

IV. Financial Sector

In the first quarter of 2019, the high base effect stemming from Treasury-backed Credit Guarantee Fund (CGF) loans extended in 2017 abated, new packages of CGF-backed loans were launched, credit supply conditions were eased somewhat particularly by state banks and various arrangements and promotions were introduced to retail loans. As a result, annual loan growth displayed a modest recovery. In the current Reporting period, credit growth stood below past averages due to demand-side factors, despite a trend of recovery. Increased awareness in the exchange rate risk and the weak course of investments caused the firms' FX loan demand to remain limited; and the loan demand became mostly oriented towards working capital needs in domestic currency. Housing and automobile loans remained subdued, while the use of general purpose loans and credit cards proved the main drivers of growth in retail loans. In this period, interest rates declined and state banks facilitated restructuring of credit card balances through general purpose loans and the maturity limit for personal loans was raised, which enhanced the retail loan growth. Owing to the economic rebalancing and the slowing loan growth, NPL ratios increased both in corporate and retail loans. Notwithstanding the recent increase in NPL ratios, the NPL ratio of the Turkish banking sector as well as the change in the NPL ratio in the last two years hovered close to averages of peer countries at end-2018. The completion of the restructuring of firms' loans to a large extent, the decrease in the number of firms having filed for bankruptcy and the concentration of NPL additions of large volumes at end-2018 may boost the asset quality of banks in the upcoming period. On the other hand, developments in unemployment ratios may exert a limited pressure on the asset quality in the banks' individual portfolios during economic rebalancing.

Displaying favorable liquidity ratios, the banking sector's use of external sources has declined slightly. This was caused by the decreased FX loan demand, the balancing in economic activity and the weak investment appetite of corporate sector firms, while the high level of costs remains significant, despite the recent limited decline. On the other hand, the recent demand for external borrowings and the rise in the number of participant banks hint at considerable attraction for foreign investors. Amid the credit composition that shifted to favor TL and the increased FX deposit preference of depositors, net TL funding increased somewhat. Banks have been trading at the CBRT currency swap market since March 2019 given the recently-increased costs in the foreign currency swap market. This led to a decline in net TL funding provided through currency swaps with non-residents.

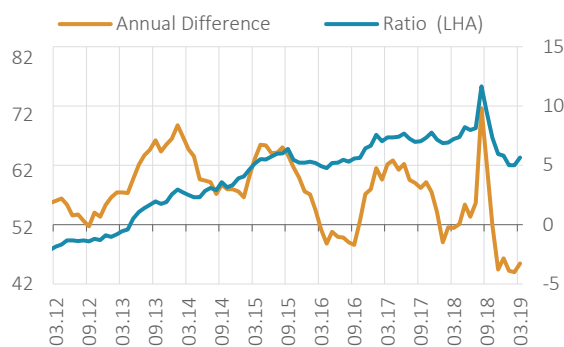
A year-on-year comparison reveals that the interest rate sensitivity risk that the sector's on and off-balance sheet TL-denominated assets and liabilities are exposed to through repricing channel has decreased, while the same on the FX side has increased. The sector's FX net general position/ capital ratio hovers around -1%.

The profitability ratio of the sector has recently trended downwards due to the rise in special provisions and interest expenses on deposits. CAR of the sector stood at pre-arrangement levels as profitability trended downwards and the supportive regulations of the BRSA were revoked. Accordingly, special GDDSs issued to boost state banks' capitals will underpin the sector's capital adequacy.

IV.1 Credit Developments and Credit Risk

Exchange rate developments of August 2018 pushed up the TL equivalent of FX loans, which led to a rise in the loan-to-GDP ratio to 77%. In the ensuing period, following the rebalancing of exchange rates, the loan-to-GDP ratio receded to 64% in March 2019 and reverted to the level of mid-2016 (Chart IV.1.1). Due to the waning of the strong base effect from KGF-backed loans offered in high volume in 2017 and to tighter financial conditions, credit growth assumed a downtrend trend until the end of January 2019. However, this trend ended due to the slightly eased lending conditions by banks recently, introduction of new KGF-backed facilities, and the restructuring of retail loans. In the current reporting period, demand factors in particular kept the credit growth below past averages, and FX-adjusted total credit growth rate was 4.5% in March (Chart IV.1.2).

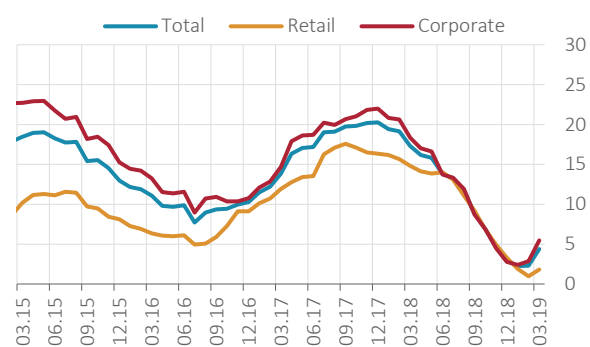
Chart IV.1.1: Loan/GDP Ratio (%)



Source: CBRT, TURKSTAT Latest Data: 03.19

Note: The ratio takes the monthly stock of credit over the sum of GDP provided by the Turkish banking sector over the past 12 months.

Chart IV.1.2: Annual Loan Growth (BTS, %)



Source: CBRT

Latest Data: 03.19

Note: FX-indexed loans are included in FX loans and adjusted for exchange rates by using a weighted basket of 0.3 for the euro and 0.7 for the US dollar.

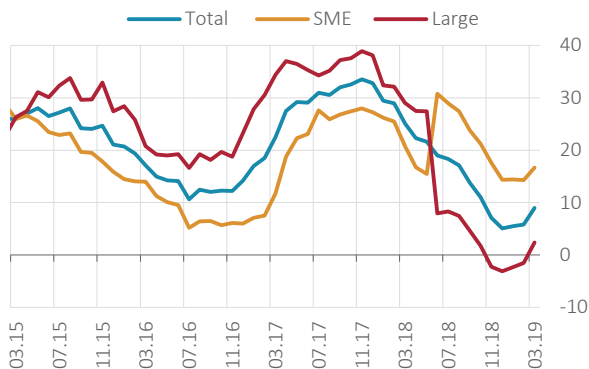
IV.1.1 Corporate Loans

The downtrend in corporate loan growth ended in the first quarter of the year due to TL corporate loans. TL-denominated corporate loans rose by 9% on an annual basis. TL-denominated credit dynamics in the current reporting period were shaped by SME Value Loans, which were designed to support economic activity in the economic rebalancing process and aimed at providing the corporate sector with access to credit with an advantageous financial condition. Offered in January and March, the current KGF-backed SME Loan schemes differed from previous KGF-backed loans in terms of the targeted firm scale and sector, which were utilized by a wider spectrum and at higher volume previously. Under the new SME Value Loan I package offered in January, micro or small-sized enterprises were provided with a credit volume of TL 25 billion including a credit guarantee of TL 20 billion focusing on exporting/manufacturing firms. Another new loan package, which covers the same size of credit guarantee and credit volume with SME Value Loan II package offered in March, was extended to serve all SMEs. SME Loans were utilized by firms mostly for working capital purposes.

On the other hand, FX-denominated loan growth remains negative, and the latest data reveal that domestic FX loans contracted by 1.6%. Moreover, FX loans from abroad started to contract (Charts IV.1.3 and IV.1.4). The course of FX loans was primarily impacted by slowing investments. In addition, developments in the TL and FX rate spread are considered to cause the concentration of the loan demand in favor of the local currency. Loan deposit rate spreads, which climbed in September 2018, are attributed to mounting concerns over banks' asset quality and liquidity prospects as well as the uncertainty in exchange rates, inflation and interest rates that are manifest in risk premiums. In the

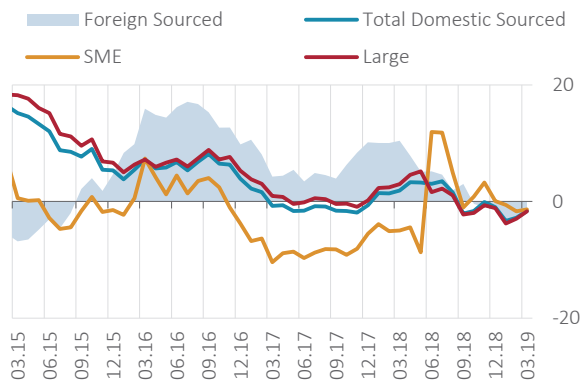
ensuing period, the fast normalization in financial markets and financial product valuations caused interest and loan deposit rate spreads to converge to long-term levels on the TL side, while this spread moved in tandem with the increased risk premium on the FX side (Chart IV.1.5).

Chart IV.1.3: Annual Growth of TL Corporate Loans by Firm Size (%)



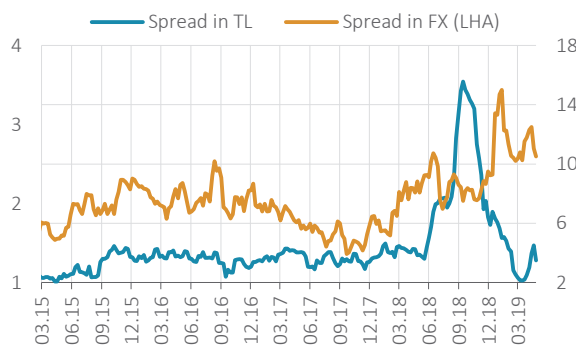
Source: CBRT Latest Data: 03.19
 Note: FX-indexed TL loans are excluded in calculations. The definitions of SMEs were changed and announced on Official Gazette of 24 June 2018, and these changes influenced the breakdown in July.

Chart IV.1.4: Annual Growth of FX Corporate Loans by Firm Size (Currency Basket, %)



Source: CBRT Latest Data: 03.19
 Note: FX-indexed TL loans are included in calculations. The definitions of SMEs were changed and announced on Official Gazette of 24 June 2018, and these changes influenced the breakdown in July.

Chart IV.1.5: Corporate Loan Rates and Spreads (4-week MA, %)

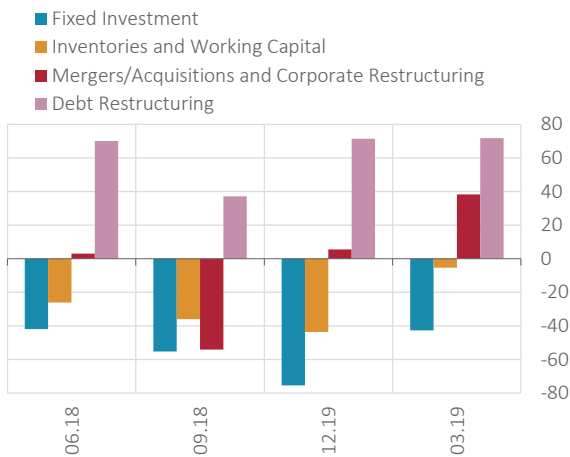


Source: CBRT Latest Data: 26.04.19
 Note: Interest rate spreads are the differences between TL and FX corporate loan rates and deposit rates.

The latest Bank Loans Tendency Survey (BLTS) results also suggest the dominance of loan demand for restructurings, while the loan demand for fixed capital investment purposes continues to decline (Chart IV.1.6). Firms’ demand for working capital loans stemmed from the TL channel, while loan maturities got shorter due to the current levels of credit costs.

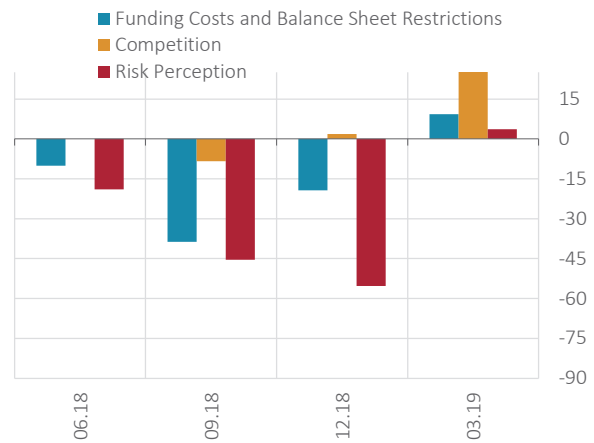
On the supply side, BLTS results indicate that in the first quarter of the year, standards for business loans recorded some easing, particularly in TL loans. On the banks front, this is attributed to the partial alleviation of competition conditions and funding and balance sheet constraints; while the contribution of the risk sentiment to the easing in supply conditions remains relatively low (Chart IV.1.7).

Chart IV.1.6: Factors Contributing to Corporate Loan Demand-Financing Needs (Net % Change)



Source: CBRT Latest Data: 03.19
 Note: The quarterly survey asks banks to compare the current quarter to the previous. Zero is the neutral state indicating no change.

Chart IV.1.7: Factors Contributing to Corporate Loan Supply (Net % Change)



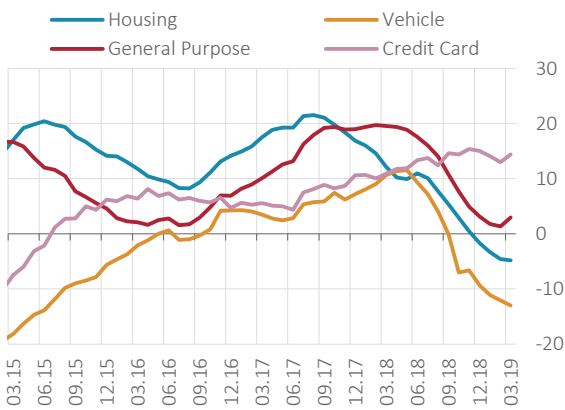
Source: CBRT Latest Data: 03.19
 Note: The quarterly survey asks banks to compare the current quarter to the previous. Zero is the neutral state indicating no change. Series displayed in the chart are the arithmetic average of related subcategories in the BLTS.

IV.1.2 Retail Loans

Growth rate of retail loans displayed a year-on-year decline in this reporting period. Across loan types, general purpose loans and credit card balances remained on the increase, while housing and automobile loans contracted further. This was driven by the manifestation of the weakening in domestic demand in household income and consumer confidence. The downtrend in total retail loans on an annual basis persists, yet momentum indicators calculated via weekly stock values suggest that this trend ended in the second quarter of 2019 (Charts IV.1.8 and IV.1.9).

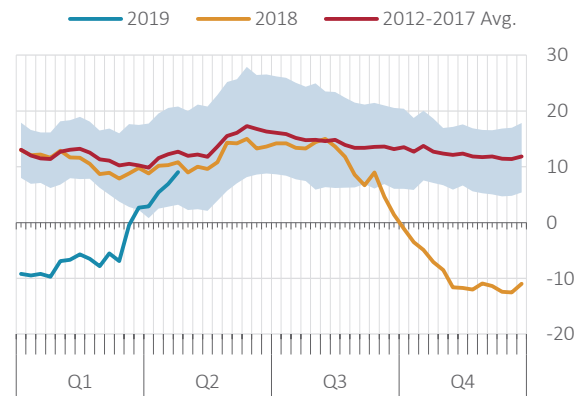
The recent acceleration in retail loan growth is attributed to general purpose loans (Charts IV.1.9 and IV.1.11). General purpose loan campaigns to restructure credit card debts in long maturities and the extension of maximum maturities in general purpose loans from 36 months to 60 months ensured a mild recovery in the retail loan market (Box III.1.1). Accordingly, retail loan growth converged to past averages. The fall in retail loan rates is also considered to support this trend in general purpose loans (Chart IV.1.10).

Chart IV.1.8: Annual Growth Rates of Retail Loans (%)



Source: CBRT Latest Data: 03.19

Chart IV.1.9: Retail Loan Growth (13-week MA, Annualized %)



Source: CBRT Latest Data: 26.04.19
 Note: The shaded area marks the 10th and 90th percentage range used in the 2012-2017 averages.

The decline in housing loan growth stems from the weakening macroeconomic outlook and the resulting decline in housing sales. The support provided by housing loan campaigns with advantageous interest rates offered by some banks has not been able to reverse the slowdown implied by the macroeconomic outlook. On the other hand, the projected fall in inflation rates as of the second half of 2019, which will be apparent in loan rates, the macroeconomic outlook and expectations, are likely to have positive effects on mortgage house sales.

Chart IV.1.10: Retail Loan Rates
(4-week MA, %)

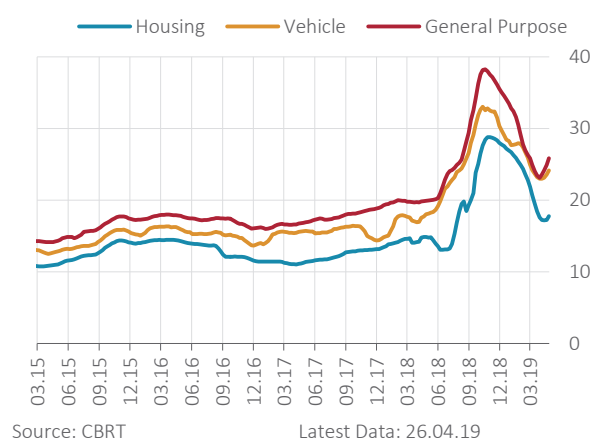
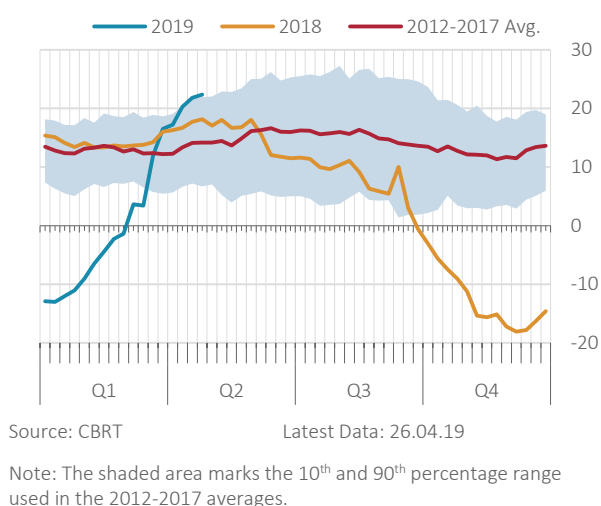


Chart IV.1.11: Growth Rates of General Purpose Loans
(13-week MA, Annualized %)



In tandem with the decline in the banking system's share in the retail automobile loan market and the persisting downtrend in automobile sales, the share of automobile loans within consumer loans continued to decline. The relatively weak course in automobile loans extended by banks after May stemmed from the instant manifestation of the increased exchange rate in automobile prices. In this period, incentives provided through SCT cuts had a minor positive effect on automobile loans.

Growth rates of retail credit card balances remained robust until November 2018, but slowed in the ensuing period. This is attributed to the base effect, employment-driven slowdown in consumption demand, the balance transferred to general purpose loan due to restructuring, and the limitation in August of installments in certain consumption expenditures made by credit cards. On the other hand, increasing the maximum number of installments in consumption expenditures in certain jewelry, electronic, transport and health and social services by credit cards in February and March 2019 is likely to have an upside effect on credit card balances.

IV.1.3 Non-Performing Loans

Due to the economic rebalancing and the resulting slowdown in credit growth, NPL ratios increased both in retail loans and corporate loans. The NPL ratio of the banking sector stood at 4.1% in March 2019. This ratio became 4.2% in corporate loans and 3.6% in retail loans. The rise in NPL ratios since the previous reporting period is more pronounced on the firms' side, and NPL ratios in firm loans rose by around 1 point (Chart IV.1.12).

Stage-2 loans registered an increase due to the limited deterioration in asset quality as well as the increase of balance-sheet values of TL equivalents of FX loans, launching of TFRS-9 reporting standards and more cautious stance of banks. Following the implementation of TFRS-9 reporting standards, stage-2 loan ratios, which diverged on a bank basis, are projected to converge in the upcoming period.

Completion of the restructuring of corporate loans to a large extent, combined with exits from bankruptcy and the falling number of new filings for bankruptcy and the weakening of the effects

stemming from this channel may curb the riskiness in the asset outlook of banks in the upcoming period (Chart IV.1.13). Meanwhile, the course of economic activity, financial conditions and employment developments will shape the course of the sector’s NPL ratio. In fact, in the financial structure analysis made by the BRSA at end-2018 with a prudent perspective, it was explained that the total NPL ratio of the sector may reach 6% at the end of 2019.¹ Despite the recent increase in NPL ratios, by end-2018 the NPL ratio in our country and the change in the last two years follow a course close to the averages of peer countries (Chart IV.1.14).

Chart IV.1.12: NPL Ratios (%)

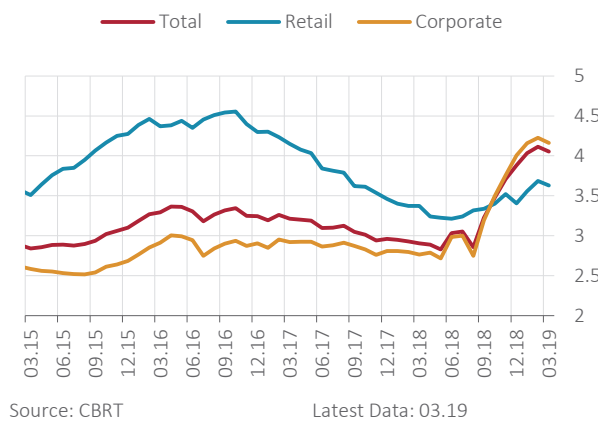
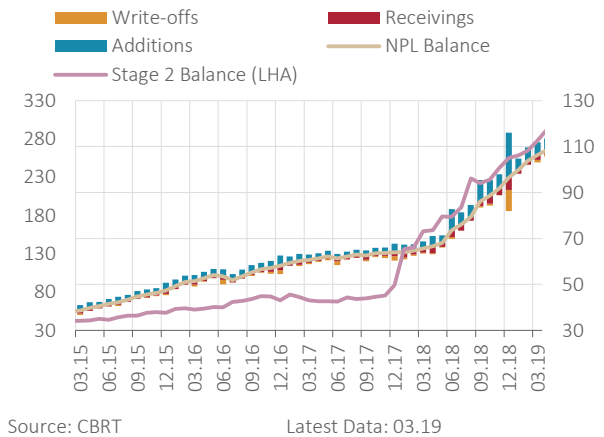
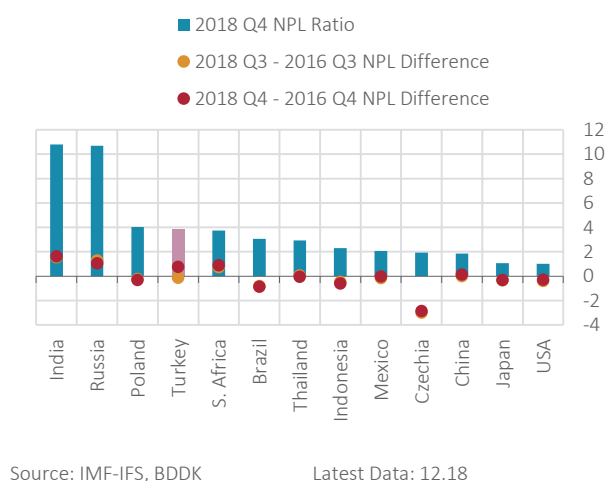


Chart IV.1.13: NPL and NPL Components (Billion TL)



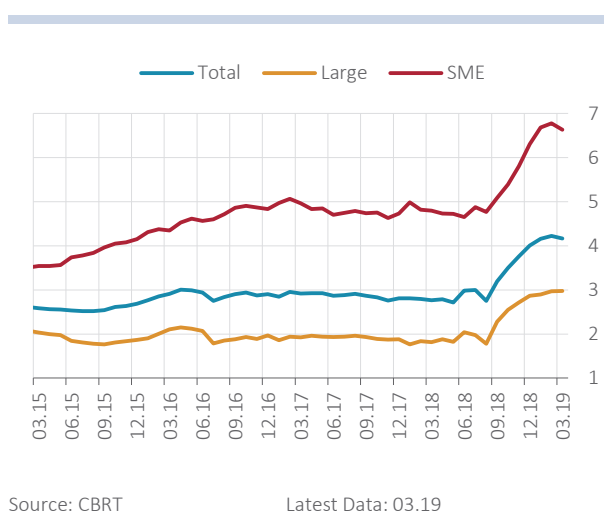
In the corporate sector, the decoupling in NPL ratios by firm scales reveals that NPL ratios of SME loans proved higher, yet their rate of increase were outpaced by NPL ratios of large scale firm loans stemming from a low base (Chart IV.1.15). On the SMEs front, extension of loans covered by the SME Loan packages particularly to micro and small scale enterprises improves the access of these firms to financing and the asset quality outlook of banks, thus enhancing financial stability.

Chart IV.1.14: International Comparison of NPL Ratio and Change



Note: As data for Russia, China, Japan, Poland and Czechia have not been reported yet, bars show 2018Q3 values with the two year differences taken over 2018Q3 and 2018Q2.

Chart IV.1.15: Corporate NPL Ratios (%)



Corporate loans suggest that retail loans recorded a more limited rise in NPL ratios. This rise is apparent in all further breakdowns of retail loans (Chart IV.1.16). The highest increase in ratios was recorded in

¹ Press Release of the BRSA on 27.12.2018

housing loans, yet the NPL ratio, which has recently been 0.6% in these loans, remained low. The uptick in NPL ratios of housing and automobile loans stems largely from the slowdown in these loans.

At the end of the first quarter of 2019, the retail loan card NPL ratio stood at the levels of November 2018. The ongoing widening in credit card balances and general purpose loans affected retail loan NPL ratios positively. Moreover, the restructuring facility in credit card debts contributed to the mild course of these ratios. Debt service capacities of individual clients were enhanced by the extension of general purpose loans at eased conditions to credit card holders with outstanding debt converted to credits under restructuring that were not yet in default.

Moreover, in February 2019, restructuring of general purpose loans were facilitated up to 60 months and the extension of maturity ceiling for general purpose loans and automobile loans to 60 months increased individuals' debt service capacity, which will improve solvency and boost financial stability through this channel as well. In addition, as illustrated in aging analyses, banks act more prudently in general purpose loans compared to past years, which is another factor that may restrict NPL formation (Chart IV.1.17).

Chart IV.1.16: NPL Ratios in Retail Loans (%)

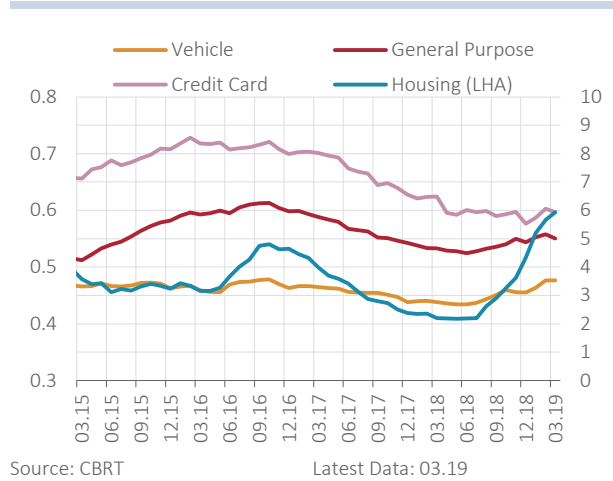
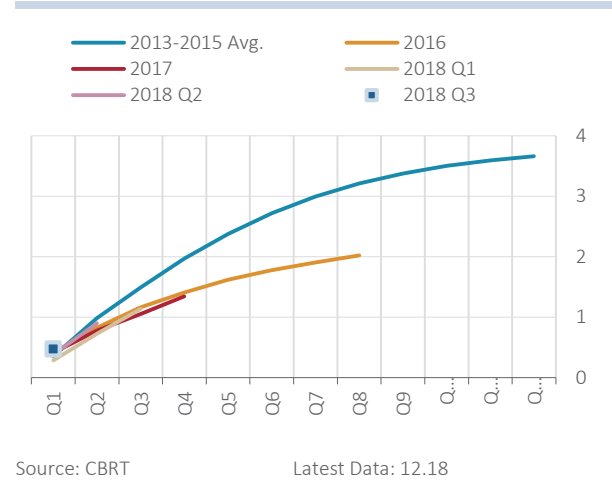


Chart IV.1.17: General Purpose Loan Aging Analysis (%)



Note: Aging analysis reports NPL ratios cumulatively following the quarter in which general purpose loans are utilized.

Box IV.1.1

Leading Indicators for Corporate Credit Risk Assessment

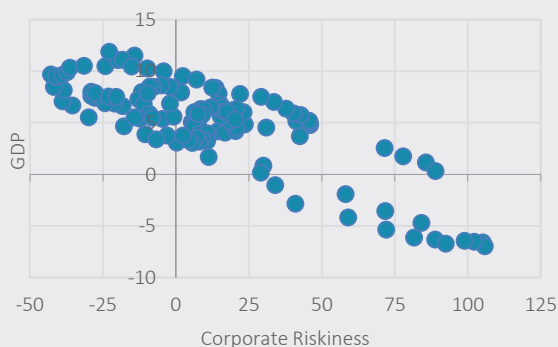
Given the positive correlation between economic activity and credit growth, it is crucial that credit growth be sustainable and coherent with economic activity. However, financial conditions as well as the course of economic activity can affect credit risk and credit supply/risk appetite. Thus, it is important to monitor credit risk in terms of financial stability and to track and measure the accumulated credit risk for the corporate sector in order to minimize financial fragility and take timely measures.

In this box, using a credit-based micro dataset, we first analyze the relationship between economic activity and repayment indicators of corporate sector firms accounting for 80% of the credit volume lent by the Turkish banking sector, and then investigate how and when firm-based loan repayment indicators relate to one another.

Indicators for Loan Repayment Performance and How They Relate to GDP

One of the most common indicators for credit risk analysis is the NPL ratio. Calculated as the ratio of stock NPL to gross credit balance, this indicator focuses more on long-term accumulated risk rather than flow risk, and the denominator in this fraction might change due to the effect of credit growth and exchange rate changes on TL equivalents of FX loans. Therefore, NPL additions of relevant periods are usually integrated into analysis along with the NPL ratio. Loan repayment performance indicators other than flow NPL additions monitored for credit risk analysis include returned checks, protested bills, certificate of bankruptcy and postponed insolvencies.

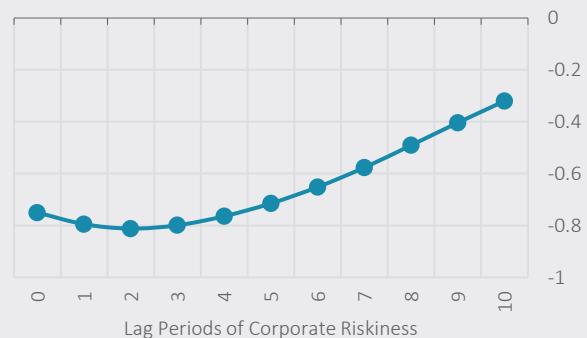
Chart IV.1.1: Total Firm Riskiness and GDP Growth
(12-Month Total, Real % Change, December 2008-March 2019)



Source: CBRT

Latest Data: 03.19

Chart IV.1.2: Correlation between GDP Growth and Total Firm Riskiness



Source: CBRT

Latest Data: 03.19

Note: The sum of firms' returned checks, protested bills and NPL additions indicate total firm riskiness.

Total firm riskiness is defined as the sum of returned checks, protested bills and NPL additions of real sector firms. Using this indicator, we analyzed the relationship between economic activity and the debts of firms having trouble paying back loans. In our monthly analysis, real growth is calculated using 12-month cumulative data for returned checks, protested bills and NPL additions (Chart IV.1.1). Additionally, to identify the highest level of correlation between total firm riskiness and real GDP growth, we analyzed the relationship between GDP growth and different lags of firm risk. The negative correlation between both indicators is as high as 81%, as expected. Economic activity appears to lose

momentum in the two months following the weakening cash flow and repayment capacity of firms, i.e. increased firm risk (Chart IV.1.2).

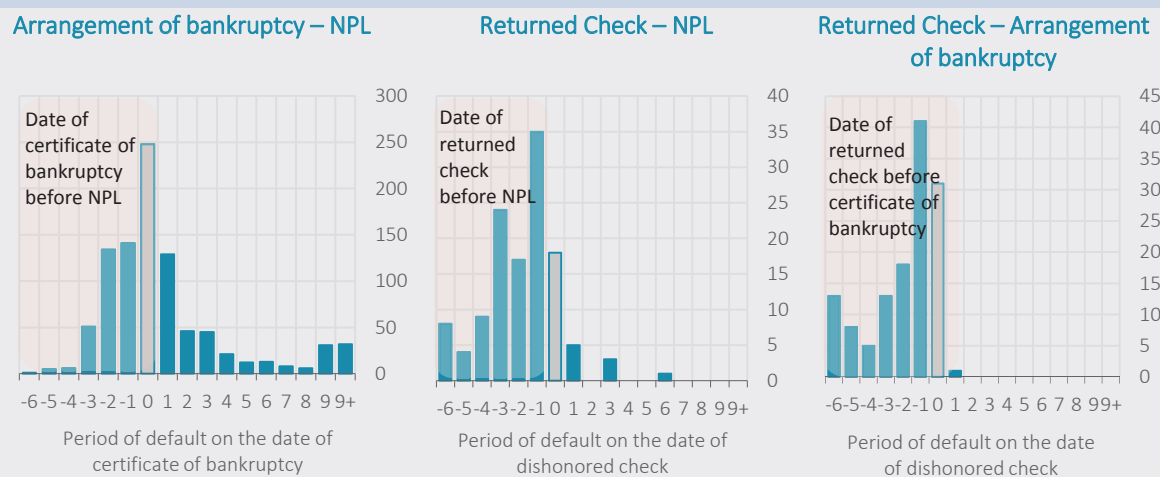
In practice, checks affect loan supply through term use and guarantees.¹ When returned checks are on the rise, banks may require additional collateral in addition to the existing check collaterals. Loan supply along with economic activity might be affected if the corporate sector is unable to provide additional collateral or the bank demands a higher guarantee/loan ratio to consider the check as collateral for a new loan.

The Relationship among Loan Repayment Indicators

In this part, we discuss the timing effect among different loan repayment indicators and for the first sampling round we focus on firms that have entered into possession of certificate of bankruptcy by using mostly firm-based monthly data. This firm-based sampling consists of firms that set up a certificate of bankruptcy in 2018 and beyond, hold returned checks, or have any of their bank/nonbank loans classified as NPL. There are 1,066 matched firms in the dataset, which involves firm-based information on certificate of bankruptcy and loans, and the first sampling analyzed covers the period from January 2018 to March 2019 as data for certificate for bankruptcy are available as of 2018. We inquired into the timing of the rise in credit risk by analyzing the times when a certificate of bankruptcy was proposed, a check was returned and a loan was identified as NPL.

A firm may hold returned checks at more than one time or have many loans from various banks classified as NPL at different times. As the study deals with the first signs of an increase in firm riskiness, we identified the first time a firm held a returned check and any of its loans were classified as NPL. In this study, the timing of certificate of bankruptcy vs NPL, returned check vs NPL and returned check vs certificate of bankruptcy are analyzed for separate sub-samples.

Chart IV.1.3: Number of Firms by Lag Periods of Certificate of Bankruptcy, Returned Checks and NPLs
(Month, # of firms in the sample: 1,066, 2018-March 2019)



Source: CRB

Note: The number of firms concentrated in lagged period between the indicator on the horizontal axis and the other debt indicator shown on axis Y.

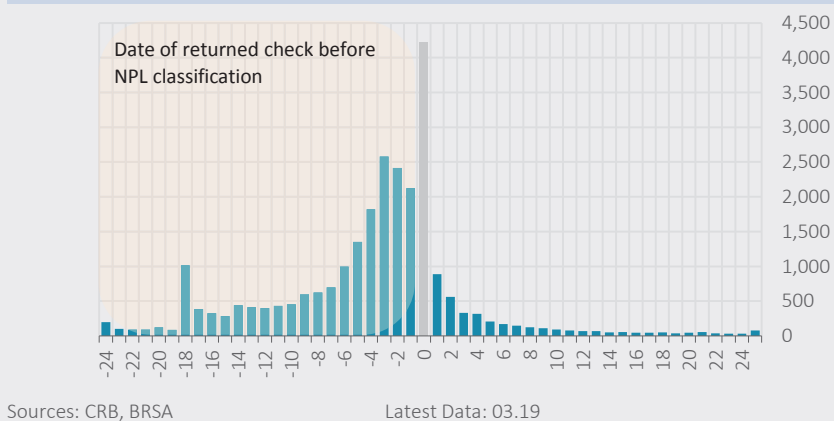
Latest Data: 03.19

The results show in the subsample of firms with certificate of bankruptcy and NPLs, financial institutions classify a loan as NPL about two months after the client become in possession of a certificate of bankruptcy whereas in the subsample of firms with returned checks and NPLs, the NPL amount rises three months after a check is bounced. On the other hand, the relation between the possession of a certificate of bankruptcy and returned checks reveals that most of the bounced checks occur before a possession of a certificate of bankruptcy. Therefore, the firms analyzed usually

seem to have returned check and later on certificate of bankruptcy and NPL respectively. The relatively late emergence of NPLs is largely attributable to the 90-day default norm of NPLs frequently used for credit classification by banks before the TFRS-9 standard was introduced. These corporate risk indicators appear to shed light on the increased credit risk for relatively small and medium scale non-financial companies and can be considered as a leading indicator for the performance of loans in this segment.

The above analysis is based on the client sample with certificate of bankruptcy, however it is repeated to cover all clients with returned checks and NPLs for a more comprehensive study. Accordingly, we analyzed the domestic NPL debt of 27,250 firms with bounced checks between January 2017 and March 2019. The period of first NPL classification of company's any loans and the month of first returned check was analyzed considering lag periods. The following chart shows the concentration of firms that have returned check and fall into NPL status for different lag periods. Although there is a predominant simultaneous transition on a monthly basis between the time a check is dishonored and the time it falls into NPL status, the results suggest that the loans borrowed by 83% of the clients can basically turn into NPL up to 18 months after a check is dishonored.

Chart IV.1.4: Number of Firms by Lag Periods Between Returned Check and NPLs (Month, 27,250 firms, January 2017-March 2019)



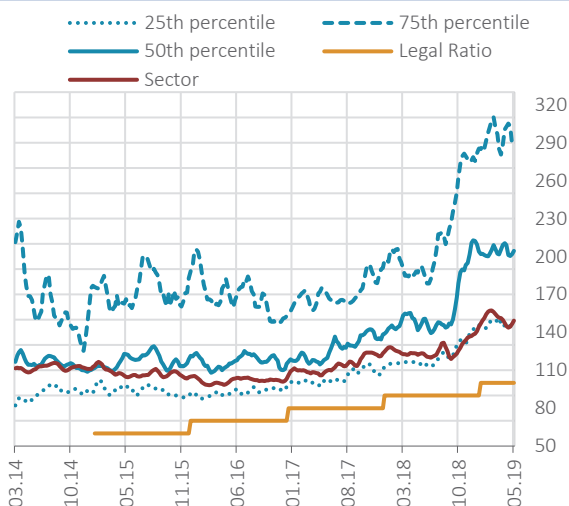
In this box, we discussed micro based repayment capacity indicators to get a timely and accurate insight into the accumulated credit risk confronted by the financial sector and observed that both returned checks and certificate of bankruptcy are leading indicators for NPL. Although there was a 90-day default norm for a loan to be classified as NPL before 2018, it is important to monitor these indicators closely to determine the timing of NPLs considering usage of internal credit models under TFRS-9 as of 2018. These leading indicators are crucial to tracking the debt repayment capacity of firms, estimating the timing and size of risk accumulation and defining the macroprudential measures that can mitigate credit risk.

¹ If the drawer has a higher credit score than the debtor, the checks can be used as collateral.

IV.2 Liquidity Risk

The banking sector remains resilient in the face of short-term liquidity shocks. Liquidity coverage ratios (LCRs) that measure capability of high-quality liquid assets on banks' balance sheets to offset net cash outflows over a 30-day period are well above the legal limits of 100 percent and 80 percent for total and FX assets, respectively, which have been implemented since 1 January 2019 and coincide with the Basel III minimums. In this reporting period, the sector's LCRs, calculated for both total and FX assets, were slightly up amid slowing loan growth and changing liquidity preferences of banks, amounting to 149 percent and 287 percent for each, respectively, as of May 2019 (Charts IV.2.1 and IV.2.2). The recent increase in liquid assets, government debt securities in particular, has been adding to the benign liquidity outlook.

Chart IV.2.1: Quantiles of Banks by Total Liquidity Coverage Ratios (% , 4-Week MA)

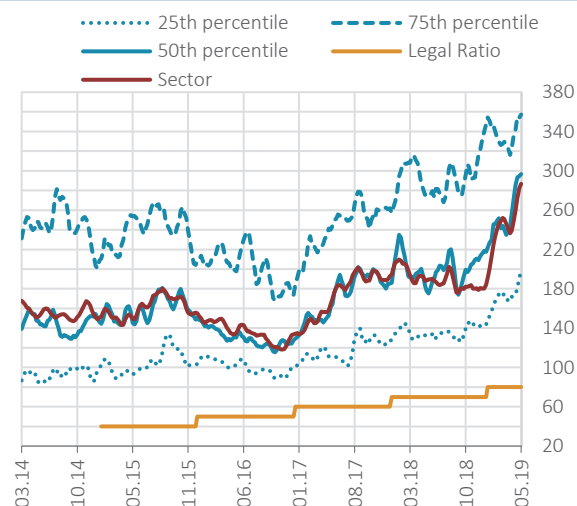


Source: CBRT

Latest Data: 10.05.19

Note: Development and investment banks are excluded. Based on non-consolidated reports. These quantiles represent the banks in the 25th, 50th and 75th percentiles, respectively, from the smallest to the largest in terms of liquidity coverage ratios.

Chart IV.2.2: Quantiles of Banks by FX Liquidity Coverage Ratios (% , 4-Week MA)



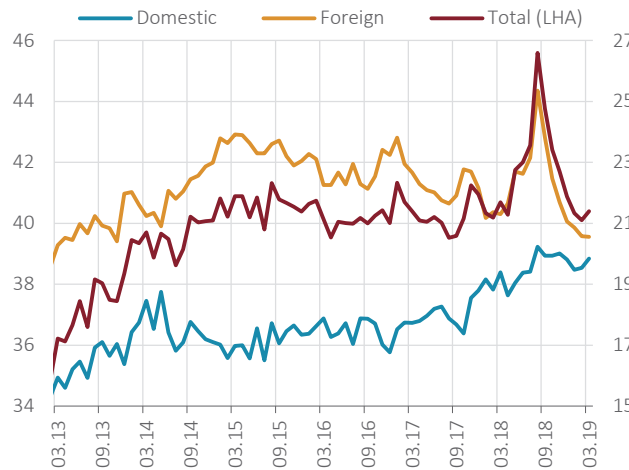
Source: CBRT

Latest Data: 10.05.19

Note: Development and investment banks are excluded. Based on non-consolidated reports. These quantiles represent the banks in the 25th, 50th and 75th percentiles, respectively, from the smallest to the largest in terms of liquidity coverage ratios.

Another indicator of bank liquidity, the ratio of non-deposit liabilities to total external funds, decreased by about 4 percentage points to 40 percent from the previous report period (Chart IV.2.3). In this period, the ratio of domestic non-deposit funds to total external funds remained flat. The exchange rate-driven drop in the TL equivalent of external funds caused the total non-deposit funds to external funds ratio to decrease. The decline in the ratio of non-deposit funds, i.e. debts owed to banks, bond issues and repo transactions, to external funds weighs on the liquidity risk the banking sector faces. This may additionally be supported in the upcoming period through a transfer of TRY 18 billion from the repo-reverse repo portfolio to the commercial time-deposit account in line with the new money market funds regulation adopted in March 2019 (Box I.1.1).

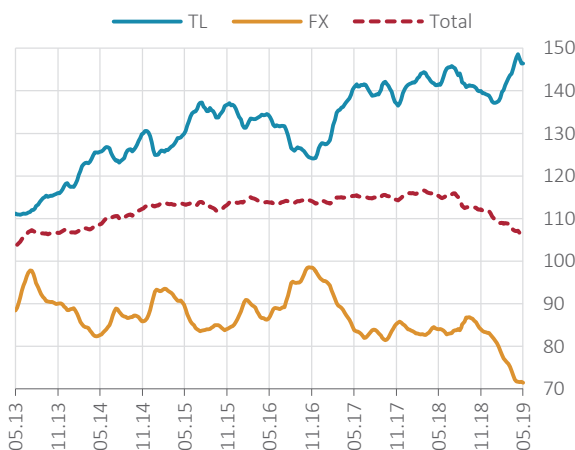
Chart IV.2.3: Ratio of Non-Deposit Funding to Foreign Funding Sources (%)



Source: CBRT Latest Data: 03.19
 Note: Foreign funding sources include all liabilities except capital of banks.

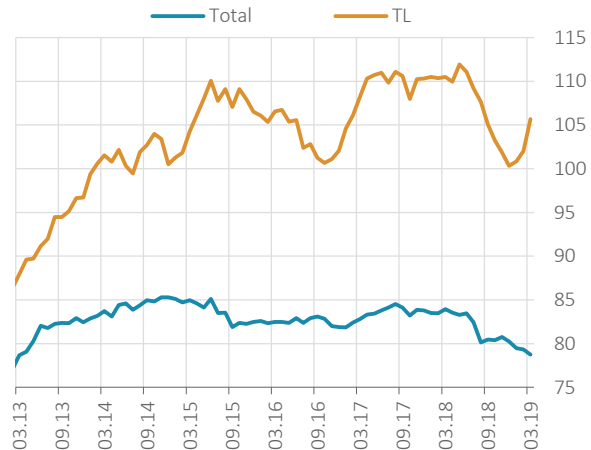
Having seen some rebalancing since July 2018, the loan-to-deposit ratio (LDR), an indicator for the long-term liquidity situation of banks, dropped to 106 percent (Chart IV.2.4). The recent currency divergence seen in the LDR is caused by the currency preferences of firms, banks and depositors, which bring the total LDR down. The weakening investment appetite of firms, new regulations on FX borrowing, the increased awareness of managing exchange rate risks and a rising trend of depositors holding FX deposits have led to a fall in the FX LDR. On the other hand, borrowings of a new type of SME loans covered by CGF guarantees since January 2019 helped shift banks' loan compositions in favor of the TL, pushing the total LDR upward.¹ Accordingly, there has been some rebalancing in the total LDR, and deposits growing at a much faster rate than loans has benefited banks' long-term liquidity outlook. As of May 2019, the TL and FX LDRs are 146 and 71 percent, respectively.

Chart IV.2.4: Loan-to-Deposit Ratio (% , 4-Week MA)



Source: CBRT Latest Data: 10.05.19
 Note: Development and investment banks are excluded.

Chart IV.2.5: Loan / (Deposits + Other Stable Funds) Ratio (%)

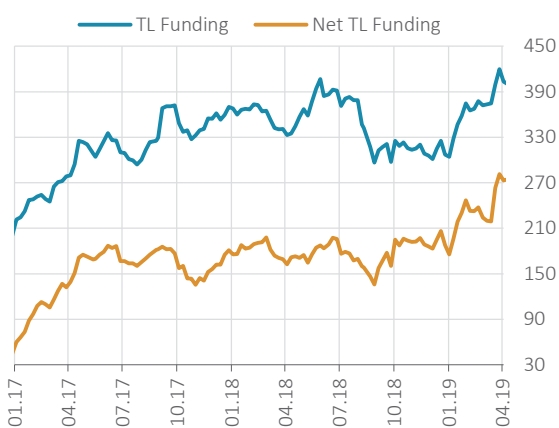


Source: CBRT Latest Data: 03.19
 Note: Other stable funds include equity, long-term issues, subordinated debts and other loans with maturities longer than one year.

¹ Through new Treasury-backed SME loan programs (I and II) covered by CGF guarantees as of 2019, banks have been granted a lending limit of TRY 50 billion in total, in which the collateral limit is a total of TRY 40 billion.

The ratio of loans to the sum of deposits and other stable funds (L/D+) that would treat non-deposit funds maturing in less than one year as stable funding sources as per the Basel III net stable funding ratio provides a more sophisticated method for measuring banks’ long-term liquidity position. This ratio dropped to 79 percent for total and to 106 percent for TL as of May 2019 due to the recent increase in total bond issues and equities, especially in finance products such as asset-backed securities (ABS) and mortgage-backed securities (MBS) that allow banks to securitize their assets (Chart IV.2.5). The fall in both the LDR and the L/D+ supports the long-term liquidity outlook for banks.

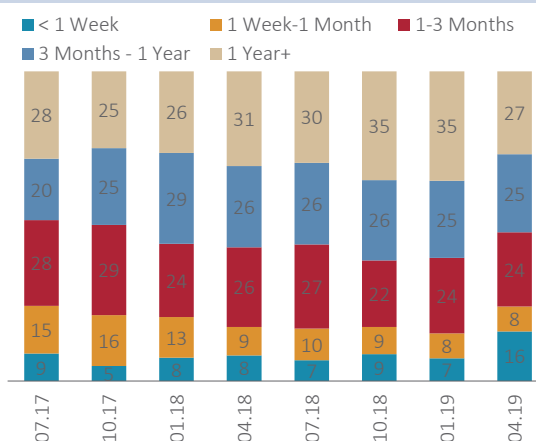
Chart IV.2.6: Amounts of TL Currency Swap Transactions (TRY Billion)



Source: CBRT

Latest Data: 26.04.19

Chart IV.2.7: Maturity Brackets of TL Currency Swaps (Stock, % Share)



Source: CBRT

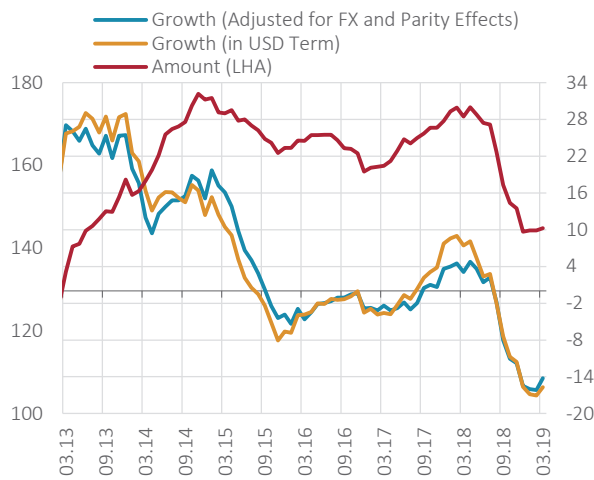
Latest Data: 26.04.19

The net TL funding that banks generated through currency swaps increased slightly from the previous reporting period amid weaker demand for FX loans and higher demand for FX deposits. As of March 2019, due to rising costs of funding, banks have been trading increasingly in the CBRT currency swap market, the transaction limit of which was raised by the Bank, along with the international swap market.² As a result, currency swaps with non-residents slightly decreased while the net TL funding reached a total of TRY 266 billion as of April 2019 (Chart IV.2.6). The increased share of overnight deposits in term deposits kept the average weighted maturity for deposits slightly shorter while short-term swaps accounted for a larger share of TL financing (Chart IV.2.7). The transactions done in the CBRT currency swap market are expected to help the banks liquidity management in terms of maturity. The currency composition of the sector’s assets and liabilities and costs of funding will likely determine its demand for currency swaps in the upcoming period.

A robust liquidity outlook notwithstanding, the weakening demand for external funds has been driving their use lower since the second quarter of 2018. This was caused by subdued real sector investments due to sluggish economic activity, and the weakening FX-denominated loan growth caused by the reduced loan demand and the measures and increased awareness of managing exchange rate risks. Meanwhile, nearly 85 percent of matured syndicated loans were renewed, mainly on the back of banks’ lower FX financing needs and changing demand conditions. Despite the recent limited decline, costs of syndicated loans remain elevated (Chart IV.2.9). The growing demand for external borrowing in this period and the rise in the number of participating banks suggest that foreign investors are highly interested in investing in Turkey.

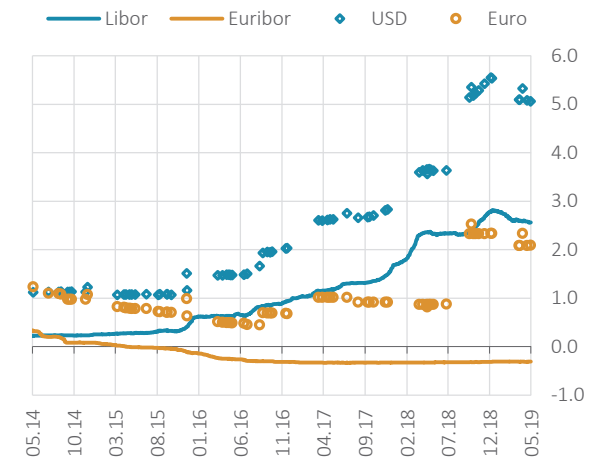
² In March and April 2019, the CBRT raised its total lira swap sale limit to 40% from 10% for swap transactions not matured in the Turkish lira currency swap market. See Box i.1.i.

Chart IV.2.8: Amount and Growth Rate of Banks' External Liabilities (Annual % Change, USD Billion)



Sources: CBRT, CDS
 Latest Data: 03.19
 Note: The growth series adjusted for FX and parity effects is recalculated based on the USD/TRY and EUR/USD parity at end-2013.

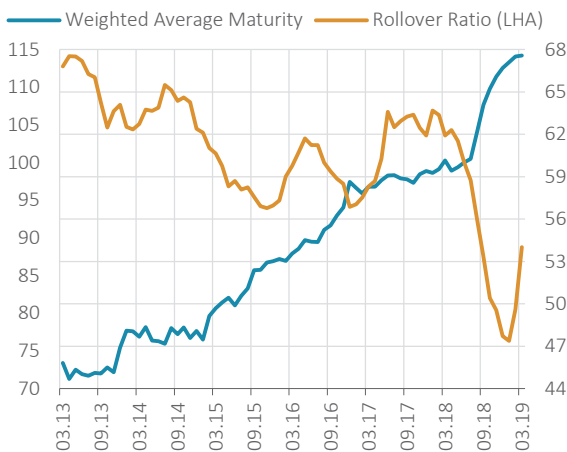
Chart IV.2.9: Cost of Syndicated Loans with a Maturity of 367 days (Transaction Based, %)



Source: PDP
 Latest Data: 10.05.19
 Note: Calculated for 10 large-scale banks.

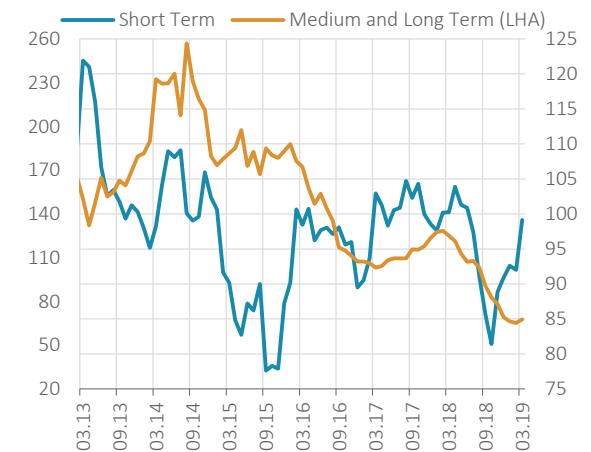
The outlook for the maturity of external debts remains positive and the average maturity hovers around 68 months. After falling due to a subdued use of external finance, banks' external debt rollover ratio turned upward thanks to renewed syndicated loans and securitized foreign assets and equaled 89 percent in March 2019 (Chart IV.2.10).

Chart IV.2.10: External Debt Rollover Ratio and Its Average Maturity (% , Month)



Sources: CBRT, CDS
 Latest Data: 03.19
 Note: The external debt rollover ratio is calculated based on 6-month moving totals of banks' total borrowings and repayments of total external liabilities including securities issued abroad.

Chart IV.2.11: External Debt Rollover Ratio (% , Month)



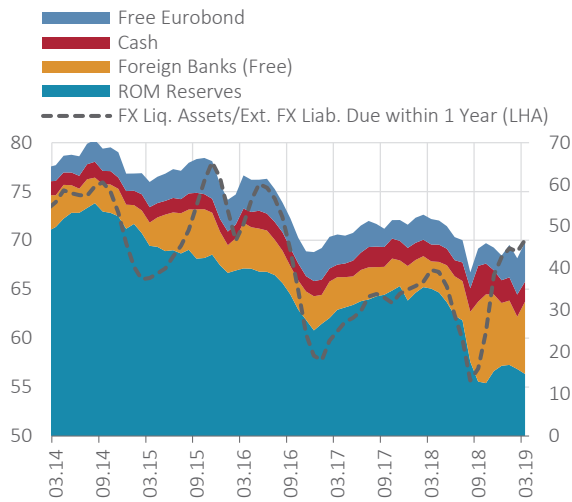
Sources: CBRT, CDS
 Latest Data: 03.19
 Note: External debt rollover ratios are calculated based on 3-month (for short term) and 12-month (for long-term) moving totals of banks' borrowings and repayments of total external liabilities including securities issued abroad.

Banks' short and long-term liquidity indicators remain in the safe zone; the maturity of external loans remains on the rise, and the banking sector has enough buffers against any liquidity shocks. Banks' liquid asset portfolio, which includes eurobonds, cash, accounts at foreign banks and reserve option mechanisms (ROM), is enough to cover all their FX-denominated external debts due in six months and 70 percent of their FX-denominated external debts due in one year (Chart IV.2.12).³ Adding the FX deposit

³ The amount of the banking sector's external debt due in one year is USD 64.8 billion and banks' cash, free accounts at foreign banks, free Eurobonds, and ROM reserves are USD 4.8, 17.3, 9.4 and 15 billion, respectively.

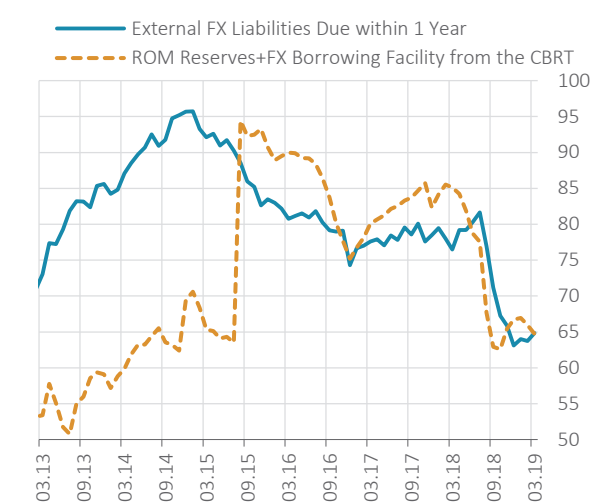
facility of USD 50 billion provided to banks by the CBRT, their liquid assets are enough to cover all their external debts due in one year (Chart IV.2.13).

Chart IV.2.12: FX Liquid Assets and FX External Liabilities Due Within 1 Year (USD Billion, %)



Sources: CBRT, CDS Latest Data: 03.19
 Note: Selected FX Liquid Assets: Cash+Foreign Banks (free)+free Eurobonds + Required Reserves held within the ROM facility+FX-denominated RR. The dashed line represents the 3-month moving average of the FX Liquid Assets / External FX Liabilities due within 1 year ratio.

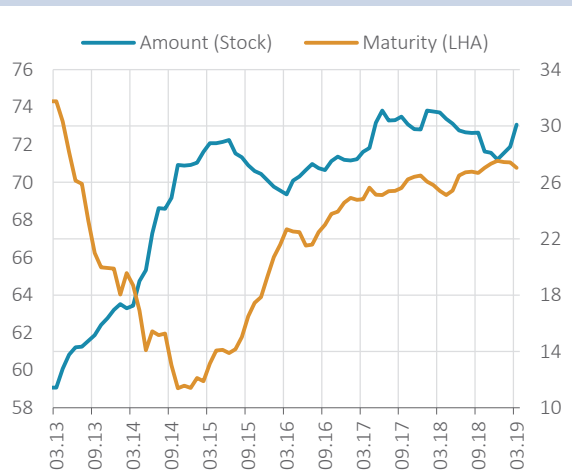
Chart IV.2.13: ROM Reserves + FX Borrowing Facility and External FX Liabilities Due Within 1 Year (USD Billion)



Sources: CBRT, CDS Latest Data: 03.19

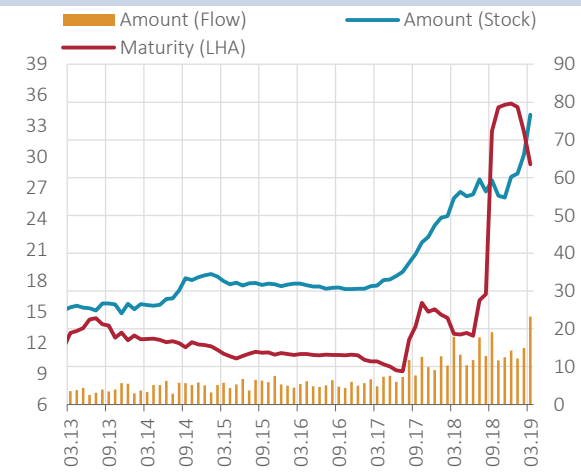
The sluggish demand for FX funds and the reduced issuing of FX-denominated foreign securities have seen some rebound thanks to the eurobond issuance in March 2019. The lengthy maturities help contain any spillovers from potential fluctuations across international markets (Chart IV.2.14). The growth of TL funds domestically generated through security issuance accelerated in this reporting period. In addition to equity-like bond issues that some banks have been doing since September 2018, the issuance of MBSs collateralized by banks' high-quality liquid assets contributes to financial deepening and buoys up the sector's liquidity (Chart IV.2.15).

Chart IV.2.14: FX Issues Abroad (USD Billion, Month)



Source: CDS Latest Data: 03.19

Chart IV.2.15: Domestic TL Bond Issues (Billion, Month)



Source: CDS Latest Data: 03.19

Box IV.2.1

FX Swap Market Developments

Historically, FX liabilities have accounted for a larger share of balance sheets than FX assets in the Turkish banking sector. FX liabilities are a major item on banks' balance sheets due to the typical inclination of households and firms for FX deposits while loans, which are predominantly denominated in Turkish lira and account for a significant portion of assets, lead to an on-balance sheet FX short position. This short position may change periodically due to cyclical developments, but liabilities, such as FX deposits and external debt, and FX assets, loans in particular, determine on-balance sheet FX position sizes (Chart IV.2.1.1). As required by the banking regulation related to the exchange rate risk management and net FX position (NFXP), banks offset their on-balance sheet FX short positions with swap, forward, option and other derivative transactions, of which the forward legs are recorded off-balance sheet. Off-balance sheet FX long positions seem to be on par with the historical level of on-balance sheet FX short positions while the NFXP hovers around zero (Chart IV.2.1.2). Moreover, according to the related BRSA regulation, the ratio of the absolute value of NFXP to a bank's capital cannot be greater than 20%, thus keeping banks' exchange rate risk to a minimum.

Chart IV.2.1.1: FX Positions (Billion USD)

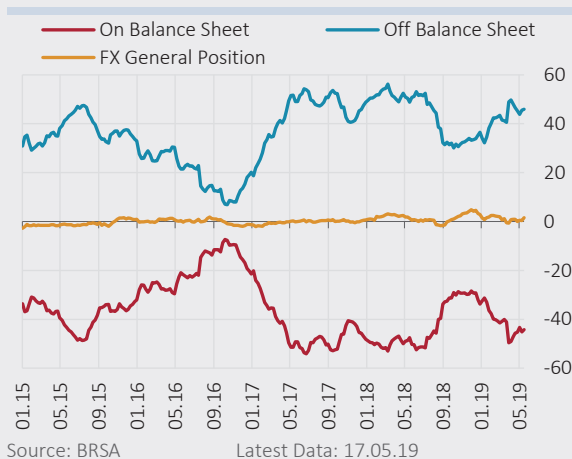
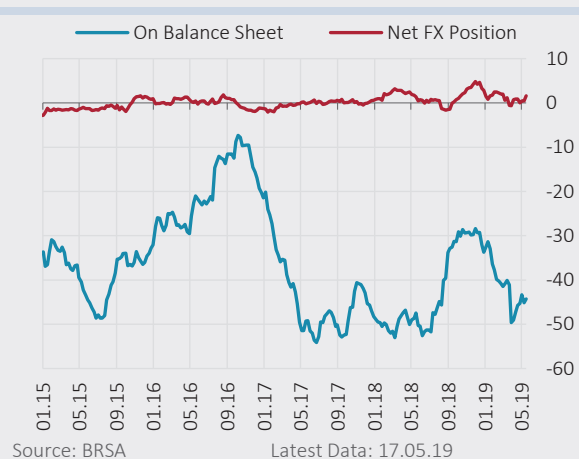
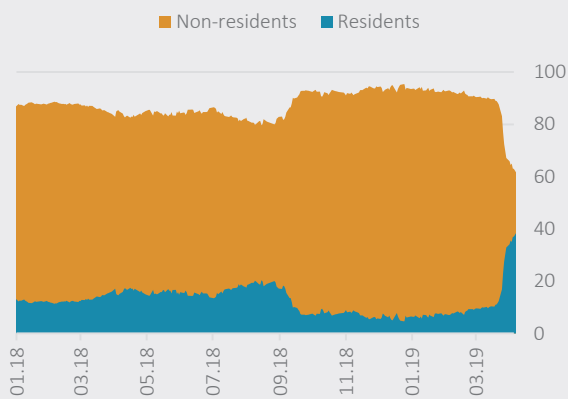


Chart IV.2.1.2: FX Position/Legal Capital (%)

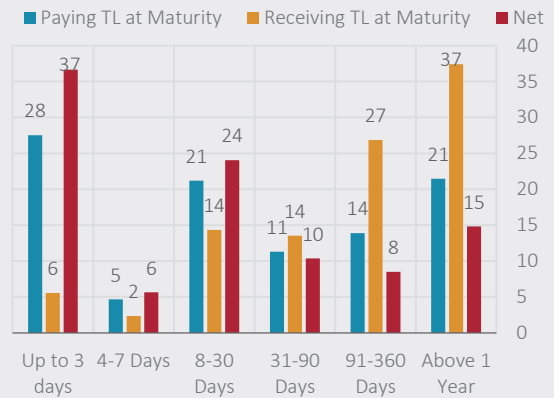


FX swaps come to the fore as the most frequently-used derivative instrument by the banks in this context. FX swap transactions are the most common derivative contracts used to allow banks to manage TL and FX liquidity, hedge client transactions and manage interest rate risk, among other functions. Banks usually use short-term swaps to manage liquidity while long-term swaps are used to manage assets and liabilities, manage interest rate risk, and hedge client transactions. In addition, swaps enable banks to have access to speculative positions, albeit to a limited extent.¹ Currently, the banking sector seems to be a net TL payer for FX swaps at maturity. Banks' counterparts in FX swap transactions mostly include non-residents (Chart IV.2.1.3). Swaps that enable banks to sell TL at maturity are mostly of short-term maturity while those that facilitate TL buying at maturity are of relatively longer-term maturity (Chart IV.2.1.4). Thus, a more intensive use of short-term swaps suggests that the banking sector seeks to manage liquidity via swap transactions.

Chart IV.2.1.3: Share of Non-Residents (NR) and Residents (R) in FX Swaps by Banks (Share, %) **Chart IV.2.1.4: Maturities across Swaps with Non-Residents (By Remaining Maturity, %)**



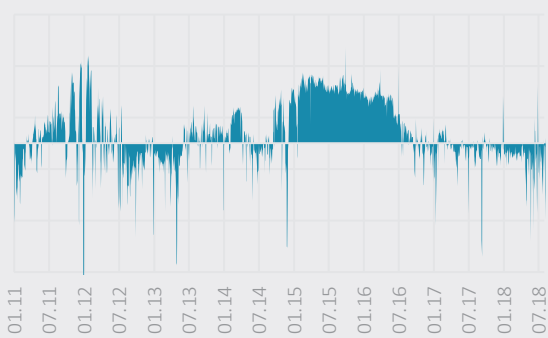
Source: BRSA Latest Data: 27.05.19



Source: BRSA Latest Data: 27.05.19

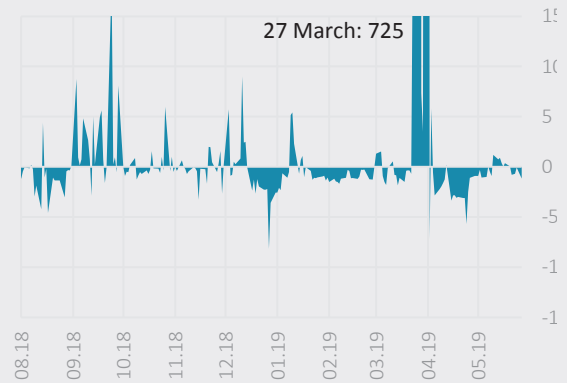
Historically, swap rates have been largely in line with monetary policy rates. However, supply and demand imbalances may occasionally cause swap rates to diverge from policy rates (Chart IV.2.1.5). Accordingly, a similar divergence occurred in the last week of March 2019 and offshore swap rates soared to historic highs, especially at overnight maturities. The swap yield curve shifted upward across all maturities, led by short-term rates in particular (Chart IV.2.1.6).

Chart IV.2.1.5: Spread between Overnight Offshore FX Swap Rate and WAFC (% , January 2011-July 2018)



Source: Bloomberg Latest Data: 27.05.19

Chart IV.2.1.6: Spread between Overnight Offshore FX Swap Rate and WAFC (% , August 2018-May 2019)



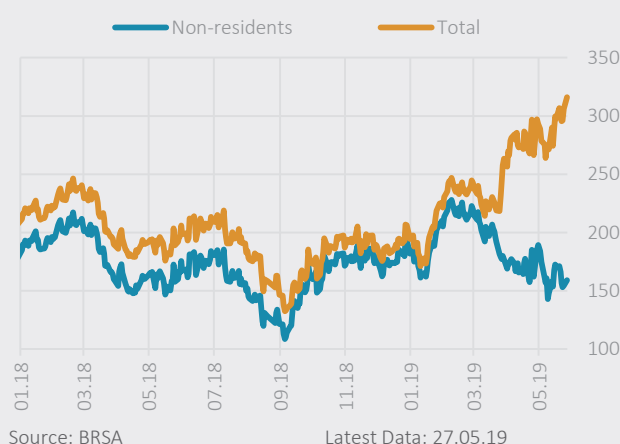
Source: Bloomberg Latest Data: 27.05.19

Specifically, excess (deficient) supply of TL or deficient (excess) demand of TL at overnight or one-week maturities drive offshore swap rates below (above) monetary policy rates. It is hard to draw a definitive conclusion as to the size of supply and demand related factors that cause such divergence in offshore swap rates but external markets seem to bear a fair share of the blame as domestic banks are able to borrow CBRT funds at certain interest rates against their collaterals or lend their excess TL reserves to the Bank.

¹ Swaps can be denominated in a currency other than the Turkish lira to manage liquidity and exchange rate risk in the banking sector.

Considering how vital it is for banks' liquidity management, the CBRT monitors the effects of any supply and demand imbalances happening in swap markets on financial stability and the monetary transmission mechanism. In this context, the CBRT has taken several measures in recent years to enhance the monetary transmission mechanism and to support financial stability. The Bank started FX Deposits Against TL Deposits auctions in January 2017 when offshore swap rates tended to be lower than the policy rate. At these auctions, banks were able to acquire FX funds from the CBRT in exchange for their TL liquidity, and swap the amounts at a mutually-agreed one-week interest rate. Following the introduction of these auctions, not only did offshore swap rates converge to the CBRT policy rate but short-term swap rates experienced less fluctuation.² Amid a liquidity squeeze in offshore swap markets and high swap rates, the Bank suspended FX Deposits Against TL Deposits auctions at the end of March to help normalize market conditions, and restored the TL liquidity withdrawn through auctions to the market.

Chart IV.2.I.7: Net TL Short Swap Positions by Banks at Maturity (Billion TL)



Another policy instrument the CBRT recently established is the TL Currency Swap Market initiated in November 2018. The Bank engages in one-week swap transactions with domestic banks where it receives FX and provides TL in the spot leg. This facility was used only moderately in its initial stage due to relatively easier liquidity conditions in offshore swap markets, but the end-March TL liquidity squeeze in these markets pushed the demand higher. In view of the developments in offshore swap markets and the growing domestic demand, the CBRT gradually increased the banks' transaction limits at the TL Currency Swap Market, which were initially limited to 10% of their transaction limit at the Foreign Exchange and Banknotes Markets, to 40%. Raising limits during a period when offshore swap transactions decreased, helped domestic banks with their liquidity management (Chart IV.2.I.7). Raised limits weighed on banks' demand for TL short swaps at maturity offshore swap markets and contributed to the normalization of offshore swap rates.

A majority of currency swaps are done in over-the-counter (OTC) markets, and the global financial crisis made it necessary to monitor the trade of OTC derivatives and keep relevant risks under control. In this context, it was agreed at the 2009 G20 Pittsburgh Summit to move OTC derivatives trading to organized markets or electronic trading platforms. Accordingly, the BİST launched a swap market in October 2018 to bring swaps, most of which were traded in the OTC market, into the organized market. This market helps enhance the monetary transmission mechanism and contributes to financial stability by reducing the systemic liquidity risk in the banking sector. As stated in the Monetary and Exchange Rate Policy for 2019 document, the

² As of 17 September 2018, banks are able to register their FX Deposits against TL Deposits as swaps.

CBRT, in line with its current monetary policy, CBRT conducts bilateral transactions in the BİST Swap Market at various maturities.

In conclusion, the policy steps taken by the CBRT regarding the swap market aim at strengthening the monetary transmission mechanism and contributing to financial stability, as is the case with other markets. The CBRT's presence in such markets provides banks with flexibility in their liquidity management, and serves to minimize occasional imbalances as they emerge.

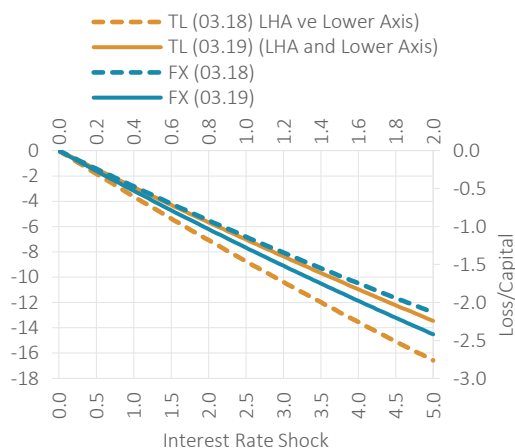
IV.3 Interest Rate and Exchange Rate Risk

The banking sector's FX-denominated on and off-balance sheet interest rate-sensitive open position surged by 70% to TRY 196 billion due to the deceleration in loans in the previous reporting period while its TL-denominated on and off-balance sheet interest rate-sensitive excess position rose by 22% to TRY 679 billion on the back of payables to the money market and falling rediscounts on interest and income accruals. The probable loss to capital ratio was calculated based on the economic value approach by exposing the sector's TL-denominated and FX-denominated on and off-balance sheet interest rate-sensitive positions to a positive interest rate shock of up to 5% and 2%, respectively. Accordingly, a 5% positive interest rate shock exposure on TL-denominated on and off-balance sheet interest rate-sensitive positions led to a probable loss of approximately 13% of capital, whereas a 2% positive interest rate shock exposure on FX-denominated on and off-balance sheet interest rate-sensitive positions led to a probable loss of approximately 3% of capital. Compared to the same period last year, the positive interest rate shock-led probable loss to capital ratio posted a marked decline for the TL position but increased in the FX position (Chart IV.3.1).

In comparison with the last reporting period, the average maturity of TL-denominated interest rate risk-sensitive assets declined moderately to 18 months in line with the declining share of long-term loans. Meanwhile, the average maturity of interest rate-sensitive TL liabilities was up from the previous reporting period to six months in response to the increased share of deposits with a maturity longer than one month. The average maturity of interest rate-sensitive FX liabilities was 22 months while that of FX assets dropped to 12 months due to a rise in the share of short-term deposits.

Fixed interest rate securities at fair value through other comprehensive income may have a positive or negative impact on capital through the channel of revaluation based on changes in interest rates. This impact was calculated by imposing a likely interest rate hike of up to 5% and 2%, respectively, to TL-denominated and FX-denominated securities. The probable loss to capital ratio was estimated to be slightly down from the previous reporting period, at up to 1.7% percent for both FX and TL securities (Chart IV.3.2).

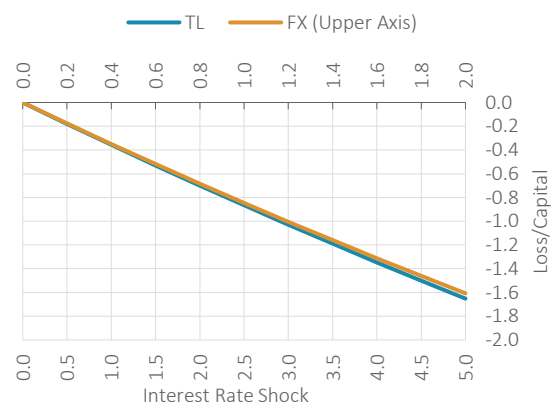
Chart IV.3.1: Interest Rate Risk Via Repricing Channel Measured with Economic Value Approach (%)



Sources: CBRT, Authors' estimations. Latest Data: 03.19

Note: In the economic value approach, the change in the current value of interest rate-sensitive assets and liabilities is taken into account in the face of a change in interest rates.

Chart IV.3.2: Interest Rate Risk of Fixed Interest Rate Securities at Fair Value through other Comprehensive Income (%)



Sources: CBRT, Bloomberg, Authors' estimations. Latest Data: 03.19

Note: Since January 2018, when the TFRS 9 standards were put into effect, the Securities Available for Sale (Net) item on bank balance sheets was renamed "Securities at fair value through other comprehensive income".

The banking sector's on-balance sheet FX open position rose by 62% from the previous reporting period to USD 50 billion on the back of the drop in medium and long-term loans and the increase in FX deposits. The off-balance sheet FX excess position increased by 56% to USD 49 billion due to currency swap positions caused by growing FX assets. The sector has been using its off-balance sheet FX transactions to manage the exchange rate risk that may stem from on-balance sheet limited short positions. Thus, the sector's net FX general position/capital ratio was recorded at around -1%, well below the two-way legal limit of 20% (Chart IV.3.3).

A breakdown of off-balance sheet FX transactions actively used by the sector in FX risk management reveals a heavy use of currency swaps. However, the share of options in this composition decreased (Chart IV.3.4).

Chart IV.3.3: Banking Sector's FX Open Position (USD Billion, %)

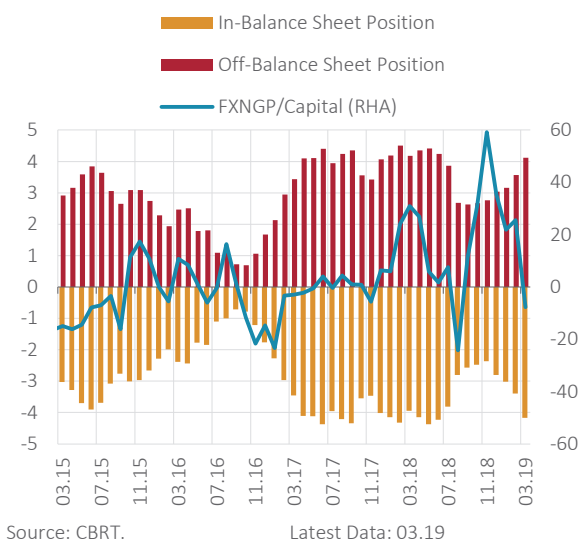
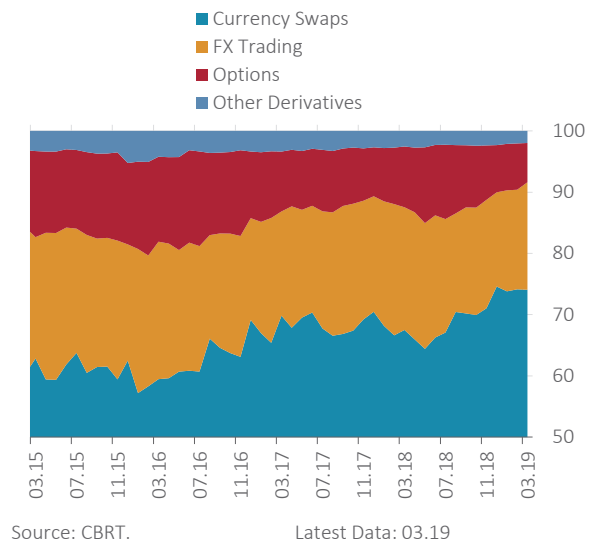


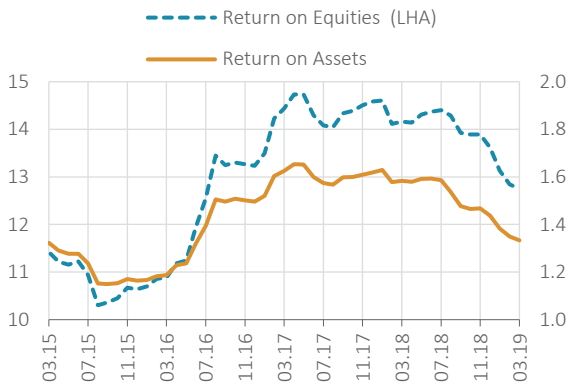
Chart IV.3.4: Shares of Gross Positions of Off-Balance Sheet FX Transactions (%)



IV.4 Profitability and Capital Adequacy

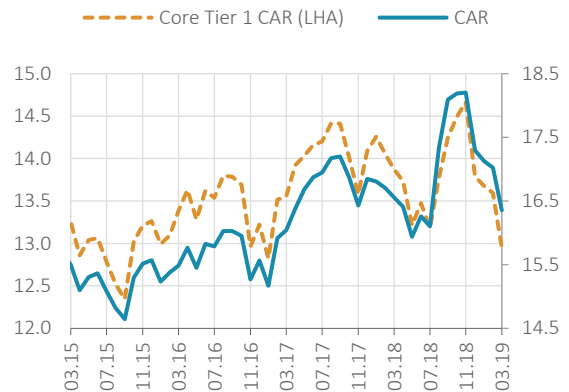
Profitability indicators of the banking sector have recently been on a downtrend due to asset quality developments, slowing loan growth amid the economic rebalancing, the effect of subsidized personal and commercial loans on interest returns, and the pressure on net interest margin over this reporting period (Chart IV.4.1). The reduced equity and asset profitability was mostly attributable to the rise in interest expenses for special provisions and deposits. The profitability has helped to stabilize the CAR recently (Chart IV.4.2).

Chart IV.4.1: Return on Assets and Equities (%)



Source: CBRT Latest Data: 03.19
 Note: Profitability ratios are calculated by dividing the annual cumulative profit by one year's average denominator.

Chart IV.4.2: CAR and Core Tier 1 CAR (%)



Source: CBRT Latest Data: 03.19

IV.4.1 Profitability

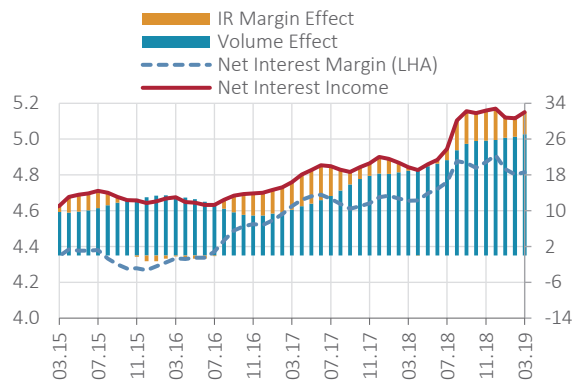
The factors that affected the change in the return on assets over the past year reveal that net interest income and non-interest income have had a positive effect, while the increase in non-interest expenses driven by special provisions of nonperforming loans and general provisions has had a negative effect on profitability (Chart IV.4.3).

Chart IV.4.3: Annual Effect of Income Statement Items on ROA (%)



Source: CBRT Latest Data: 03.19
 Note: Red columns denote downward impact whereas yellow columns denote upward impact.

Chart IV.4.4: Contribution to Changes in the Net Interest Income (12-Month Cumulative, %, TRY Billion)



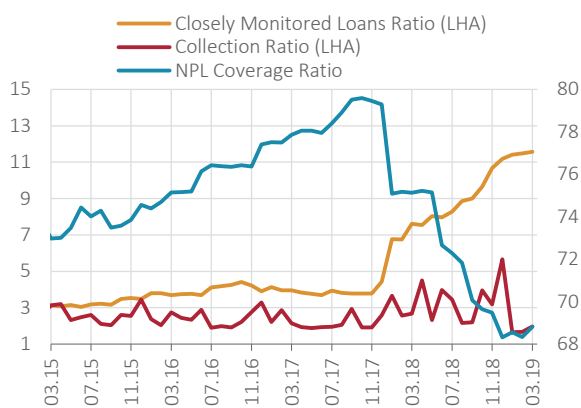
Source: CBRT Latest Data: 03.19

The increase in net interest income contributed approximately six basis points to the sector's return on assets over a 12-month period. This effect was driven by higher interest rates charged on loans compared to those on deposits. The contribution of the volume effect and the interest rate margin effect to the net interest income remained virtually unchanged from the previous reporting period (Chart IV.4.4).

Stage-two loan ratios rose on the back of the increased use of commercial loans among stage-two loans of internal credit rating models within the TFRS 9 (Chart IV.4.5). The collection ratio remained strong. After having been on the fall for a while due to rising nonperforming loans, the NPL coverage ratios have been flat since December 2018.

The other non-interest income/expenses item, in which banks record their position in securities trading, derivatives and foreign exchange transactions, had a limited and positive impact on profitability compared to a year earlier. The underlying reason was the gains from derivatives trading and the losses incurred on the recently subdued foreign banknotes and foreign exchange trading and on valuation. Despite high currency swap transaction costs, exchange rate developments drove financial gains from derivatives trading higher (Chart IV.4.6).

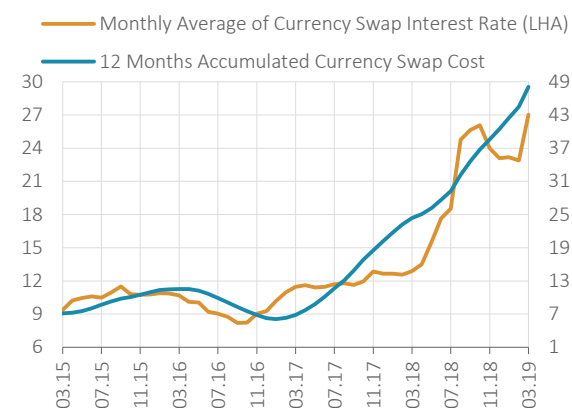
Chart IV.4.5: Additional NPL Indicators (%)



Source: CBRT Latest Data: 03.19

Note: Closely monitored loans ratio is the ratio of closely monitored loans to performing loans.

Chart IV.4.6: Currency Swap Transaction Costs and Interest Rates (% , TRY Billion)



Sources: CBRT, Bloomberg, authors' estimations Latest Data: 03.19

Note: In calculating the currency swap interest rate, the monthly simple average of three-month USD-TRY currency swap interest rates was used as a reference rate and the cost was estimated by using the monthly average net TRY-FX currency swap positions of banks and the monthly average USD rate.

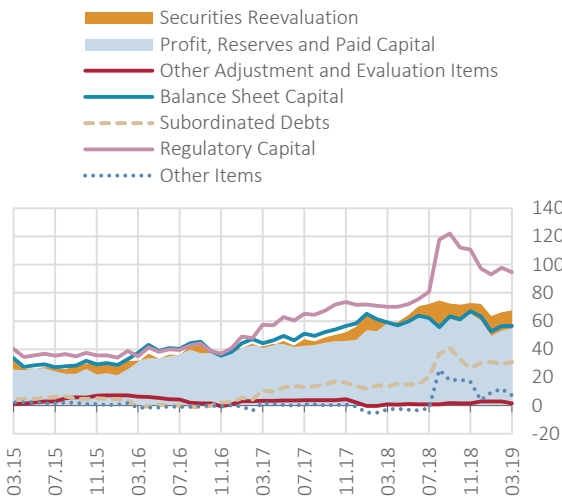
The profitability ratio increased by about 25 basis points thanks to a moderate rise in the non-interest income, provision cancellations and banking services income. Rising credit card fees and commissions were the main drivers of the increased banking services income in this reporting period.

IV.4.2 Capital Adequacy

Profitability performance has been slightly slower due to changes in asset quality and the economy. Banks continue to support core capital and supplementary capital by using subordinated debt instruments.

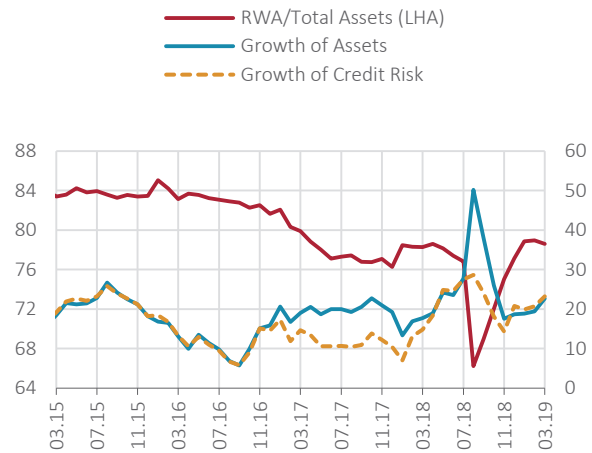
Over the past year, the legal capital has been positively affected by the increase in subordinated debts and the level of profitability, albeit less contributive recently. After having accelerated since the second quarter of 2018, the contribution of subordinated debts to the change of legal capital has been horizontal in this reporting period. Meanwhile, negative valuation differences related to securities at fair value through other comprehensive income caused securities valuation to have a negative contribution (Chart IV.4.7).

Chart IV.4.7: Changes in Equity (12-Month Cumulative, TRY Billion)



Source: CBRT Latest Data: 03.19

Chart IV.4.8: Risks and Assets (%)

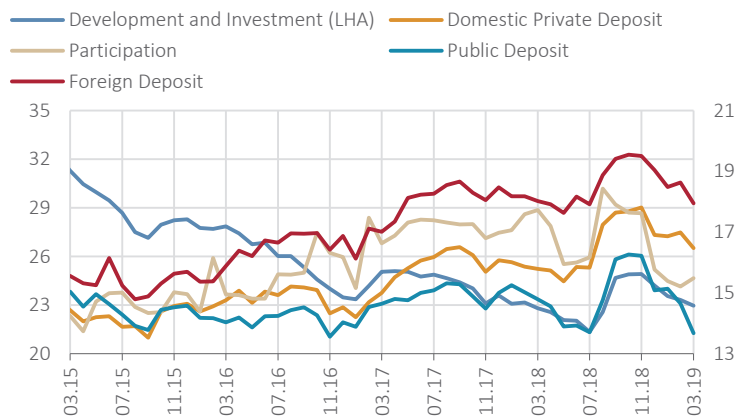


Source: CBRT Latest Data: 03.19

Although there has been no significant change in the composition of risk-weighted assets, credit risk growth has been flat and on par with asset growth since the end of 2018. On the other hand, the stabilized risk-weighted assets to total assets ratio of the first quarter of 2019 was attributable to the termination of the BRSA-introduced regulatory change for risk-weighted assets, which was in place from August 2018 until the end of the year (Chart IV.4.8).

Despite the terminated CAR regulations of the BRSA and the negative securities valuation, the sector's capital adequacy ratios remained strong owing to profitability and the acquisition of subordinated debts that are included in capital calculations (Chart IV.4.9). GDDs issued to boost state banks' capitals and capitals of state-run participation banks will bolster the sector's capital buffers in the upcoming period (Box I.1.1).

Chart IV.4.9: CARs by Types of Banks (%)



Source: CBRT Latest Data: 03.19