending surveys published by the Fed, the ECB and the CBRT mark the directions of and reasons for changes in credit standards and credit demand and provide information on nature of perceptions related to the credit market.

According to "The Euro Area Bank Lending Survey", published by the ECB, the tightening of standards continued with less intensity in the first quarter of 2013. This was mainly attributed to the decreased contribution of factors such as banks' risk perceptions, funding costs and balance sheet constraints to the tightening in credit standards. Meanwhile, the private sector's credit demand continued to decrease and the decline in household credit demand gained pace compared to the previous quarter. While the decline in the demand for corporate loans was driven mainly by the decrease in fixed investments as well as the financing need of enterprises, the partial decline in the demand for retail loans was attributable to the decrease in consumer confidence and negative expectations over non-housing related expenditures and the real estate sector.

Chart 1. Credit Standards and Credit Demand in the Euro Area (Percent)[1,2,3]



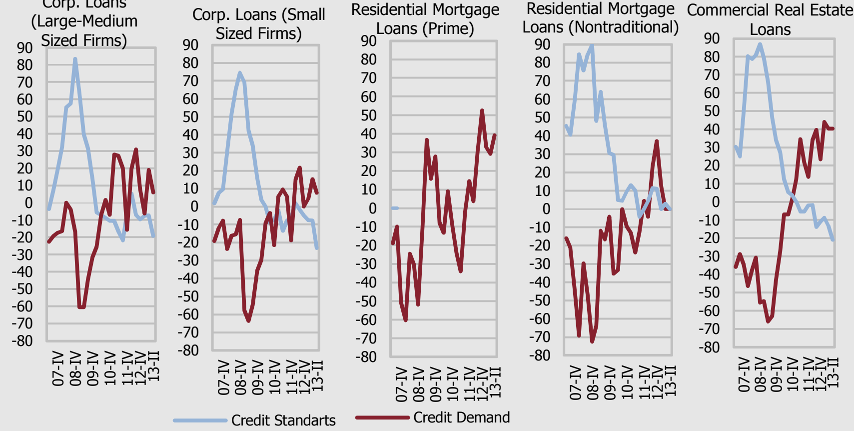
Source: ECB Bank Lending Survey

(1) A negative value in credit standards indicates an easing in standards, whereas a positive value in credit demand indicates an increase in credit demand.
(2) The demand for retail loans is related to housing loans.
(3) The latest data for 2013 denotes expectations for the next three months.

According to the results of the lending survey prepared by the Fed in relation to the credit market, in the recent period, the easing in corporate loans and commercial housing loans has continued, while retail loan (housing) standards have not displayed a significant change. Competition has become the prominent factor behind the easing in standards applied to corporate loans.

Demand side analysis of the survey reveals that demand for loans for large and medium -scale firms that contracted in the previous quarter has surged significantly, whereas demand for loans for small-scale firms that recorded a certain growth rate in the previous quarter has continued to grow with further pace. The increase in demand for loans for large and medium-scale firms was mainly driven by the surge in the financing need for investments, equipment and stocks. The demand for housing loans has continued to increase, primarily for commercial housing loans.

Chart 2. Credit Standards and Credit Demand in the USA (Percent)[1]



Source: Fed, Senior Bank Loan Officer Survey on Bank Lending Practices

(1) A negative value in credit standards indicates an easing in standards, whereas a positive value in credit demand indicates an increase in credit demand.

(2) Data pertaining to the second quarter of 2013 denotes expectations for the next three months.

In Turkey, according to the CBRT Banks' Loans Tendency Survey, banks broadly maintained the standards they applied to corporate loans in the first quarter of 2013. Scale and maturity-based analysis indicates that while banks tightened their standards on SME loans, they loosened those on loans for large enterprises and while they eased short-term credit standards, they tightened long-term ones. Analysing the factors having an impact on these developments, factors related to cost of funds and balance sheet constraints were instrumental in keeping the standards mainly flat, that competitive pressure led to an easing in standards and perceptions regarding the industry or firms, and risks regarding collaterals and expectations on the economy were influential on tightening the standards.

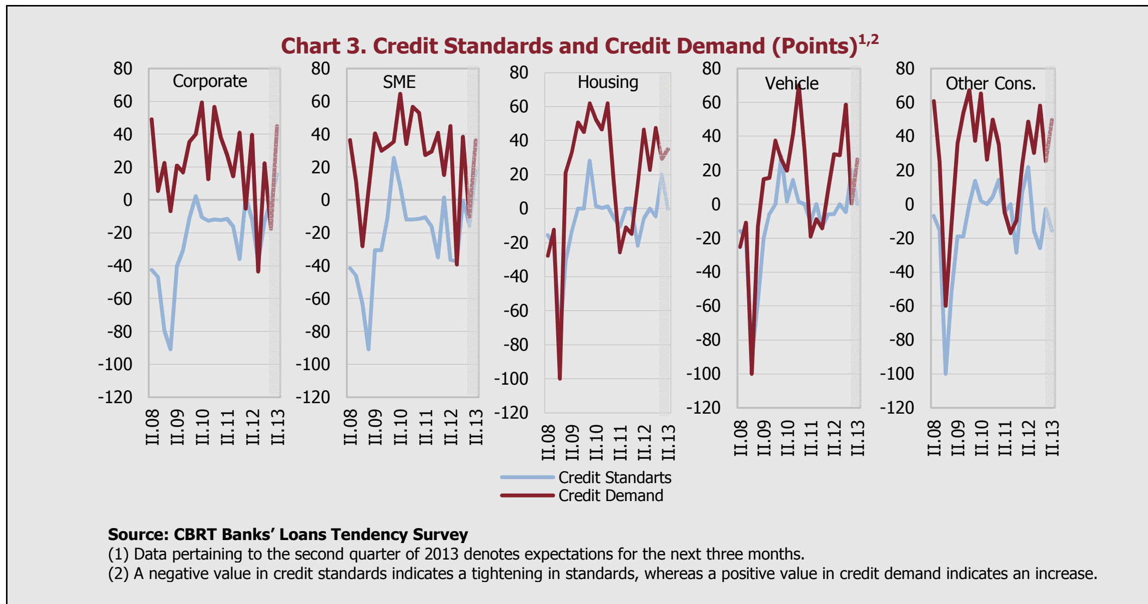
In the first quarter of 2013, standards on housing and vehicle loans were eased and the trend of tightening in other retail loans that started in the third quarter of 2012 continued, albeit with less intensity. Competition along with banks' cost of funds and balance sheet constraints were indicated as the factors lying behind easing of the standards on housing and vehicle loans. These factors had an easing effect on standards applied to other retail loans, too; however, consumers' creditworthiness and expectations regarding overall economic activities led to a tightening in standards on other retail loans.

In the same period, demand for loans for small and medium-size enterprises declined, while that for large enterprises displayed a slight increase. Demand for short-term loans contracted, whereas that for long-term loans continued to rise. The need for financing stemming from debt restructuring, fixed investments and mergers/acquisitions and restructuring processes pushed the demand upwards, while stock enhancement and need for working capital had a dampening effect on demand unlike previous quarters.

The increase in demand for housing and other retail loans has continued despite a deceleration, and demand for vehicle loans has basically remained flat. While consumer confidence and positive expectations over the housing market and consumption expenditures other than purchase of property had a favorable impact on demand for housing loans, the propensity to meet the funding need for property purchases by bank borrowing instead of using personal savings pushed the demand upwards. According to the banks covered by the Survey, consumer confidence was the main factor behind the increase in demand for retail loans.

The banks' expectations for the second quarter of 2013 are that credit demand will increase across the market, standards on corporate loans will be eased, standards on housing and vehicle loans will basically remain unchanged and those on other retail loans will continue to be tightened.

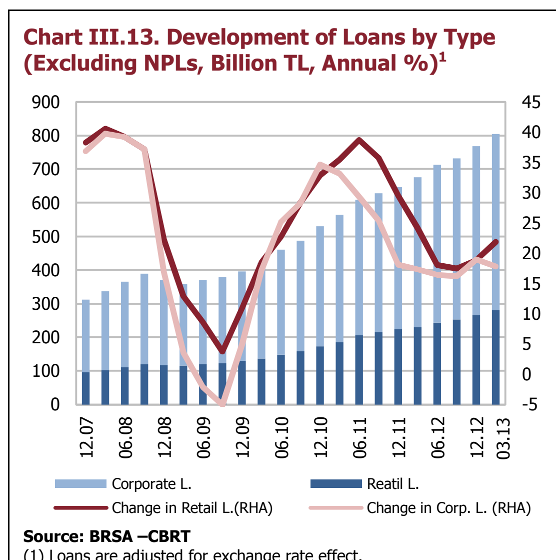
Chart 3. Credit Standards and Credit Demand (Points)[1,2]



Source: CBRT Banks' Loans Tendency Survey
(1) Data pertaining to the second quarter of 2013 denotes expectations for the next three months.
(2) A negative value in credit standards indicates a tightening in standards, whereas a positive value in credit demand indicates an increase.

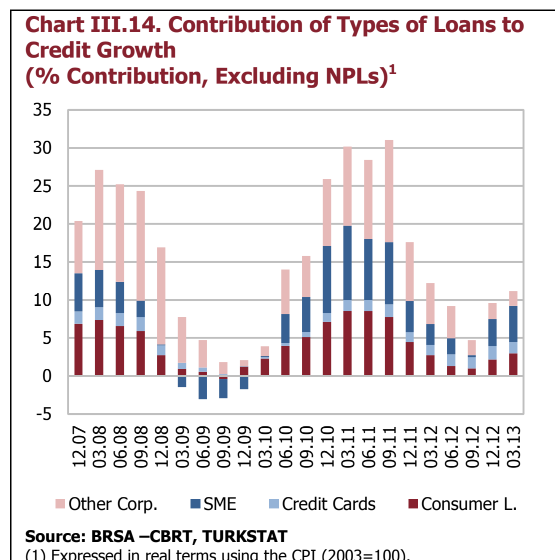
The contribution of consumer and SME loans to credit growth is increasing considerably. In March 2013, total loans, corporate loans and retail loans, all adjusted for exchange rate effect, increased by 19.2 percent, 17.8 percent and 21.9 percent on annual basis, respectively (Chart III.13). In the same period, the annual growth rate of loans became 11.1 percent in real terms, of which 4.7 points came from SME loans, 1.9 points from other corporate loans, 3 points from consumer loans and 1.5 points from credit cards (Chart III.14). The notable increase in the contribution of SME loans to the annual growth rate of loans is also attributed to the amendment to the regulation at 4 November 2012 , which revises the definition of SMEs by increasing the annual net sales revenue or financial balance sheets of these businesses from maximum TL 25 million to maximum TL 40 million.

Chart III.13. Development of Loans by Type (Excluding NPLs, Billion TL, Annual %)[1]



Source: BRSA –CBRT
(1) Loans are adjusted for exchange rate effect.

Chart III.14. Contribution of Types of Loans to Credit Growth (% Contribution, Excluding NPLs)[1]

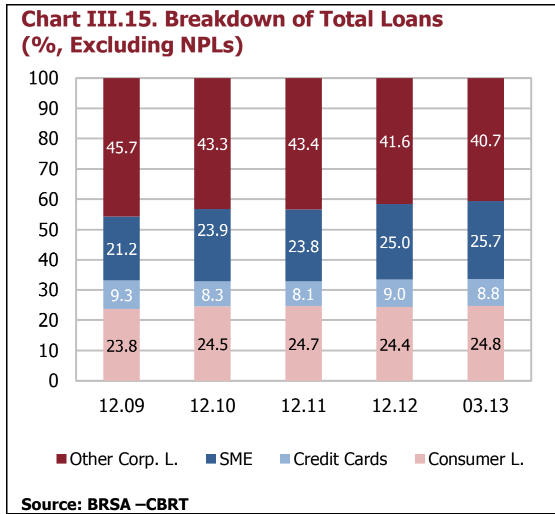


Source: BRSA –CBRT, TURKSTAT
(1) Expressed in real terms using the CPI (2003=100).

By March 2013, no significant change was observed in the breakdown of loans by type. By March 2013, 66.4 percent and 33.6 percent of loans amounting to a total of TL 833,6 billion were composed of corporate loans and retail loans, respectively. Of the SME loans, which account for 39 percent of corporate loans, 27.8 percent were extended to micro enterprises, 31.4 percent to small

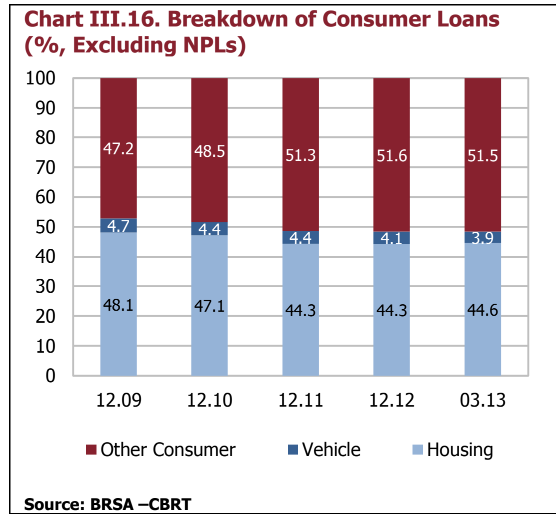
size enterprises and 40.8 percent to medium-size enterprises. The largest share in consumer loans, which account for 74 percent of retail loans, is composed of other consumer loans at 51.5 percent. The share of vehicle loans materialized as 4 percent and these loans are also extended by consumer financing companies (Chart III.15, Chart III.16).

Chart III.15. Breakdown of Total Loans (%, Excluding NPLs)



Source: BRSA –CBRT

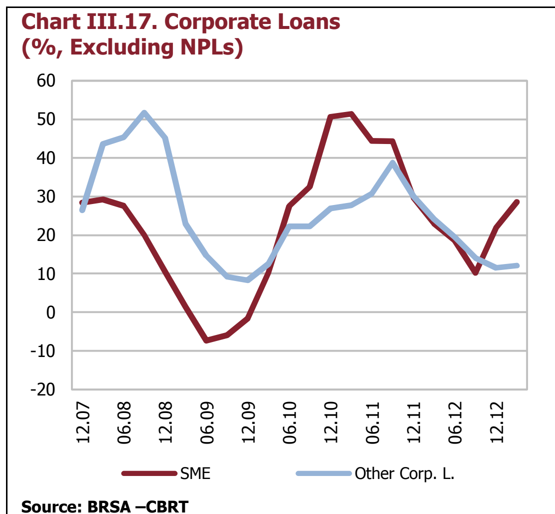
Chart III.16. Breakdown of Consumer Loans (%, Excluding NPLs)



Source: BRSA –CBRT

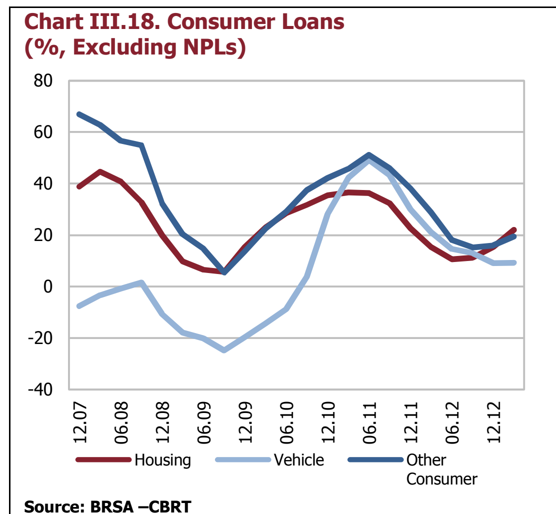
The annual increase of loans by type suggests that loans extended to SMEs have increased sharply since November 2012, on the back of the new classification based on the revised definition of SMEs. Meanwhile, consumer loans, excluding vehicle loans, have accelerated in the recent period (Chart III.17, Chart III.18).

Chart III.17. Corporate Loans (%, Excluding NPLs)



Source: BRSA –CBRT

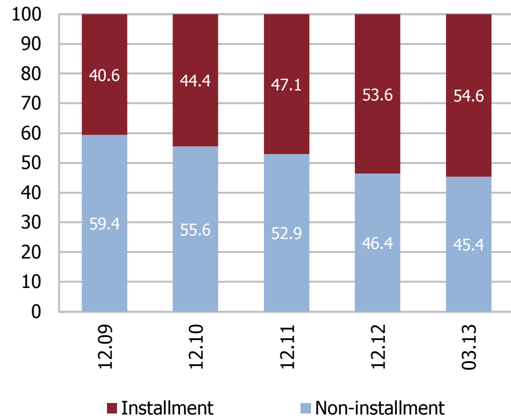
Chart III.18. Consumer Loans (%, Excluding NPLs)



Source: BRSA –CBRT

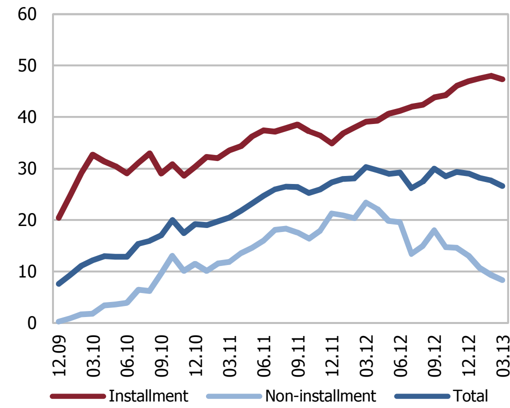
The installment loan portion of individual credit cards, which had been on the rise since the first quarter of 2009, materialized as 55 percent by March 2013 (Chart III.19, Chart III.20).

Chart III.19. Composition of Credit Cards (%)



Source: BRSA –CBRT

Chart III.20. Credit Cards (%, Nominal, Annual)



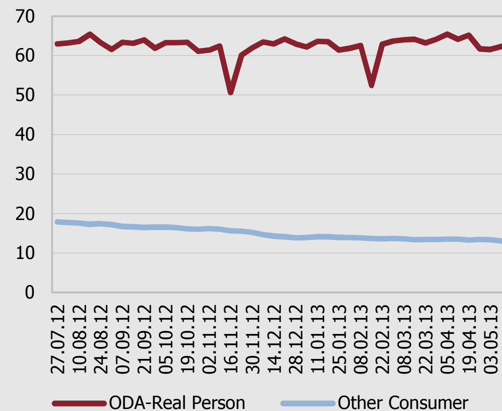
Source: BRSA –CBRT

Box III.2 Regulations on Overdraft Accounts

As authorized by Paragraph 3, Article 26 of the Bank Cards and Credit Cards Law No. 5464, the Central Bank of Turkey has been determining the maximum contractual interest rates on credits cards once every three months since April 2006. Hereby, the interest rates on the credit cards market were ensured to materialize at more reasonable levels compared to the pre-regulation period. While market interest rates, which has declined in line with the favorable economic developments and the implemented monetary policy, have been followed by decreasing interest rates of corporate loans, consumer loans and credit cards; banks have charged high interests on overdraft accounts (ODA) that are actively in use.

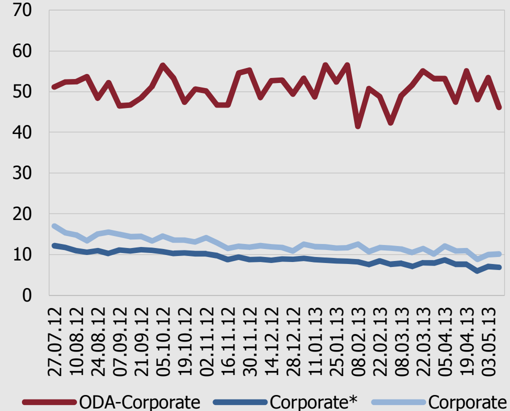
It is observed that the monetary transmission mechanism generally works efficiently in Turkey and hence global developments and the monetary policy currently implemented by the CBRT are highly effective on the general level of interest rates. However, it is noteworthy that for the overdraft accounts, which are similar to credit cards and which have reached an approximate balance of 10 billion Turkish liras recently, the interest rates charged by banks has remained flat at relatively high levels, in comparison to interest rates charged on credit cards. In fact, interest rates on real person and corporate ODA are around 60 percent and 50 percent respectively.

Chart 1. Interest Rates on Real Person ODA and Other Consumer Loans (Flow data, weighted average interest rate, %)



Source: CBRT

Chart 2. Interest Rates on Corporate ODA and Corporate Loans (Flow data, weighted average interest rate, %)



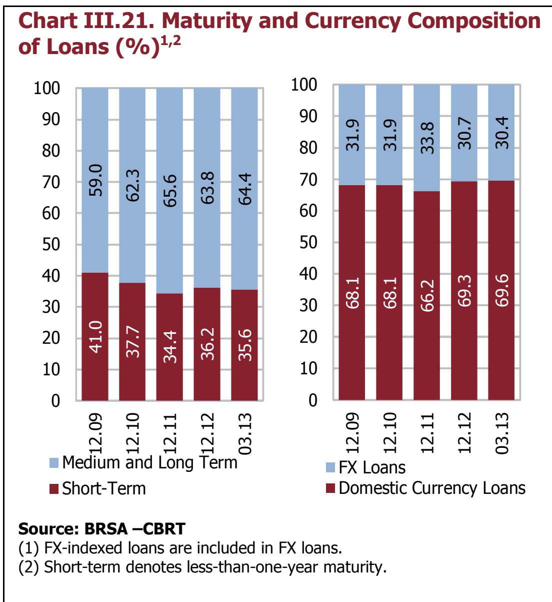
Source: CBRT
(*) Excluding data on corporate ODA and credit cards.

Within this framework, in order to achieve financial stability and further strengthen the monetary transmission mechanism, the CBRT identified necessity for regulatory action to impose a cap on interest rates charged for ODA. Accordingly, with the amendment to the CBRT Communique No. 2006/1, contractual and overdue interest rates on the real person and corporate ODA were subjected to the upper limits of contractual and overdue monthly interest rates on credit card transactions, effective as of 27 May 2013.

Meanwhile, Regulation on the Principles and Procedures for Accepting, Withdrawal of Deposits and Participation Funds as well as The Prescribed Deposits, Participation Funds Custody and Receivables published by the Banking Regulation and Supervision Agency in the Official Gazette of 1 November 2012 and No. 28454 was amended to stipulate that, within the scope of deposit and participation account agreements, no credit account would be opened on behalf of the account holder without the receipt of any separately-signed or verified demand apart from the account agreement, to be effective as of **1 May 2013**.

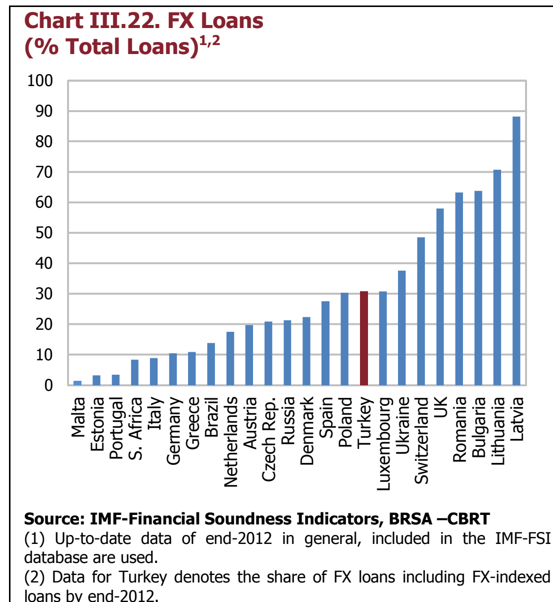
Loans are predominantly in medium-long-term maturities and denominated in Turkish lira. By March 2013, the share of medium and long-term loans in total loans was 64.4 percent and that of Turkish lira denominated loans was 69.6 percent. This outlook is considered to be a favorable development in terms of the management of credit risk (Chart III.21). The share of FX-denominated loans in the loan portfolio of the Turkish banking system is ranked in the middle among that of other countries (Chart III.22).

Chart III.21. Maturity and Currency Composition of Loans (%)[1,2]



Source: BRSA –CBRT
(1) FX-indexed loans are included in FX loans.
(2) Short-term denotes less-than-one-year maturity.

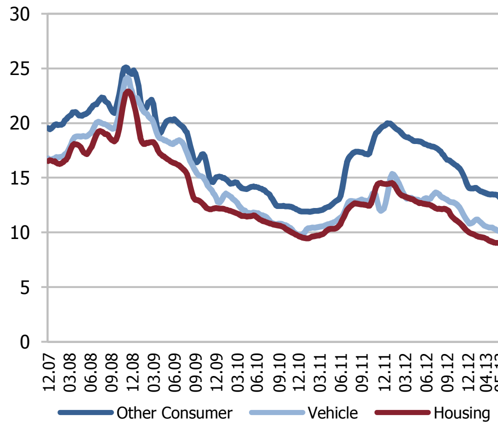
Chart III.22. FX Loans (% Total Loans)[1,2]



Source: IMF-Financial Soundness Indicators, BRSA –CBRT
(1) Up-to-date data of end-2012 in general, included in the IMF-FSI database are used.
(2) Data for Turkey denotes the share of FX loans including FX-indexed loans by end-2012.

In response to the CBRT's monetary policy framework, interest rates continue to decline. By 17 May 2013, interest rates on housing loans, other consumer loans and vehicle loans declined to 8.8 percent, 12.7 percent and 9.9 percent, respectively (Chart III.23). In the same period, interest rates on TL corporate loans and time deposits as 9.4 percent and 6.1 percent, respectively. As interest rates on deposits declined more than those on corporate loans, the interest rate margin continues to hover around high levels (Chart III.24). The decline in interest rates is expected to continue in the forthcoming period.

Chart III.23. Interest Rates on Consumer Loans (%, Flow)[1]



Source: CBRT
(1) 4-Week Average

Chart III.24. Interest Rates on Corporate Loans and Deposits (%, Points, Flow)[1]

Corporate Loan Rate
Deposit Rate
Corporate Loan - Deposit Rate Spread (right axis)

Source: CBRT
(1) 4-Week Average

Although banks have used deposits as the main source of finance, their use of alternative sources has increased. By March 2013, although the share of loans in total assets increased by 2.4 points year-on-year, the share of total deposits in liabilities declined by 1.4 points. In this period, banks covered their non-deposit funding needs from foreign banks and securities issued. The share of funds from repo transactions in the banks' funding sources narrowed. The share of security issues that has been included in banks' financing resources since 2011 increased from its level of 1.5 percent at end-2011 to 3.1 percent in March 2013. On the other hand, strong profitability and increases in security valuation have pushed the share of equities in balance sheets upwards (Chart III.25, Chart III.26).

Chart III.25. Loan and Deposit Growth/GDP (%, Excluding NPLs)

Loans
Securities Issued by Banks and Deposits
Deposits

Source: BRSA –CBRT, TURKSTAT

Chart III.26. Deposits, Repo, Due to Banks and Equities (% Liability)

Due to Banks
Equities
Repo
Deposits (RHA)

Source: BRSA –CBRT

Turkish lira deposits/participation funds continues to increase mid-2012. The downward trend in FX deposits/participation funds that started by mid-2012 has reversed since early 2013 (Chart III.27).

With the amendment dated 15 February 2013 of the "Regulation on Deposits and Participation Funds Subject to Insurance and Premiums Collected by the Savings Deposit Insurance Fund", the limits on deposits and participation funds subject to insurance premiums were increased. Based on the assessments regarding economic and financial factors such as the inflation rate, the per capita savings deposit amount and the ratio of insured deposits in total deposits, the insurance limit that had been applied as TL 50 thousand for the last nine years was

raised to TL 100 thousand. After this revision, the ratio of insured deposits to total deposits and participation funds increased from 22 percent to 29 percent.

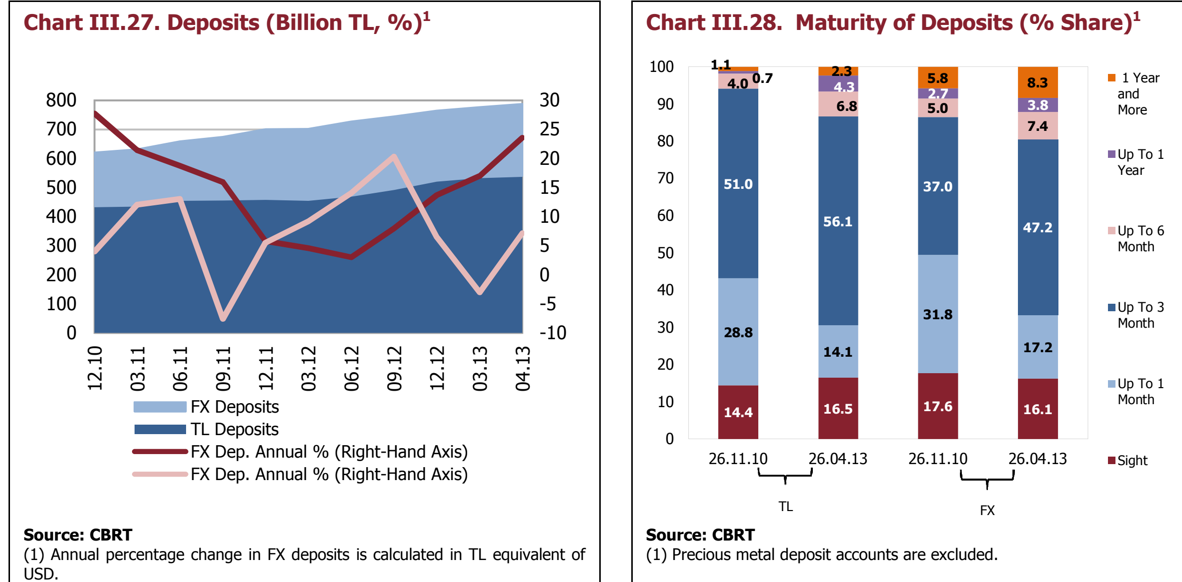


Chart III.27. Deposits (Billion TL, %)[1]

Source: CBRT

(1) Annual percentage change in FX deposits is calculated in TL equivalent of USD.

Chart III.28. Maturity of Deposits (% Share)[1]

Source: CBRT

(1) Precious metal deposit accounts are excluded.

The differentiation of the reserve requirement ratios according to the maturity structure of deposits/participation funds have had a significant impact on average maturity of deposits/participation funds (Chart III.28). With the increase of reserve requirement ratios for FX deposits and TL deposits at the end of 2012 and early 2013, the extension of the average maturity of TL and FX deposits/participation funds regained pace. By April 2013, the weighted average maturity of TL deposits was 77.7 days, while that of FX deposits/participation funds was 96.8 days. Measures taken by the CBRT and other authorities to extend maturities are addressed in Box III.3 and the effects of these measures are expected to be seen gradually.

Box III.3. Measures on Extension of the Maturity of Deposits

Withdrawal before maturity

With the Council of Ministers Decision No. 2012/4133, published in the Official Gazette of 1 January 2013 and No. 28515, Article 7 of the Council of Ministers Decision dated 16 October 2006 and No. 2006/11188 was amended. Accordingly, with the approval of banks, withdrawals have been allowed before maturity without changing the maturity and without incurring a loss of interest/profit share, provided that:

- Up to 50 percent of the principal in total could be withdrawn from deposit and participation accounts with maturities of 1 year and longer (1 month, 3 months, 6 months and with annual interest/dividend payment), in a maximum of two separate withdrawals during the term of maturity,
- Up to 50 percent of the principal in total could be withdrawn from cumulative deposits/participation accounts, in a maximum of three separate withdrawals during the term of maturity.

In the case of additional partial or full withdrawals before maturity beyond the above mentioned figures and shares, up to a maximum of 50 percent of the accumulated interest/profit share could be paid as an interest/profit share.

Differentiation of withholding according to maturity of deposits

With the decision annexed to Decree No. 2012/4116 of 24 December 2012 published in the Official Gazette of 1 January 2013 and No. 28515, excluding interests earned from interbank deposits and accounts belonging to brokerage houses, withholding rates of 15 percent is applied, regardless of maturity differentiation to Turkish lira deposits/participation funds and foreign exchange deposit accounts as well as foreign exchange participation accounts are differentiated according to the maturities of these accounts. The new practice is summarized below.

Withholding rates charged upon interests paid to FX deposit accounts and profit shares paid to FX participation

accounts are:

- 18 percent on demand deposits, notice deposits and accounts with maturities of up to 6 months (including 6 months),
- 15 percent on time deposits with maturities of up to 1 year (including 1 year),
- 13 percent on accounts with maturities longer than 1 year.

Withholding rates charged upon interest paid to Turkish lira deposits and profit shares paid to Turkish lira participation accounts are:

- 15 percent on demand deposits, notice deposits, special current accounts and accounts with maturities of up to 6 months (including 6 months),
- 12 percent on accounts with maturities of up to 1 year (including 1 year),
- 10 percent on accounts with maturities longer than 1 year.

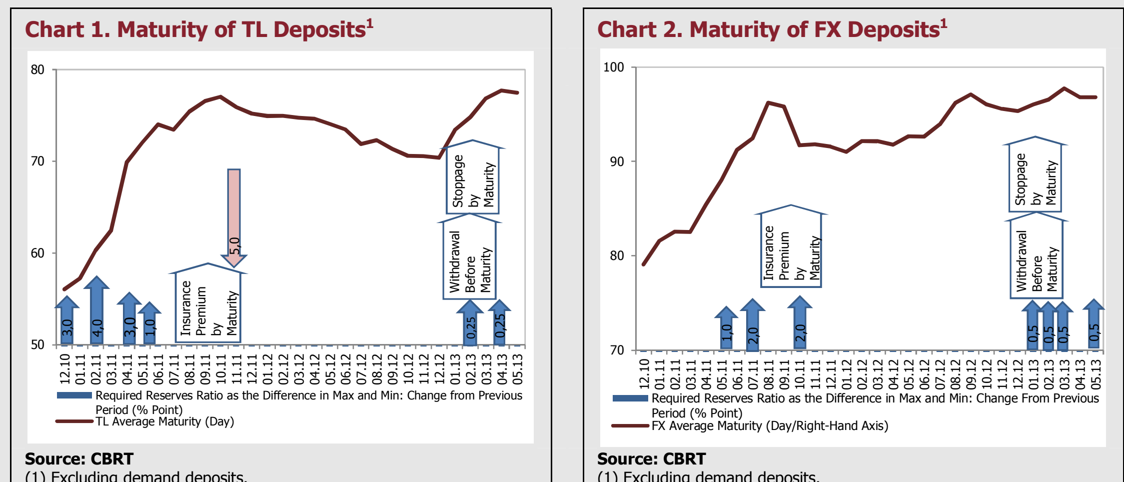
Differentiation of reserve requirement ratios according to maturity of deposits

The reserve requirement ratios for deposits/participation funds, the major source of funds for the sector, have been differentiated according to the maturity structure to mitigate maturity mismatch and underpin financial stability by extending the maturity of resources of the banking system. Within this framework, higher reserve requirement ratios were introduced for short-term deposits in Turkish lira and foreign exchange, from calculation periods of 7 January 2011 and 29 April 2011, respectively.

Table 1. Reserve Requirement Ratios for Deposit Accounts/Participation Funds

	Reserve Requirement Ratios (%)	
	Turkish Lira	**FX**
Demand Deposits, up to 1 and 3 months	11.5	13.0
Up to 6 months	8.5	13.0
Up to 1 year	6.5	13.0
1 year and longer and cumulative	5.0	9.0

Within this framework, while the reserve requirement ratio was increased mostly for short-term Turkish lira deposits from end-2010 to summer 2011, which was a period of tight monetary policy in response to the upward trend in loans, the average maturity of Turkish lira deposits was extended significantly during this period. In the second half of 2011, which was marked by increased uncertainties over the global economy and when the reserve requirement ratio for short-term deposits was reduced, the average maturity of Turkish lira deposits tended to shrink. With the increase of reserve requirement ratios for short-term deposits from end-2012, the average maturity of Turkish lira deposits started to rise again. Likewise, the average maturity of FX deposits generally displayed an upward trend on the back of the increase in the reserve requirement ratio set for the short-term FX liabilities. As a result of this regulation, a significant improvement has been observed in the average maturity of deposits since the end of 2010 (Chart 1 and 2).

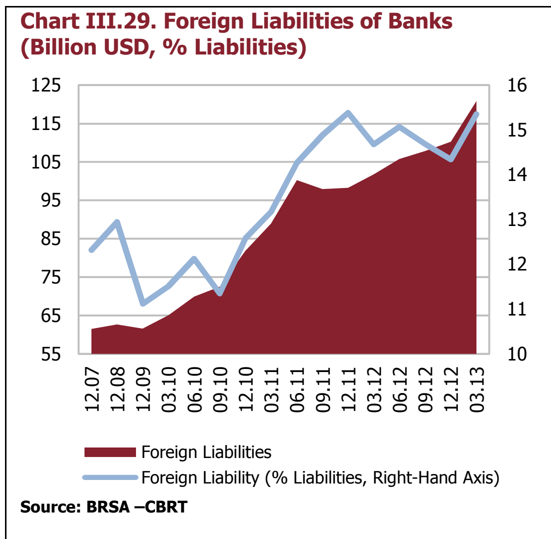


Source: CBRT
(1) Excluding demand deposits.

Source: CBRT
(1) Excluding demand deposits.

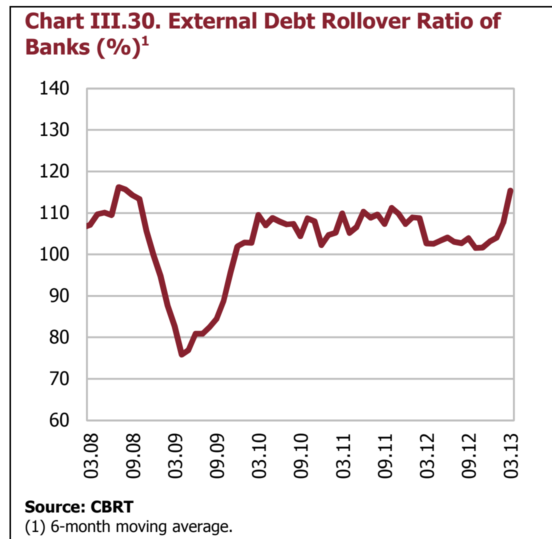
Due to funding opportunities that increased in line with the ongoing quantitative easing in advanced economies, banks' foreign liabilities maintain their upward trend. By March 2013, the total foreign liabilities of banks surged by 18.7 percent year-on-year and reached USD 120,8 billion. About 15.4 percent of total assets of the banking sector are funded by foreign liabilities (Chart III.29). In the same period, 18.8 percent, 14.1 percent and 9.4 percent of banks' foreign liabilities consisted of funds provided from the US, UK and Germany-based financial corporations. In the upcoming period, it is expected that capital flows will remain strong and the banking sector will continue to provide funds at lower costs from abroad owing to positive expectations related to the Turkish economy, upgrades in the sovereign rating and the effect of the monetary expansion package unveiled by the Bank of Japan.

Chart III.29. Foreign Liabilities of Banks (Billion USD, % Liabilities)



Source: BRSA –CBRT

Chart III.30. External Debt Rollover Ratio of Banks (%)[1]

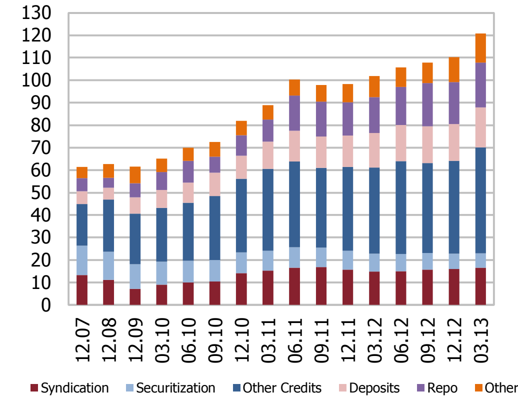


Source: CBRT
(1) 6-month moving average.

The banks' external debt rollover ratio has been hovering above 100 percent (Chart III.30). By March 2013, the sum of syndication and securitization credits was USD 22,9 billion, with a share of 19 percent in foreign liabilities and 3.3 percent in total funding sources (Chart III.31). By the preparation date of this Report, the amount of the banks' foreign liabilities to mature by the end of 2013 was USD 53,9 billion, USD 10 billion of which consisted of syndication and securitization credits. The amount of banks' foreign liabilities that will mature in 2014 is USD 16 billion.

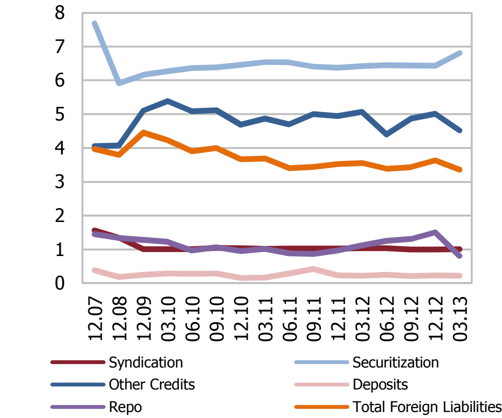
The long-term maturity structure of funds obtained by banks from abroad contributes to the extension of the maturity of liabilities. The weighted average maturity of foreign liabilities has not displayed a significant change over the past year and materialized as 3.4 years by March 2013. In the same period, the average maturity of syndication credits, which makes up 13.7 percent of foreign liabilities, was 1 year and the average maturity of securitization credits, which makes up 5.3 percent of foreign liabilities, was 6.8 years (Chart III.32).

Chart III.31. Composition of Foreign Liabilities (Billion USD)



Source: BRSA –CBRT

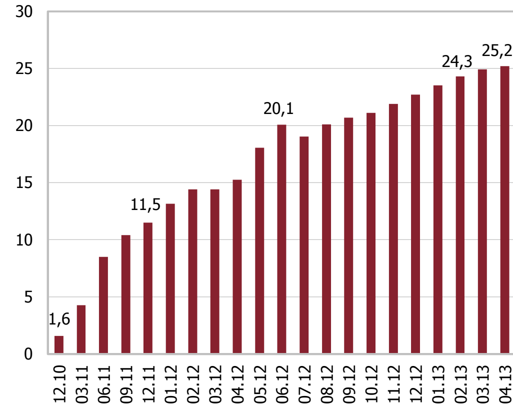
Chart III.32. Average Maturity of Foreign Liabilities (Years)



Source: BRSA –CBRT

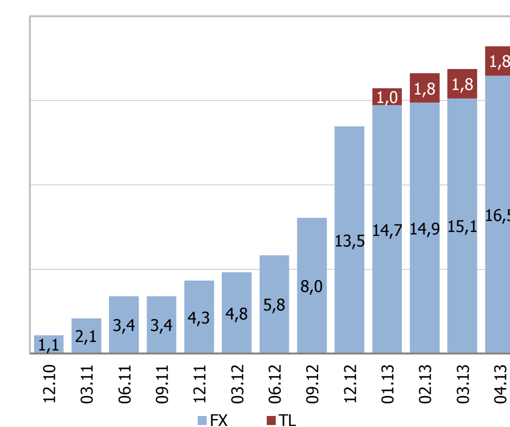
Banks' security issues have continued to grow with accelerated rate. In April 2013, the amount of TL-denominated securities issued by the banking sector in the domestic market increased by 24.8 percent compared to October 2012 and became TL 25,2 billion (Chart III.33). Furthermore, the amount of TL-denominated securities issued abroad by the banking sector recorded TL 1,8 billion in April 2013. In the recent period, it is observed that Banks' FX-denominated security issues have elevated. In March 2013 the amount of security issues abroad rose to USD 15,1 billion from USD 13,5 billion at the end 2012 and along with the increases in the recent period, it reached USD 16,5 billion in April (Chart III.34).

Chart III.33. Banks' Security Issues in Domestic Market (Billion TL)



Source: BRSA –CBRT

Chart III.34. Banks' Security Issues Abroad (Billion TL, Billion USD)

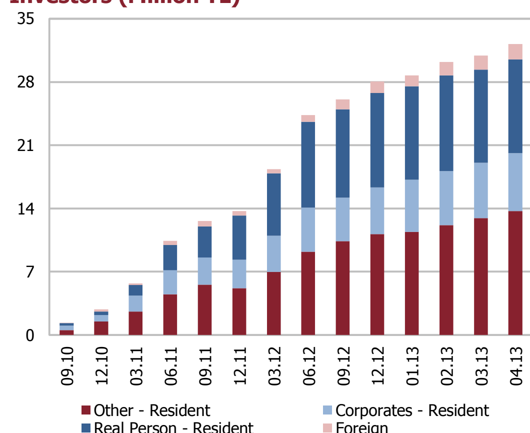


Source: BRSA –CBRT

By 7 May 2013, the average maturity of issues by banks in the domestic market decreased to 295 days from its level of 307 in October 2012, whereas the average maturity of issues abroad increased to 6.9 years from 6.5 years.

An analysis by distribution-by-investor of securities issued by the private sector including banks reveals that by April 2013 the largest share of 42.6 percent comprises resident investment trusts and funds, followed by a 32.2 percent share belonging to resident real persons (Chart III.35, Chart III.36).

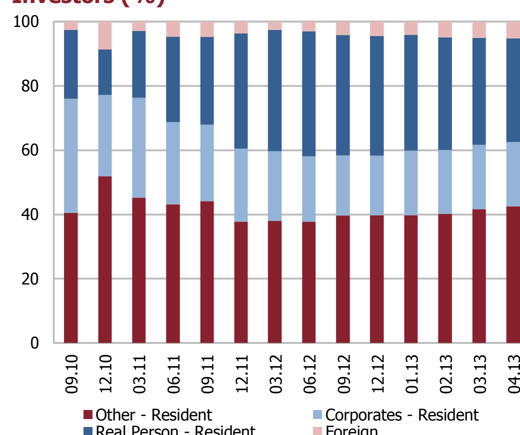
Chart III.35. Private Sector Debt Instruments by Investors (Million TL)[1]



Source: CRA

(1) "Other" includes investment trusts, funds and other counterparts, excluding real and legal persons.

Chart III.36. Private Sector Debt Instruments by Investors (%)[1]



Source: CRA

(1) "Other" includes investment trusts, funds and other counterparts, excluding real and legal persons.

It is observed that banks and non-bank corporations have applied to the CMB for significant amounts of bonds and bills issues (Table III.2).

Table III.2. Bond and Bill Issues by Banks (Stock)

Nominal Amount	TL Denominated (Million TL)	FX Denominated (Million US dollar)
The realized issues approved by CMB	26,993	16,962
The non-realized issues approved by CMB	32,250	17,550
The applications to CMB	10,545	3,000
TOTAL	**69,788**	**37,512**

Source: CMB, PDP

Box III.4. CBRT's Short-term Liquidity Measures

The one-week repo rate (the policy rate) declined from 5.75 percent to 4.5 percent as a result of the reductions by 0.25 points, 0.5 points and another 0.5 points in MPC meetings of December 2012, April and May 2013, respectively.

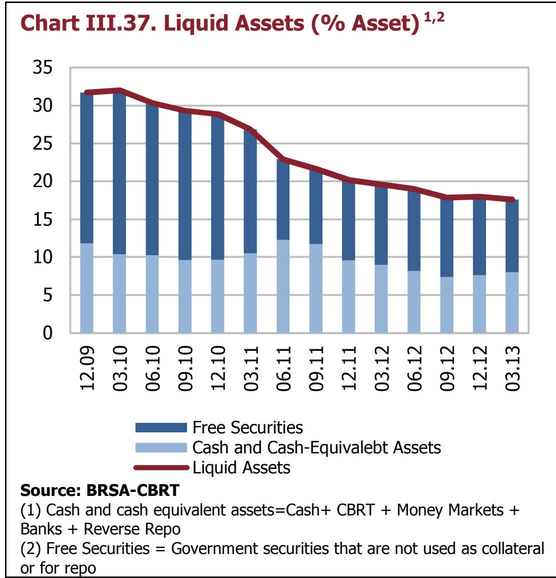
The overnight borrowing rate standing at 5 percent was gradually cut to 3.5 percent in MPC meetings of January, February, April and May 2013. Likewise, the overnight lending rate standing at 9.5 percent was gradually reduced to 6.5 percent in MPC meetings of January, February, March, April and May.

While the interest rate on borrowing facilities provided for primary dealers via repo transactions within the scope of open market operations was decreased gradually from 9 percent to 6 percent at meetings of November 2012 and January, February, March, April and May 2013, the overnight lending rate at the Interbank Money Market between 16:00 – 17:00 hours was cut to 9.5 percent from 12.5 percent within the framework of the Late Liquidity Window in the same period.

At its meeting in December 2012, the MPC decided to set the amount of daily funding via one-week quantity auctions between TL 0,2 billion and 6,5 billion until the next MPC meeting. Moreover, the upper limit for each one-month repo auction to be held during the same period was set as TL 4 billion. While the amount was progressively pushed down to TL 3 billion, 2,5 billion and 1 billion in January, February and March 2013, respectively, the one-week funding rate was kept unchanged. Both funding amounts were not changed in April 2013; however, in May, it was decided to set the amount of daily funding via one-week quantity auctions between TL 0,2 billion and 9 billion, and the upper limit for one-month repo auctions was set as TL 0,5 billion for each action.

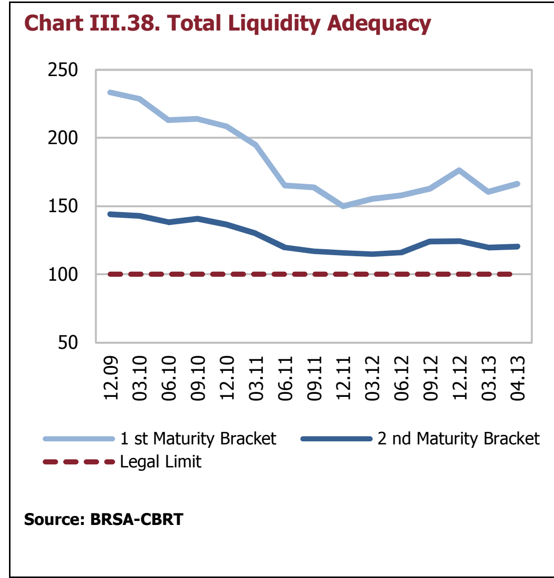
Despite the surge in Turkish lira reserve requirement ratios, banks' Turkish lira liquidity needs did not increase owing to the facility allowing banks to hold TL required reserves in gold and foreign exchange. By March 2013, the ratio of liquid assets to total assets declined by 0.4 points compared to end-2012 and became 17.6 percent. This development is mainly attributable to the decrease in free securities despite a limited rise in cash and cash equivalent assets (Chart III.37). Nevertheless, total liquidity adequacy ratios of the banking sector, computed in accordance with the Regulation on the Measurement and Assessment of Liquidity Adequacy of Banks, have been hovering significantly above the legal ratio of 100 percent (Chart III.38).

Chart III.37. Liquid Assets (% Asset) [1,2]



Source: BRSA-CBRT
(1) Cash and cash equivalent assets=Cash+ CBRT + Money Markets + Banks + Reverse Repo
(2) Free Securities = Government securities that are not used as collateral or for repo

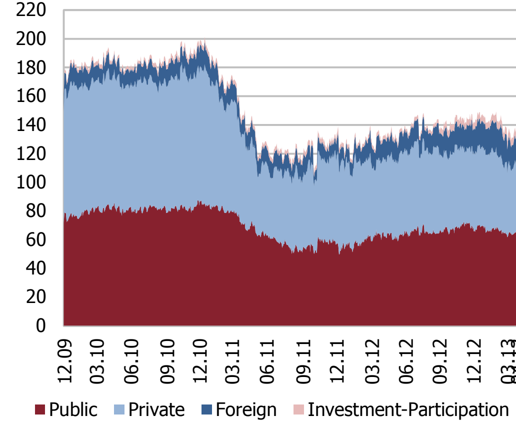
Chart III.38. Total Liquidity Adequacy



Source: BRSA-CBRT

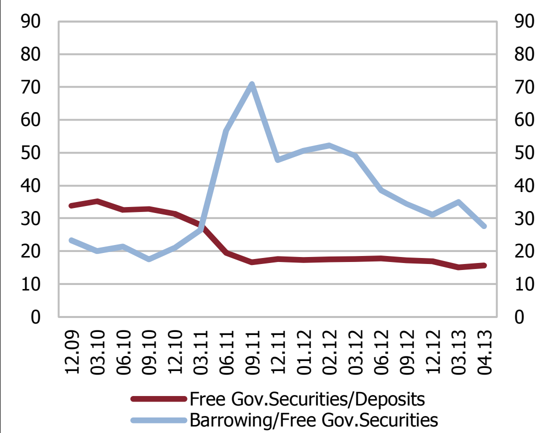
The ratio of free securities to deposits rose slightly in the first quarter of 2013 and then remained relatively flat. Free securities are considered by the CBRT eligible collateral to meet the liquidity needs of banks in case of a temporary liquidity shortage. The ratio of the amount of borrowing from Borsa İstanbul (BIST) and Interbank Money Market (IMM) to government securities rose in the first quarter of 2013 on the back of the decline in free securities. During the past one month period, this ratio decreased in line with the fall in the amount of borrowing. The free securities, which were TL 142,2 billion at end-2012, declined to TL 132,4 billion in April 2013. At the same time, while the ratio of the amount of borrowing from BIST and IMM to government securities was 27.6 percent in April 2013, the ratio of free government securities, which can be used by banks in the case of a liquidity shortage, to deposits materialized around 15.6 percent (Chart III.39 and Chart III.40).

Chart III.39. Total Securities Eligible for the CBRT as Collateral (Billion TL)



Source: BRSA-CBRT

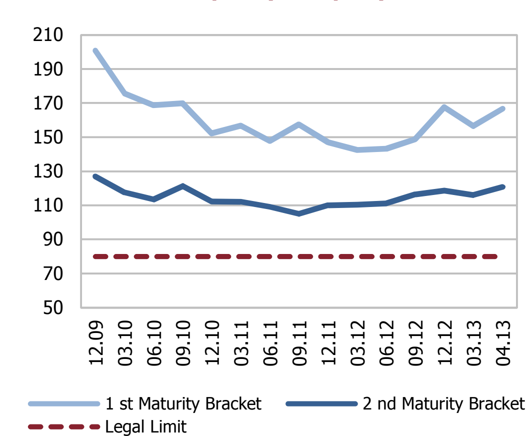
Chart III.40. The Ratio of Free Government Securities to Liabilities (%)



Source: BRSA-CBRT

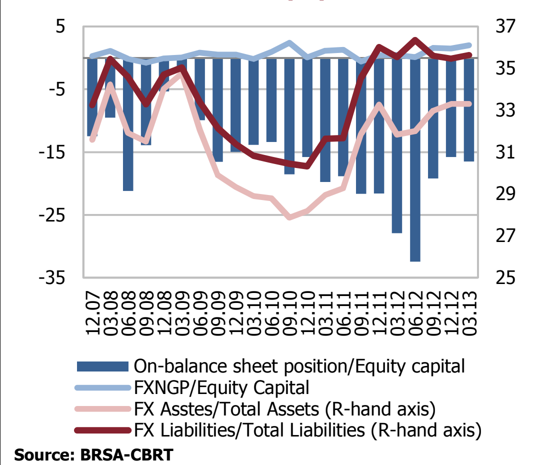
Foreign exchange liquidity adequacy ratios continue to increase. These ratios have been on the rise since 2012 because the amount of foreign exchange held in blocked accounts for Turkish lira reserve requirements has been taken into account as an average in the calculation of legal liquidity ratios (Chart III.41). In the recent period, while the share of FX assets has increased, that of FX liabilities has remained flat. By March 2013, the ratio of FX assets including FX-indexed ones to total assets became 33.3 percent and the ratio of FX liabilities to total liabilities became 35.6 percent. The on-balance sheet short position, which is closed by off-balance sheet transactions mostly composed of swap transactions, has posted a decline since the second half of 2012. By March 2013, while the ratio of on-balance sheet short position to equities was 16.5 percent, the ratio of the foreign exchange net general position to total equity, calculated by taking into account off-balance sheet transactions as well, was 2 percent (Chart III.42).

Chart III.41. FX Liquidity Adequacy Ratio



Source: BRSA-CBRT

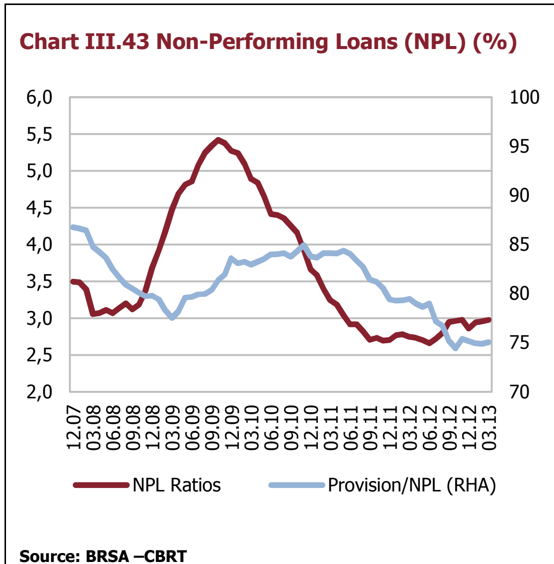
Chart III.42. FX Position (%)



Source: BRSA-CBRT

The NPL ratios have been following a flat course since the final quarter of 2012. In March 2013, the NPL of the sector increased by Turkish lira 5,8 billion on an annual basis and reached Turkish lira 25,5 billion. Among the retail loans category, the other consumer loans item and the credit cards item posted the highest NPL ratios. The NPL ratio, which had been rising since the second half of 2012, reached 3.0 percent in March 2013. An analysis of loans by type suggests that the highest NPL ratios are in loans extended to micro-sized enterprises and credit cards. It is a remarkable development that the ratio of the provisions for NPLs to NPL amount has decreased by 4.4 percent over the last year and has come down to 75 percent (Chart III.43, Table III.3). Even if there seems to be no serious concern over the quality of assets, earmarking provisions for NPLs higher than legal requirements would be a cautious stance to be adopted in times of favorable economic conjuncture and strong banking profitability.

Chart III.43 Non-Performing Loans (NPL) (%)



Source: BRSA –CBRT

Table III.3. NPL Ratios (%)

	2011	2012	03.13
Total Loans	2.7	2.9	3.0
Corporate	2.6	2.8	2.9
-SME Loans	3.1	3.2	3.1
--Micro	4.3	4.3	4.3
--Small	2.9	3.0	2.9
--Medium	2.2	2.6	2.5
-Other Corp. L.	2.3	2.6	2.8
Retail Loans	2.9	2.9	3.0
-Consumer Loans	1.9	2.1	2.1
--Housing	0.9	0.8	0.7
--Vehicle	3.3	3.1	3.2
--Other	2.6	3.2	3.2
-Credit Cards	5.9	5.1	5.5

Source: BRSA –CBRT

Although there is no database on the total number of cheques used in Turkey, cheques submitted to the Interbank Cheque Clearing Houses Center (ICH) are considered to be a significant indicator. The upward trend observed in the ratio of bad cheques presented to the ICH to the total amount of cheques since the second half of 2011 continued till the end of 2012. The upward trend terminated in the first quarter of 2013 and the ratio of bad cheques to total cheques started to decline (Chart III.44).

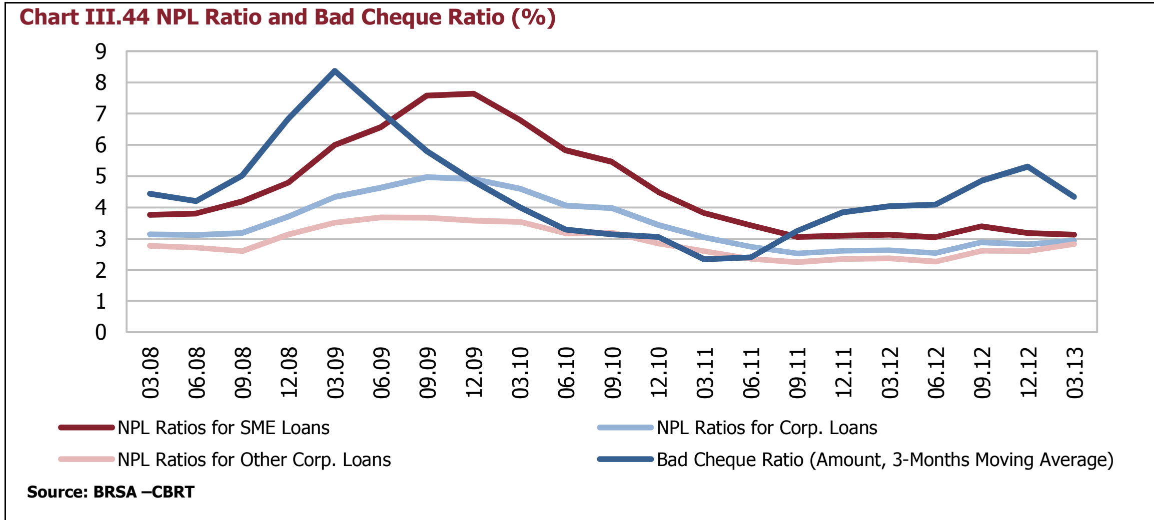


Chart III.44 NPL Ratio and Bad Cheque Ratio (%)

Source: BRSA –CBRT

Due to the problems in the banking systems of some European countries and persisting global uncertainties, the NPL ratios of these countries remain quite high compared to the Turkish banking system. NPL ratios are quite high in many countries because of the general decline in loan extensions due to the deleveraging tendency and contraction in financing facilities as well as economic underperformance. Compared to other advanced and emerging economies, the asset quality of the Turkish banking system is stronger (Chart III.45).

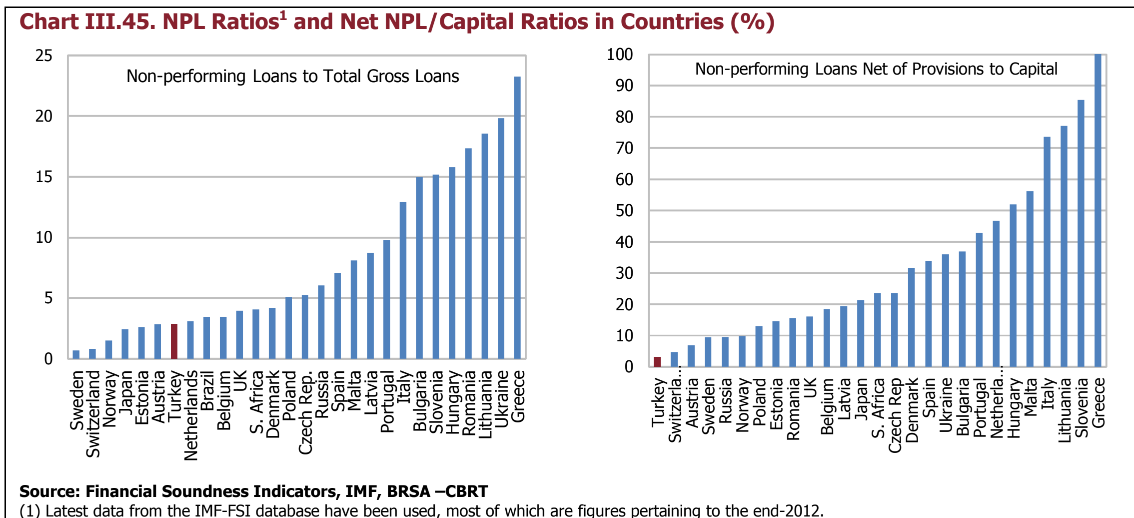


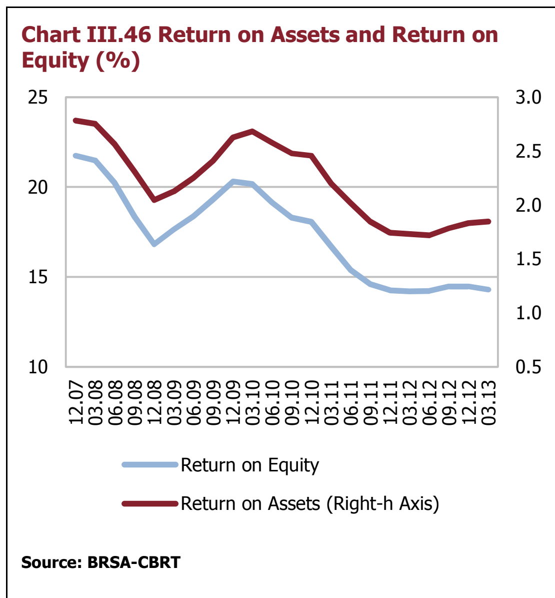
Chart III.45. NPL Ratios[1] and Net NPL/Capital Ratios in Countries (%)

Source: Financial Soundness Indicators, IMF, BRSA –CBRT
(1) Latest data from the IMF-FSI database have been used, most of which are figures pertaining to the end-2012.

The rise in the banking sector's profitability continued in the first quarter of 2013 as well. Compared to end-2011, the banking sector's net profit increased by 18.5 percent and reached Turkish lira 23,5 billion by the end of 2012. By March-2013, the sector's net profit increased by 16.3 percent year-on-year and reached Turkish lira 7 billion. The rise in net profits in both periods can be mainly attributed to the rise in net interest income stemming from the decrease in interest rates. Meanwhile, the net trading loss that turned into profit became a factor that effected profitability. In this period, the rise in non-interest expenses stemming from the increase in operational expenses and other provisions as well as the rise in special provisions for nonperforming loans became the factors curbing further increase in profitability.

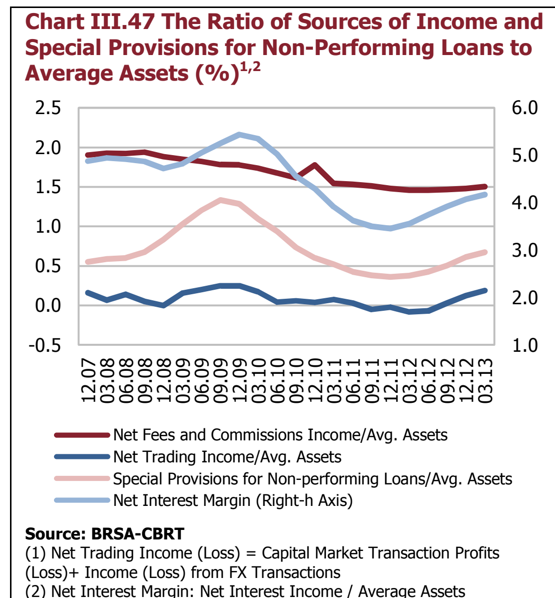
The banking sector's return on assets and return on equity, which have been rising, became 1.8 points and 14.5 percent at the end of 2012 while return on assets remained flat and return on equity dropped down to 14.3 percent in March 2013 (Chart III.46). Similarly, at the end of 2012, the sector's interest margin increased by 0.6 points year-on-year and became 4.1 percent due to the rise in net interest income, while the same increased by 0.1 percent in March 2013 and became 4.2 percent. Moreover, by the end of 2012 and in March 2013, a rise was observed in the ratio of net trading income to average assets as well as in the ratio of special provisions for non-performing loans to average assets due to the rise in special provisions for non-performing loans (Chart III.47).

Chart III.46 Return on Assets and Return on Equity (%)



Source: BRSA-CBRT

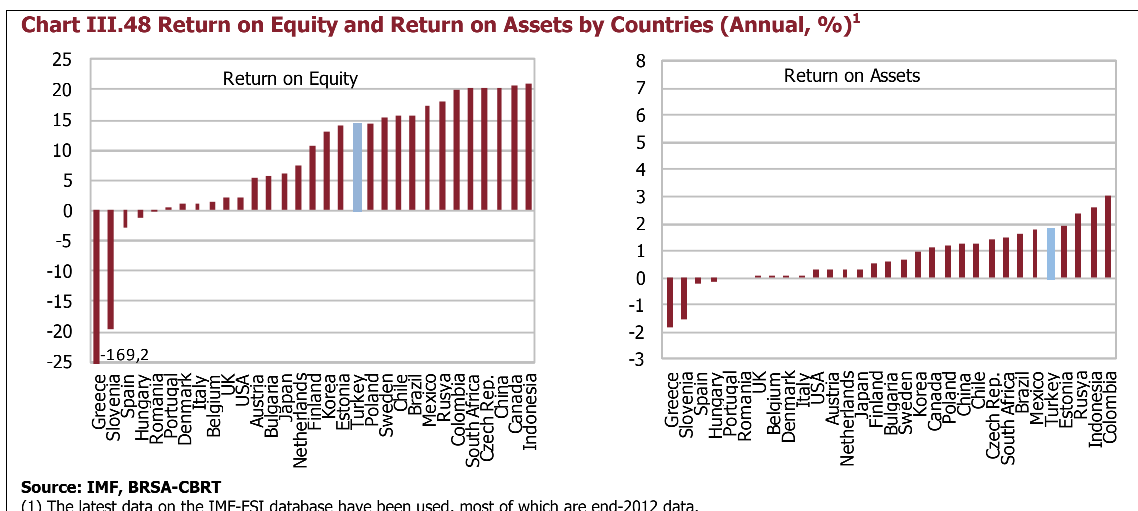
Chart III.47 The Ratio of Sources of Income and Special Provisions for Non-Performing Loans to Average Assets (%)[1,2]



Source: BRSA-CBRT
(1) Net Trading Income (Loss) = Capital Market Transaction Profits (Loss)+ Income (Loss) from FX Transactions
(2) Net Interest Margin: Net Interest Income / Average Assets

Profitability performance indicators of the Turkish banking sector remain high compared to those of many advanced and emerging economies (Chart III.48).

Chart III.48 Return on Equity and Return on Assets by Countries (Annual, %)[1]

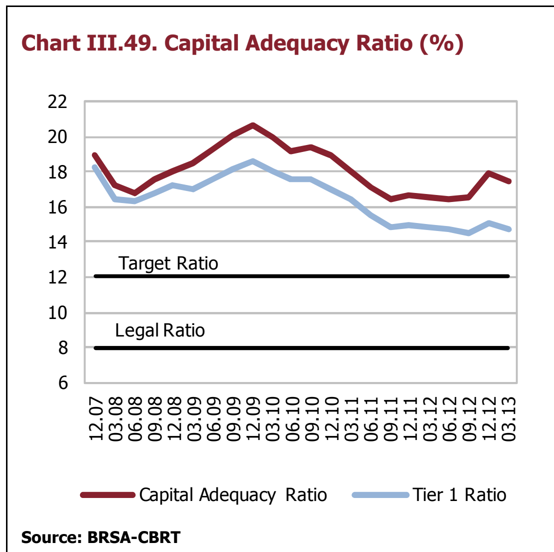


Source: IMF, BRSA-CBRT
(1) The latest data on the IMF-FSI database have been used, most of which are end-2012 data.

The Basel II framework became operative with the BRSA's "Regulation on Measurement and Evaluation of Liquidity Adequacy of Banks" published in the Official Gazette dated 28 June 2012. The Regulation comprises Basel 2.5 principles. The transition to Basel II had a limited impact on the CAR of the sector. The CAR, which was 16.5 percent in June

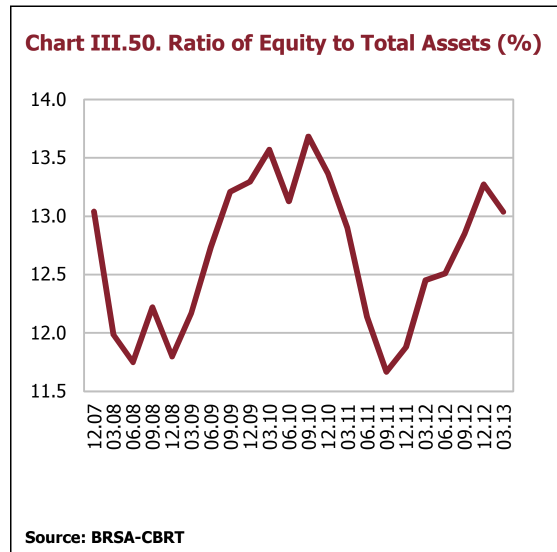
inched down to 16.3 percent in July and bounced up to 17.9 percent by the end of 2012. Strong profitability has made a positive impact on the ratio. After Turkey's rating was upgraded to investment grade in November 2012, the risk weight of the Eurobonds issued by the Treasury, which was 100 percent, became 50 percent which emerged as another factor positively affecting the CAR. As risk-weighted assets grew faster than equity capital in March 2013 compared to end-2012, the sector's CAR became 17.4 percent. The rise in the sector's profitability and the increase in the secondary subordinated debt have supported CAR; and BRSA's policy of imposing certain restrictions on the distribution of profits within the sector will assure the continuation of this impact. Moreover, for all reporting periods, the sector's CAR was well above the legal limit of 8 percent and the target ratio of 12 percent. Meanwhile, the share of Tier 1 capital in own funds, which was 84 percent in March 2013, shows that the quality of capital is strong. Actually, the ratio of Tier 1 capital to own funds was 15.1 percent and 14.7 percent at the end of 2012 and in first quarter of 2013 , respectively (Chart III.49). The ratio of the sector's equities to total assets, which posted an upward trend throughout 2012, became 13.3 percent at the end of 2012 and 13 percent in March 2013 (Chart III.50).

Chart III.49. Capital Adequacy Ratio (%)



Source: BRSA-CBRT

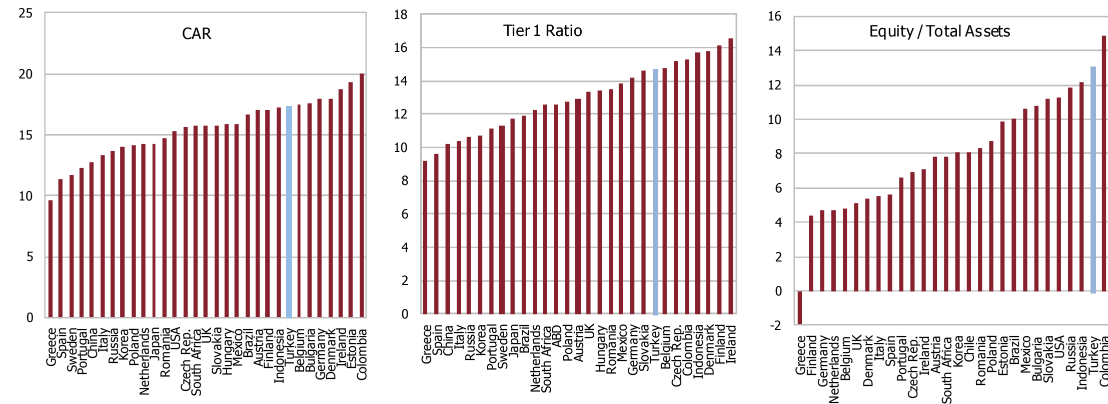
Chart III.50. Ratio of Equity to Total Assets (%)



Source: BRSA-CBRT

The Turkish banking sector has a high capital adequacy ratio. Compared to other countries, Turkey is one of the countries that enjoy high ratios with regard to the capital adequacy ratio, Tier 1 capital ratio, and the ratio of equity to total assets (Chart III.51).

Chart III.51. Capital Adequacy Ratio, Tier 1 Capital Ratio and Ratio of Equity to Total Assets by Countries (%)[1]

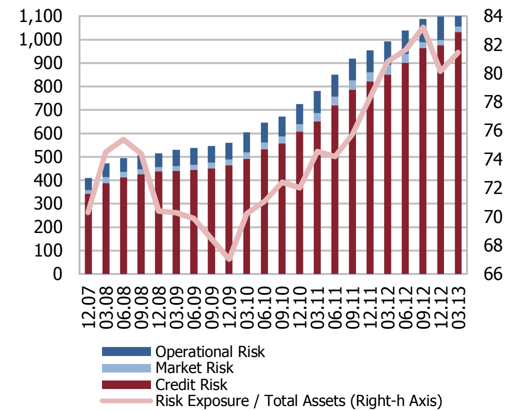


Source: IMF, BRSA-CBRT

(1) Latest data on the IMF-FSI database have been used, most of which are end-2012 data.

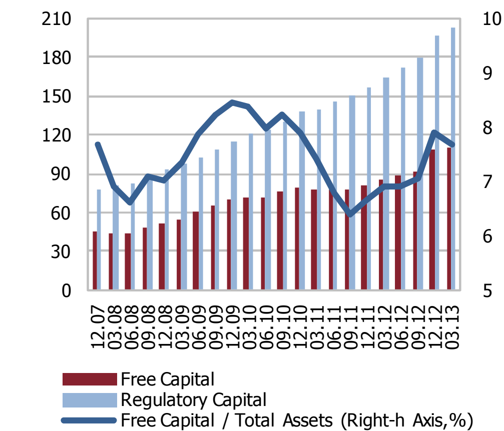
The rise in the share of total risk exposure of the banking sector in total assets continues. By March 2013, the ratio increased by 1.3 points compared to end-2012 mainly due to the credit risk and became 81.5 percent (Chart III.52). In the same period, the ratio of free capital to total assets decreased by 0.2 points to become 7.7 percent (Chart III.53).

Chart III.52. Composition of Total Risk Exposure (Billion TL, %)



Source: BRSA-CBRT

Chart III.53. Developments in Free Capital (Billion TL, %)



Source: BRSA-CBRT

Box III.5. Studies Carried out for the Transition to Basel III in Turkey

Studies towards the transition to Basel III practices have been initiated in Turkey. The BRSA has completed most of the draft regulations pertaining to Basel III and issued them on the institution's official website. In this framework, on 1 February 2013, "The Draft Regulation on the Own Funds of Banks" and "The Draft Regulation on Making Amendments on the Regulation on Measurement and Evaluation of Capital Adequacy of Banks" have been issued. The draft regulations introduced the common equity tier 1 l concept and determined the items of additional Tier I capital and own funds. The dratf also introduced that the borrowing instruments to take place in additional Tier I capital and supplementary capital be deleted from the records in case the bank's capital adequacy ratio decreased below a determined threshold, with the aim of recovering the losses, or making it transformable to a stock. In the draft regulation, the minimum common equity tier 1 capital adequacy standard ratio was set as 4.5 percent and the minimum Tier I capital adequacy standard ratio was set as 6 percent.

With the BRSA's press release dated 14 February 2013, the "Draft Regulation on Capital Protection and Cyclic Capital Buffers" was opened to public opinion. The draft regulation sets forth the principles and procedures regarding calculation of the additional common equity tier 1 capital amount that the banks are expected to keep as the capital

conservation buffer and the counter-cyclical capital buffer. Within this scope, the capital conservation buffer is defined as the additional common equity tier 1 capital amount that the banks are expected to keep to avoid any deficiency in own funds according to the regulations regarding capital adequacy due to prospective losses that may stem from the deterioration in economic and financial indicators. The bank-specific counter-cyclical capital buffer is defined as the additional common equity tier 1 capital amount that the banks are expected to keep to avoid any deficiency in own funds according to the regulations regarding capital adequacy at times of credit expansion levels so high that they might increase the financial sector's riskiness.

With the BRSA's press release dated 14 March 2013, "The Draft Regulation on the Measurement and Evaluation of Leverage Levels of Banks" was opened to public opinion. The regulation sets forth the principles and procedures for the banks to follow to keep adequate capital on a consolidated and non-consolidated basis in the face of the risks they might be exposed to due to the leverage effect. The draft regulation stipulates that the leverage ratios shall be calculated by dividing the banks' Tier I capital to the total risk amount composed of their total risk amounts of on-balance sheet assets and off-balance sheet transactions to which the conversation rate has been applied. The quarterly simple arithmetic average of the ratio which will be calculated on a solo and consolidated basis shall be fixed and maintained at three percent minimum.

An analysis of other countries' experiences pertaining to the adoption of Basel-III principles reveals that 14 of the Basel Committee member countries have issued the latest version of the Basel III capital regulation. Of the Basel Committee member countries, 11 have started implementing the Basel III capital rules. These countries are Australia, Canada, China, Hong Kong, India, Japan, Mexico, Saudi Arabia, Singapore, South Africa and Switzerland. Argentina, Brazil and Russia have issued the last rules; however, the regulations are expected to take effect as of the end of 2013. The remaining 13 countries have issued draft regulations, but each are at different levels regarding the process: Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Spain, Sweden, the UK, Indonesia, Korea, Turkey and the USA. The table below shows the progress of Basel Committee member countries in Basel III adoption by March 2013 (Table 1).

Table 1. Progress of Basel Committee Member Countries in Basel III Adoption

	Basel II	Basel 2.5	Basel III
Number of countries issued and implemented current rules	24	22	11
Number of countries issued but not implemented current rules	1	0	3
Number of countries that are at different levels of finalising current rules	2	3	13
Number of countries that have not achieved an important progress considering current rules	0	2	0
Total	27	27	27

Source: BIS

In 2010, the Basel Committee conducted a comprehensive quantitative impact study to assess the effect of Basel III. Recently, the Committee carried out a quantitative impact study by using end-2012 data of a total of 210 banks. Of these 210 banks, 101 are Group 1 banks that have Tier 1 capital in excess of 3 billion euros and are internationally active; the remaining 109 are Group 2 banks. No assumptions were made about bank profitability or behavioral responses. For that reason the results of the study are not comparable to industry estimates.

In the quantitative impact study, the average common equity Tier 1 capital ratio (CET1) of Group 1 banks, which is supposed be 4.5 percent, decreased from 10.8 percent to 8.5 percent. The ratio in Group 2 banks declined from 10.9 percent to 9.0 percent. The fact that the ratio in question is less remarkable in Group 2 banks suggests that Basel III has a stronger impact on big banks. The decline in common equity tier 1 capital can be attributed to redefined capital, the newly introduced deductions from the tier 1 capital and the rise in risk-weighted assets (Table 2).

Compared to the quantitative impact study which used data from 31 December 2011, banks have made significant progress in meeting the minimum Basel III standards. Accordingly, the common equity Tier 1 ratio for

Group 1 banks, which was 7.7 percent in December 2011, increased to 8.5 percent in June 2012; meanwhile the total capital ratio increased to 9.9 percent from 9.2 percent. The common equity Tier 1 ratio for Group 2 banks increased from 8.8 percent in December 2011 to 9 percent in June 2012 and the total capital ratio from 11 percent to 11.3 percent.

Table 2. Results of the Quantitative Impact Study of Basel III

	Basel III Minimum Ratios (%)		December 2011 Realized Ratios (%)		June 2012 Realized Ratios (%)	
	Minimum Ratio	Minimum Ratio + Conservation Buffer	Current Regulation	Basel III	Current Regulation	Basel III
Group 1						
Common Equity Tier 1 Capital	4.5	7.0	10.4	7.7	10.8	8.5
Tier 1 Capital	6.0	8.5	11.7	8.0	12.0	8.7
Total capital	8.0	10.5	14.2	9.2	14.4	9.9
Group 2						
Common Equity Tier 1 Capital	4.5	7.0	10.4	8.8	10.9	9.0
Tier 1 Capital	6.0	8.5	11.0	9.2	11.4	9.5
Total capital	8.0	10.5	14.3	11.0	14.7	11.3

Source: BIS

Scenario analyses, which test the resilience of the banking sector to shocks coming from credit and market movements, show that the sector has the capacity to absorb shocks. In a scenario analysis applied in March 2013, even when exchange rates, Eurobond returns, interest rates and NPLs are exposed to maximum shocks simultaneously, the capital adequacy ratio materialized as 9.1 percent which is above the legal ratio (Table III.4, Chart III.54).

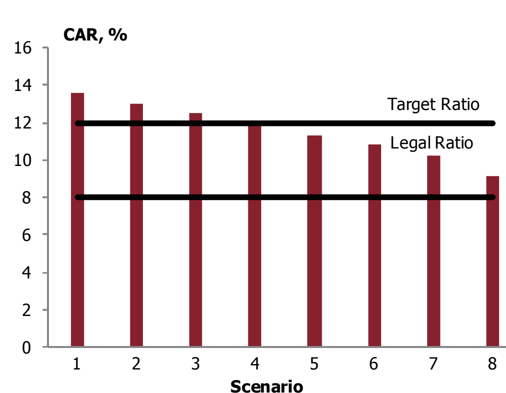
Table III.4 Scenarios Applied[1]

Scenario	Exchange Rate (% increase)	Eurobond (% loss of value)	Interest Rate (point increase)[2]	NPL (point increase)
1	30.0	15.0	10.0	3.0
2	31.5	15.8	10.5	4.0
3	33.0	16.5	11.0	5.0
4	34.5	17.3	11.5	6.0
5	36.0	18.0	12.0	7.0
6	37.5	18.8	12.5	8.0
7	39.0	19.5	13.0	9.0
8	40.5	20.0	13.5	11.0

Source: CBRT

(1) In scenario analysis, taking into account also past crises, shocks are applied to risk factors simultaneously.
(2) It refers to the Turkish Lira interest rate shock. The FX interest rate shock is about 1/3 of that applied to Turkish lira interest rate. In the shocks applied to commercial portfolios, impairment is about 17 percent on sectoral basis. Effective Eurobond shocks are three times the table figures.

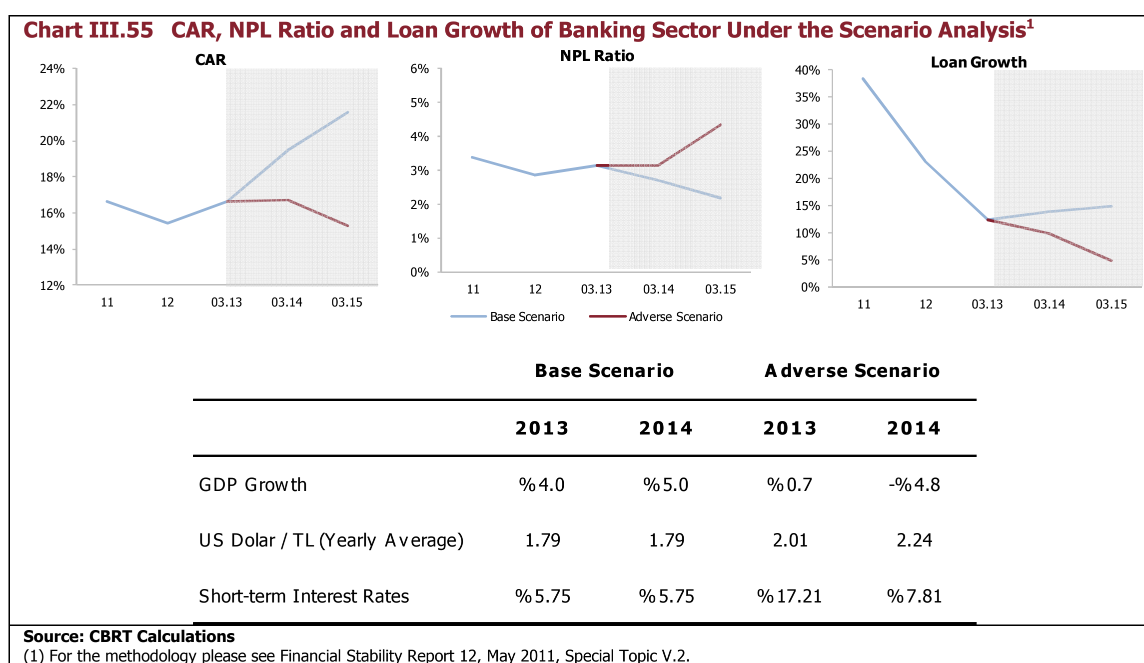
Chart III.54 Results of Scenario Analysis



Source: CBRT calculations

The macro scenario analysis suggests that in case of a potential adverse macro-economic situation that might arise due to a global crisis similar to the one in 2008 would not lead to a significant deterioration in the sector's NPL ratio and capital adequacy, and that the sector would remain robust. Within the context of the analysis, while under the adverse scenario, the NPL ratio of the sector is estimated to increase up to 4.3 percent; under the baseline scenario, the ratio is estimated to fall to 2.2 percent. Under the baseline scenario, the CAR of the sector rises to 21.6 percent in the first quarter of 2015, while under the adverse scenario the item falls as low as 15.3 percent (Chart III.55). Even under the adverse scenario, no bank's CAR falls below the legal limit of 8 percent. The rapid decline in interest rates following the adverse shocks makes a positive impact on the banking sector owing to the reprising in the sector that has liabilities with shorter maturities. Moreover, limited rise in NPL ratios and capital structure that has grown stronger are the leading factors that help the banking sector maintain resilience against stress tests.

Chart III.55 CAR, NPL Ratio and Loan Growth of Banking Sector Under the Scenario Analysis[1]

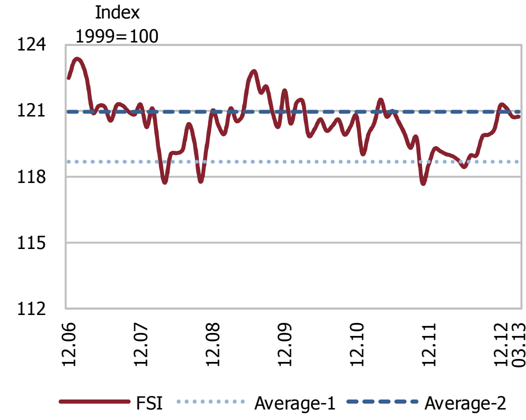


	Base Scenario		Adverse Scenario	
	2013	**2014**	**2013**	**2014**
GDP Growth	%4.0	%5.0	%0.7	-%4.8
US Dolar / TL (Yearly Average)	1.79	1.79	2.01	2.24
Short-term Interest Rates	%5.75	%5.75	%17.21	%7.81

Source: CBRT Calculations
(1) For the methodology please see Financial Stability Report 12, May 2011, Special Topic V.2.

Banking indicators suggest that the sector continues to present a favorable outlook. The asset quality of the sector has slightly deteriorated compared to the previous reporting period. The amount of NPLs has recently increased and accordingly, the NPL ratio has also risen by a small margin. Nevertheless, the upward trend in the profitability performance indicators continues due to the improvement in the sector's net interest income. The CAR of the sector remains high. The on and off-balance sheet positions have contracted; the on-balance sheet short position is counter-balanced by the off-balance sheet long position, hence the FX net general position remains low. The banking sector's liquidity adequacy ratios for the 1st and 2nd maturity brackets are above the legal limit both in terms of total amount and in foreign exchange; yet, a slight increase is observed in non-core funding. Due to all these changes, the financial strength index (FSI) became 120.7 in March 2013 and the sector remains strong (Chart III.56, Chart III.57).

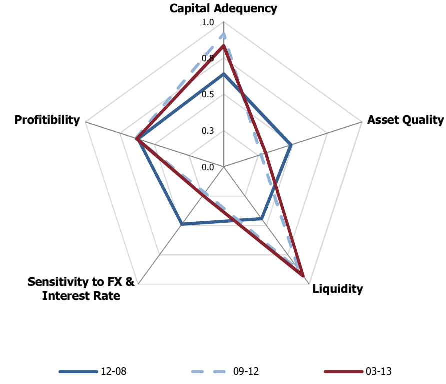
Chart III.56. Financial Strength Index[1,2]



Source: BRSA-CBRT

(1) "Average 1" is the average of December 1999-March 2013 and "Average 2" is the average of January 2004- March 2013.
(2) Since they have different operating principles, participation banks have been excluded.

Chart III.57. Banking Sector Stability Map[1]



Source: BRSA-CBRT
(1) A sub field of the "Financial Stability Map".

Albeit reduced to reasonable levels with respect to financial stability, loan growth rates, which have been accelerating since the final quarter of 2012 mainly due to the increase in retail loans and materialized above the reference rate, are worth monitoring. Banking indicators suggest that the sector is robust. The NPL ratios of the sector have been flat and low since the final quarter of 2012. While the banking sector retains its strong profitability performance and high CAR ratios, efforts towards harmonization with Basel III standards are under way.