III. Risks Pertaining to the Financial System

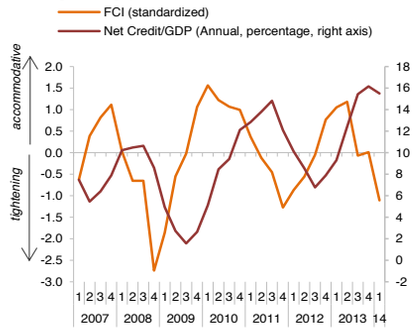
An assessment of the banking sector risks in light of both international and domestic developments reveals that there is no obvious change in the general quality of loans as of the first half of 2014, the sector has adequate liquidity buffers to absorb likely liquidity shocks and the susceptibility to interest rate risk has been weakening. However, the uptrend in the annual growth of loans under close monitoring and NPL ratios in certain types of loans urges a close monitoring of credit risk with respect to financial stability. Results of the macro stress test conducted in the framework of the scenario based on the fluctuations in the 2008 global crisis suggest that any likely deterioration in the NPL ratio and the capital adequacy of the banking sector will be mild and the sector's capital adequacy ratio will remain above the legal ratio.

III.1. Credit Risk

The downtrend in loan growth strengthened in the first quarter of 2014. The recent recovery trend in financial conditions hints at a more moderate decline in loan growth for the rest of the year. Loan growth in the banking sector, which accelerated in the last quarter of 2012, assumed a downtrend in the second half of 2013 in line with the sharp decline in the Financial Conditions Index[3] (FCI). Increased domestic uncertainties and macroprudential measures reinforced this downtrend in the first quarter of 2014 (Chart III.1.1, Chart III.1.2).

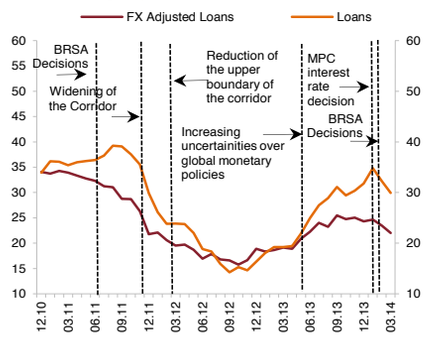
The ratio of loans extended by the banking sector to the GDP has increased 1.5-fold and more than half of this increase was registered in 2013 (Chart III.1.3). Yet, considering the more-than-30-percent share of FX loans in total loans, the depreciation of the TL in the post-May period is believed to be influential in the increase in 2013. In fact, while FX loans accounted for one

Chart III.1.1
Financial Conditions Index* and Loan Growth[1]
(Percentage Change)



* CBRT Research Notes, No: 12/31.
(1) GDP data calculated with current prices has been used. Q1-2014 data is an estimate.
Source: CBRT, BRSA, TURKSTAT (Latest Data: Q1-2014)

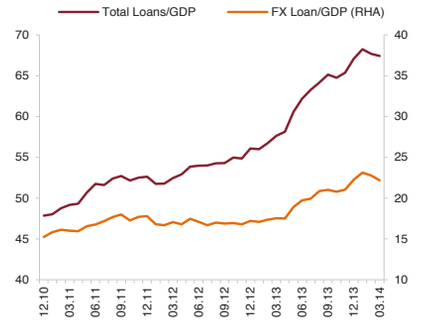
Chart III.1.2
Annual Loan Growth Rates[1]
(Percent, Excluding NPL)



(1) The basket value used to adjust for the exchange rate effect is composed of 70 percent USD and 30 percent euro. FX-indexed loans have been included in FX loans.
Source: CBRT, BRSA (Latest Data: Mar. 14)

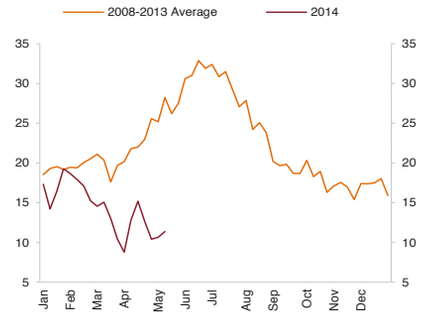
3 Kara, H., Özlü, P. and D. Ünalmış (2012), "Financial Conditions Indices" CBRT Research Notes, No:12/31.

Chart III.1.3
Total Loans/GDP and FX Loans/GDP[1]
(Percent)



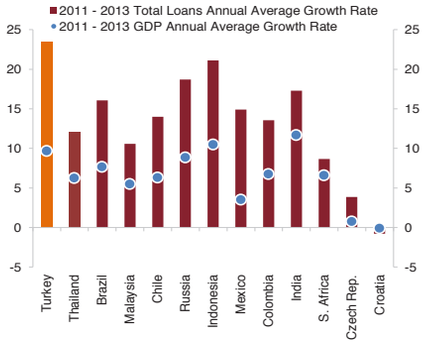
(1) GDP data calculated with current prices has been used. Q1-2014 data is an estimate.
Source: CBRT, BRSA, TURKSTAT (Latest Data: 03.14)

Chart III.1.4
Development of Loans Adjusted for Exchange Rate Effect[1]
(13-week annualized moving average, Percent)



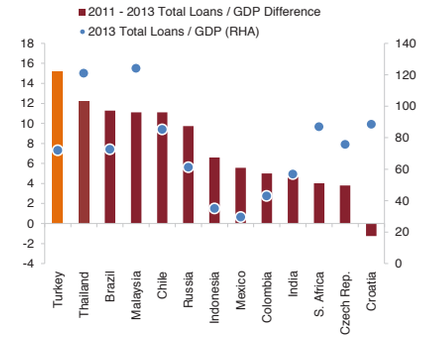
(1)The basket value used to adjust for the exchange rate effect is composed of 70 percent USD and 30 percent euro. FX-indexed loans have been included in FX loans.
Source: CBRT, BRSA (Latest Data: 09.05.14)

Chart III.1.5
Average Annual Rate of Loan Growth (2011 – 2013)[1]
(Nominal, Percent)



(1) The most up-to-date data in the IMF-FSI database, predominantly covering the last quarter of 2013, have been used.
Source: IMF Financial Soundness Indicators

Chart III.1.6
Loan/GDP Ratio and Its Change[1]
(Point, Percent)



(1) The most up-to-date data in the IMF-FSI database, predominantly covering the last quarter of 2013, have been used.
Source: IMF Financial Soundness Indicators

fourth of the rise in the Loan/GDP ratio in the 2010-2012 period, their contribution to last year's rise climbed to 50 percent. The Loan/GDP ratio is anticipated to display a more moderate increase in 2014 compared to previous years as the loan growth adjusted for exchange rate (AER) was below the average of previous years in 2014 and the exchange rate fluctuations eased off (Chart III.1.4).

Loan growth is higher in Turkey than in selected countries (Chart III.1.5). Although the ratio of total loan amount to the GDP is close to the average of these selected countries, the credit risk still needs to be closely monitored in terms of financial stability since the Loan/GDP ratio inches up faster in Turkey (Chart III.1.6). In this respect, the recent downtrend in the relatively high average annual rate of loan growth is deemed good for financial stability.

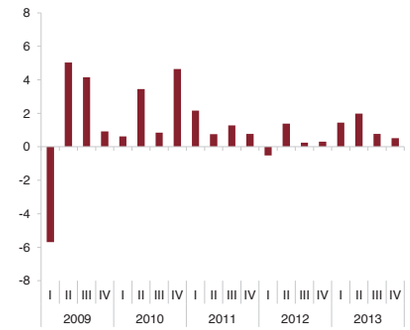
Since the second half of 2013, the volatility in exchange rates and interest rates has surged and the GDP growth has weakened depending on domestic demand. Nevertheless, non-performing loans (NPL) of the banking sector have not posted a significant increase. The rate of GDP growth, which climbed to 4 percent in 2013 due to the moderate rise in private sector demand and strong public sector demand took a downturn in the second half of the year (Chart III.1.7). Simultaneously, deteriorated growth expectations for 2014 have been on a limited recovery trend in recent months (Chart III.1.8). The improvement in growth expectations is estimated to continue thanks to decreased country specific uncertainties, the recovery in the risk appetite of global financial markets and the increased contribution from external demand.

The fluctuation in financial markets observed in the second half of 2013 has diminished in the recent period, and exchange rates and interest rates have been, once again, on a downtrend since the second quarter of 2014. These developments have a favorable contribution to the credit risk outlook.

Developments in money and foreign exchange markets have also affected the credit market, and consumer and commercial loan rates have escalated in line with market developments. As of the second quarter, commercial loan rates moved down while the fall in consumer loan rates remained moderate (Chart III.1.9). Considering that consumer loans are predominantly fixed-rate loans, it is believed that the surge in loan rates will not have a negative effect on the solvency of current household loan borrowers and increase the credit risk.

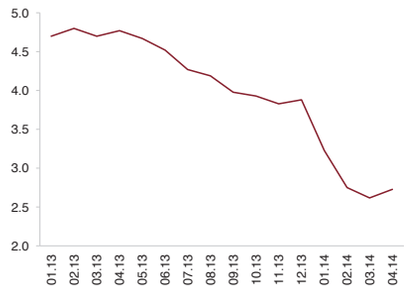
Non-performing loan (NPL) figures for both retail and commercial loans show that there was no obvious change in the quality of loans until April 2014. The banking sector NPL ratio has been moving around the 2.7 - 3 percent band for the last two years (Chart III.1.10). The progress of the Turkish banking sector in terms of NPL developments and NPL level is also visible in cross-country comparisons (Chart III.1.11).

Chart III.1.7
GDP Growth Rates[1]
(Quarterly percentage change)



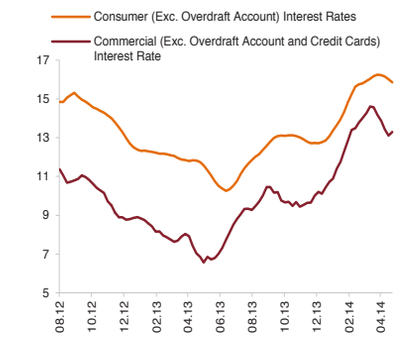
(1) With fixed prices adjusted for seasonal and calendar effects.
Source: CBRT, TURKSTAT (Latest Data: 03.14)

Chart III.1.8
Expectations of GDP Growth for 2014[1]
(Percent)



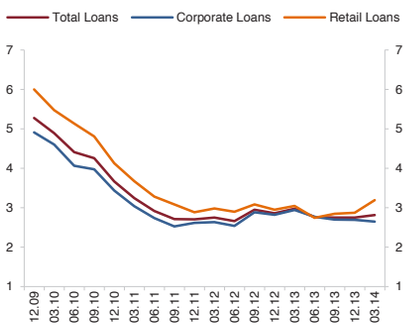
(1) Based on the CBRT Survey of Expectations data
Source: CBRT(Latest Data: 04.14)

Chart III.1.9
Commercial and Consumer Loan Rates
(Flow Data, 4-Week Moving Average, Percent)



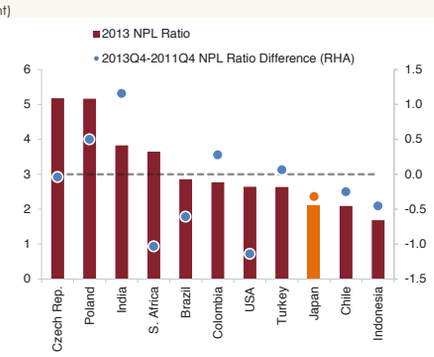
Source: CBRT (Latest Data: 09.05.14)

Chart III.1.10
NPL Ratios (Total/Commercial/Retail)
(Percent)



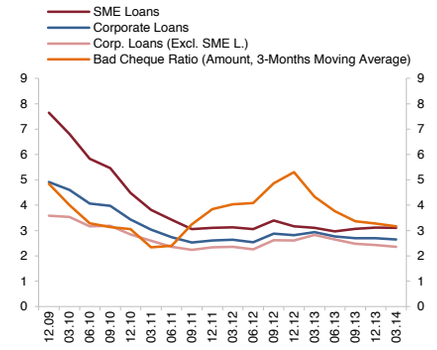
Source: CBRT, BRSA (Latest Data: 03.14)

Chart III.1.11
NPL Ratios and NPL Ratio Differences[1]
(Percent)



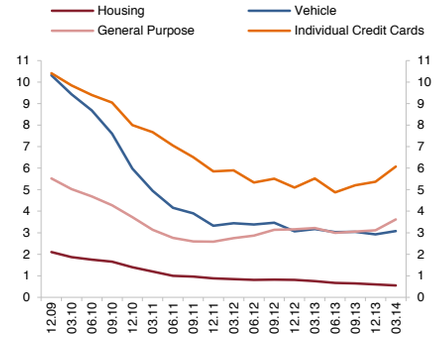
(1)Most up-to-date data, predominantly belonging to Q4-2013, have been used.
Source: IMF Financial Soundness Indicators

Chart III.1.12
NPL Ratios and Bounced Cheque Ratio
(Percent)



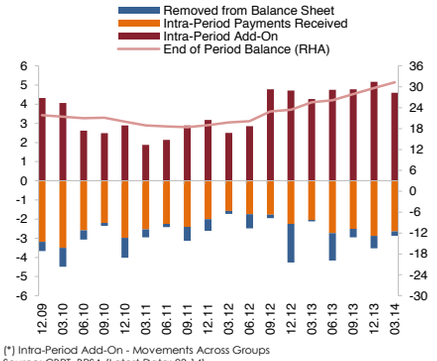
Source: CBRT, BRSA (Latest Data: 03.14)

Chart III.1.13
NPL Ratios of Retail Loans
(Percent)



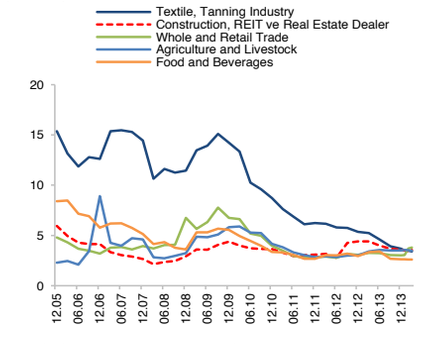
Source: CBRT, BRSA (Latest Data: 03.14)

Chart III.1.14
Quarterly Flow NPL Developments
(Billion TL)



(*) Intra-Period Add-On - Movements Across Groups
Source: CBRT, BRSA (Latest Data: 03.14)

Chart III.1.15
Sectoral Breakdown and Developments in Corporate NPLs[1]
(Percent)



(1) The first four sector with the highest rate of increase in FX loans have been used.
Source: CBRT, BRSA (Latest Data: 03. 14)

In terms of loan types, NPL ratios for loans extended to small-sized enterprises as well as for individual credit cards and genral purpose loans assumed an uptrend in the second half of 2013. On the other hand, the number of credit card and consumer loan defaulters, which had surged in 2012, posted only a limited increase at end-2013 and in the first quarter of 2014 despite the rise in loan utilization (Table 3.1.1). Moreover, the upward trend in the NPL ratio for individual credit cards observed since the second half of 2013 is attributed to the deceleration in the growth of credit card balances in addition to the rise in NPL amounts. The downtrend in bounced cheque ratios and NPL of non-SME firms continues (Chart III.1.12, Chart III.1.13).

Sub-items of the development of NPLs indicate that the intra-period additional NPL amounts have been hovering at high levels since the third quarter of 2012, compared to 2010 and 2011 averages. Particularly the increase at end-2013 was noteworthy; however concerns over credit risk partially lessened on the back of a more favorable course in additional NPL formation in the subsequent months (Chart III.1.14).

A sectoral analysis of NPL amounts related to the corporate sector suggests that among the first five sectors that have a higher-than-5-percent share in the total NPL amount, only the NPL amount of the agriculture and livestock sector recorded a limited increase while that of other sectors, primarily the textile, declined in 2013 (Chart III.1.15). In the first quarter of 2014, the NPLs of wholesale and retail trade sector have increased by approximately one point, which is noteworthy, while NPLs of other sectors has generally displayed a flat course.

Table III.1.1
Number of Credit Card and Consumer Loan Defaulters[1]
(Thousand People)

	12.11	12.12	12.13 [3]	03.14
Banks	1,225	1,487	1,339	1,382
Asset Management Companies	688	782	902	926
Finance Companies	11	8	10	9
Total[2]	1,658	1,949	2,001	2,048

(1) Customers with more than one registry to a particular financial institution group are counted only once.

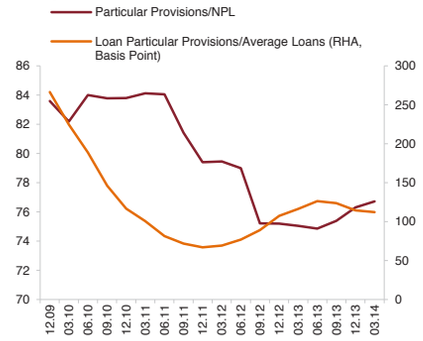
(2) As customers may be registered in more than one financial institution group, the sum of the three rows in the table and grand total are not equal.

(3) The minimum amount of non-performing loans to be disclosed by each bank has been set as TL 20 as of September 2013. Amounts less than TL 20 have not been included in the calculation.

Source: CBRT and Banks Association of Turkey Risk Center

Particular provisions to NPL ratio declined by approximately 10 points to some 75 percent, whereas the ratio of twelve-month-cumulative particular provisions for loans toaverage loans inched up to 125 basis points due to the rise in intra-period additional NPL amounts during 2011-2012. Provisioning (Particular Provisions /NPL) ratio of the sector in the post-June 2013 period improved slightly, which is a favorable development in terms of financial stability (Chart III.1.16).

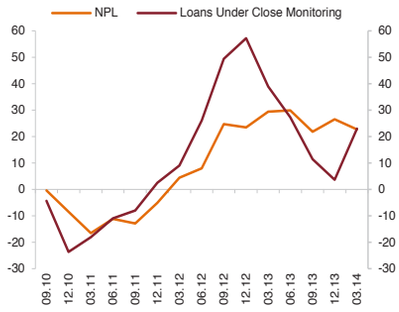
Chart III.1.16
Particular Provisions/NPLs and Loans Particular Provisions /Average Loans (Percent, Basis Points)



Source: CBRT, BRSA (Latest Data: 03.14)

On the other hand, the growth rate of the loans under close monitoring has been on the rise since the end of 2013 (Chart III.1.17). The likely impacts of this increase on the NPL formation are of importance in terms of the credit risk, hence require a close monitoring.

Chart III.1.17
Loans Under Close Monitoring and NPL
(Annual Growth, Percent)

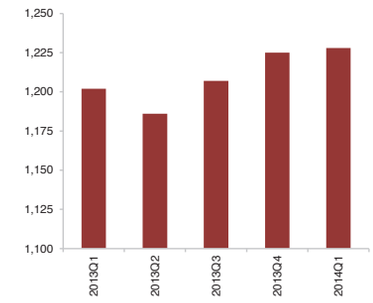


Source: CBRT, BRSA (Latest Data: 03.14)

Liabilities of households that have FX borrowing constraints do not carry exchange rate risk. Favorable developments in the labor market have positive implications on household-driven credit risk. The effects of the recent regulations, particularly related to credit cards, will be monitored closely for household-driven credit risk.

An analysis of the credit bureau score and consumer indebtedness index reveals that individuals do not undergo significant problems in repaying their financial liabilities. The improvement in the credit bureau score -used to foresee the solvency capacity of individuals- that started in the second quarter of 2013 continued in the following periods (Chart III.1.18).

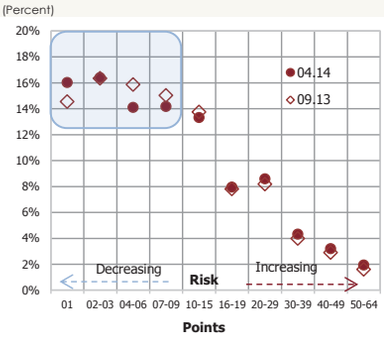
Chart III.1.18
Credit Bureau Score - Average[1]
(Points)



(1) Credit Bureau Score is calculated to fall between 1 and 1900. 1 denotes the highest risk, whereas 1900 denotes the lowest risk for a specified situation. The figures have been calculated by taking into account the application inquiries only.
Source: Credit Bureau of Turkey

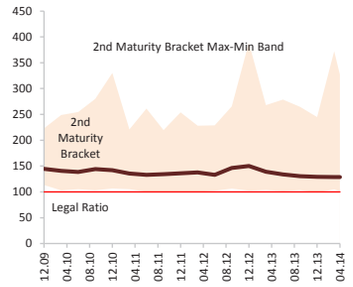
For consumer indebtedness index, individuals who did not show any sign of difficulty in repaying a debt in the past but has a tendency to incur a debt in excess of their repayment capacities are analyzed. An analysis of consumer indebtedness index indicates that there has been no significant change in total risk percentages of the individuals listed in the lowest four risk groups compared to September 2013 and that the favorable outlook has been maintained (Chart III.1.19).

Chart III.1.19
Consumer Indebtedness Index[1]
(Percent)



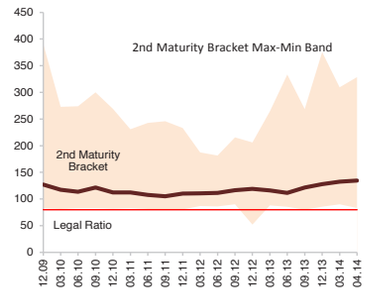
(1) Consumer Indebtedness Index is calculated to range between 1 and 64. 1 denotes the lowest risk group, whereas 64 denotes the highest risk group. The figures have been calculated by taking into account the application inquiries only.
Source: Credit Bureau of Turkey

Chart III.2.1
2nd Maturity Bracket Total Liquidity Adequacy Ratio [1,2,3]
(Percent)



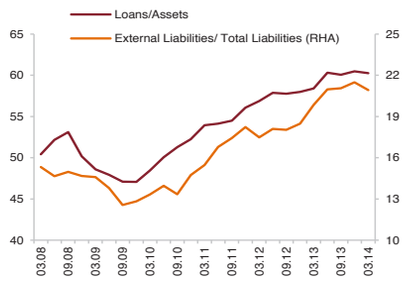
(1) The ratio of FX and TL-denominated assets with term to maturity of 31 days or less to FX and TL-denominated liabilities with term to maturity of 31 days or less.
(2) Excluding banks with extreme values.
(3) The liquidity adequacy average has been calculated as the arithmetic mean of ratio by each period regardless of balance sheet weights of selected banks.
Source: BRSA –CBRT

Chart III.2.2
2nd Maturity Bracket FX Liquidity Adequacy Ratio [1,2,3]
(Percent)



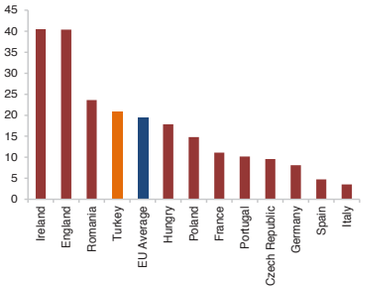
(1) The ratio of FX-denominated assets with term to maturity of 31 days or less to FX-denominated liabilities with term to maturity of 31 days or less.
(2) Excluding banks with extreme values.
(3) The liquidity adequacy average has been calculated as the arithmetic mean of ratios
by each period regardless of balance sheet weights of selected banks.
Source: BRSA –CBRT

Chart III.2.3
Banking Sector's Loan/Asset and External Liabilities/Total Liabilities Ratio (Percent)



Source: BRSA – CBRT, ECB

Chart III.2.4
Selected Countries' External Liabilities/Total Liabilities Ratio
2014 Q1(Percent)



Source: BRSA – CBRT, ECB (Latest Data: 03.14)

III.2. Liquidity Risk

Resilience of the banking sector to short-term liquidity shocks is high. Developments in the quality of funding suggest that the likelihood of banks being exposed to significant liquidity risks in the medium and long run is low. In Turkey, where short-term liquidity adequacy ratios are monitored as a legal requirement, banks do not have any difficulty in abiding by the ratios set by the banking regulation authority. Regardless of the currency units of the balance sheet items, banks are performing quite well in meeting the legal liquidity ratio that expresses their ability to cover the liquidity needs that might emerge within a term of one month. Banks do not have any difficulty in meeting the minimum liquidity ratio that is monitored legally and calculated based on FX items of the balance sheet (Chart III.2.1 and III.2.2).

In the Turkish banking system, the majority of the TL liabilities of which is composed of core liabilities and which include a high level of public borrowing securities on their balance sheets compared to other country banking systems, liquidity risks are predominantly concentrated on the FX side. In recent years banks' external liabilities have surged rapidly in parallel to the credit-driven asset growth (Chart III.2.3). Although the ratio of banking sector external liabilities of the selected European countries to total liabilities varies per country, the same ratio pertaining to the Turkish banking system is already hovering at levels close to EU averages (Chart III.2.4).

Despite the rapid rise in external liabilities, the foreign exchange deposit accounts currently constitute approximately half of the total FX liabilities and are large enough in amount to cover more than all of the FX loans (Chart III.2.5). On the other hand, a significant portion of FX liabilities is used to finance TL assets through derivative products to build TL-denominated funds. Therefore the TL loan/ TL deposit ratio has increased over time.

In the annual growth of banks' external liabilities, the contribution of loans obtained from commercial banks that have a major share in total external liabilities largely preserves its predominance. Additionally, security issues that started in 2010 and that mainly have long-term maturity structure has a significant contribution to the increase of external liabilities. Furthermore, the share of total long-term subordinated debt in total external liabilities has recently displayed a significant rise. The share of securitization loans in external liabilities have progressively declined over the years independent of global conditions. Banks have offset this decline with security issues abroad (Chart III.2.6 and III.2.7).

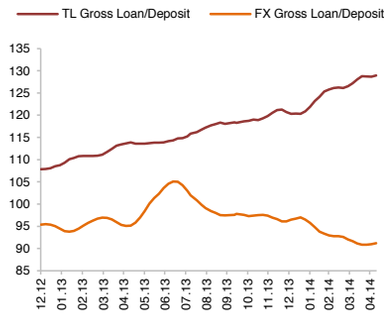
With the effect of Fed tapering signals in May 2013, portfolio flows towards emerging market economies including Turkey became volatile. However the Turkish banking sector's external debt remained on a steady rise until the end of 2013 and posted a moderate decline driven by repos in the first quarter of 2014. On the other hand, banks continued to renew their syndication loans at a ratio of around 100 percent and at a cost lower by 10 basis points. Banks' external liabilities to mature in the six-month-period ahead is in the amount of USD 45.2 billion (Chart III.2.8).

Although the external debt rollover ratio of the banking sector has gradually declined since the second quarter of 2013, it still hovers above 100 percent. The external debt rollover ratio, which was around 120 percent during the pre-crisis period and between 2010 and 2011 dominated by a significant increase in loans, recorded a more modest rise in 2013. This ratio, which inched down by 32 points in 2008 crisis and by 21 points during the 2011 fluctuation compared to its peak level, is above 100 percent despite a 10-point-decline since April 2013 (Chart III.2.9). The decreasing demand for FX loans driven by the slowdown in investment demand is also considered instrumental in the decline of banks' external debt rollover ratio.

Capital flows towards emerging market economies may pick up in the coming period thanks to the improvement in global risk perceptions on the back of the recovery in global growth

Chart III.2.5

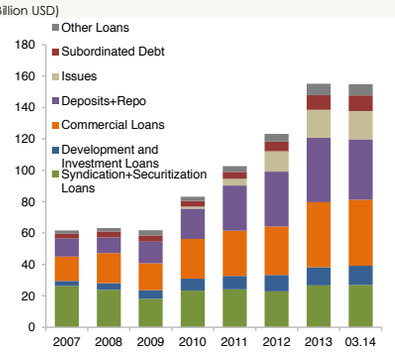
TL-FX Gross Loan/Deposit Ratio[1,2]
(Percent)



(1)Calculated by 4-week moving average.
(2) FX-indexed loans are included in FX loans.
Source: BRSA – CBRT (Latest Data: 09.05.14)

Chart III.2.6

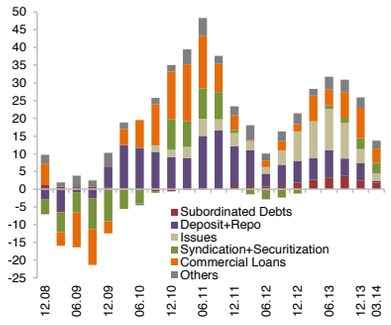
Composition of Banks' External Liabilities
(Billion USD)



Source: BRSA-CBRT, CMB, PDP

Chart III.2.7

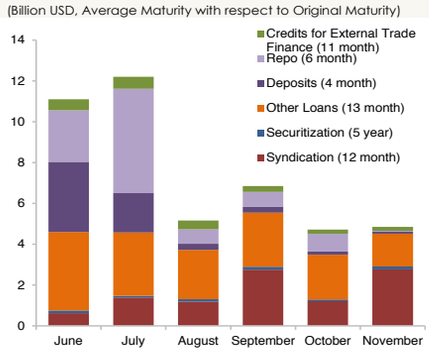
Contribution to the Increase in External Liabilities
(Percent)



Source: BRSA-CBRT, CMB, PDP

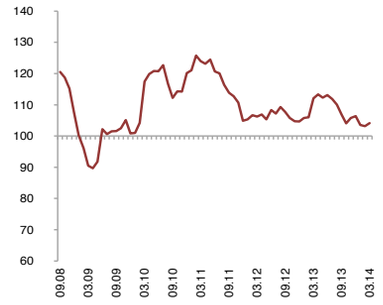
Chart III.2.8

Payment Scheme of External Liabilities in the Short Period Ahead[1]
(Billion USD, Average Maturity with respect to Original Maturity)



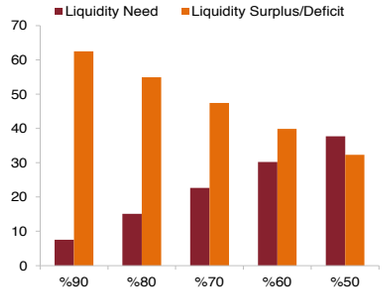
Source: BRSA-CBRT
(1) Excluding issues

Chart III.2.9
External Debt Rollover Ratio of Banks[1]
(Percent)



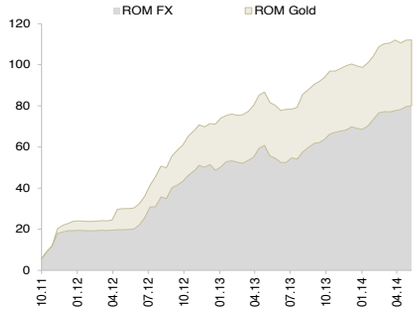
(1) Calculated based on 6-month-moving averages of total foreign borrowing and repayment amounts including security issues.
Source: BRSA-CBRT, CMB, PDP

Chart III.2.10
External Debt[1] Rollover Ratio and FX Liquidity Need of Banks[2]
(March 2014, Billion USD, Percent)



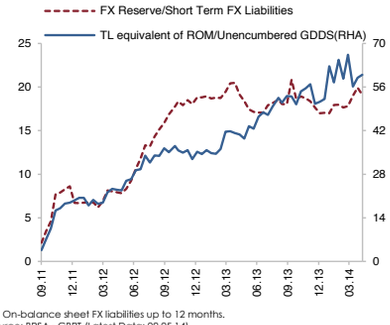
(1) Excluding TL deposits and deposits of foreign branches.
(2) Liquidity need: External debt due within 1 year x (1 – external debt roll-over ratio)
Liquidity Surplus/Deficit: FX Liquid Assets (Cash +Banks + CBRT+Money Markets) – Liquidity Need
Source: CBRT, BRSA-CBRT

Chart III.2.11
Amount of FX and Gold Held at CBRT Accounts via ROM Facility (Billion TL)



Source: CBRT (Latest Data: 09.05.14)

Chart III.2.12
Ratio of FX Reserves Maintained via ROM to the Banking Sector's Short-Term FX Liabilities[1] and Ratio of the TL Equivalent of FX and Gold Maintained via ROM to Unencumbered GDDS (Percent)



(1) On-balance sheet FX liabilities up to 12 months.
Source: BRSA - CBRT (Latest Data: 09.05.14)

and dissipating uncertainties over the Fed's monetary policy. Moreover, Turkey-specific risks have been diminishing since April, which is another factor that limits the downside risks for the banking sector in providing funding from abroad. Therefore, the banking sector is expected to rollover its external debt at similar ratios in the second half of 2014 as well. Alternatively, the banking system is believed to have adequate amount of FX liquid assets against temporary and cyclical constrictions that might be experienced in access to external sources (Chart III.2.10).

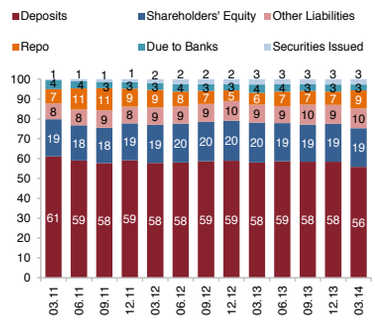
Reserve Options Mechanism (ROM), will act as an important buffer against exceptional fluctuations that might occur in FX liquidity. The Reserve Options Mechanism[4], is basically an implementation that allows banks to keep a certain ratio of their Turkish lira (TL) reserve requirements, which they are required to hold at the CBRT, in foreign exchange (dollar and/or euro) and standard gold. With the use of this facility, the amount of FX reserves kept at the CBRT by banks has reached around TL 120 billion (Chart III.2.11).

According to the latest data, within the scope of the ROM, banks' foreign exchange reserves are adequate enough to cover approximately 20 percent of their FX liabilities of up to one-year-maturity (Chart III.2.12). In times of difficult access to FX liquidity, banks will be able to meet some of their liquidity needs by reducing their use of reserve options. Nevertheless, if banks use their FX reserves within the ROM, they will need to maintain the TL reserve requirement liabilities in the Turkish lira. The Turkish lira liquidity need of banks that might emerge as such can be met by sale of unencumbered GDDS or by presentation of them as collateral at the CBRT. Approximately half of the unencumbered government securities held by the banking sector has recently been at a level to cover the Turkish lira equivalent of FX and gold reserves kept within the scope of the ROM (Chart III.2.12).

4 For further information, see CBRT Bulletin-December 2012, No 28,
Financial Stability Report-November 2013, Volume 17 Special Topic V.1,
Alper, K., Kara, H. and Yörükoğlu, M. (2012). "Reserve Options Mechanism", CBRT Research Notes in Economics No.12/28.
Küçüksaraç, D. and Özel, Ö. (2012). "Reserve Options Mechanism and Computation of Optimal Reserve Option Coefficients", CBRT Working Paper No: 12/32.

Although the contribution of domestic issues to the TL funding has increased for the last three years, the TL liabilities of the banking sector is predominantly composed of deposits. Despite the recent shift of commercial deposits from TL to FX and the decline in official deposits, deposits still continue to be an important item in the total TL liabilities (Chart III.2.13). Although the total amount of TL-denominated security issues, to which banks resort to extend the maturity of TL liabilities increased, their share in the total TL liabilities still hover at 3 percent levels.

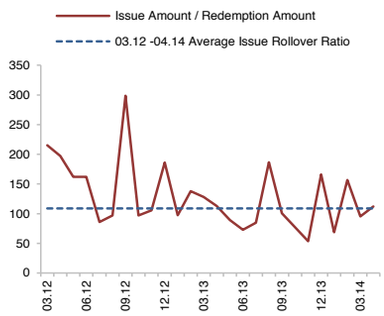
Chart III.2.13
TL Liability Structure of the Banking Sector
(Percent)



Source: BRSA –CBRT

The average ratio of redemption amounts covered by banks' issuance amounts since 2012 is above 100 percent (Chart III.2.14). The banks were able to roll over the TL issues with ease even at times of increased stress in bills and bonds markets. The difference between the cost of security issues and cost of TL deposits shows a limited divergence except for the portion that can be attributed to the term premium pertaining to the two sources and the interest rate spread between bank issues and government papers with six-month-maturity is limited, all of which suggest that banks do not have any difficulty in sustaining the funds they obtain from this source (Chart III.2.15 and III.2.16).

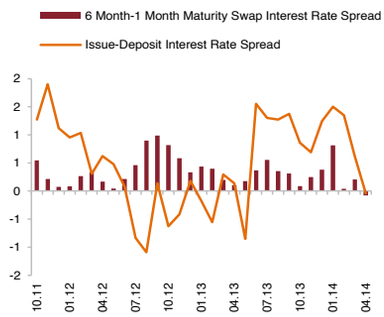
Chart III.2.14
Domestic Security Issues Rollover Ratios of the Banking Sector
(Percent)



Source: CBRT, PDP, CMB (Latest Data: 04.14)

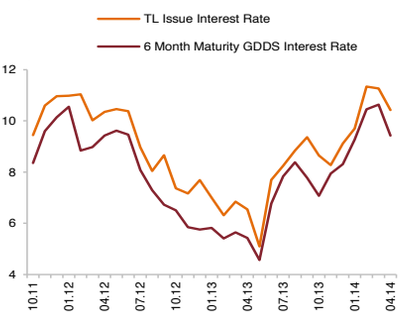
The direct FX selling interventions and FX selling auctions undertaken recently by the Central Bank to contain volatility in FX markets have increased banks' repo funding, yet led to a fall in their unencumbered GDDS stocks (Chart III.2.17). FX purchases that widened the net liquidity shortage of the banking system is the most prominent factor in the increase of funds provided by banks from the Central Bank through repo. Although repo transactions reduce banks' liquid assets, the fact that banks bear high amounts of GDDS on their balance sheets restrain the potential effects of the decrease in liquid assets on banks' behaviors.

Chart III.2.15
TL Issues-TL Deposits Interest Rate Spread and 6-Month -1-Month Maturity Swap Interest Rate Spread (Percent)



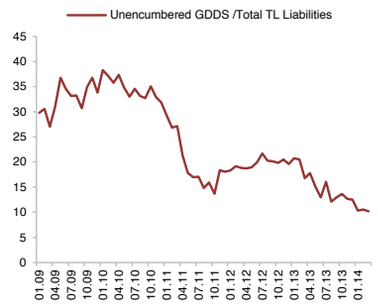
Source: Bloomberg, CBRT, PDP

Chart III.2.16
Interest Rates on TL Issues and GDDS with 6-Month-Maturity[1]
(Percent)



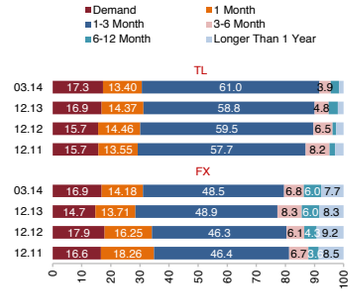
(1) 6 month maturity bond yield is calculated by using Extended Nelson-Siegel (ENS) method on bonds' prices in BIST Debt Securities Market .
Source: BIST, PDP, CBRT

Chart III.2.17
The Ratio of Unencumbered GDDS to Total TL Liabilities in Turkish Banking System[1]
(Percent)



(1) Excluding equity capital.
Source: BRSA - CBRT (Latest Data: 03.14)

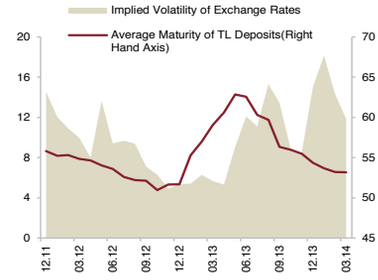
Chart III.2.18
Breakdown of Maturity[1]
(Percent)



(1) Excluding banking sector deposits and precious metal deposit accounts.

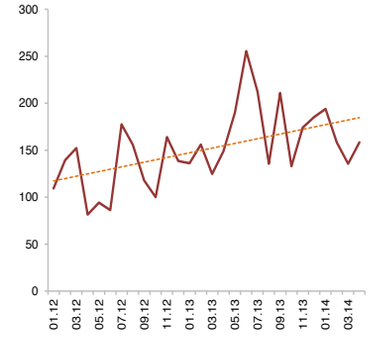
Source: BRSA –CBRT

Chart III.2.19
Average Maturity of TL Deposits and Implied Volatility of Exchange Rates[1]
(Day, 12-Month Ahead)



(1) The length of the weighted average maturity has been calculated by taking into account the mid-points of other maturity brackets and excluding the demand deposit accounts.
Source: Bloomberg, CBRT

Chart III.2.20
Ratio of the Average Volumes of Security Issues at Secondary Market[1] to Stock Security Issues (Percent)



(1) BIST Outright Purchases and Sales Market Private Sector Security Issues
Source: CBRT, BIST, PDP, CMB (Latest Data: 09.05.14)

The maturity of TL deposits have been on the decline since the second half of 2013 due to the volatility in exchange rates and interest rates. The maturity of deposits that are on a perpetual rise in terms of quantity across the system has been shortening. This situation increases the banks' susceptibility to interest rate risks rather than the liquidity risk. The yield curve of the TL savings deposits progressively assumed an upward trend after May 2013. The one and three-month deposit rates increased relatively much rapidly, which was particularly determinant in the maturity structure of TL deposits. Actually, while deposits continue to concentrate on 1 to 3 month-maturity, the maturity range that has a major predominance in TL deposits, the share of demand deposits has been increasing for the last one year. In the meantime, the breakdown of the maturity of FX deposits has not displayed a negative outlook. (Chart III.2.18 and III.2.19).

Although deposits are accepted as the most consistent source of funds and accordingly display a perpetual growth dynamics in overall terms, volatilities that may emerge with regard to banks' deposit base particularly in times of stress may constitute a liquidity risk for banks. In times of stress, deposits are likely to park in banks and bank groups that are perceived more secure; yet banks, have preserved their deposit bases as a group despite strong volatilities observed in domestic and foreign markets since May 2013.

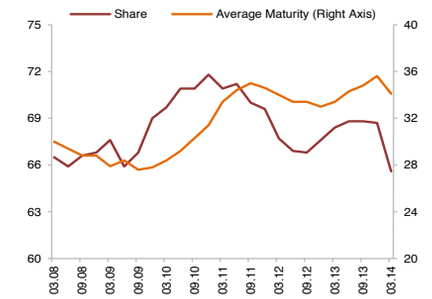
Investors holding the debt instruments issued by the private sector may sell these securities in the secondary market in the event of a liquidity need. The increase of the transaction volume in the secondary market has a dampening effect on the liquidity risk. Since 2012, secondary market transaction volumes have had a sharp upward trend compared to security issues (Chart III.2.20).

III.3. Interest Rate Risk

Lingering uncertainties related to the monetary policies of advanced economy central banks, fluctuations in the risk appetite of international investors and the volatility in domestic prices have increased the importance of financial sector's susceptibility to interest rate risks. Given the current level of profitability and equities, the Turkish banking system's sensitivity to interest rate risks remain at reasonable levels. Although the maturity structure of the banking sector's TL liabilities is short-term and has not showed a notable improvement over the years, the decline in the share of fixed-rate TL loans in total TL loans since mid-2011 and the halt in the increase in average maturities of such loans as well as the downward trend observed in both variables in the recent period restrain the sensitivity of the sector towards interest rate risks (Chart III.3.1). Commercial loans that account for approximately 70 percent of the TL loans are on a short-term and variable-rate scheme, which constitutes an important factor curbing the losses that banks might incur on potential volatilities in TL interest rates (Chart III.3.2).

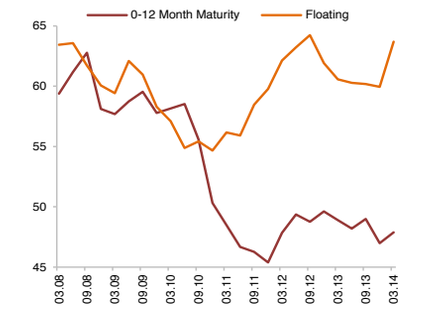
On the TL side, the main balance sheet item that increases banks' sensitivity to interest rate risk is consumer loans. Consumer loans are long term and fixed interest rate loans, and refinancing costs of borrowers of housing loans, which are the consumer loans with the longest maturity, are legally limited. These factors increase the interest rate risk borne by banks due to these loans. On the other hand, banks convert the FX-denominated long-term funds they provide from abroad to fixed-rate TL funds via cross currency swap transactions, which has a counterbalancing role in the face of these risks. However, the volumes of derivative transactions that are included in off-balance sheet transactions with a long-term maturity structure and charged with fixed rate on the TL side have been on a steady decline since 2010 compared to the volume of housing loans (Chart III.3.3). Regulations, effective as of February 2014, introduced to prevent over-indebtedness of households and to impose limitations on the maturities of other retail loans and vehicle loans are expected to put downward pressure on the interest rate risk borne by banks due to consumer loans.

Chart III.3.1
Share and Average Maturity of Fixed Rate TL Loans
(Remaining Maturity-Based, Percent, Month)



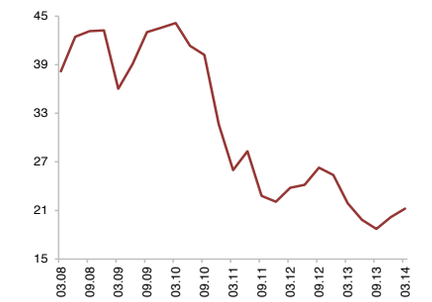
Source: CBRT

Chart III.3.2
Ratio of 0-12 Month Maturity and Floating Rate TL Corporate Loans to Total Corporate Loans[1] (Percent)



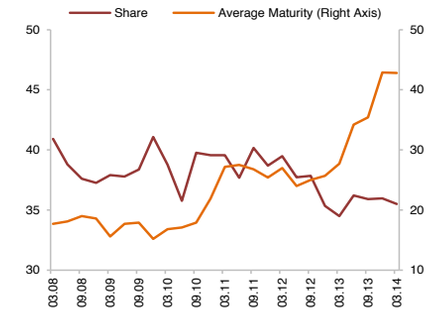
(1) For 0 to12-month maturity bracket, the original maturity has been taken into account. Data on floating rate TL corporate loans are assumed to not include floating rate consumer loans.
Source: CBRT

Chart III.3.3
Ratio of Fixed Rate Derivative Financial Instrument Liabilities with more than 1-Year Maturity to Housing Loans (Percent)



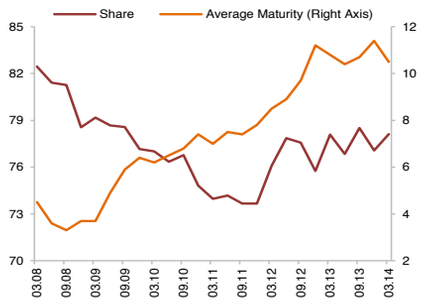
Source: CBRT

Chart III.3.4
Share and Average Maturity of Fixed Rate TL Securities
(Remaining Maturity-Based, Percent, Month)



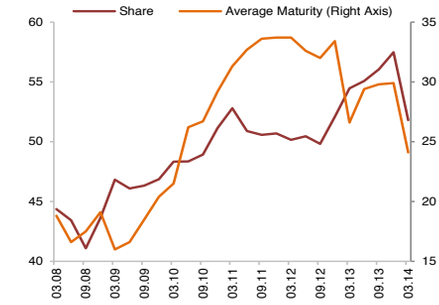
Source: CBRT

Chart III.3.5
Share and Average Maturity of Fixed Rate FX Liabilities
(Remaining Maturity-Based, Percent, Month)



Source: CBRT

Chart III.3.6
Share and Average Maturity of Fixed Rate FX Loans
(Remaining Maturity-Based, Percent, Month)



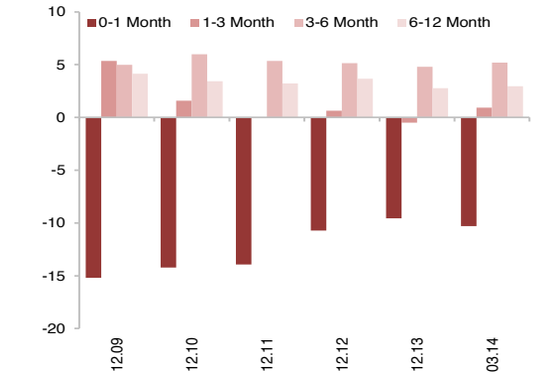
Source: CBRT

Although the average maturity of GDDS that have a significant share in total assets of the banking system has lengthened, a notable portion of these securities (including those indexed to CPI) are floating rate, which again reduces banks' susceptibility to the interest rate risk (Chart III.3.4).

On the FX side, banks can create funds with longer maturities compared to TL liabilities. Loans that constitute the majority of FX liabilities are long term, yet almost half of them are floating rate loans. These factors curb the losses that might be driven by potential fluctuations in FX funding costs (Chart III.3.5 and III.3.6). The recent sharp plunge in the share of fixed rate loans in total FX loans can be highlighted as a favorable development in an environment of lingering uncertainties regarding FX interest rates.

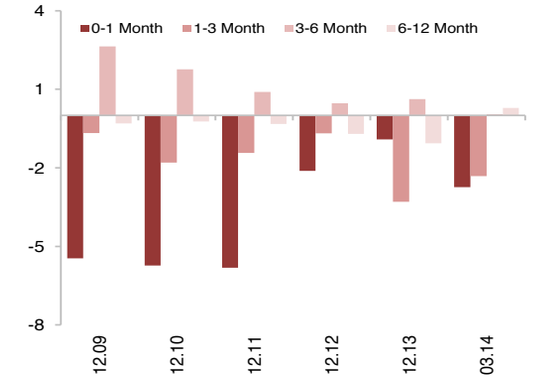
An analysis of the sensitivity of the banking system to the repricing risk from 2009 onwards suggests that on the TL side, interest rate sensitive open position in maturities up to one year has narrowed since the end of 2011. Alternatively, on the FX side, where asset and liability maturities are longer, interest rate sensitive open position has been relatively narrow in the range up to one year and although the interest rate sensitive open position had narrowed significantly at end-2012 rose slightly in the following period, it did not create a significant deterioration (Chart III.3.7 and III.3.8).

Chart III.3.7
TL Interest Rate Sensitive Asset-Liability Position/ Total Assets
(Percent)



Source: CBRT

Chart III.3.8
FX Interest Rate Sensitive Asset-Liability Position/ Total Assets
(Percent)



Source: CBRT

Box III.1.1 The Effect of Potential Interest Rate Shocks on Banks' CARs

This study presents a quantitative analysis of the repricing risks from 2009 to date, to which the banking sector might be exposed due to maturity mismatch.

During the analyses, banks' interest rate sensitive TL and FX assets and liabilities with maturities of 0-1, 1-3, 3-6 and 6-12 months have been repriced according to interest rake hikes by 500 basis points and 250 basis points, respectively, based on their balance sheets at the beginning of the specified period. Losses calculated based on the assumption that interest rate shocks would last for one year have been deducted from the regulatory capital amount of the subsequent year, the Capital Adequacy Ratios (CARs) have been re-calculated and compared with the actual CAR (CAR estimated for 2015). For instance, interest rate shock-driven losses calculated based on banks' end-2009 balance sheets and interest rate sensitivity positions have been reflected on end-2010 CAR and compared with the actual CAR. Losses driven by interest rate risks for March 2015 have been calculated based on March 2014 balance sheet. For estimation of March 2015 CAR, the last three years' average growth figures of the regulatory capital and risk weighted assets have been used.

The sector's CAR has been affected more from the TL interest rate shock compared to the FX interest rate shock. This is mainly attributable to the extent of the banking system's sensitivity to the TL interest rate shock, rather than the magnitude of shocks. The results indicate that the effect of the TL interest rate shocks on CAR has remained below 0,5 percent for the period under review. Yet, the effect of losses due to the FX interest rate shock on CAR is negligible (Chart III.1.1.1 and III.1.1.2).

Chart III.1.1.1
CAR After the TL Interest Rate Shock[1]
(Percent)

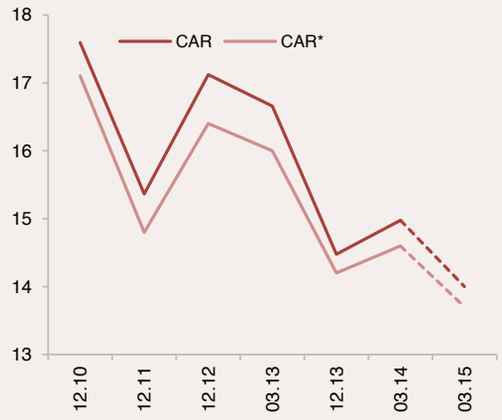
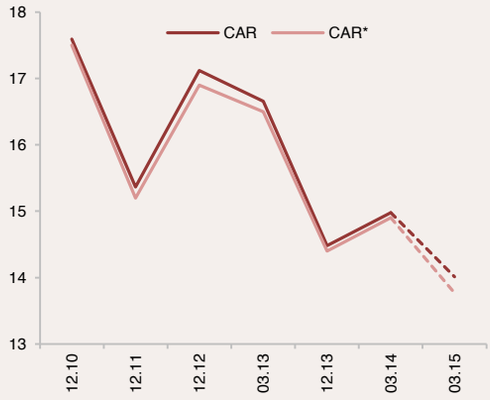


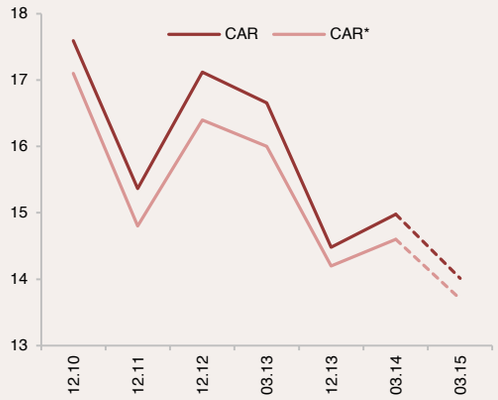
Chart III.1.1.2
CAR After the FX Interest Rate Shock[1]
(Percent)



(1) Calculations are based on the data of banks with an asset size of TL 5 billion and more (excluding Eximbank).
(*) Post-shock CAR
Source: CBRT (Latest Data: 03.14)

Considering that the potential FX interest rate shocks will also have an impact on TL interest rates, it will be more reasonable to assess the overall effect of both shocks. The overall effect of shocks on CAR is illustrated in Chart III.1.1.3. The chart indicates that the effect of potential losses driven by repricing risks on CAR has mitigated for the last two years.

Chart III.1.1.3
CAR After the TL and FX Interest Rate Shock[1]
(Percent)



1 Calculations are based on the data of banks with an asset size of TL 5 billion and more (excluding Eximbank).
(*) Post-shock CAR

Source: CBRT (Latest Data: 03.14)

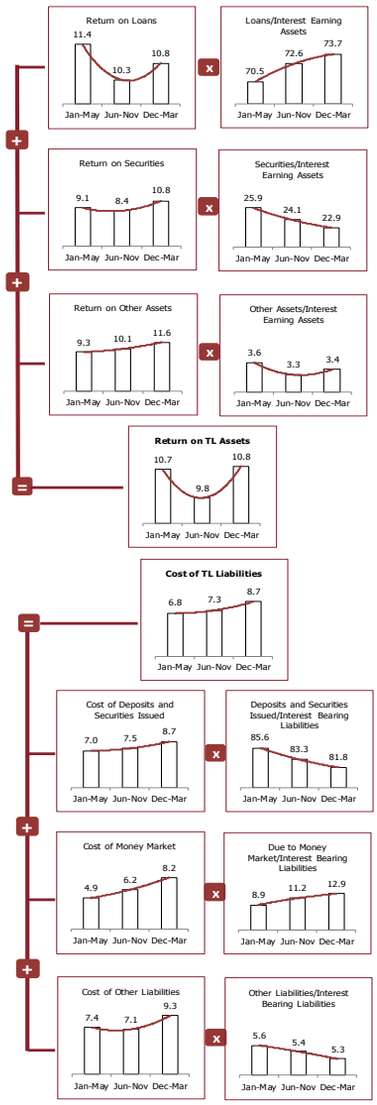
In conclusion, the sensitivity of the banking system to up-to-one-year repricing risk is limited and can endure potential interest rate shocks thanks to its current capital structure.

III.4. Capital Adequacy, Profitability and Resilience to Shocks

The rise in interest rates after May 2013 reduced the spread between the return on assets and the cost of liabilities as a result of the maturity mismatch in the balance sheet structure of the banking sector. An analysis of the banking sector's profitability performance throughout 2013 and in the first quarter of 2014 by periods of January-May, June-November and December-March reveals that the spread between the return on TL assets and the cost of TL liabilities declined from 3,9 percent to 2,5 percent and to 2,1 percent, respectively. The decline between the January-May and June-November periods was triggered by the decrease in returns on loans and securities. The increase in the costs of deposits and issues was determinant in the further contraction of the spread between the June-November and December-March periods. On the other hand, the increase in the share and return of loans in the interest earning assets curbed the contraction of the spread between return on assets and cost of liabilities in TL significantly (Chart.III.4.1). However, the spread between the return on FX assets and cost of FX liabilities did not change remarkably in the periods analyzed.

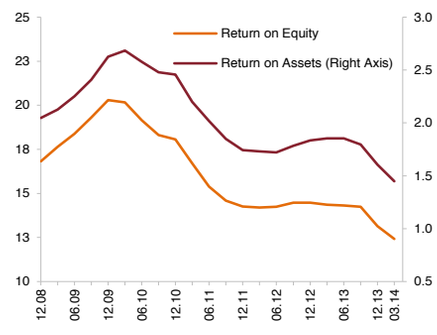
After a flat course during the last two years, the sector's twelve-month-cumulative returns on assets and liabilities started to downtrend in July 2013 and fell to 1,4 and 12,4 percent in March 2014 (Chart III.4.2). The decline in profitability despite a strong asset growth driven mainly by loans was due to the negative impact of the upward trend in interest rates both on net interest income and on non-interest income and expenditures.

Chart III.4.1
Analysis of the Development of the Banking Sector's Return on TL Assets / Cost of TL Liabilities
(Percent)



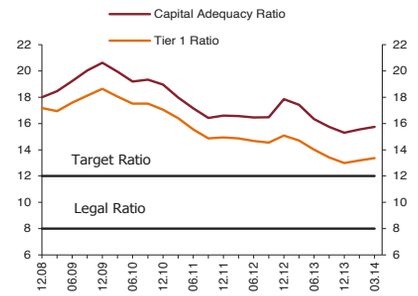
Source: BRSA-CBRT

Chart III.4.2
Return on Assets and Return on Equity
(Percent)



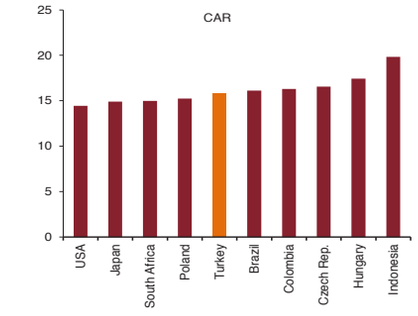
Source: BRSA-CBRT

Chart III.4.3
Capital Adequacy Ratio
(Percent)



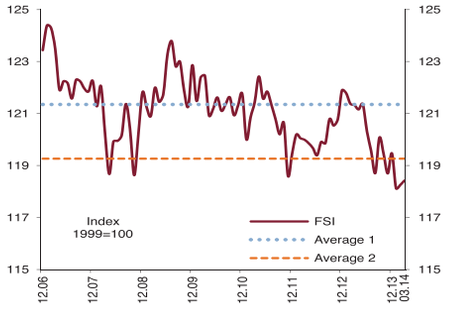
Source: BRSA –CBRT

Chart III.4.4
Capital Adequacy Ratios by Countries[1]
(Percent)



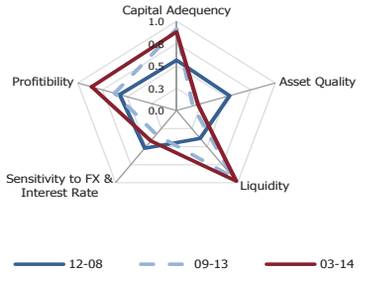
(1) Latest data from the IMFFSI database has been used, most of which are figures pertaining to the second quarter of 2013. The Turkey data are as of March 2014Source: BRSA – CBRT, IMF

Chart III.4.5
Financial Strength Index[1,2]



(1) "Average 1" is the average of December 1999 – March 2014 and "Average 2" is the average of January 2004 – March 2014.
(2) Since they have different operating principles, participation banks have been excluded.
Source: BRSA-CBRT

Chart III.4.6
Banking Sector Stability Map[1]



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

The recent fluctuations in interest rates and exchange rates have had an adverse impact on capital adequacy ratio as well as the profitability of the banking sector, however the capital adequacy ratio continued to stay above the legal and target ratios. As of March 2014, the sector's CAR surged by 0,4 points to 15,7 percent compared to end-2013 in response to the slowdown in the increase of risk weighted assets (Chart III.4.3). The ratio of the Tier 1 capital is high, which denotes that the quality of equities is strong. Compared to other countries, the Turkish banking sector's capital adequacy remains robust (Chart III.4.4).

The leverage-based reserve requirement regulation that aims to boost the resilience of the banking sector to shocks by containing its indebtedness started to be implemented in full capacity as of December 2013. The year 2013 was the monitoring period for the leverage-based reserve requirement implementation that envisaged a gradual transition. The data pertaining to October-December 2013, the first three months of the implementation period suggest that the banking sector's leverage ratio, having a stable course, is well above the minimum ratio of 3 percent set by the Basel III regulation and 3.5 percent set by the CBRT for the first year of the implementation. An analysis by banks reveals that no bank is required to hold additional reserve requirements.

The financial strength index inched down in March 2014 compared to the previous reporting period due to the downtrend in all the sub-indices excluding liquidity and capital but mostly the one in interest rate risk. Nevertheless, it is still above 100 percent (Chart III.4.5). The development of the risk indicators of the banking sector indicates that compared to the previous reporting period, although the profitability has displayed a negative trend, sensitivity to exchange rate and interest rate has posted a slight improvement while capital adequacy and liquidity have remained almost unchanged. On the other hand, the indicator of the asset quality declined slightly in the period analyzed due to the limited increase in the non-performing loan balance (Chart III.4.6).

The macro scenario analyzes the developments in the sector's NPL and capital adequacy ratios that might emerge in the event of a change in 2014 macroeconomic variables equivalent to the deterioration observed in the post-2008 global crisis. The values that macroeconomic variables can take under baseline and adverse scenarios have been created by using the MTP, Inflation Report and previous year realizations (Table III.4.1).

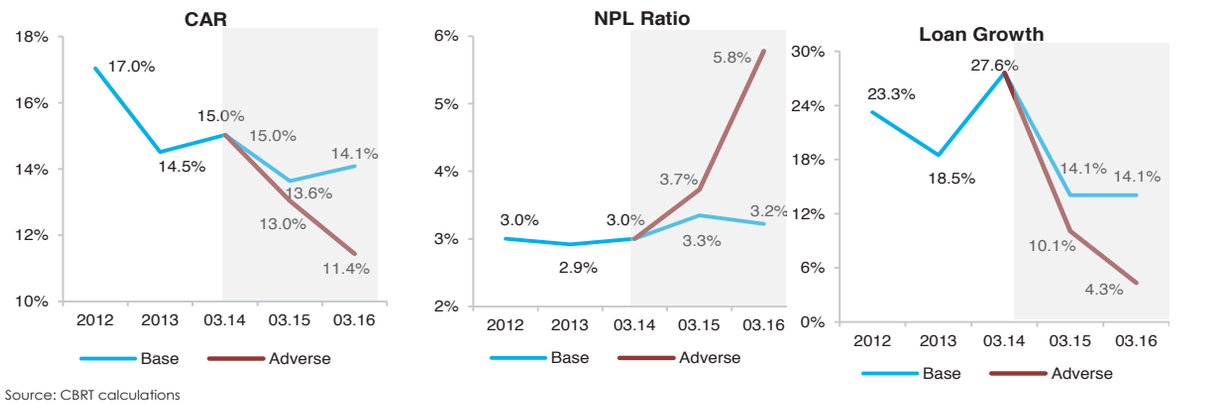
Table III.4.1
Macro Stress Test Scenarios

Baseline Scenario[1]	2011	2012	2013	2014	2015
Real GDP growth rates	8.60%	2.13%	4.05%	**4.00%**	**5.00%**
CPI, December/December	10.45%	6.20%	7.40%	**7.60%**	**5.00%**
Unemployment rate	9.83%	9.19%	9.71%	**9.40%**	**9.20%**
Adverse Scenario[2]	**2011**	**2012**	**2013**	**2014**	**2015**
Real GDP growth rate	8.60%	2.13%	4.05%	**0.66%**	**-4.83%**
CPI, December/December	10.45%	6.20%	7.40%	**10,06%**	**6.53%**
Unemployment rate	9.83%	9.19%	9.71%	**10.95%**	**13.97%**

1) In the baseline scenario, the values projected in the Medium Term Program have been used as the growth rate, unemployment rate and consumer prices rate of increase. For 2014 consumer prices rate of increase, the year-end inflation forecast that was announced in the Inflation Report of April 2014 has been used.
2) In the adverse scenario, actual figures of 2008 and 2009 have been used.

According to calculations, the sector's NPL ratio that is estimated as 3,2 percent under the baseline scenario can rise up to 5,8 percent under the adverse scenario. Furthermore, while the sector's CAR is estimated to be 14,1 percent in the first quarter of 2016 under the baseline scenario, this ratio is calculated to fall to 11,4 percent in the same period under the adverse scenario (Chart III.4.7).

Chart III.4.7
CAR, NPL Ratio and Loan Growth of the Banking Sector under the Scenario Analysis
(Percent)



Source: CBRT calculations

The stress test results based on the adverse scenario have been analyzed by differentiating the effects of risk components on CAR (Chart III.4.8 and III.4.9). Under the adverse scenario, the most prominent factors behind the fall of the sector's CAR below the target ratio are risk weighted assets (RWA) and the increase in the credit risk. Under the current scenarios, the risks related to exchange rate, market and repricing are less capable to affect the sector's CAR compared to the credit risk.

Chart III.4.8

Contributions to the Decrease in CAR under the Adverse Scenario (2014-2015)
(Points)

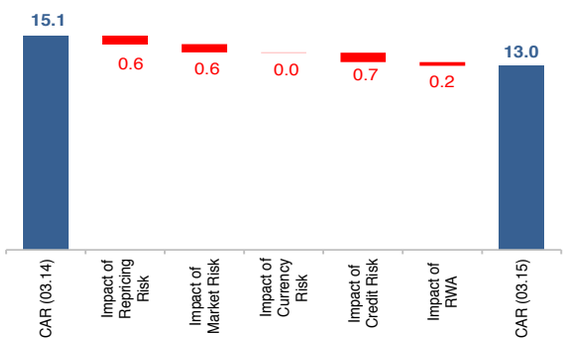
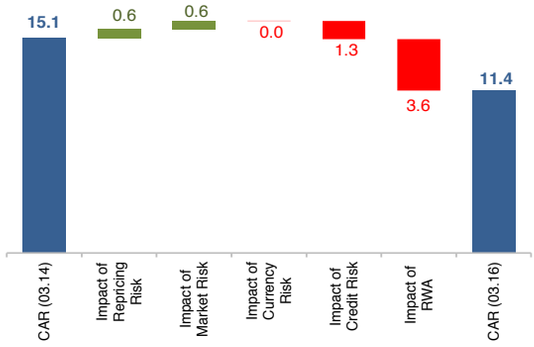


Chart III.4.9

Contributions to the Decrease in CAR under the Adverse Scenario (2014-2016)
(Points)



Source: CBRT Calculations