IV. Financial Sector

IV.1 Credit Developments and Credit Risk

IV.1.1 Credit Developments

The level of loan rates indicates that financial conditions remain tight.

Turkish lira commercial and general-purpose loan rates, which peaked in April due to the policy rate hike in March and the introduction of the reserve requirement practice based on loan growth, have fallen since May to a level consistent with the policy rate. Turkish lira loan rates rose well above the policy rate hike in the March-April period. Starting from May, banks gradually lowered loan rates in tandem with the rebalancing in loan demand. The decline in headline inflation and inflation expectations also contributed to falling loan rates. In this period, Turkish lira loan rates receded, aligning more closely with the policy rate. While loan rates were on the decline, lower headline inflation and improving inflation expectations also helped to maintain the tightness in loan rates. Headline inflation and one-year-ahead inflation expectations fell by 27 and 6 percentage points, respectively, between May and October. The decrease in long-term Turkish lira loan rates in particular amid improving expectations is among the drivers of the fall in loan rates. Banks' reduced external borrowing costs and excess FX liquidity on the back of falling global interest rates and improving country risk premium also led to a decline in FX loan rates. This trend is expected to continue as global central banks begin their easing cycles and the risk premium further improves (Charts IV.1.1 and IV.1.2).

In March, the maximum interest rates applicable to ODA and credit card cash advances were raised. On November 1, 2024, interest rates for PCCs (for purchase) were differentiated based on the debt balance. This step is expected to have a strong tightening effect for borrowing through credit cards and contribute to the rebalancing in domestic demand. On the other hand, the interest rate differential between ODA and the general-purpose loans excluding ODA subject to growth limit widened again (Chart IV.1.3).

Chart IV.1.1: Commercial Loan Rates (Flow, 4-Week MA, %)

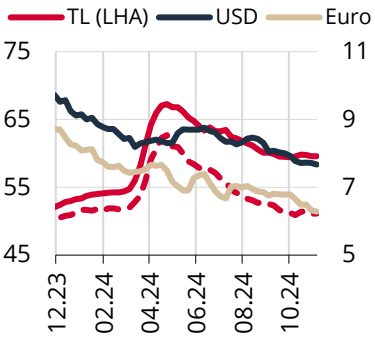


Chart IV.1.2: General-Purpose Loan Rate (Flow, 4-Week MA, %)

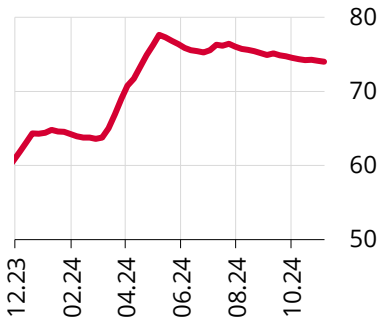
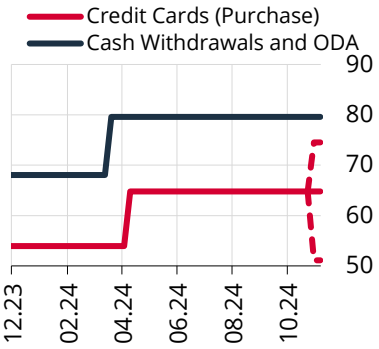


Chart IV.1.3: PCC Interest Rates (%)



Source: CBRT
Last Observation: 08.11.24

Note: Commercial loan rates exclude corporate credit cards, legal person ODAs, and zero-interest loans. Loan rates exclude costs other than interest. The dashed line in commercial loans represents the interest rate on Turkish lira commercial loans with maturities longer than one year. General-purpose loan rates exclude real person ODA. PCC interest rates refer to the contractual interest rate applicable to purchase transactions. The dashed line in Chart IV.1.3 displays the differentiation of the contractual interest rate applicable to credit cards based on the debt balance after November 1, 2024.

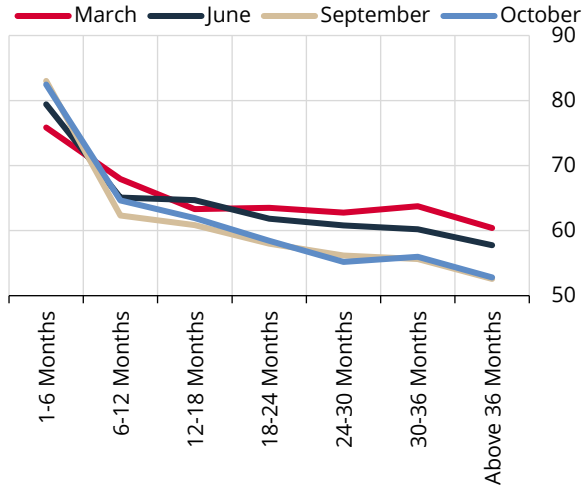
Long-term interest rates have been declining amid improving inflation expectations.

As expectations continue to improve, loan pricing behavior aligns with the disinflation path. In recent months, long-term Turkish lira commercial loan rates, in particular, have begun to fall amid strengthening expectations of disinflation (Chart IV.1.4). The downtrend in commercial loan rates with maturities longer than one year is particularly evident. It is anticipated that this trend may continue to increase in the coming period as the improvement in expectations continues.

Banks' tendency to extend long-term and fixed-rate loans remains strong due to the strengthening of disinflation expectations during the monetary tightening process. Improved inflation expectations and the

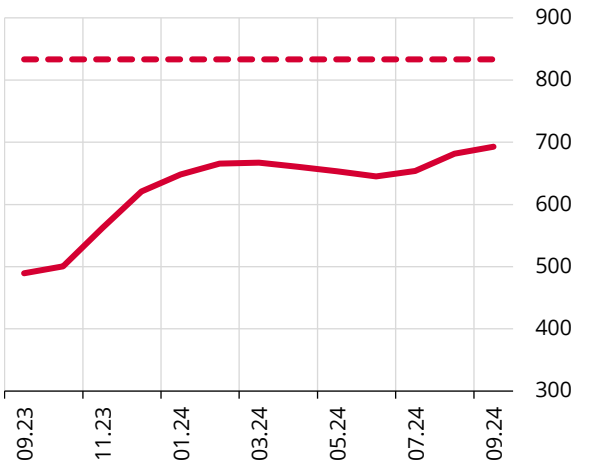
prospect of a drop in medium- and long-term funding rates boost banks' appetite for long-term lending, which in turn increases their capacity to earn interest income. This, on the other hand, causes firms to postpone their loan applications or to demand loans with floating interest rates and shorter maturities. Thus, the maturity of fixed-rate Turkish lira commercial loans, which was previously extended, has remained almost flat in the recent period (Chart IV.1.5).

Chart IV.1.4: Interest Rates on Turkish Lira Commercial Loans with Installments
(Flow, %)



Source: CBRT Last Observation: 25.10.24
Note: Loan yield curve is calculated as the weighted average of daily loan amounts/rates for the relevant month. Comprises only fixed-rate Turkish lira commercial loans with installments. Participation banks are included. Calculated from daily provisional data. Corporate credit cards and loans extended to public institutions and organizations are excluded. Erroneous data and outliers are removed.

Chart IV.1.5: Average Maturity of Fixed-Rate TL Commercial Loans with Installments (Flow, 3-Month MA, Original Maturity)



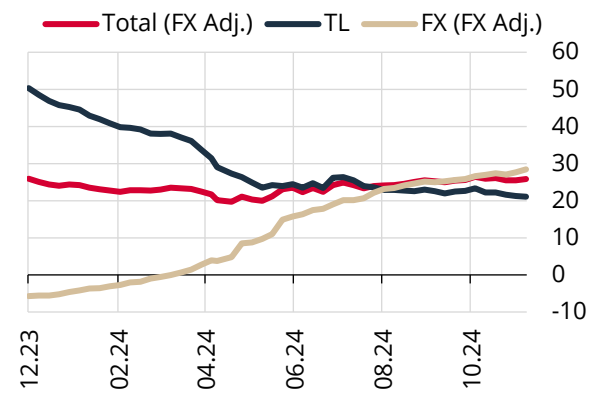
Source: CBRT Last Observation: 09.24
Note: Calculation excludes disbursements with zero maturity, zero interest, and non-reported interest rate structure. The dashed line shows the average of the series for the January 2020 – September 2024 period.

Commercial loan growth remains on a moderate path.

The tight monetary policy stance and the supportive macroprudential framework have begun to influence commercial loan growth. While annual total commercial loan growth is around 25%, the currency composition may vary periodically. As a matter of fact, improving expectations for exchange rates and the widening of the expected cost gap between Turkish lira loans and FX loans in the last reporting period strengthened FX loan demand upwards. To balance this trend, the CBRT introduced a 2% monthly growth limit for FX loans in May and lowered it to 1.5% in July. Accordingly, the 13-week annualized growth in commercial loans lost pace. Following the introduction of growth limits on FX loans, the annual growth momentum of commercial loans fell below 25% (Charts IV.1.6 and IV.1.7).

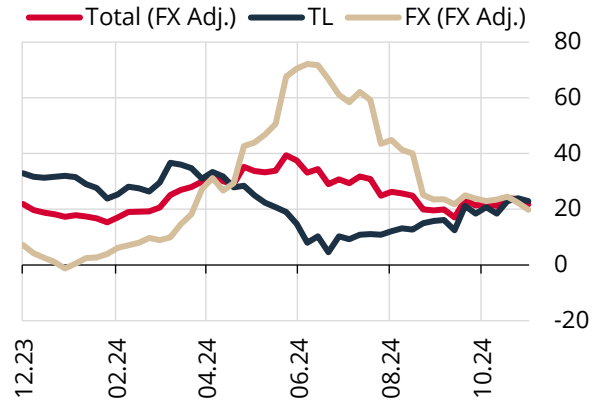
In addition to growing demand for FX loans amid improved exchange rate expectations and elevated Turkish lira loan rates, favorable supply conditions brought about by banks' strong FX liquidity rendered the growth limit more stringent for FX loans. The lowering of this limit in the post-July period, which made it more binding for FX loans, and the downtrend in Turkish lira loan rates caused Turkish lira commercial loan growth to pick up slightly in September. Thus, the growth momentum of Turkish lira commercial loans and FX loans converged. The dollarization trend in loans was moderated, and the currency composition of loans was brought on a more balanced path, both safeguarding price stability and financial stability.

Chart IV.1.6: Annual Growth of Commercial Loans (%)



Source: CBRT Last Observation: 08.11.24

Chart IV.1.7: 13-Week Growth of Commercial Loans (Annualized, %)



Source: CBRT Last Observation: 01.11.24

Note: FX-indexed loans are included in FX loans. FX-adjusted FX loan growth is the ratio of the sum of the Turkish lira equivalent of change in FX loans, measured by multiplying one-year FX (basket) loan change with the one-year average basket exchange rate, to the total loan balance a year (13 weeks for the right chart) ago.

SME and corporate loans have recently displayed similar growth trends.

Loan access and demand of SMEs and large firms may diverge during periods of monetary tightening. Due to their relatively stronger liquidity position, large firms may postpone their loan demand during periods of rising interest rates. However, SMEs may continue to demand loans for their working capital financing needs given their relatively low liquidity buffers. Therefore, the growth rate of commercial loans extended to SMEs and large firms may diverge periodically. As large firms were the main recipients of FX loan disbursements, which grew stronger between March and July, the 13-week total commercial loan growth for large firms surpassed 50% in July, while the loan growth rate for SMEs fell below 10% (Charts IV.1.8 and IV.1.9). Loan growth for SMEs and large firms converged due to tightened growth limit on FX loans in July and SMEs' increased use of Turkish lira loans driven by declining Turkish lira loan rates.

Chart IV.1.8: 13-Week Growth of Commercial Loans Extended to SMEs (Annualized, %)

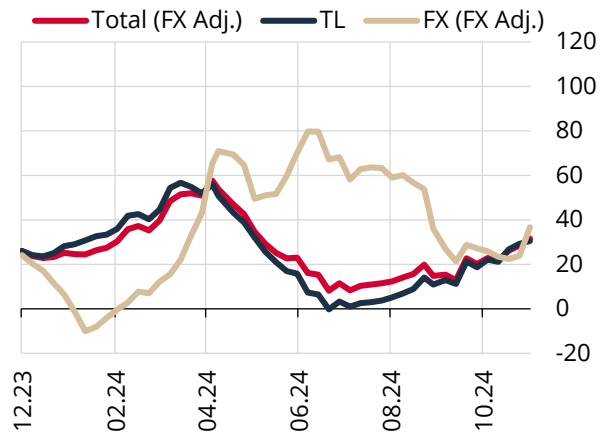
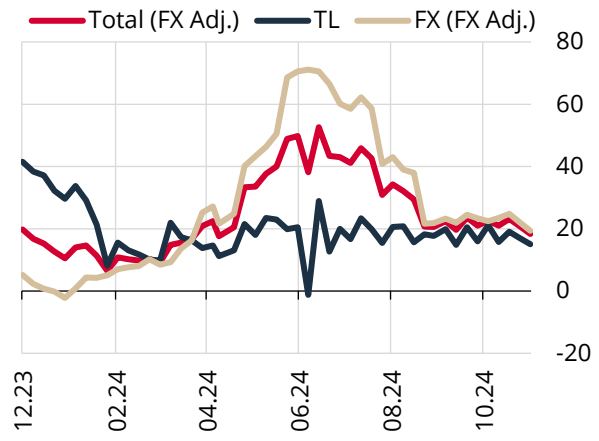


Chart IV.1.9: 13-Week Growth of Commercial Loans Extended to Large Firms (Annualized, %)



Source: CBRT Last Observation: 01.11.24

Note: FX-indexed loans are included in FX loans. FX-adjusted FX loan growth is the ratio of the sum of the Turkish lira equivalent of change in FX loans, measured by multiplying one-year FX (basket) loan change with the one-year average basket exchange rate, to the total loan balance 13 weeks ago.

Loan growth by currencies and bank groups reveals a more balanced picture.

The effects of limits on commercial loan growth can be seen through monthly growth realizations. Although some loan segments are exempted from the regulations on loan growth, it is clear that this practice has been effective, as monthly growth rates of Turkish lira and FX loans have recently moved in line with the

growth limits. This rebalancing was also seen across private and state-owned banks. Loan growth, which was previously dominated by state-owned banks, has recently become more evenly distributed (Charts IV.1.10, IV.1.11, and IV.1.12).

Chart IV.1.10: Commercial Loan Growth (4-Week, FX-Adjusted, %)

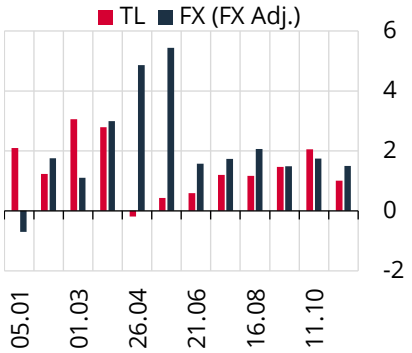


Chart IV.1.11: Turkish Lira Commercial Loan Growth (4-Week, %)

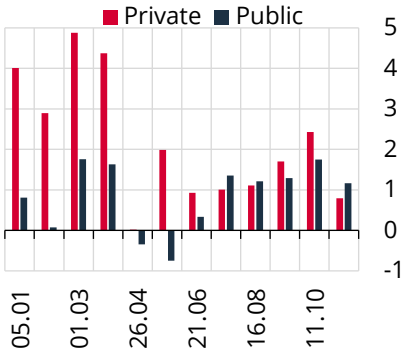
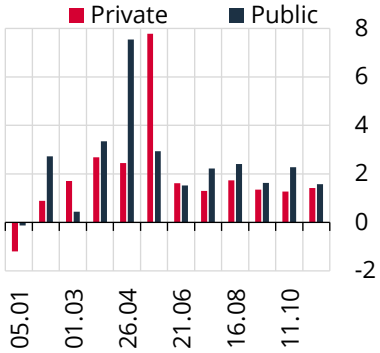


Chart IV.1.12: FX Commercial Loan Growth (4-Week, FX-Adjusted, %)



Source: CBRT Last Observation: 08.11.24

Note: FX-indexed loans are included in FX loans. FX-adjusted FX loan growth is the ratio of the sum of the Turkish lira equivalent of change in FX loans, measured by multiplying four-week FX (basket) loan change with the four-week average basket exchange rate, to the total loan balance four weeks ago. Based on the four-week RR liability period for the calculation of growth rates as per the regulation.

While Turkish lira commercial loans subject to regulation and exempted loans remained below the growth limit, exempted loan types in FX commercial loans continued to grow strongly.

Loans not subject to growth restrictions had a higher growth rate, which was more pronounced in FX loans (Charts IV.1.13 and IV.1.14). This indicates that the recent limit on FX loans has been binding to a large degree. FX loans have a significant cost advantage over Turkish lira loans, which drives the robust loan demand in this segment. However, due to the higher share of loan segments subject to growth limits in FX loans, total FX loan growth remains close to the growth limit. The share of loans subject to growth restrictions in total commercial loans is 56.7%, with 51.5% in Turkish lira commercial loans and 62.4% in FX commercial loans.

Chart IV.1.13: Turkish Lira Commercial Loan Growth (4-Week, %)

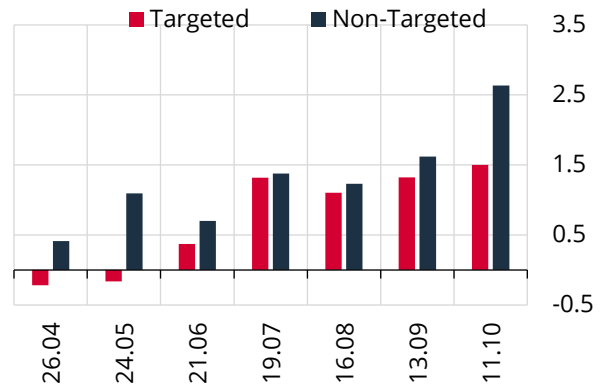
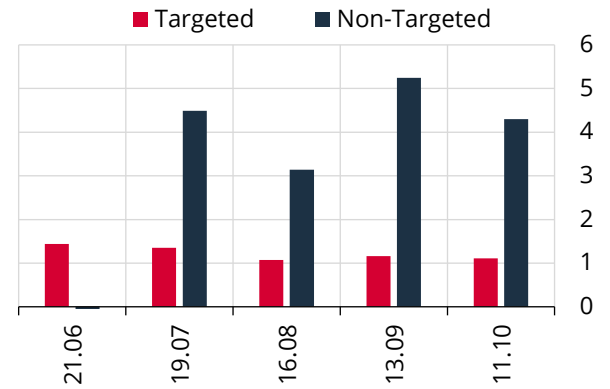


Chart IV.1.14: FX Commercial Loan Growth (4-Week, FX-Adjusted, %)



Source: CBRT Last Observation: 11.10.24

Note: Turkish lira loans not subject to growth restrictions include investment, export, agriculture, and tradesmen loans, and loans extended to the earthquake zone, public institutions and organizations and firms operating in the defense industry. FX loans not subject to growth restrictions include investment loans, and loans extended to the earthquake zone, domestic banks, public institutions and organizations, and firms operating in the defense industry. Based on the four-week RR liability period for the calculation of growth rates as per the regulation.

Retail loan growth is led by PCCs and general-purpose loans, while housing loans have recently rebounded.

It is important that retail loan growth to continue at a rate that will restore rebalancing in domestic demand. In the first quarter of 2024, the accelerated loan demand led to an increase in retail loan growth driven by credit cards and general-purpose loans. In the second quarter of 2024, retail loan growth weakened on the back of macroprudential measures and the tighter monetary policy stance. In the third quarter, the growth in PCC balance picked up slightly (Charts IV.1.15, IV.1.16, and IV.1.17).

Chart IV.1.15: Retail Loan Growth (%)

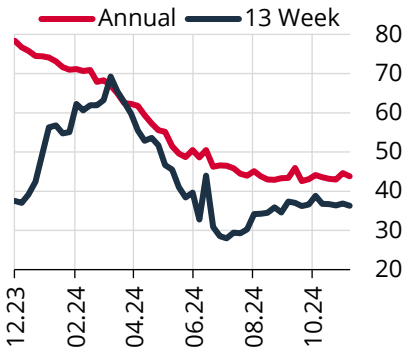


Chart IV.1.16: General-Purpose Loan Growth (%)

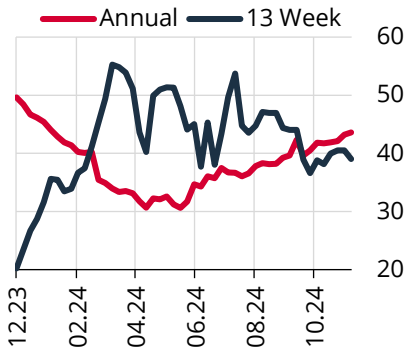
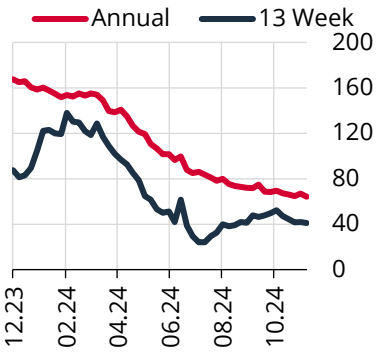


Chart IV.1.17: PCC Growth (%)



Source: CBRT
Last Observation: 08.11.24
Note: Annual series indicate 12-month loan growth, while 13-week series show annualized 13-week growth.

The 13-week growth rate dropped sharply below 10% in March following the lowering of the monthly growth limit for general-purpose loans excluding ODA to 2% and the introduction of a reserve requirement obligation for the excess amount and followed a moderate course thereafter. In the period when the growth rate of general-purpose loans excluding ODA slowed, ODA growth which has not subject to limit gained momentum (Chart IV.1.18).

On the other hand, the moderation in PCC growth was driven by cash advances and payment in installments. The use of cash advances weakened due to banks' restrictions on the amount of cash advances and the number of installments, as well as cash withdrawal interest rates remaining above the general-purpose loan rates. The 13-week growth of the installment-based PCC balance, which is more related to expectations and borrowing needs than the non-installment-based PCC, which is mainly used for payment purposes, hovered in negative territory for a while before edging up in the following period (Charts IV.1.19 and IV.1.20).

Chart IV.1.18: General-Purpose Loan Growth (13-Week, Annualized, %)

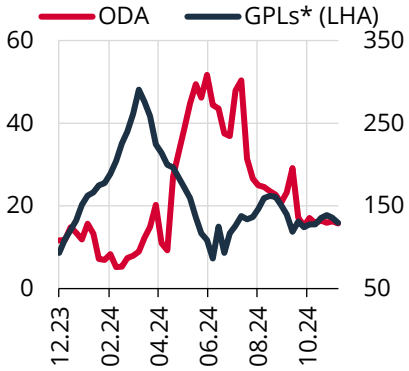


Chart IV.1.19: Growth in PCC Balance (3-Month, Annualized, %)

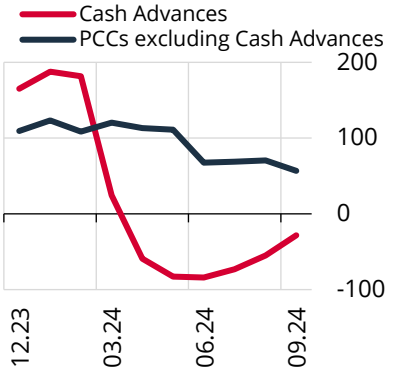
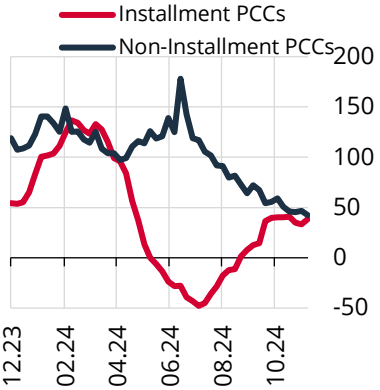


Chart IV.1.20: Growth in PCC Balance (13-Week, Annualized, %)



Source: CBRT
Last Observation: 08.11.24
Note: ODAs are excluded.

Recently, there has been an increase in both housing sales and the use of housing loans (Chart IV.1.21). The 13-week annualized growth rate of vehicle loans moved into negative territory amid ongoing tightening in macroprudential measures in addition to the 2% growth limit for vehicle loans. This trend was more pronounced in the last reporting period (Chart IV.1.22). Moreover, the growth in vehicle loans extended by financing companies has slowed in recent months after accelerating at the start of the summer period (Chart IV.1.23).

Chart IV.1.21: Housing Loan Growth (%)

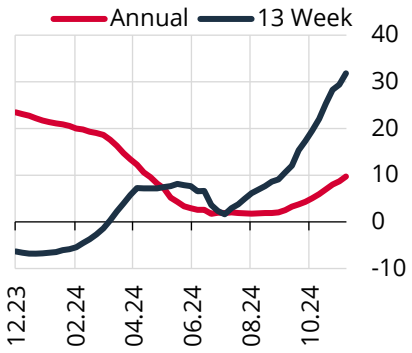


Chart IV.1.22: Banking Sector Vehicle Loan Growth (%)

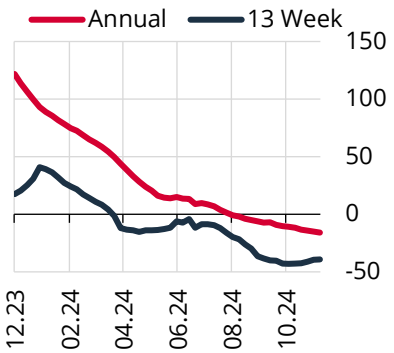
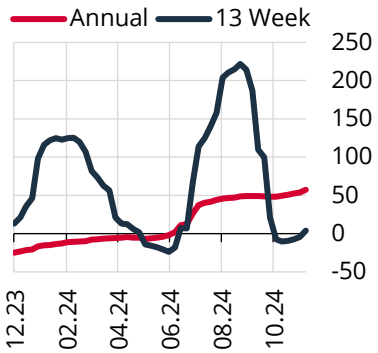


Chart IV.1.23: Financing Firms Vehicle Loan Growth (%)



Source: CBRT
Last Observation: 08.11.24

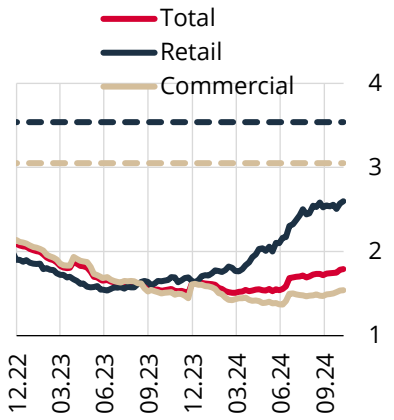
Note: Annual series indicate 12-month loan growth, while 13-week series show annualized 13-week growth. Vehicle loans are retail vehicle loans extended by the banking sector and financing companies.

IV.1.2 Credit Risk

The tightening in financial conditions had a limited impact on asset quality indicators.

The banking sector's total NPL ratio recorded a slight increase driven by the retail NPL ratio and reached 1.8%. Despite the uptrend in the retail NPL ratio, the NPL ratio remained below the historical average across all loan segments (Chart IV.1.24). When overdue Stage 2 loans are included in the NPL ratio, there is only a slight rise. Stage 2 loans follow a similar pattern to the NPL ratio, with retail loans mostly driving this increase. The increase in the ratio of Stage 2 retail loans was offset by the decline in the ratio of Stage 2 FX corporate loans. The Stage 2 loan ratio for FX corporate loans remained higher than that of other loan types until the second half of 2024. Following the 2018 exchange rate developments, difficult-to-repay and restructured FX loans were gradually withdrawn from close monitoring, which contributed to the decline in the related ratio. On the other hand, the ratio of Stage 2 retail loans has been rising since the second half of 2023 (Chart IV.1.25). The share of the sum of Stage 2 loans and NPLs in gross loans, a measure of total credit risk, remained flat throughout 2023 and edged up slightly to 9.4% as of the third quarter of 2024. The share of NPLs and overdue Stage 2 loans, another measure of credit risk, displays a similar trend (Chart IV.1.26).

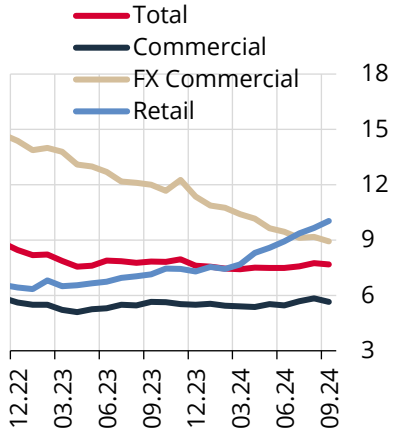
Chart IV.1.24: NPL Ratios (%)



Source: CBRT Last Observation: 08.11.24

Note: Dashed lines indicate the average of the relevant series for the 2012-2019 period.

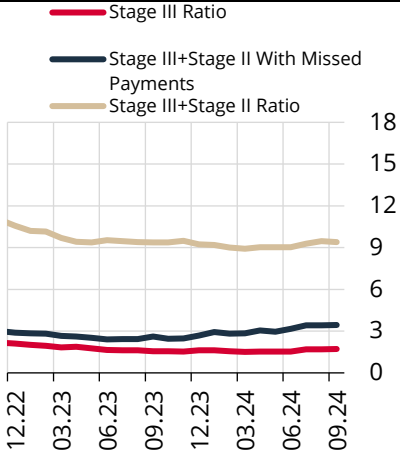
Chart IV.1.25: Ratio of Stage 2 Loans (%)



Source: CBRT Last Observation: 09.24

Note: Series show the ratio of Stage 2 loans to gross loans.

Chart IV.1.26: Asset Quality Outlook (%)

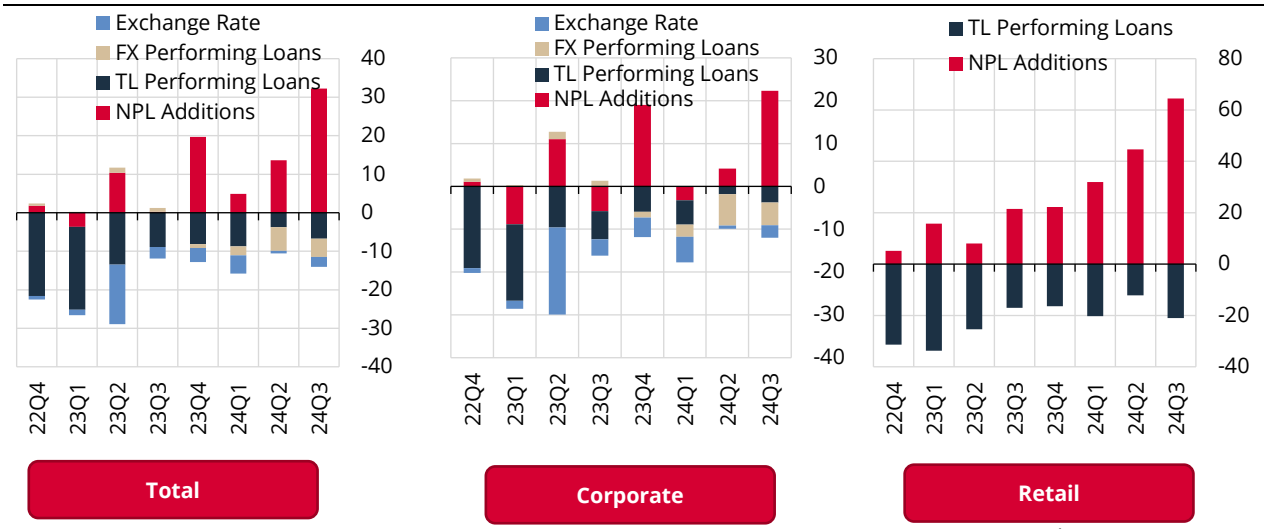


Source: CBRT Last Observation: 09.24

Note: Asset quality indicators are proportioned to gross loans.

An analysis of the factors contributing to the change in the total NPL ratio reveals that since the last quarter of 2023, the downward impact of loan growth and exchange rate hikes on the NPL ratio has diminished, while the upward impact of NPL additions has risen significantly. An analysis of the factors contributing to the change in the corporate NPL ratio indicates that in the first half of 2024, the increase in items making a downward contribution to the NPL ratio pushed the NPL ratio downwards, whereas by the third quarter, NPL additions started to have an upward impact on the NPL ratio. As for the change in the retail NPL ratio, the upward impact of NPL additions exceeded the denominator effect, driven by loan growth (Chart IV.1.27).

Chart IV.1.27: Contributions to the Change in NPL Ratios (3-Month Total Contributions, bps)



Source: CBRT Last Observation: 30.09.24

Note: Contributions show the total contribution amount in the relevant three months. For technical details on the methodology, see Financial Stability Report of November 2018, Box IV.1.I.

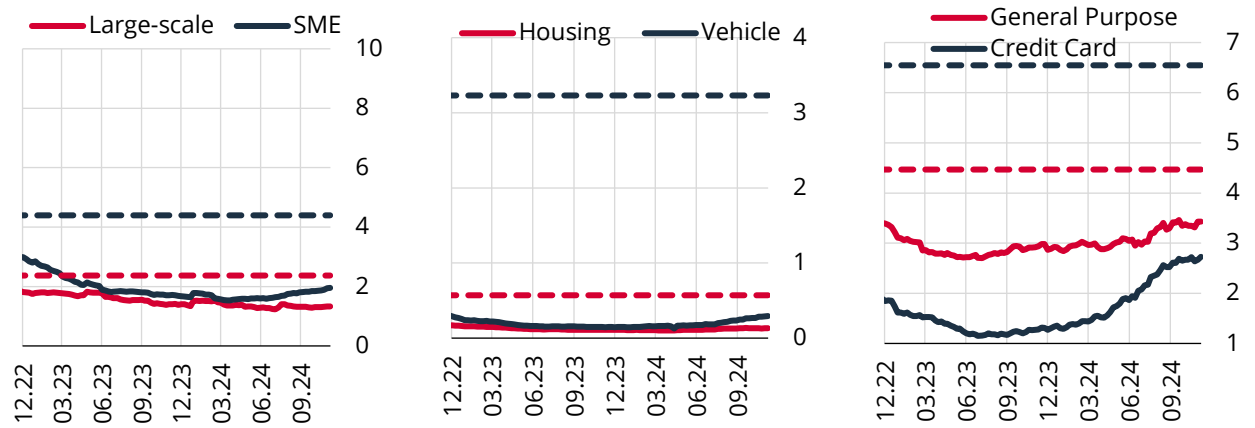
An analysis by loan segments reveals that while the increase in the retail NPL ratio was driven by credit cards, the regulation enabling the restructuring of credit card debts is expected to have a positive impact on the asset quality outlook.

Despite the rise in NPL additions, corporate and retail loan NPL ratios were still below their historical average. Having rather low NPL ratios due to their collateralized structures and regulations limiting credit risks such as loan-to-value ratio, the NPL ratios of housing and vehicle loans remained well below their historical average at 0.1% and 0.3%, respectively. The NPL ratios of general-purpose loans and PCCs, which were more quickly impacted by the financial tightening due to their shorter maturity structure than other retail loan types and their uncollateralized nature, increased to 3.4% and 2.7%, respectively, albeit staying below their historical average (Chart IV.1.28).

Using the PCC as a credit tool by delaying due payments appears to be more common among individuals with high debt balances. On the other hand, delaying due payments is less common for users with low debt balances who make up the majority of card users.[1] The CBRT encourages the reduction of credit card indebtedness by differentiating the maximum contractual interest rate for personal credit cards based on the debt balance. This practice may reduce the motivation of users with high debt balances to delay repayment. During the same period, the BRSA introduced a debt restructuring facility of up to 60 months for credit card debts with missed minimum payments and general-purpose loans with at least 30-day overdue payments. This regulation intends to minimize the impact of tightening policies on individuals who are already behind on their payments. These regulations aim to slow credit card debt accumulation and ease the cash flow of individuals having difficulties in repayment and are expected to curb the increase in the retail NPL ratio.

[1] CBRT Blog: Differentiation of Maximum Contractual Interest Rates for Personal Credit Cards Based on Balances

Chart IV.1.28: NPL Ratios in the Breakdown of Loan Types (%)



Source: CBRT Last Observation: 08.11.24

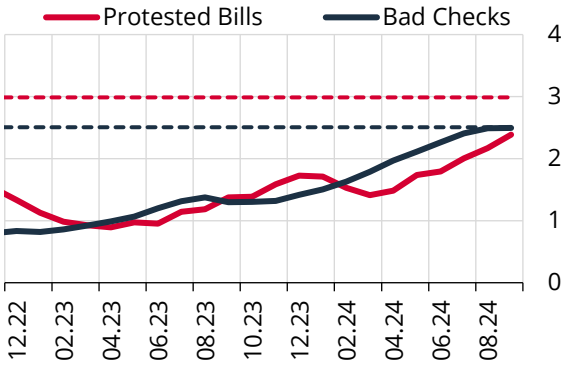
Note: Dashed lines indicate the average of the relevant series for the 2012-2019 period.

Overdue payments in checks and bills has a limited impact on the asset quality of the banking sector.

The ratio of bad checks to total checks submitted to banks increased from 1.3% in September 2023 to 2.4% in September 2024, while that of protested bills to commercial bills received for collection increased from 1.2% to 2.4% for the same period. Meanwhile, both of these ratios remained below their historical average (Chart IV.1.29). Even if firms delay on their commercial payments, their low indebtedness and strong liquidity enable them to pay off their loans to banks within the legal period and without turning into NPLs. This resulted in a limited reflection of the deterioration in leading indicators on the commercial NPL ratio.

This is also evident from the favorable trend in transitions between loan classifications for corporate loans. An analysis of the transition probabilities from Stage 1 to Stage 2 and from Stage 2 to NPL reveals that as of September 2024, the probability of a loan migrating from Stage 1 to Stage 2 and from Stage 2 to NPL has fallen significantly compared to the 2019 average. The probability of transition from Stage 1 to Stage 2 and from Stage 2 to NPL has edged up for commercial loans compared to the 2023 average (Chart IV.1.30). Accordingly, there remains a limited risk of deterioration in commercial loan quality.

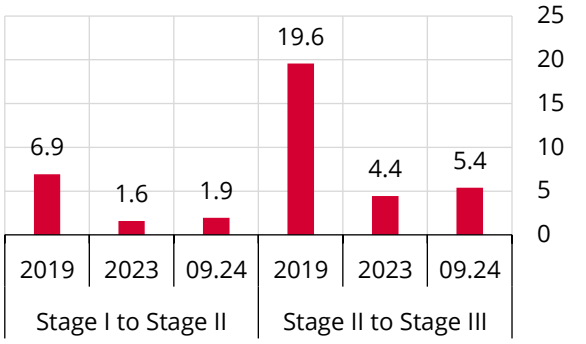
Chart IV.1.29: Ratios of Protested Bills and Bad Checks (3-Month MA, %)



Source: CBRT Last Observation: 09.24

Note: Denotes the ratio of bad checks to total checks submitted to banks and the ratio of protested bills to commercial bills collected. Dashed lines indicate the average of the 2014-2022 period.

Chart IV.1.30: Transition Probabilities (Commercial Loans, %)



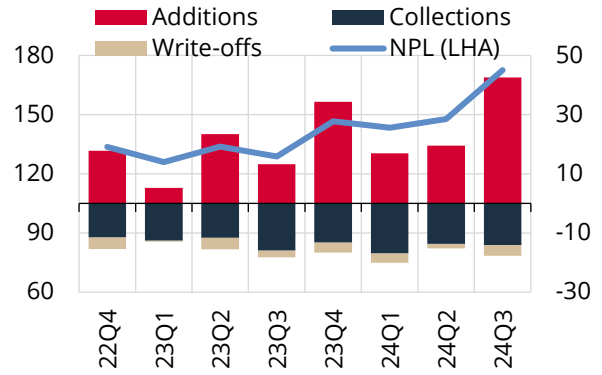
Source: CBRT Last Observation: 09.24

Note: The transition probability from Stage 1 to Stage 2 is estimated as the ratio of the loan amount migrating from Stage 1 to Stage 2 a year ago to the Stage 1 loan balance a year ago. The transition probability from Stage 2 to NPL is estimated as the ratio of the loan amount migrating from Stage 2 to NPL a year ago to the Stage 2 loan balance a year ago.

The ratio of NPL collections to additions remained on a downward trend.

Collections from corporate NPLs remained flat, while NPL additions picked up slightly in the third quarter of 2024. This uptick pushed the NPL balance in corporate loans up to TRY 172 billion. In the third quarter of 2024, additions slightly outpaced collections, and the collections-to-additions ratio fell but stayed slightly below the long-term average (Chart IV.1.31-32). The mild increase in corporate NPL additions is consistent with tight financial conditions and the rebalancing in demand conditions.

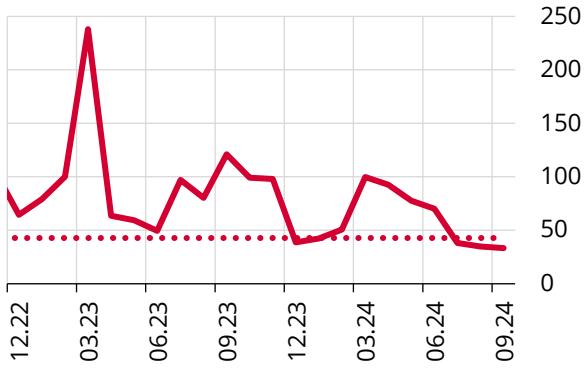
Chart IV.1.31: Components of Corporate NPL Balance (Billion TRY)



Source: CBRT Last Observation: 09.24

Note: Series for collections and additions are based on three-month totals. An outlier was excluded from the data for 2022. Additions are calculated by subtracting the migrations to performing loans from new NPL additions.

Chart IV.1.32: Corporate Collections/Additions Ratio (%)

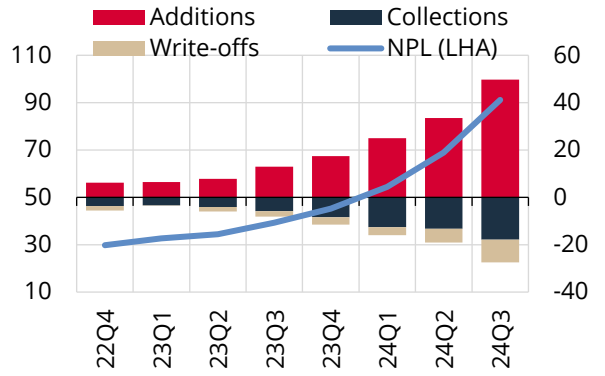


Source: CBRT Last Observation: 09.24

Note: The Collections/Additions ratio is calculated as the ratio of three-month total NPL collections to three-month total net NPL additions. The dashed line indicates the average of the relevant series for the 2014-2019 period. An outlier was excluded from the data for 2022. Additions are calculated by subtracting the migrations to performing loans from new NPL additions

In retail loans, new NPL additions remained significantly above NPL collections and asset write-offs. As of the second quarter of 2024, additions grew at a faster pace, and the retail NPL balance soared (Chart IV.1.33). The ratio of retail NPL collections to additions dropped below the long-term average amid increased additions (Chart IV.1.34). While this points to continued net NPL formation in the retail segment, the BRSA's restructuring program for overdue PCC debts is expected to somewhat slow this trend.

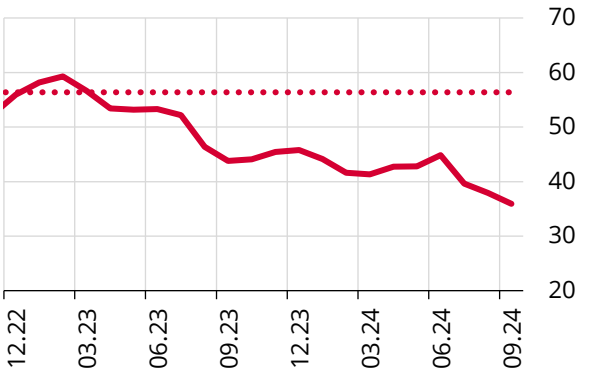
Chart IV.1.33: Components of Retail NPL Balance (Billion TRY)



Source: CBRT Last Observation: 09.24

Note: Series for collections and net additions are based on three-month totals. Additions are calculated by subtracting the migrations to performing loans from new NPL additions.

Chart IV.1.34: Retail Collection/Addition Ratio (%)



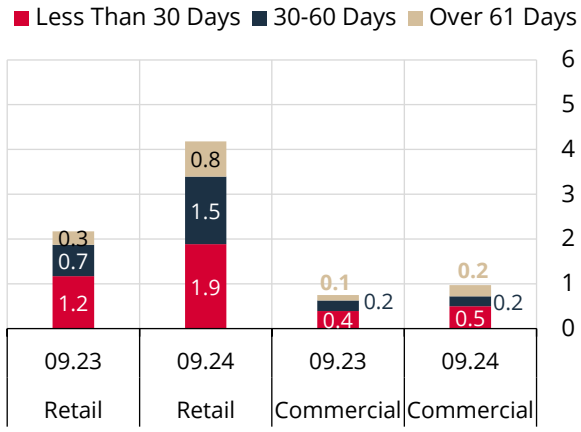
Source: CBRT Last Observation: 09.24

Note: The Collections/Additions ratio is calculated as the ratio of three-month total NPL collections to three-month total NPL additions. Dashed line indicates the average of the relevant series for the 2014-2019 period. Additions are calculated by subtracting the migrations to performing loans from new NPL additions.

The ratio of overdue retail loans further increased, while that of commercial loans remained relatively flat.

Banks have been using the TFRS-9 standard for loan classification since 2018, and even if the loans are not past due, they monitor them under Stage 2 if their models suggest a significant increase in credit risk. Accordingly, 78% of Stage 2 loans are not overdue but classified under Stage 2 loans due to a significant increase in credit risk based on banks' TFRS-9 models. As of September 2024, the ratio of overdue loans in the commercial segment went up by 0.2 percentage points year-on-year to 1%. Meanwhile, the ratio of overdue retail loans rose by 2 percentage points year-on-year to 4.2%. The ratio of overdue loans increased across all delinquencies in retail loans (Chart IV.1.35). A breakdown of retail loans reveals that the default rate went up for general-purpose loans and credit cards (Chart IV.1.36). The restructuring facility provided for overdue general-purpose loans and PCC debts is expected to slow the increase of overdue loans.

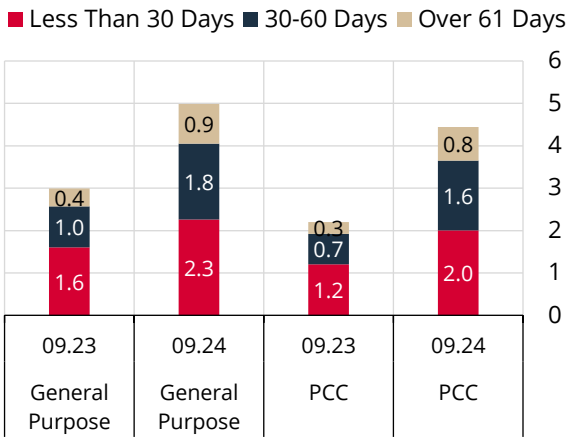
Chart IV.1.35: Ratio of Overdue Loans (%)



Source: CBRT Last Observation: 09.24

Note: The chart shows the ratio of overdue Stage 2 loans to gross loans.

Chart IV.1.36: Ratio of Overdue Loans (%)



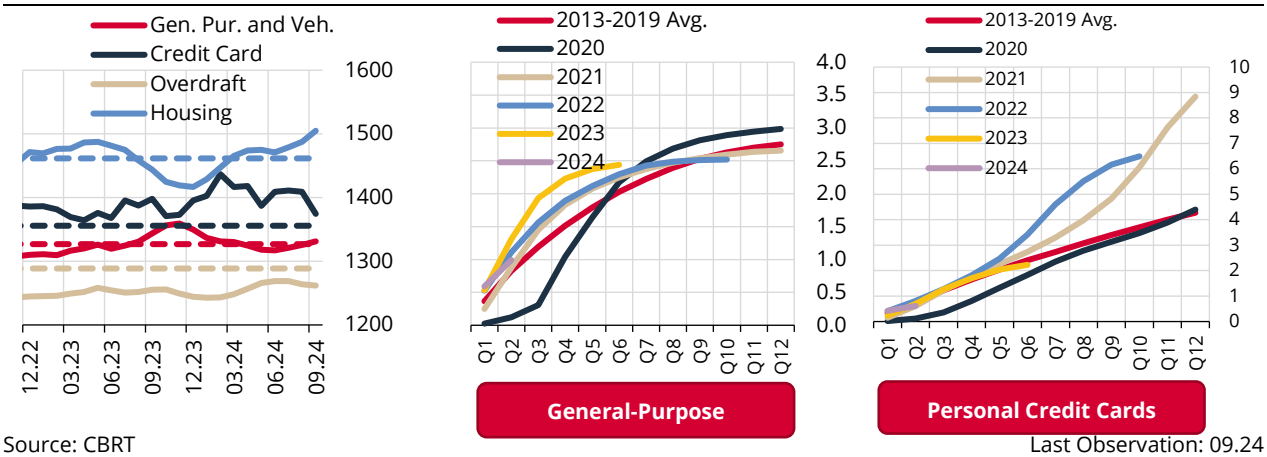
Source: CBRT Last Observation: 09.24

Note: The chart shows the ratio of overdue Stage 2 loans to gross loans.

Credit ratings for retail loan applications have improved.

As of 2024, the weight of customers with high credit ratings increased in applications for housing loans, ODAs and PCCs, and the average credit rating of customers applying for PCCs and housing loans surpassed the historical average (Chart IV.1.37). The conversion performance of general-purpose loans and PCCs to NPL starting from the year of disbursement can be monitored by aging analysis. Accordingly, the NPL performance of general-purpose loans extended in 2020, during the pandemic, negatively diverged, starting from the fifth quarter. The conversion ratio of loans extended to NPLs has been improving since 2023, while 2021 and 2022 show a negative divergence from other years for personal credit cards.

Chart IV.1.37: Personal Credit Rating and Aging Analysis



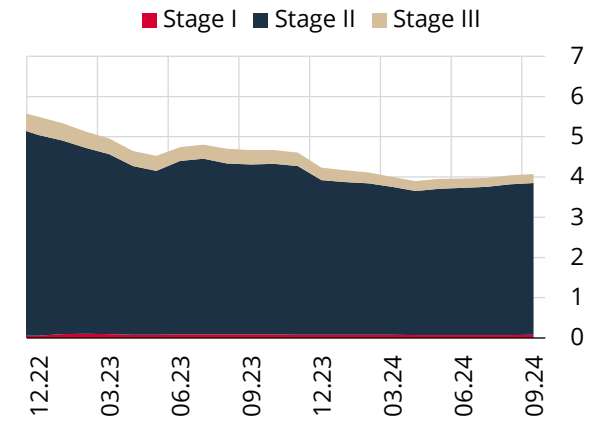
Source: CBRT Last Observation: 09.24

Note: Personal credit rating indicates the average credit rating of applicants in the respective period. Based on a 3- month moving average. Dashed lines show the average of January 2020-September 2024 period. Aging analysis shows the cumulative development of NPL ratios for loans extended in the respective year across quarters. The figures are expressed as percentages.

The restructured loan ratio remains flat, while banks preserve their policy of high provisioning against potential loan losses.

Loans were restructured to provide flexibility in cash management for firms with increased credit riskiness in 2019 and throughout the pandemic. As the need for restructuring reduced, and firms' liquidity strengthened after the pandemic, the restructured loan ratio took a downtrend and remained flat at 4.1% in the recent period (Chart IV.1.38). Among the restructured loans, 93% are monitored under Stage 2, 5% under NPL, and only a very limited portion under Stage 1. The banking sector prudently allocates high provisions for restructured loans. Provision ratios for Stage 1 and Stage 2 loans and NPLs are 0.6%, 18.5%, and 75.4%, respectively (Chart IV.1.39). The provision ratio for restructured Stage 2 loans is 25.8%, which is higher than that of other Stage 2 loans (11.5%). The high provisioning by banks in a period of strong loan repayments may limit the impact of potential loan collection issues on banks' balance sheets and profitability in the upcoming period.

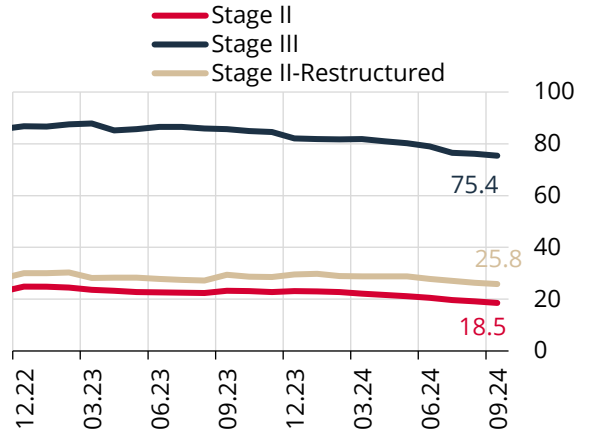
Chart IV.1.38: Restructured Loans (%)



Source: CBRT Last Observation: 09.24

Note: Series show the ratio of restructured loans to gross loans. Stage 1: Ratio of restructured loans monitored under standard loans. Stage 2: Ratio of restructured loans under closely-monitored loans.

Chart IV.1.39: Expected Loss Provisioning Ratio (%)



Source: CBRT Last Observation: 09.24

Note: Expected loss provisioning ratio is the ratio of the expected loss provision of the loan in the related category to the loan amount in that category.

Box IV.1.I: Impact of the Regulation on TL Commercial Loan Growth on Loan Interest Rates

The monetary tightening process initiated with the rate hike in June 2023 was supported by loan growth limits and quantitative tightening steps to strengthen the monetary transmission mechanism. In the first quarter of 2024, Turkish lira (TL) commercial loan growth accelerated due to the deterioration in expectations. In order to stabilize the acceleration in loan growth and support monetary tightening, additional tightening was implemented in March, and the TL commercial loan growth limit was lowered from 2.5% to 2%. Moreover, for cases where banks exceeded the relevant loan growth limit, a reserve requirement obligation was introduced as a more effective deterrent, instead of the securities maintenance obligation.[1] This box analyzes the tightening effect of the regulation introduced in March on TL commercial loan rates in a breakdown by banks and loan types. In addition, the sensitivity of this effect to loan demand is empirically tested. The findings suggest that the regulation may have a tightening effect for banks with a high loan appetite and this effect becomes more pronounced during the months when loan demand is brisk, with the growth limits acting as an insurance against excessive loan demand.

Change in Interest Rates at Bank and Loan Type Level

This study takes into account the growth rates of TL commercial loans subject to the growth restriction over the eight-month period (March-October 2024) following the introduction of the regulation. Banks with monthly loan growth rates between 1.5% and 2% for the majority of this period (at least five out of eight months) are classified as **banks with a loan growth close to the limit** imposed by the regulation, while banks with monthly loan growth rates below 1.5% are classified as **other banks**.[2] In addition, state-owned banks, participation banks and development-investment banks are excluded from the analysis to minimize the differences that may arise due to banks' capital structures, scales and business models. Accordingly, a total of 10 banks that meet these criteria, composed of five "close-to-the-limit banks" "banks close to the limit" and five "other banks", have been identified and included in the sample. These banks have similar characteristics in terms of bank ownership, scale and business model. The monthly growth behavior of the banks in the sample is shown in Table IV.1.I.1.

Table IV.1.I.1: Classification of Banks According to Loan Growth Subject to the Limit

Bank Class	Banks	03.24	04.24	05.24	06.24	07.24	08.24	09.24	10.24	Avg. Monthly Growth
Banks Close to the Limit	L1									1.7
	L2									1.6
	L3									1.8
	L4									1.7
	L5									1.7
Other Banks	O1									0.9
	O2									0.2
	O3									0.7
	O4									-0.5
	O5									0.9

Source: CBRT Last Observation: 11.10.24

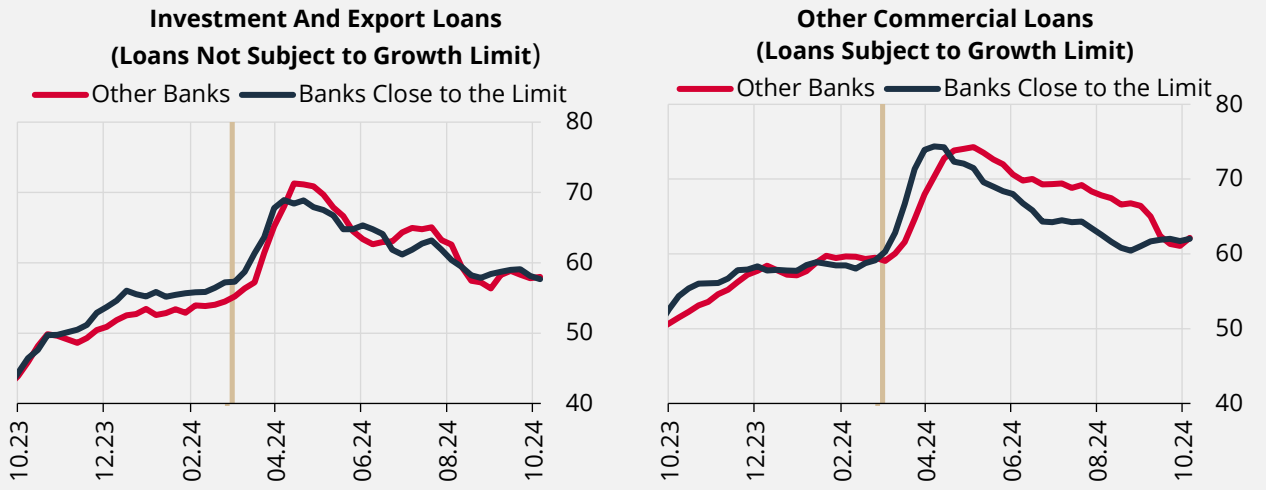
Note: The red coloring in the table indicates that the relevant bank's monthly loan growth ranges between 1.5% and 2%, the beige coloring indicates that the relevant bank's monthly loan growth is below 1.5%, and the blue coloring indicates that the monthly loan growth of the relevant bank is above 2%. The classification of sample banks as "close-to-the-limit" or "other" is based on their weighted loan growth over at least five months out of the eight months between March and October. This approach is called the "static approach" since it treats bank behavior as weighted period behavior. The "Avg. Monthly Growth" column shows each bank's eight-month average loan growth rate.

[1] TL commercial loans that are not subject to the growth limit under this regulation include investment, export, agricultural and tradesmen loans as well as loans extended to the earthquake zone, public institutions and organizations, and companies operating in the defense industry. When the four-week growth rate of loans subject to the limit exceeds 2%, the excess amount is held at the CBRT as TL required reserves in blocked accounts for one year.

Table IV.1.I.1 demonstrates that banks in the close-to-the-limit group had a higher loan appetite than other banks in the eight-month period between March and October, and their average monthly loan growth in the 1.5%-2% band (shown in red in the table) was close to the regulatory limit. In fact, the last column in the table shows that the eight-month average loan growth of these banks was in the 1.6%-1.8% range. These banks are assessed to have a motivation for higher loan growth compared to other banks but have kept their loan growth below 2% due to the growth limit regulation, and thus have been directly affected by the regulation.

In the first stage of the analysis, the change in TL commercial loan rates of the banks in the sample over the period from October 2023 to October 2024 is analyzed in a breakdown by loans not subject to the growth limit (investment and export loans) and loans subject to the growth limit (other commercial loans) (Chart IV.1.I.1).[3] Accordingly, the interest rates on investment and export loans of the two bank groups in the sample have not diverged after the regulation and have generally stood at similar levels. On the other hand, interest rates on TL commercial loans subject to the growth limit have diverged after the regulation. In fact, interest rates on loans subject to the growth limit in the two banking groups, which were at similar levels before the introduction of the regulation in March, started to diverge after the regulation, and this divergence continued until September 2024. This divergence can be attributed to the interest rate reductions by banks to achieve relatively higher loan growth.[4]

Chart IV.1.I.1: TL Commercial Loan Rates by Bank Groups and Loan Types (%, 4-Week MA)



Source: CBRT Last Observation: 11.10.24

Note: Calculations exclude corporate ODA, corporate credit cards, and zero-interest loans. The vertical line marks the month of March when the reserve requirement obligation based on loan growth was introduced.

In the second stage of the analysis, we analyze the change in the spread between the interest rates applied to loans subject to the growth limit and the interest rates applied to loans not subject to the growth limit by banks with a loan growth close to the limit that we assess to be affected by the regulation (Chart IV.1.I.2). Our analysis of the interest rate spread indicates that loan demand conditions are also influential in the strengthened effect of the regulation and that banks limit their monthly loan growth to 2% by applying higher interest rates to other TL commercial loans subject to the limit, particularly in periods of high loan demand. In this context, the interest rate spread for banks with a close-to-the-limit loan growth increased in March and April when demand for TL commercial loans was strong, decreased in the summer months when loan demand declined, and slightly widened again in September and October when loan demand revived.[5] Thus, the regulation on loan growth limits is assessed to have led the banks

[2] Banks with a loan/paid-in capital ratio below 3, which are exempt from the regulation, and small and medium-sized banks that benefit from quantitative reductions are not included in the sample.

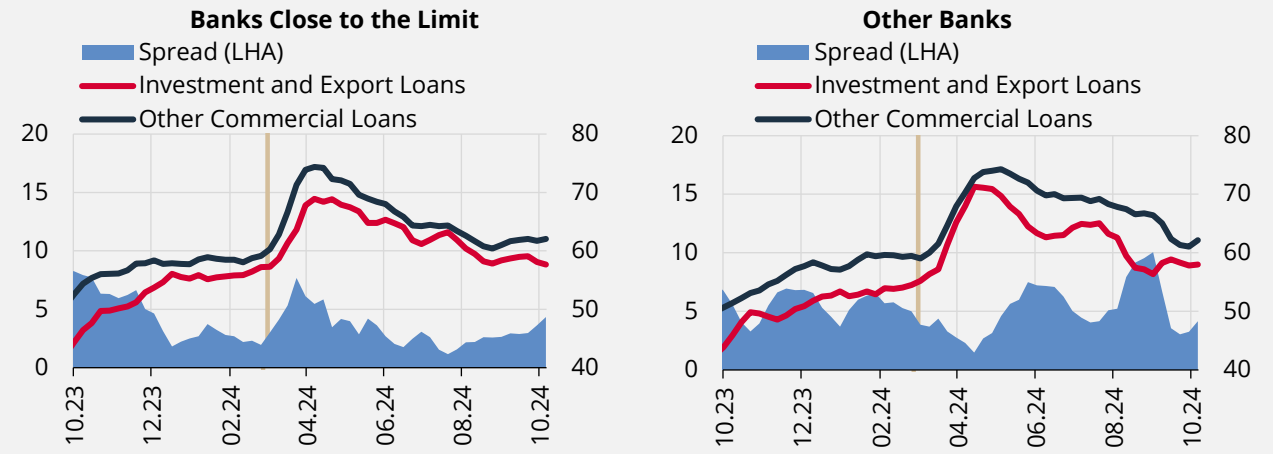
[3] Since it is not healthy to access interest rate data for all loans that are not subject to growth limit, investment and export loans with reliable access to interest rate data were examined within this group.

[4] The closing of the gap between the affected group and the control group in loans subject to the growth limit in September and afterwards is attributed to the fact that the risk appetite of the banks in the control group also started to increase in September and that these banks achieved high TL loan growth.

[5] The average monthly TL commercial loan growth was 2.1% in March-April, 0.8% in May-August, and 2% in September-October. Total TL commercial loan growth rates, bank representatives' opinions, and survey findings imply that TL commercial loan demand was quite buoyant in the March-April and September-October periods.

with high loan growth motivation to widen the interest rate spread of loans subject to the limit to keep their monthly TL loan growth below 2% during periods of high loan demand. However, in the "other banks" group, the interest rate spread is generally wide and follows a volatile course regardless of demand conditions. This may be related to the fact that these banks have lower motivation for growth in loans subject to the limit, independent of demand conditions.

Chart IV.1.I.2: Interest Rate Spread Between TL Commercial Loans Subject to and Not Subject to the Growth Limit (% Points, 4-Week MA)



Source: CBRT

Last Observation: 11.10.24

Note: Interest Rate Spread=Interest Rate on Loans Subject to Growth Limit – Interest Rate on Loans Not Subject to Growth Limit. Calculations exclude corporate ODA, corporate credit cards, and zero-interest loans. The vertical line marks the month of March when the reserve requirement obligation based on loan growth was introduced.

Empirical Findings

Lastly, a regression analysis is conducted to test the direction of the post-regulation change in the interest rate spread between the two loan types in banks with a loan growth close to the limit and other banks. In the regression analysis, data at the bank-time level is used for the eight-month period between March and October 2024, and the interest rate spread ($Interest\ Rate\ Spread_{it}$) between loans subject to and not subject to the growth limit across 10 banks is included as the dependent variable in the regression:

$$Interest\ Rate\ Spread_{it} = \beta_0(Affected_i) + \beta_1(Demand_t\ x\ Affected_i) + \delta_i + \varepsilon_{it}$$

The variable ($Affected_i$), which indicates the existence of the regulation's effect on banks, is defined as a dummy variable at 1 for banks with a loan growth close to the limit and at 0 for other banks. The dummy variable $Demand_t$ is added to the model with a value of 1 for March, April, September and October, when loan demand was high after the regulation. Lastly, bank fixed effects (δ_i) are also included in the model to control for bank-specific effects. Thus, the parameter β_1 attached to the term ($Demand_t\ x\ Affected_i$) indicates how the interest rate spread in banks with a close-to-the-limit loan growth changed compared to the interest rate spread of other banks during periods of high demand after the regulation took effect. In the regressions, we use both the static approach, where we treat bank behavior as weighted period behavior (based on the situation in at least five of the eight months), and the dynamic approach, where we reclassify banks according to their loan growth for each month and where banks in the close-to-the-limit growth/other groups can change for each month.

Table IV.1.I.2: Regression Results

	Static Approach	Dynamic Approach	
	Model 1	**Model 2**	**Model 3**
Demand * Affected	2.494*** (0.844)	1.861** (0.821)	2.933*** (0.959)
Affected	-	-	-2.147*** (0.952)
Bank Fixed Effect	Yes	Yes	Yes
Sample Period	03.24 - 10.24	03.24 - 10.24	03.24 - 10.24
Sample Bank Coverage	Close to the Limit, Other	Close to the Limit, Other	Close to the Limit, Other

Source: Author's calculations

Note: Standard deviations clustered at the bank level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. In the dynamic approach, the behavior of banks in each month is specifically analyzed regardless of their average behavior between March and October. In other words, based on their behavior in each period, banks may be included in the group of "banks with a loan growth close to the limit" in a month, and in the "other banks" group in the following month.

The results of Model 1 show that banks with a loan growth close to the limit increased the interest rate spread by 2.49 points during the months of high demand after the growth limit regulation, compared to other banks and the months of low demand (Table IV.1.I.2). In the dynamic approach, the same case is analyzed in Model 2, finding that banks with a loan growth close to the limit increased the interest rate spread by 1.86 points, similar to the static approach. In Model 3, with 1% significance, it is found that banks with a loan growth close to the limit reduced the interest rate spread by 2.15 points in months of low demand and increased it by 2.93 points in months of high demand, compared to other banks.[6]

To conclude, loan growth motivation of banks and loan demand conditions may also determine how the 2% growth limit imposed on TL loan growth in March 2024 as part of the tightening steps affects loan interest rates. The impact of the regulation was particularly evident during the months of strong demand, and loan growth was kept within limits by widening the affected banks' interest rate spread between loans subject to the limit and loans not subject to the limit. As a matter of fact, the interest rate spread widened in March, April, September and October when loan demand was relatively strong, while it narrowed in the May-August period when loan demand was low. In sum, the findings of the study suggest that the regulation has had a tightening effect on interest rates during periods of high loan demand and acted as an insurance against excessive loan demand.

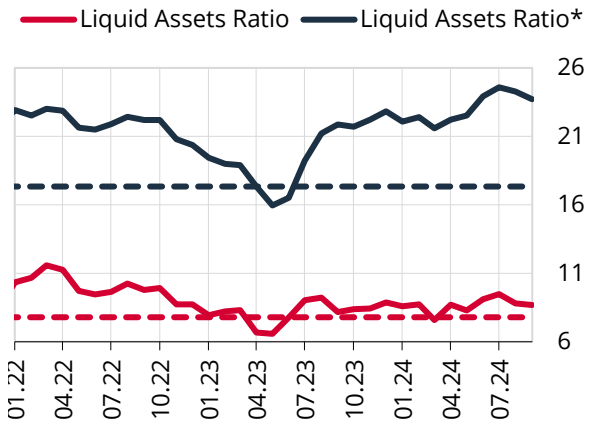
[6] To provide a more accurate interpretation of the regression coefficients, estimated average interest rate spreads (margins) by demand and bank type are obtained. Accordingly, for example, in Model 2, the average interest rate spread is 3.18 points for control group banks, whereas it falls to 1.59 points for affected banks during the months when loan demand is weak. On the other hand, during the months of strong demand, the interest rate spread increases to 4.58 points for the control group banks, while it remains slightly lower (at 4.47 points) for the affected banks.

IV.2 Liquidity Risk

The share of liquid assets in banking sector assets hovers above its historical average.

Having declined somewhat in the first quarter of 2024, the liquid assets ratio (excluding RRs) picked up both in the second and third quarters and hovered above its historical average. Meanwhile, the liquid assets indicator including RRs was well above its historical average (Chart IV.2.1). Following the CBRT's adjustments to the RR ratios as part of the active management of excess liquidity in the system, the liquidity ratio reached an elevated level along with the increased RR balance. In the relevant period, the free account balance at foreign correspondent banks and the unencumbered GDS portfolio had an upward effect on the liquid assets ratio excluding RRs (Chart IV.2.2). In this period marked by excess liquidity, the unencumbered GDS balance expanded amid banks' reduced need for funding from the CBRT. On the other hand, swap transactions with the CBRT declined while banks' FX placements abroad went up, driven by the search for return on FX assets. Banks' FX account balances at foreign correspondent banks climbed by USD 4 billion from the end of May to the end of September and reached USD 18.5 billion, as a result, the foreign banks (free) ratio rose above its historical average.

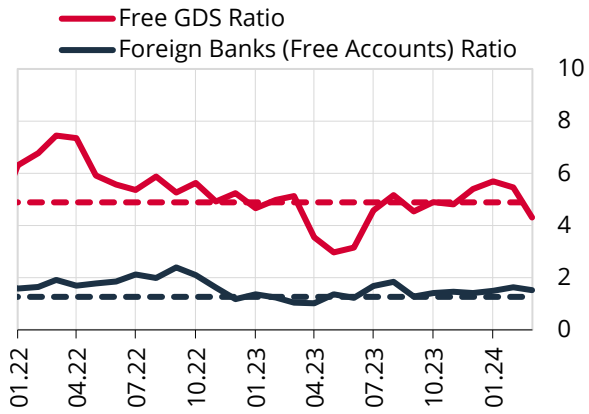
Chart IV.2.1: Share of Liquid Assets (%)



Source: CBRT Last Observation: 09.24

Note: Liquid Assets Ratio = (Cash Reserves + Free Accounts at Foreign Banks + Unencumbered GDS + Reverse Repo Receivables + Takasbank and BIST Interbank Market) / Assets. Liquid Assets Ratio* = (Cash Reserves + Free Accounts at Foreign Banks + Unencumbered GDS + Required and Free Reserves) / Assets. Dashed lines represent the average of each series between 2014 and 2021.

Chart IV.2.2: Share of Selected Liquid Items (%)



Source: CBRT Last Observation: 09.24

Note: Unencumbered GDS Ratio= Government Debt Securities Not Subject to Collateral /Assets. Foreign Banks (Free) Ratio = Free accounts at Foreign Banks / Assets. Dashed lines represent the average of each series between 2014 and 2021.

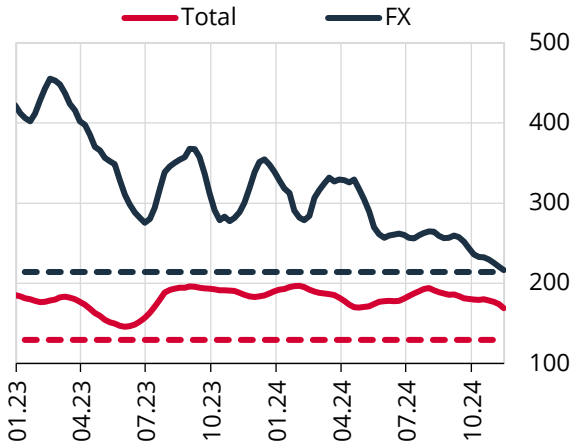
Alternative indicators confirm the positive outlook in banks' liquidity structure.

Liquidity coverage ratios (LCR), which are indicators of banks' ability to meet net cash outflows within 30 days with high-quality liquid assets, remain above legal limits and their historical average (Chart IV.2.3). The banking sector's liquid assets are capable of meeting possible short-term cash outflows in both TL and FX. The increase in TL liquidity in the system due to the rising demand for TL assets since April 2024 has reduced the banks' need for swap transactions with the CBRT. Net cash inflows from swap transactions in the short-term window and FX LCR declined as a result of using liquidity in swap transactions to fund FX loans. Nevertheless, this indicator is still above both the legal limit and its historical average.

The TL loan-to-deposit ratio (LDR), one of the key liquidity indicators of the banking sector, remained flat at low levels (Chart IV.2.4). The flat course was attributable to strong TL deposit growth and moderate loan growth on the back of the tight monetary policy stance as well as macroprudential measures. After hitting a historic low in 2023, the total LDR ratio rose slightly to 80% in 2024. The increase in FX loan growth in this period was the main driver of the uptick in the LDR ratio, which halted with the introduction of macroprudential measures to

restrain FX loan growth. Liquidity indicators suggest that deposits, a stable funding source, have grown in importance in banks' funding composition and that banks have strong liquidity buffers against possible shocks.

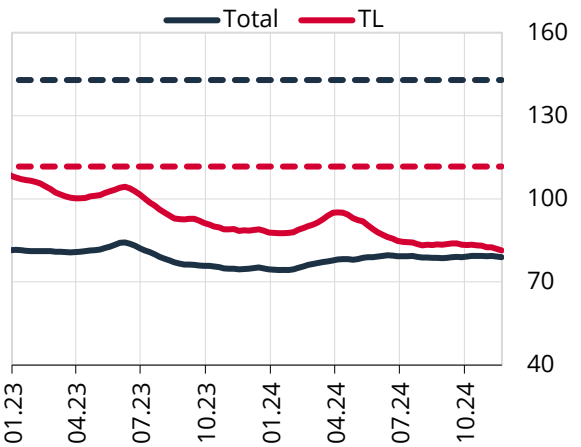
Chart IV.2.3: Liquidity Coverage Ratios
(4-Week MA, %)



Source: CBRT Last Observation: 08.11.24

Note: Development and investment banks (DIBs) are excluded. Based on unconsolidated reports of banks. Minimum legal limits for total and FX LCR are 100% and 80%, respectively. Dashed lines represent the average of each series between 2014 and 2021.

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



Source: CBRT Last Observation: 08.11.24

Note: DIBs are excluded. Loans extended to banks and bank deposits are not included. Dashed lines represent the average of respective ratio between 2014 and 2021.

The CBRT effectively manages excess TL liquidity, primarily through reserve requirements and deposit buying transactions.

Capital inflows, falling RRs as a result of the reduction in KKM, the continued transition to TL deposits, FX transactions by the CBRT, and TL-denominated transactions by the Treasury all led to excess liquidity in the system (Chart IV.2.5). The RR ratio to be maintained in TL was raised for TL deposits and KKM accounts in May and for TL deposits in September in order to sterilize excess liquidity in the system and to ensure that overnight money market rates materialize around the policy rate (Chart IV.2.6). When managing excess liquidity in the system, the CBRT also takes into account the distribution of liquidity within the system as well as the concentration of money market funds driven by investment preferences. The CBRT's overnight transactions at the BIST Repo-Reverse Repo Market and the Interbank Money Market and TL deposit buying auctions as part of the additional liquidity sterilization measures announced at the May MPC meeting, as well as the shrinking CBRT swap stock, all helped to manage market liquidity. Moreover, the CBRT's depo transactions at Takasbank Money Market curbed the downward impact of excess liquidity on market rates.

The high level of TL liquidity in the market, the rising demand for TL savings, and the improving expectations may occasionally exert downward pressure on TL deposit rates. Meanwhile, the CBRT's liquidity measures, amendments to the remuneration and commission rates applied to RRs, and adjustments to the TL deposit share targets strengthen the monetary transmission by maintaining the level of the TL deposit rate in line with the policy rate. While short-term interest rates in the market fluctuate within the interest rate corridor depending on liquidity conditions in the market, the compound interest rate on a flow basis on time deposits with a maturity of 1-3 months, which is a determinant of TL deposit preference, has remained flat at around 60% in the recent period. In addition to the policy rate, liquidity in the market, and macroprudential policies, inflation and exchange rate expectations also influence the course of TL deposit rates (Chart IV.2.7).

Chart IV.2.5: CBRT Funding (Trillion TL)

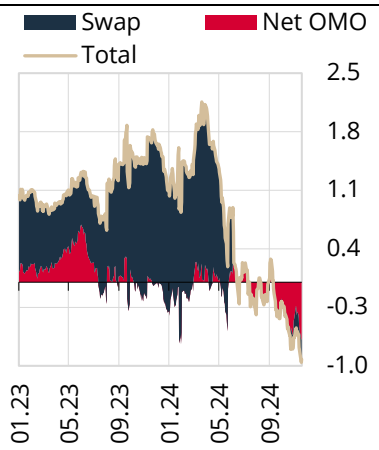


Chart IV.2.6: Turkish Lira RRs (14-Day MA, Trillion TL)

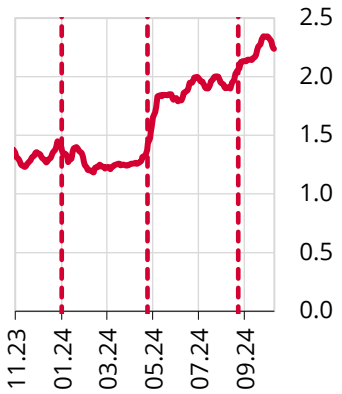
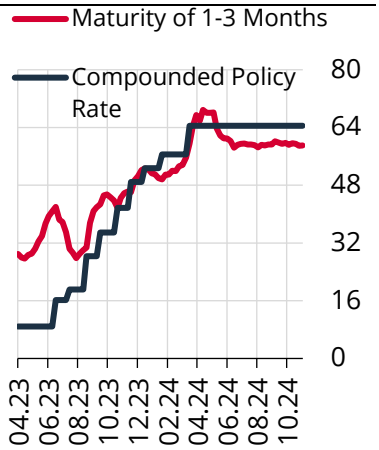


Chart IV.2.7: TL Deposit and Policy Rates (%)



Source: CBRT

Last Observation: 08.11.24

Note: Dashed lines represent the RR decisions taken on January 30, 2024, May 23, 2024, and September 21, 2024, regarding the TL deposit and KKM accounts. TL deposit and policy interest rates are annual compounded rates.

While the share of TL deposits in total deposits rose steadily, that of the KKM accounts declined to 7%.

The current tight monetary policy and the regulations that encourage the transition from KKM to TL deposits and aim to increase the share of TL deposits continue to support the preference for TL. Meanwhile, the improvement in inflation and exchange rate expectations further contributed to the sustained increase in the TL deposit share. Some depositors opted for FX as the transition from the KKM accelerated and the price of gold rose on international markets, both of which had an upward effect on FX deposit balances, but there was still a significant decline in FX deposits (Chart IV.2.8). Compared to August 2023, exchange rate and parity-adjusted FX deposits and KKM accounts decreased by USD 21.8 billion and TL 2.1 trillion, respectively. In the same period, TL deposits increased by TL 6 trillion, while the TL deposit ratio rose by 24 percentage points from August 2023 and 8 percentage points from May 2024 to 56%. Currently, the TL deposit share stands at its highest level since the last quarter of 2017. When we also consider the significant amount accumulated in money market funds' balances, the TL preference becomes clearer. Due to the guiding role of macroprudential regulations on the preferences for TL deposits, FX deposits, and KKM accounts, as well as the improvement in the expectations of legal entities and households, KKM accounts are expected to further decline and the share of TL deposits is expected to increase in the coming period (Chart IV.2.9).

Chart IV.2.8: Change in Deposits (Trillion TL, Billion USD)

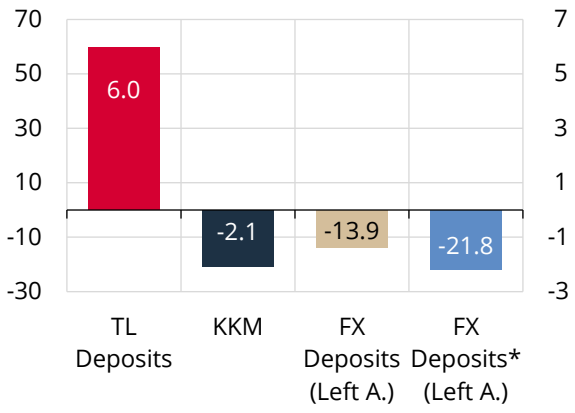
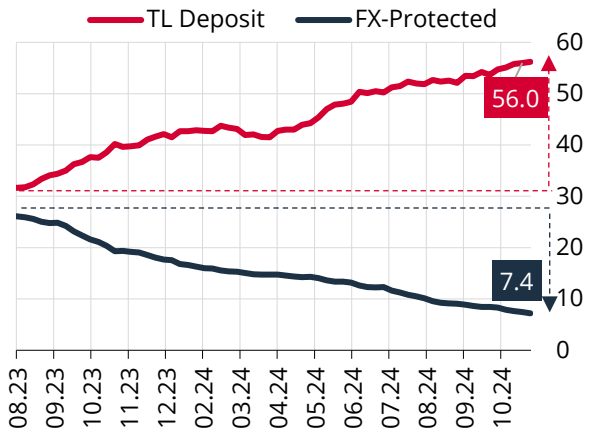


Chart IV.2.9: Distribution of Deposits (Share, %)



Source: CBRT

Last Observation: 08.11.24

Note: TL deposits do not include the KKM balance. The change in deposits chart represents the change between August 25, 2023, and November 8, 2024. FX Deposit* balance is adjusted for exchange rate, parity, and gold price effects.

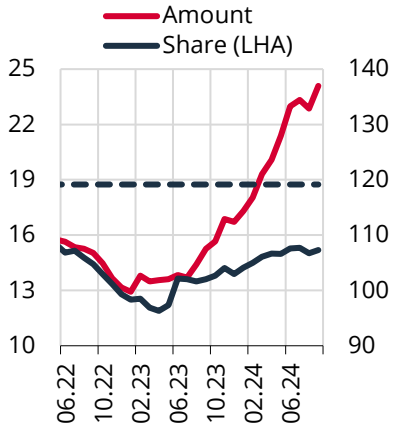
The decline in the country risk premium and upgrades by credit rating agencies support the improvement in external financing conditions.

Despite the recent conjuncture of high global volatility and geopolitical risks, foreign investors have continued to show strong interest in debt instruments of Turkish banks. The gradual upgrade of Türkiye's credit rating in 2024 also accompanied this positive picture.

The banking sector's external debt stock reached USD 137 billion, while the share of external debt in the funding composition increased to 15% (Chart IV.2.10). External debt rollover ratios of banks, which have increased their borrowing with the help of lower funding costs stemming from the decline in the country risk premium, have been on the rise due to long term borrowing. Rollover ratios of medium-long term external debts, which are subject to lower reserve requirements, hover above 150%, implying that the average maturity of external debts has been extending and the quality of external funding has been improving (Chart IV.2.11).

The strong foreign investor appetite for Eurobond and subordinated bond issuances, which are unsecured FX funding types, enabled banks to diversify their external debt composition. In the current Report period, the Eurobond balance increased further to USD 24.9 billion, reaching the levels of 2020. Banks continue to strengthen their capital base by increasing their subordinated debts (Chart IV.2.12). It is expected that the favorable outlook in long-term borrowing will continue to strengthen in the upcoming period thanks to the improvement in the country risk premium and the decline in interest rates of advanced economies.

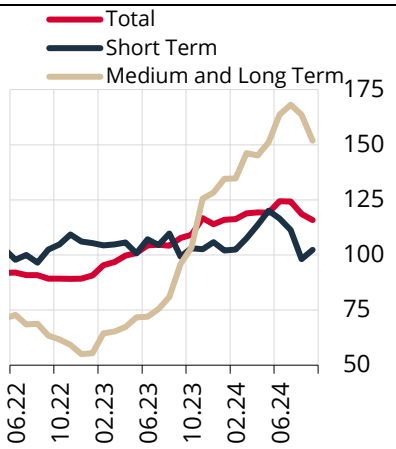
Chart IV.2.10: External Debt and Share (USD Billion, %)



Sources: CBRT, MKK

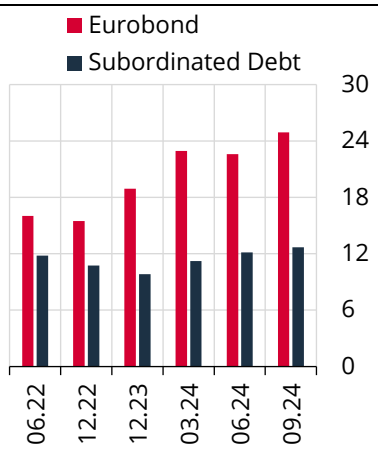
Note: Parity-adjusted amount. The USD equivalent of euro-denominated external debts is recalculated with the parity value of June 2018. The dashed line is the 2014-2021 average of share series.

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



Note: External debt rollover ratios are calculated based on 6-month (for total), 3-month (for short-term) and 12-month (for long-term) moving totals of banks' total borrowings and repayments of external liabilities including securities issued abroad.

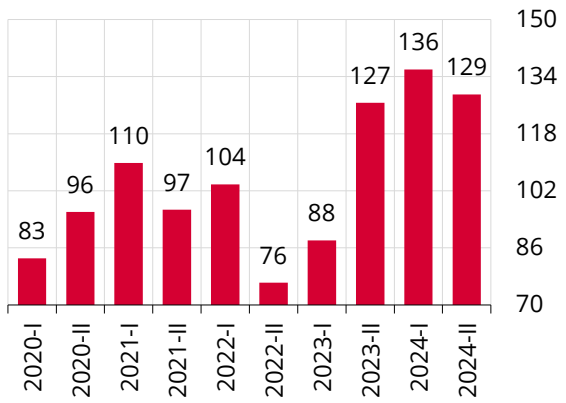
Chart IV.2.12: Eurobond and Subordinated Debt (USD Billion)



Last Observation: 09.24

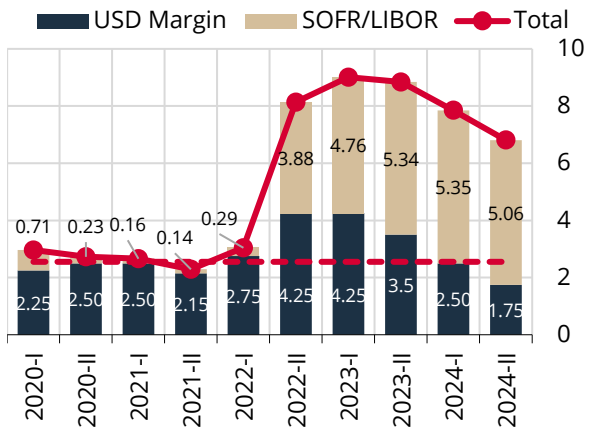
The positive picture in syndication costs and high renewal rates continued into the second half of the year. Syndicated loans that matured in the first half of 2024 were renewed by 136% (Chart IV.2.13). The remaining syndicated loan transactions in the last quarter of the year are also expected to be renewed at a rate above 100%. While the average Secured Overnight Financing Rate (SOFR) declined slightly compared to the previous period, the additional fall in margins pulled the total cost of syndicated loans down to around 6.8% for a term of one year. The fact that part of the transactions in the second half of the year were carried out using syndicated loans with two-year maturities supports the maturity structure of external borrowing. In syndication transactions, the risk premium for the USD-denominated 367-day maturity tranche declined by 175 bps year-on-year and by 75 bps compared to the transactions conducted in the last quarter of the previous year (Chart IV.2.14). Given the resilience of Turkish banks against risks and the favorable course of the sovereign credit rating, banks' access to external funding is expected to expand in the upcoming period. FX loan extensions and banks' FX funding needs for liquidity management will be crucial in terms of external borrowing demand.

Chart IV.2.13: Rollover Ratio of Syndicated Loans (%)



Sources: CBRT, KAP Last Observation: 11.24

Chart IV.2.14: Costs of Syndicated Loans (%)



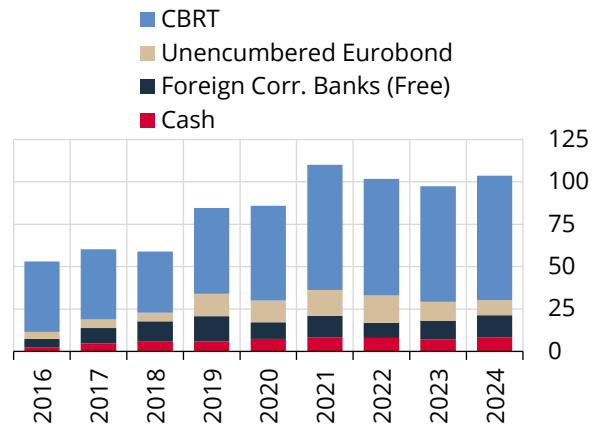
Sources: KAP, Bloomberg Last Observation: 11.24

Note: Calculated for ten large-scale banks excluding DIBs. I and II represent April-June and October-December syndication periods of the respective year. The external debt rollover ratio is calculated as the ratio of total borrowing and repayments in the specified periods. For the second half of 2024, transactions realized as of the third week of November are taken into account. The USD margin shows the risk premium applied in addition to the SOFR/LIBOR rate. The dashed line is the average of the total cost for 2014-2021 period.

The sector's FX liquidity buffers against possible FX liquidity shocks remain strong.

As of September 2024, banks held FX liquid assets including RR worth USD 104 billion on average in the last three months (Chart IV.2.15). As the sector's FX-denominated external debt stock that is due within one year stood at USD 63 billion, the capacity of FX liquid assets to cover short-term FX-denominated external debt is at 164% (Chart IV.2.16).

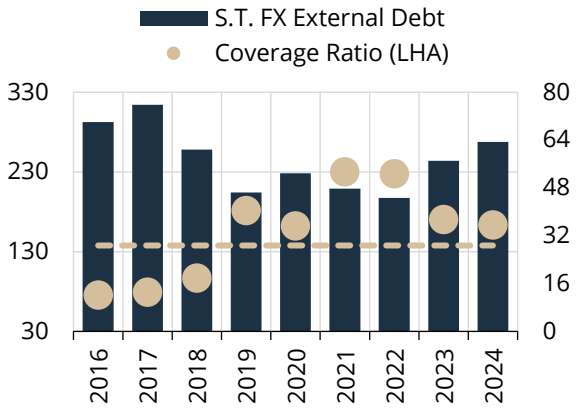
Chart IV.2.15: FX Liquid Assets (Billion USD)



Source: CBRT Last Observation: 09.24

Note: The average of the last three months has been reported for each year. The CBRT item covers total FX required reserves and FX excess reserves.

Chart IV.2.16: Short-Term FX External Debt and Coverage Ratio (Billion USD, %)



Source: KAP, Bloomberg Last Observation: 09.24

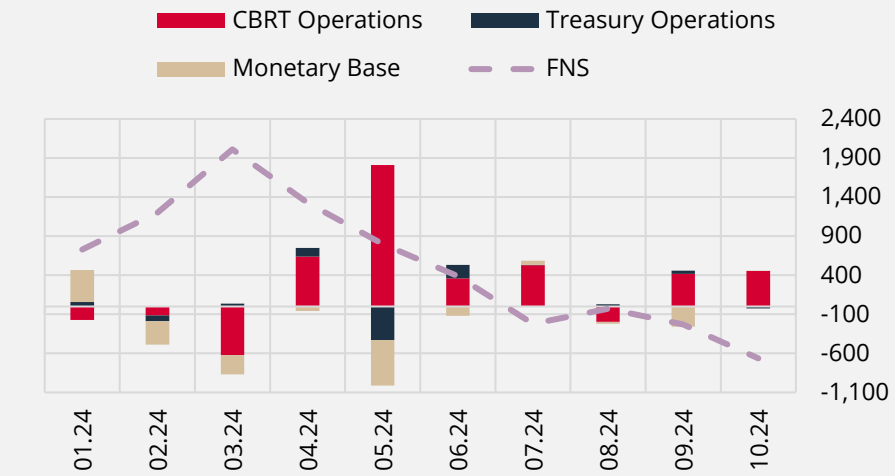
Note: External debt represents FX-denominated external debt that will fall due within one year and is calculated by excluding non-residents' FX deposit accounts. The most recent data pertaining to external debt is from September. Dashed lines show the average of coverage rates for the 2014-2021 period.

Box IV.2.I: The Effect of Sterilization Toolkit on Money Market Interest Rates

Within the framework of liquidity management, the CBRT aims to ensure the effective implementation of monetary policy, its primary objective, as well as the smooth functioning of payment systems. The CBRT closely monitors developments in liquidity conditions and reviews the adequacy of the toolkit used for the effective management of liquidity and the healthy functioning of the transmission mechanism. This box examines the impact of additional liquidity management instruments introduced after August 2, 2024 on the level of money market interest rates and intraday volatility.

While the funding need of the banking system (FNS), which indicates the liquidity shortage at the beginning of 2024, was TRY 729 billion, the excess liquidity, which became permanent since September reached TRY 664 billion by the end of October 2024. While the changes in the monetary base resulted in liquidity leakage from the system throughout that period, increased reverse currency substitution (reverse dollarization) and capital inflows, mostly as of the second quarter of the year, led to an improvement in the CBRT's net FX position, and resulted as injection of TL liquidity into the system. Accordingly, the cyclical excess liquidity in the first quarter became permanent as of the second half of the year, especially as a result of the CBRT's FX operations (Chart IV.2.I.1). Therefore, a series of new sterilization tools were put into effect to sterilize this excess liquidity by considering the heterogeneous distribution of liquidity among market participants. In this context, the CBRT started to conduct TL deposit buying auctions with varying maturities between 11.00-11.30 a.m. and 1:45-2:15 p.m. on the same day. In addition, sell-side currency/gold-TL swap (reverse swap) auctions were introduced and the sterilization toolkit was diversified through the deposit buying transactions in the Takasbank Money Market (TMM).[1]

Chart IV.2.I.1: FNS in 2024 (TRY Billion)



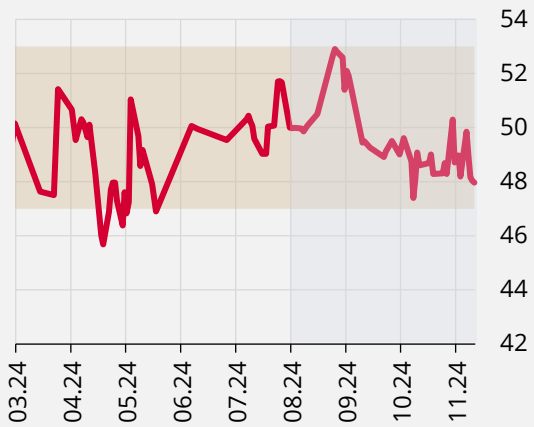
Source: CBRT Last Observation: 31.10.24

Note: Upside movements indicate liquidity injection to the system, while downside movements indicate liquidity leakage from the system.

[1] TL deposit purchase auctions with same day value date, different auction hours, different maturities and sell-side Turkish lira swap auctions were launched as of 2 August 2024. For details, please refer to Inflation Report 2024 – Box III 1.1.

Since August 2, 2024, sell-side TL–currency swap auctions against FX and since October 31, 2024, sell-side TL-gold swap auctions have been gradually used in view of market requirements.[2] In this context, the interest rates of swap transactions formed in the BIST Swap Market at the weekly maturity remain within the interest rate corridor despite the excess liquidity in the system (Chart IV.2.I.2). Together with other sterilization tools, sell-side swap transactions diversify sterilization facilities and strengthen monetary transmission.

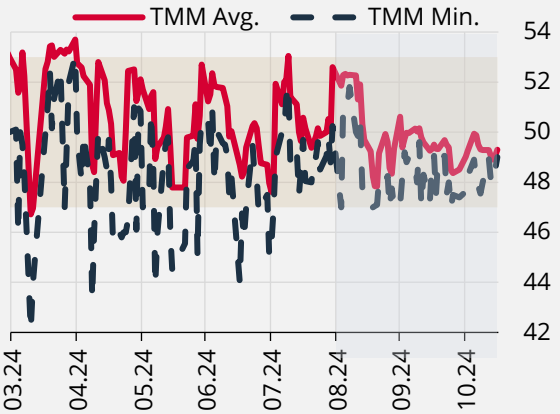
Chart IV.2.I.2: Implied BIST Swap Rates (%)



Sources: CBRT, BIST Last Observation: 15.11.24

Note: The interest rate is constructed by taking the weighted average of transactions with 1-week maturities. The blue shaded area indicates the period of CBRT sell-side swap auctions and the beige shaded area indicates the interest rate corridor.

Chart IV.2.I.3: Takasbank Money Market Rates (%)



Sources: CBRT, BIST Last Observation: 15.11.24

Note: The weighted average interest rate and the minimum (min) interest rate for overnight transactions in the TMM are indicated. The blue shaded area indicates the period of CBRT quotation in the TMM and the beige shaded area indicates the interest rate corridor.

The sterilization toolset, used prior to August 2024, allowed the sterilization of excess liquidity via quotations with banks in the Interbank Money Market, with banks and non-bank financial institutions in the BIST Repo-Reverse Repo Market and the Committed Transactions Market (CTM).[3] In this context, sterilization transactions were initiated in August in the Takasbank Money Market (TMM) through deposit buying quotations to extend the diversity of instruments.[4] Thus, sterilization of excess liquidity was facilitated through transactions with banks and non-bank financial institutions in various markets. Additionally, the extended toolset helped to achieve the operational flexibility while supporting the diversity in terms of the counterparties and sterilization capacity. Analyzing the interest rate movements in the TMM, after the CBRT participated into the market via the deposit buying quotations, reveals that the spread between the weighted average interest rate and the lowest intraday interest rate was limited (Chart IV.2.I.3).

[2] Sterilization, via sell-side swap auctions, is made by withdrawing TL against gold and currency on the value date.
[3] Transactions conducted in the Money Markets within the CBRT.
[4] As of August 14, 2024, the CBRT started to deposit buying quotations at the overnight CBRT borrowing rate in the Takasbank Money Market.

In addition to the level of interest rates, interest rate volatility is also significant for the monetary policy transmission channel in the financial markets (Özbekler et al., 2021). Accordingly, an analysis of intraday volatilities of overnight maturity transactions in the BIST Repo/Reverse Repo Market has been carried out. The transactions are analyzed by utilizing 5-minute intraday intervals that upward volatility is computed by using the interest rate changes when the interest rates increase compared to the previous window, and downward volatility is computed by using the rate changes when the interest rates fall.[5] The results show that after March, interest rate volatilities generally fluctuate due to cyclical liquidity conditions, while downward volatilities are more pronounced (Chart IV.2.I.4). After 2 August 2024, downward and upward volatilities were contained with the contribution of additional sterilization instruments. Moreover, regardless of liquidity conditions, interest rate volatilities in the repo market were contained, while the decline in downside volatilities was more pronounced (Chart IV.2.I.5).

Chart IV.2.I.4: BIST Repo/Reverse Repo Market Intraday Rate Volatilities (%)

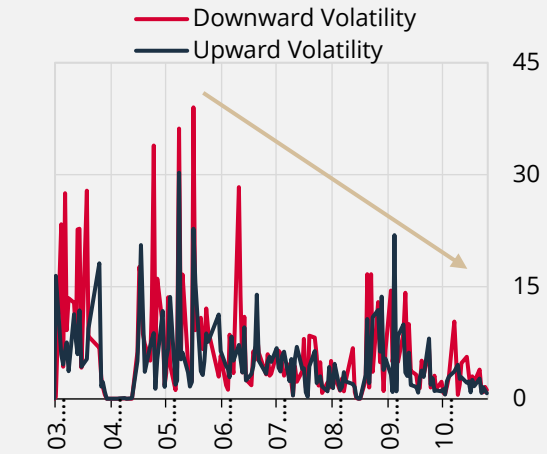
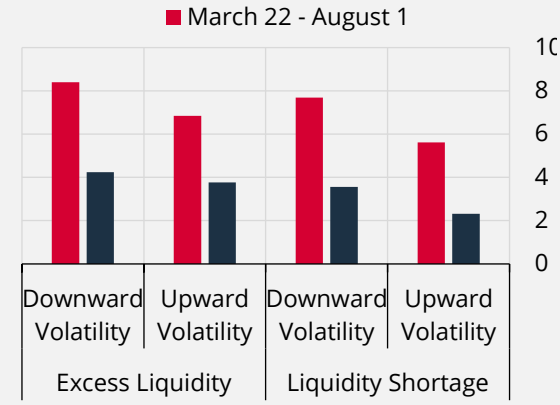


Chart IV.2.I.5: BIST Repo/ Reverse Repo Market Intraday Rate Volatilities (%)



Source: BIST, Authors Calculations Last Observation: 18.11.24

This box examines the factors affecting liquidity conditions in the market in 2024 and the effects of the extended sterilization framework on the level of interest rates and volatilities in the money markets. As a result, with the help of the extended sterilization toolkit, interest rates in money markets have become more aligned with the CBRT interest rate corridor, while interest rate volatility, which is important for the monetary transmission channel, has been considerably limited.

References

Barndorff-Nielsen, O. E., Kinnebrock, S., & Shephard, N. (2008). Measuring downside risk-realised semivariance. CREATES Research Paper, (2008-42).

Özbekler, A. G., Kontonikas, A., & Triantafyllou, A. (2021). Volatility forecasting in European government bond markets. International Journal of Forecasting, 37(4), 1691-1709.

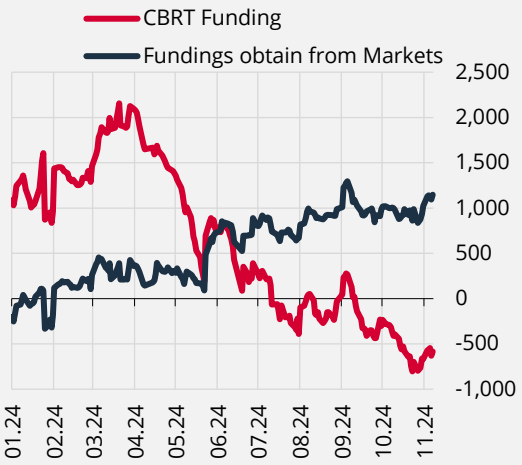
[5] Intraday volatilities are constructed using realized volatilities. Downside volatility refers to realized negative semi-variance, while upside volatility refers to realized positive semi-variance. For details (Barndorff-Nielsen et al., 2008).

Box IV.2.II: TL Liquidity Conditions and Recent Trends in Deposit Rates

The policy rate is the main determinant of the level of deposit rates, although the liquidity in the market, the CBRT's liquidity management, the regulations introduced to encourage TL deposits, and expectations may also have an impact on the level of interest rates. With the help of its recently diversified liquidity management tools and macroprudential measures to encourage TL deposits, the CBRT has been supporting formation of short-term interest rates and deposit rates consistent with the policy rate in the market and strengthening the transmission channel. This box summarizes the implications of recent policies aiming to strengthen monetary transmission, and liquidity conditions on the outlook and cross-bank distribution of TL deposit rates.

Until the first quarter of 2024, the banking system's funding need remained high and the funding was largely met by swap transactions. Since the second quarter of the year, the system's liquidity shortage has been covered rapidly thanks to increased capital inflows, strong demand for TL-denominated assets and the CBRT's FX transactions, paving the way for excess liquidity in the system as of the third quarter. Although the excess liquidity climbed above TRY 600 billion in November, banks' TL funding continued to increase, as a significant portion of it concentrated in money market funds. As a result, net funding provided by banks through money market operations and repurchase transactions rose to TRY 1.1 trillion (Charts IV.2.II.1 and Chart IV.2.II.2).

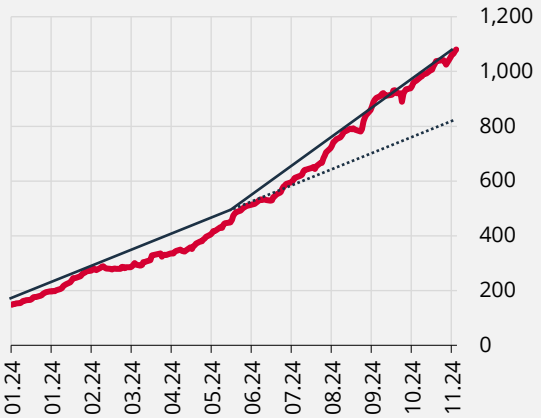
Chart IV.2.II.1: TL Funding
(TRY Billion)



Source: CBRT Last Observation: 08.11.24

Note: The "Funding Need of the System" is the sum of CBRT net swap and net OMO balances. "Funds from Markets" denotes the net balance of banks' money market and repurchase transactions.

Chart IV.2.II.2: Money Market Funds
(TRY Billion)



Source: CBRT Last Observation: 08.11.24

Note: Dark-colored lines show the trend between January 2 – May 31 and June 3 – November 8. The dashed line is the continuation of the January 2 – May 31 trend line.

To manage the excess liquidity in the system, the CBRT has enhanced the effectiveness of the available sterilization tools on the one hand, and has gradually introduced new instruments, on the other. Accordingly, the Bank initiated additional TL deposit buying auctions and also launched TL swap auctions against gold and FX on the sell-side. Then, other money markets also started to receive money purchase orders. These inflows at the lower band level supported the formation of an effective lower bound in money markets. The additional intraday TL deposit buying auctions held between 1.45 p.m. and 2.15 p.m. were another important factor that restrained the downtrend in interest rates, particularly in the BIST repo/reverse repo market. Thanks to the sterilization framework enriched with additional tools, the downward volatility in deposit rates diminished (Table IV.2.II.1).[1]

[1] The table contains references to the regulations regarding the actions mentioned in the box. For details, see:
(i) Financial Stability Report November 2024, Box II.2.II: Steps for Effective Functioning of Financial Markets
(ii) Inflation Report August 2024, Box 1.1: Developments on Turkish Lira Liquidity and Sterilization Tools

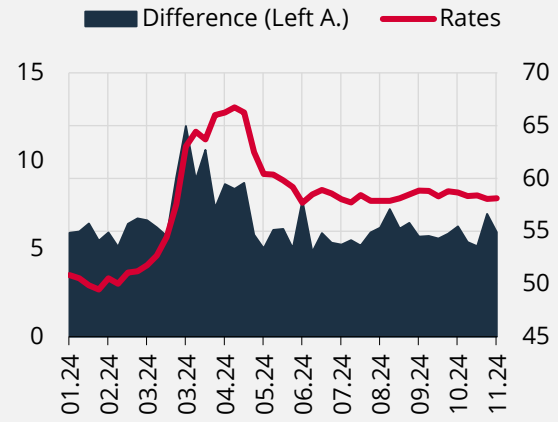
Table IV.2.II.1: Regulations Affecting Transmission Channel

Tools Introduced for TL Liquidity Management
Initiation of TL deposit auctions
Termination of TL currency swaps
Launch of sell-side gold and FX swap auctions
Additional intraday TL deposit buying auctions
Buy-side orders received by other money markets
Revision of reserve requirement ratios
Macroprudential Measures for TL Deposits
Revision of TL share, KKM renewal and transition-to-TL targets
Target-based remuneration of required reserves
Commission on required reserves charged to banks failing to meet targets

In the face of possible volatilities in deposit rates, the CBRT actively made use of reserve requirements to permanently sterilize excess liquidity in the system and thus to support the transmission channel. Accordingly, the Bank raised the reserve requirement ratios for TL deposits and KKM accounts, as well as the ratio for maintaining TL required reserves in blocked accounts. To reduce the cost of RR increases on banks' balance sheets and to prevent banks from reflecting this cost in deposit rates, the CBRT started to remunerate RRs. While strengthening the transmission mechanism with these steps, the CBRT has regularly revised the targets to increase the share of TL deposits and support the transition from KKM accounts to TL deposits in a way that would also safeguard financial stability.

The sterilization steps and regulations in the macroprudential framework inhibited the downward impact of excess liquidity in the system on deposit rates, and enhanced the effectiveness of the monetary policy. In the period until May 2024, the interest rate pass-through of liquidity conditions remained high, and significant divergence was observed among banks in deposit rates that rose after the policy rate hike. In this period, banks diverged as demanding and supplying banks in terms of their TL funding position. This divergence led to differing interest rates applied by banks with liquidity shortage and excess liquidity, and also affected the relationship between liquidity and deposit rates. As a result, the demand for TL funds had an upward effect on deposit rates at banks with liquidity shortage. In the following period of May-October, the divergence in the TL funding position decreased broadly and excess liquidity in the system did not have a significant effect on deposit rates (Charts IV.2.II.3 and Chart IV.2.II.4).

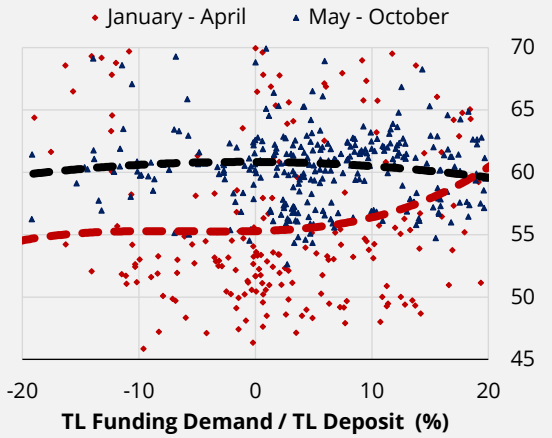
Chart IV.2.II.3: TL Deposit Rates (%)



Source: CBRT Last Observation: 08.11.24

Note: Shows the difference between the highest and lowest interest rates for savings deposits with 1-3 month maturity, after excluding the bottom and top 10%-portion of banks. Participation banks are excluded.

Chart IV.2.II.4: Liquidity and TL Deposit Rates (%)

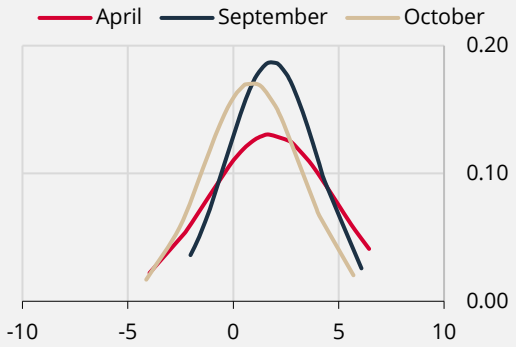


Source: CBRT Last Observation: 08.11.24

Note: The horizontal axis is the ratio of (banks' assets - liabilities from money market and repurchase transactions) to TL deposits excluding banks' deposits. The vertical axis represents interest rates on savings deposits with maturities of 1-3 months. Dashed lines are multinomial estimates of the series.

Looking at extreme rates, it is safe to say that the divergence in banking TL deposit rates has diminished significantly since June compared to the first half of the year, and rates have been formed close to the policy rate across the sector. The distribution of spreads between bank deposit rates and sector rates also confirms that interest rates have started to concentrate around the average in recent months compared to the first half of the year (Chart IV.2.II.5). Additionally, the volatility in interest rates has decreased considerably compared to the first half due to the decline in extreme interest rates charged by banks on deposits (Chart IV.2.II.6).

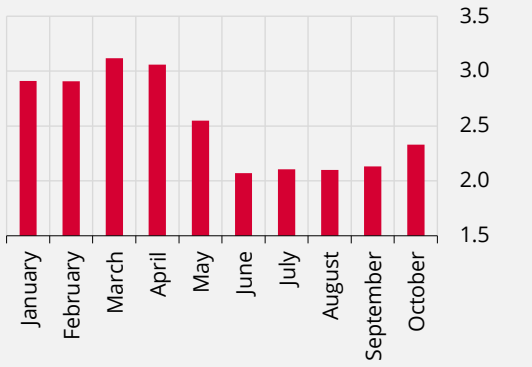
Chart IV.2.II.5: Distribution of TL Deposit Rates



Source: CBRT, Authors' Calculations

Note: Probability density functions of the spreads of the monthly weighted bank-based savings deposit rates with 1-3 month maturities from the weighted average sector rate for the relevant month. Calculated by subtracting the average of that month from each observation in the relevant month and dividing the result by its standard deviation. Participation banks are excluded.

Chart IV.2.II.6: Distribution of TL Deposit Rates



Source: CBRT, Authors' Calculations

Note: Standard deviation of the spread between the weighted average of bank-based 1-3 month savings deposit rates and the sector average. Participation banks are excluded.

In sum, the CBRT's effective TL liquidity management limited the potential downward impact of excess liquidity on deposit rates and supported the pass-through from the policy rate to deposit rates. As the monetary transmission mechanism strengthened, the deviation from the sector average on banking deposits was seen less, and deposit rates converged to the sector average.

IV.3 Interest Rate and Exchange Rate Risk

Following the last policy rate increase, the upward repricing of stock loan rates continued, while stock deposit rates remained almost flat and the loan-deposit rate spread widened slightly.

Changes in interest rates have an impact on bank balance sheets through the loan-deposit rate spread and revaluation due to the maturity mismatches. Since the second half of 2023, TL loan and deposit rates have trended upwards under the tight monetary policy stance, and the last policy rate hike was delivered in March 2024. In this period, the upward repricing of banks' TL-denominated stock loans and deposits on their balance sheets continued. Deposits, for which the interest rate is renewed faster than loans due to their shorter maturities, have largely been repriced. On the other hand, loan rates, for which stock rate adjustments take place more slowly, have increased further in the recent period. Having declined due to the last interest rate hike, the stock interest margin improved slightly following these developments and has remained above its historical average since June. When demand deposits are excluded, the stock interest margin remains in negative territory. (Charts IV.3.1 and IV.3.2).

Chart IV.3.1: TL Loan and Deposit Rates
(Stock, %)

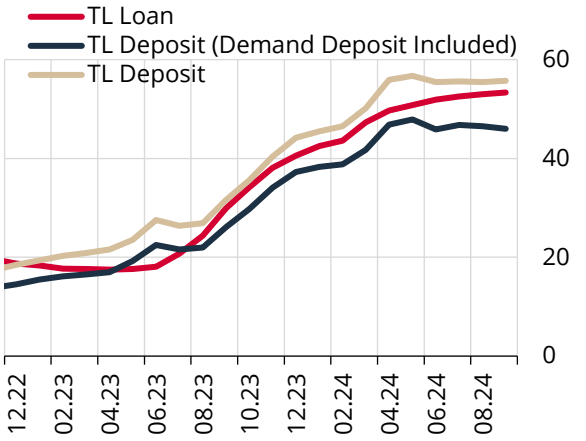
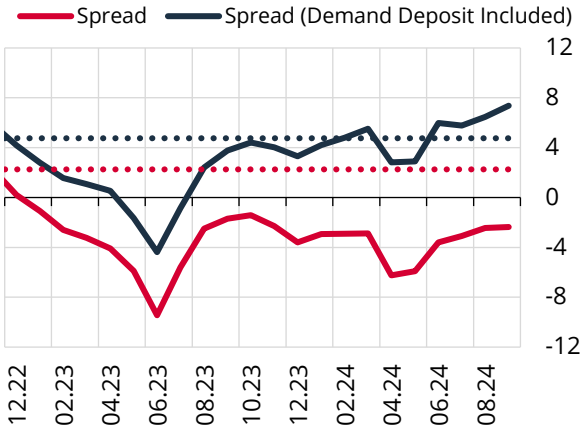


Chart IV.3.2: TL Loan-Deposit Rate Spread
(Stock, %)



Source: CBRT Last Observation: 09.24

Note: Participation banks are excluded. Banks' deposits are not included in deposits rates. Loan rates include credit cards and overdraft accounts. Dashed lines show the 2013-2021 average.

The maturity mismatch between interest rate-sensitive assets and liabilities is below historical averages.

The weighted average maturity of banks' interest rate-sensitive TL assets decreased by 0.9 months to 13.5 months compared to end-March, while the average maturity of their interest rate-sensitive TL liabilities remained flat at around 5 months (Chart IV.3.3). Meanwhile, the average maturity of FX assets rose to 18.4 months and that of FX liabilities to 14.2 months (Chart IV.3.4). Improved access to long-term FX financing by banks thanks to the decline in the country risk premium amid the tight monetary policy stance was influential in extension of the maturity of liabilities, while the FX credit expansion that prevailed till end-May was effective in lengthening of the weighted average maturities of FX assets. Since June, however, these maturities have shortened again. Thus, while the weighted average maturity spread for TL assets and liabilities hovered slightly below its historical average at 8.4 months, the maturity mismatch on the FX side declined to 4.2 months (Chart IV.3.5).

Chart IV.3.3: Weighted Average Maturity of TL Assets and Liabilities (Month)

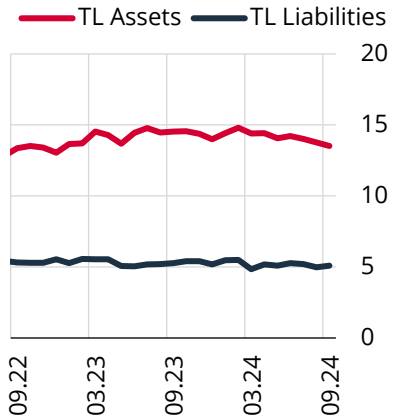


Chart IV.3.4: Weighted Average Maturity of FX Assets and Liabilities (Month)

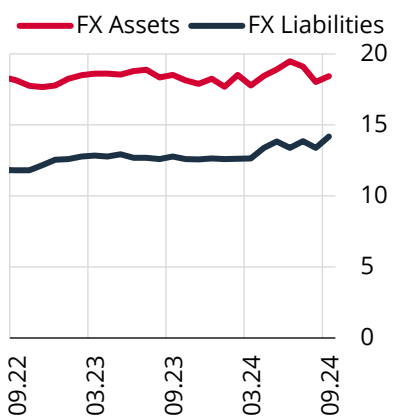
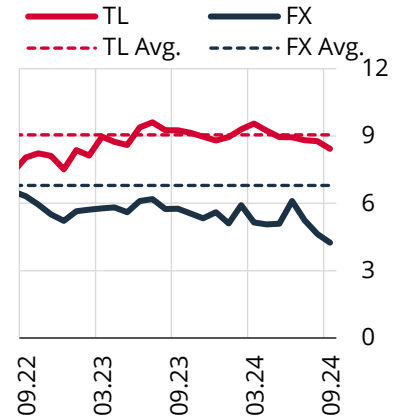


Chart IV.3.5: Weighted Average Maturity Mismatch Between Assets and Liabilities (Month)



Source: CBRT

Last Observation: 09.24

Note: Maturities show the repricing period. Weighted average maturities are calculated based on the mid-points of maturity brackets and the cash flows of related financial assets and liabilities. Dashed lines show the 2013-2020 averages. Participation banks are not included. Banks can allocate core deposits, calculated based on demand deposits, across maturity brackets up to three years.

The share of fixed-rate TL loans and securities in banking assets remains flat, while fixed-rate TL assets' average maturity has declined.

Having risen to 55% in the first quarter of 2024, the share of fixed-rate TL loans remained almost flat in the subsequent period, while the share of TL securities did not post a significant change in that period (Chart IV.3.6). Average maturities of fixed rate TL securities and loans, on the other hand, shortened (Chart IV.3.7). This can be attributed to the propensity of loan customers to borrow at relatively shorter maturities in this period of tighter credit conditions.

Chart IV.3.6: Interest Rate Structure of TL Securities and TL Loans (%)

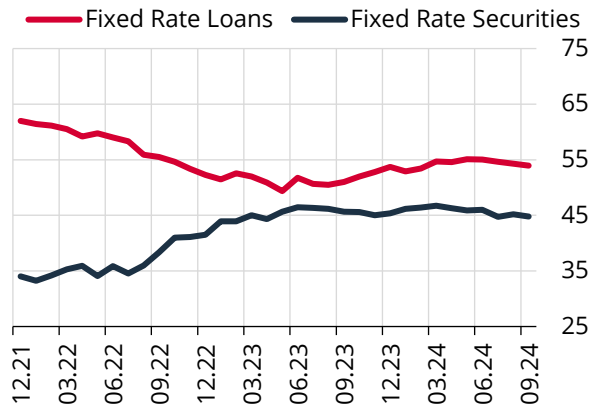
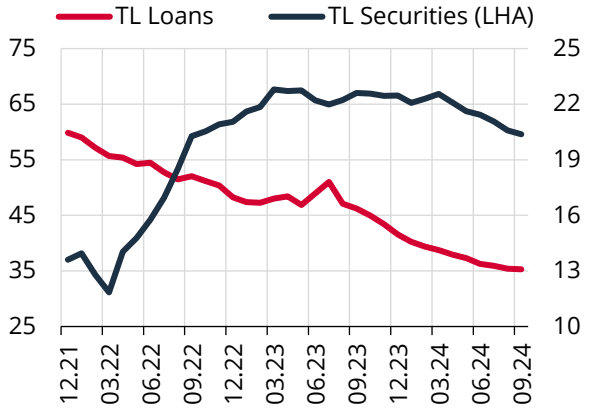


Chart IV.3.7: Maturity of Fixed-Rate TL Securities and TL Loans (Remaining Maturity, Month)



Source: CBRT

Last Observation: 09.24

Note: Weighted average maturities are shown. Weighted average maturities are calculated based on the mid-points of maturity brackets and cash flows of fixed-rate TL loans. The maturity for TL securities is calculated based on total fixed-income securities held by banks. Participation banks are excluded.

While the share of TL securities in assets preserve its flat course, banks classify these securities largely at amortized cost.

The share of TL securities in assets that banks have on their balance sheets is 9.8%, while the share of fixed-rate TL securities is 4.9% (Chart IV.3.8). Banks recognize long-term and fixed-income TL securities at amortized cost on their balance sheets to limit the adverse impact of impairment on profitability and equity. The share of those valued at amortized cost in fixed-rate TL securities stands at 53.9% (Chart IV.3.9).

Chart IV.3.8: The Share of TL Securities in Assets (%)

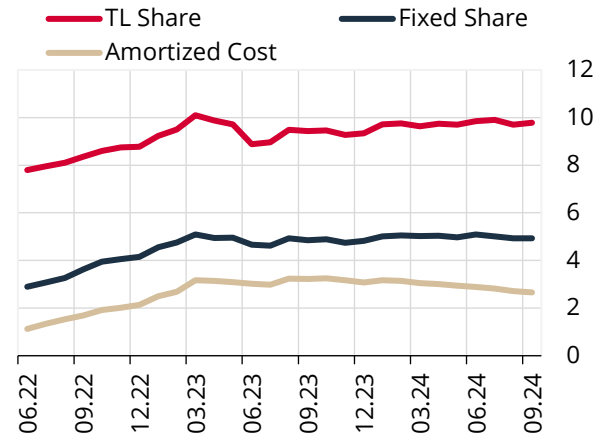
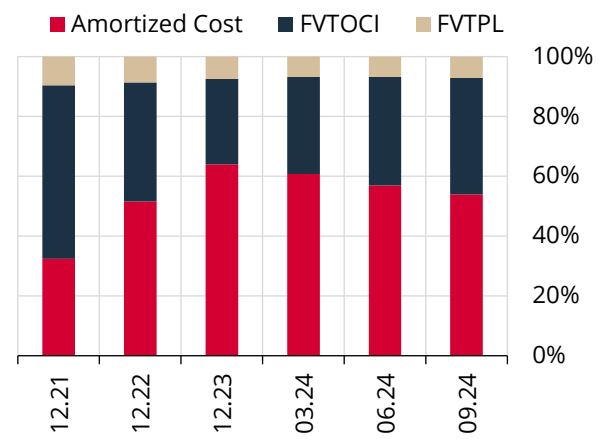


Chart IV.3.9: Fixed-Rate TL Securities (%, Share in Total)



Source: CBRT

Last Observation: 30.09.24

Note: FVTPL: Securities at fair value through profit or loss. Amortized Cost: Securities valued at amortized cost. FVTOCI: Securities at fair value through other comprehensive income.
Non-interest bearing securities are included in fixed interest bearing securities

While the spread between TL assets and liabilities at maturities shorter than six months remains in negative territory, on the FX side, the sector has long position in the short term.

Amid the ongoing tight monetary policy stance and improving expectations, depositors' shift from FX-protected and FX deposits to TL deposits has become more apparent. The shift from FX-protected deposit accounts, which are opened at relatively longer maturities, to TL deposits increased the excess spread between TL assets and liabilities in the 3-6-month maturity. On the other hand, depositors' tendency towards alternative investment instruments such as money market funds increased the share of short-term funding in banks' funding composition, and the TL asset-liability spread between 0-1 month shifted from positive into negative territory. Between 1-3 months, the ratio of the TL asset-liability spread to total assets remained flat in the third quarter of 2024 (Chart IV.3.10). Banks' access to long-term FX financing, the decline in FX deposits and FX loan growth supported the widening of the short-term excess asset-liability spread on the FX side (Chart IV.3.11).

Chart IV.3.10: TL Asset-Liability Gap Analysis
(%, 3-Month MA)

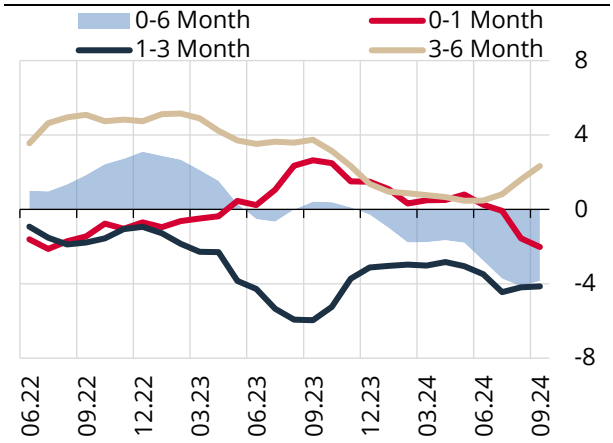
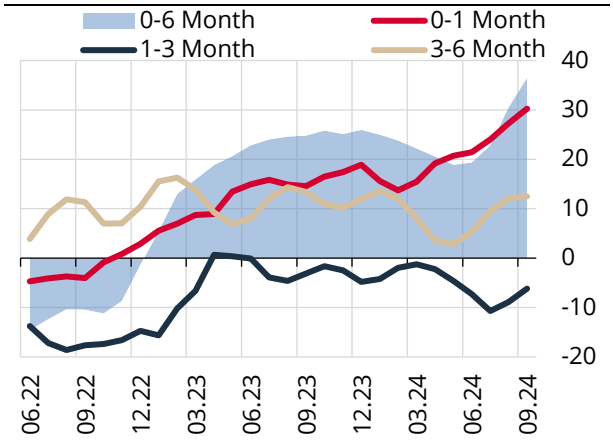


Chart IV.3.11: FX Asset-Liability Gap Analysis
(Billion USD, 3-Month MA)



Source: CBRT
Last Observation: 09.24
Note: Participation banks are excluded. Accounts without a maturity are excluded.

The sensitivity of banking books to TL and FX interest rate shocks is limited and below historical averages.

According to the standard interest rate risk measurement approach, in the event of an upward shock of 500 basis points in TL interest rates and 200 basis points in FX interest rates, the likely loss arising from banking books remains quite limited for FX. The sector's sensitivity to TL interest rate shocks, on the other hand, stands at 4.9% of the regulatory capital, well below the historical average (Chart IV.3.12).[1] Since March 2021, no bank has incurred a loss of 15% or more of its regulatory capital under TL interest rate shock scenario, while the interest rate shock sensitivity of banks that have 90% of the sector's assets is below 10% (Chart IV.3.13). Accordingly, the sector appears to have an interest rate risk outlook and balance sheet structure aligned with regulatory limits.

Chart IV.3.12: Loss-to-Capital Ratio After Positive Interest Rate Shock (Banking Books, %)

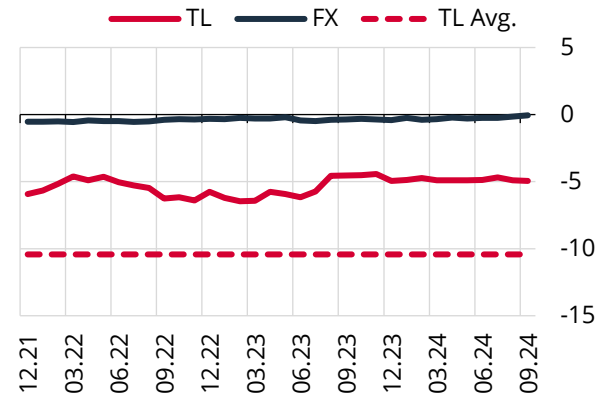
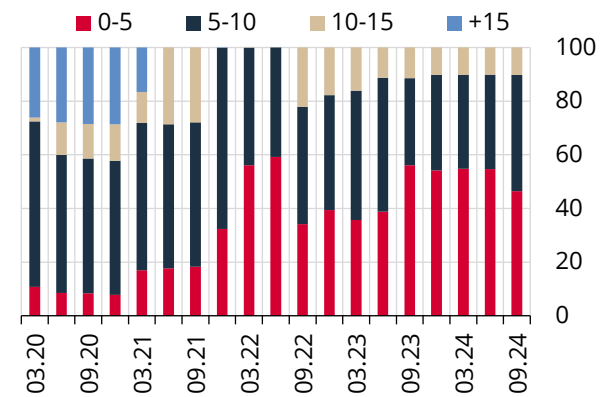


Chart IV.3.13: TL Asset Shares of Banks by Loss-to-Capital Ratio Intervals After TL Interest Rate Shock (%)



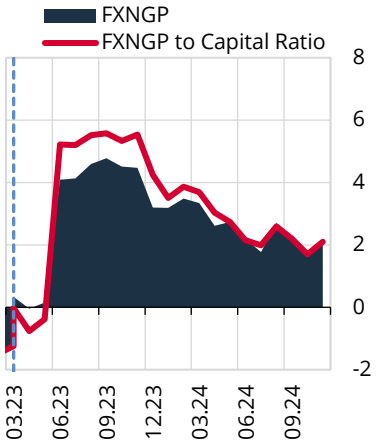
Source: CBRT
Last Observation: 09.24
Note: The economic value approach takes account of the change in the present value of interest rate-sensitive assets and liabilities in the face of a change in the interest rate. The yield curve is assumed to display a parallel upward movement of 500 bps in a TL interest rate shock and 200 basis points in an FX interest rate shock. Losses under the interest rate shock scenario are divided into brackets. The total assets of banks in each bracket are proportional to the total assets of the sector. Participation banks are excluded. Historical average is the average of 2013-2020 period.

[1]Under the BRSA's Regulation on the Measurement and Assessment of the Interest Rate Risk in the Banking Book via the Standard Shock Method, the interest rate risk-driven loss to regulatory capital ratio cannot exceed 20%.

Since the last quarter of 2023, the sector's FX long position has been on the decline, while the foreign exchange net general position / capital ratio has remained within legal limits.

The FX net general position (FXNGP) has declined by USD 2.7 billion since September 2023, and by approximately USD 1.3 billion since March 2024, but the FXNGP/capital ratio remains at 2.1%, within the legal limit[2] (Chart IV.3.14). Although the number of banks with an FX short position has increased since end-2023, those with an FX position in positive territory still account for approximately 75% of the sector (Chart IV.3.15). Since March, banks' on- and off-balance sheet FX items have shown significant changes. The sector's on-balance sheet short position decreased from USD 52 billion to USD 16 billion, while off-balance sheet long position declined from USD 56 billion to USD 18 billion (Chart IV.3.16). FX loans, FX deposits and external debt developments were the on-balance sheet drivers, while currency swap transactions were the off-balance sheet drivers of this change.

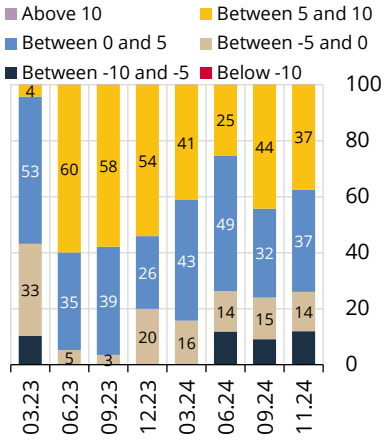
Chart IV.3.14: FXNGP/Capital Ratio and FXNGP (%,Billion USD)



Source: CBRT

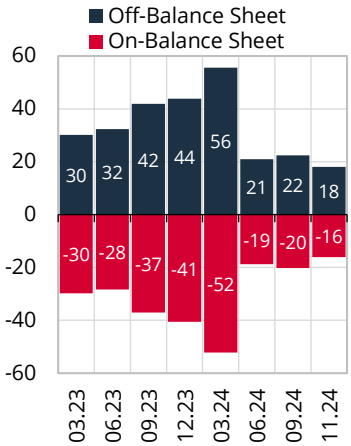
Note: Weekly simple arithmetic mean of FXNGP/Capital ratio has been calculated. Dashed lines denote the dates of the regulatory amendments enacted by the BRSA.

Chart IV.3.15: Total Asset Shares of Banks by FXNGP Ratio (%)



Note: Asset aggregates of September were used in November calculations.

Chart IV.3.16: Banking Sector's FX Position (Billion USD)



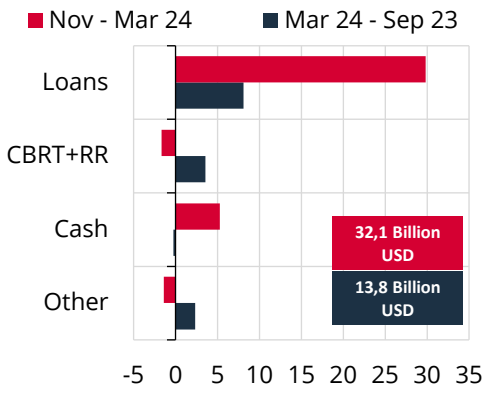
Last Observation: 08.11.24

The decline in the on-balance sheet short position was driven by the growth of FX loans.

Since the first quarter of 2024, the strong demand for FX loans has become more pronounced due to the rise in the cost of borrowing in Turkish lira and improving expectations regarding the exchange rate. In this period, FX loans on the banking balance sheet increased by USD 30 billion (Chart IV.3.17). Amid the tight monetary policy that kicked off in the second half of 2023, the country risk premium declined, leading to an improvement in external borrowing conditions. In this period, banks increased their external eurobond issuances, syndicated loan renewals and subordinated debts. Through the external debt and subordinated issues channel, FX liabilities increased by approximately USD 17 billion in the September 2023-March 2024 period and by USD 16 billion in the March 2024-November 2024 period, totaling approximately USD 33 billion. Meanwhile, depositors' switch from FX deposits to TL deposits has accelerated since the first quarter of 2024, due to the favorable effect of the tight monetary policy stance on expectations. In the September 2023-March 2024 period, FX liabilities increased by USD 8.2 billion through FX deposits, but decreased by USD 15.2 billion through the same channel from March to November (Chart IV.3.18). Due also to the changes in other items, FX assets increased by approximately USD 32.1 billion in the March 2024-November 2024 period, while FX liabilities decreased by USD 4.1 billion.

[2] The regulatory limit for the FXNGP/capital ratio, which was formerly 20%, was decreased to 5% with an amendment that was published in the Official Gazette of December 10, 2022, and took effect on January 9, 2023, but was raised to 10% on March 9, 2023.

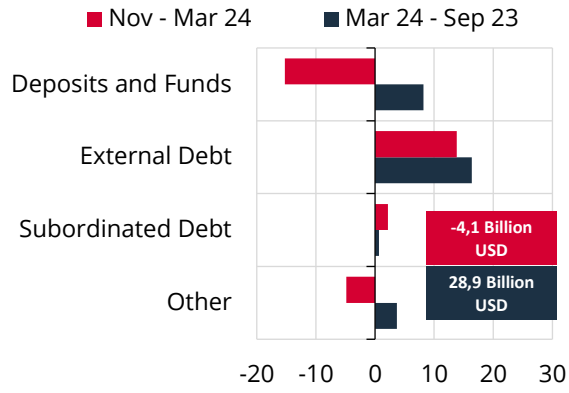
Chart IV.3.17: Change in Banking Sector's On-Balance Sheet FX Assets (Billion USD)



Source: CBRT

Note: Cash also includes receivables from domestic and foreign banks, reverse repo transactions and money markets. Loans are gross loans.

Chart IV.3.18: Change in Banking Sector's On-Balance Sheet FX Liabilities (Billion USD)



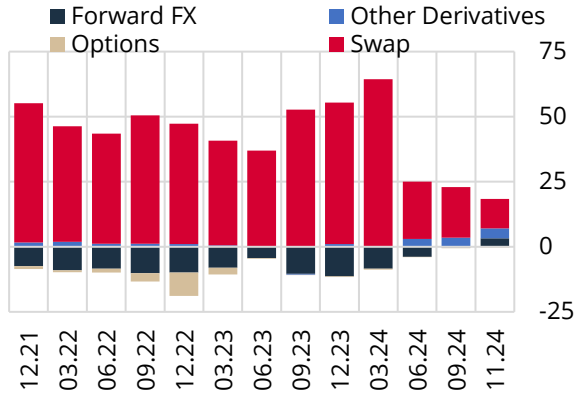
Last Observation: 08.11.24

Note: Excludes banks' deposits. External debt includes loans from abroad, securities issued and funds from repo transactions.

The decrease in the off-balance sheet long position was driven by the decline in currency swap transactions.

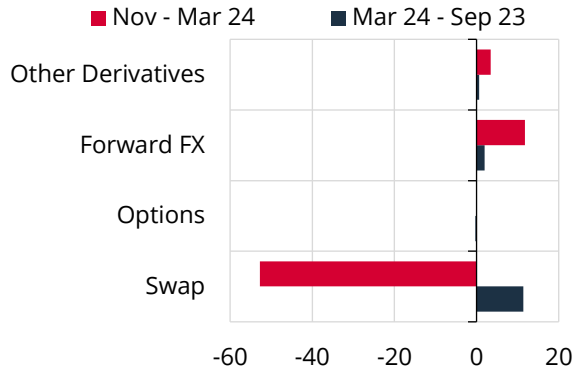
While banks have on-balance sheet short positions, they offset their FXNGPs with their off-balance sheet long positions. A significant portion of off-balance sheet transactions is composed of currency swaps (Chart IV.3.19). Between September 2023 and March 2024, banks made use of some of the FX liquidity they obtained through the external borrowing channel in credit expansion, while the rest was used in currency swap transactions. After March, currency swaps against TL decreased substantially due to depositors' shift from FX deposits to TL deposits and FX loan growth. Recently, excess liquidity in the system has been sterilized through the CBRT's reverse currency swap arrangements, and this led to an increase in banks' FX swaps at maturity. The uptrend in currency swap transactions with non-residents, which increased amid the inflow in the same period, limited the decline in the total currency swap position to some extent. Meanwhile, it seems that banks have recently been positioned to buy FX at maturity in their forward transactions. Against this background, banks' off-balance sheet net assets have decreased by approximately USD 37.5 billion since late March 2024 (Chart IV.3.20).

Chart IV.3.19: Banks' Off-Balance Sheet Net FX Assets (Billion USD)



Source: CBRT

Chart IV.3.20: Change in Banks' Off-Balance Sheet Net FX Position (Billion USD)



Last Observation: 08.11.24

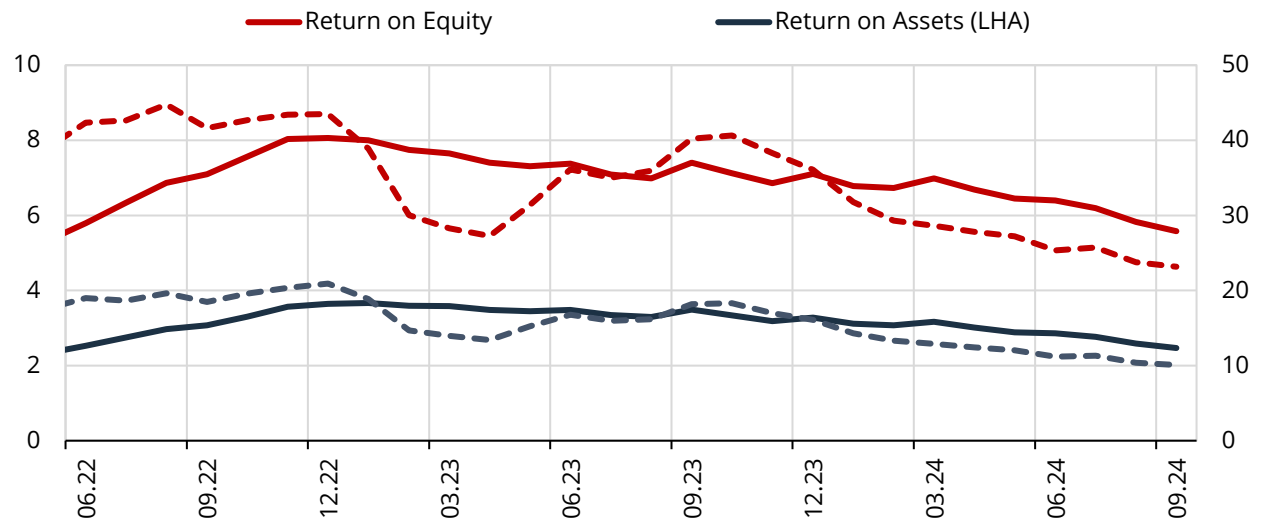
Note: Shows banks' FX buying/selling positions at maturity. Currency options refer to the delta equivalent of currency options for this period. Forward FX position also includes FX position with a value date up to two days.

IV.4 Profitability and Capital Adequacy

Despite a slight decline in profitability, the banking sector's internal capital generation continues, and its strong capital position is maintained.

Since the second quarter of 2024, the drop in net interest income due to the limited decline in flow TL loan rates and the relatively flat course of TL deposit rates has driven profitability performance down, while fees, commissions and banking services income, along with remuneration of required reserves, have driven the sector's profitability up. The tight monetary policy and loan growth restrictions slowed banks' income generation on the asset side, but the increase in TL deposits suppressed net interest income, leading to a continued decline in the banking sector's return on equity and return on assets. As of September 2024, the sector's return on equity and assets were 27.9% and 2.5%, respectively, while the downtrend in the annualized profitability for the last three months, which reflects recent trends, has been on a noticeable downtrend (Chart IV.4.1).

Chart IV.4.1: Return on Equity and Assets (12-Month, %)



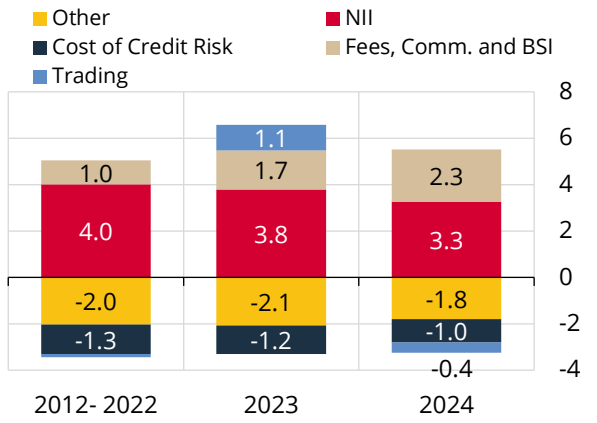
Source: CBRT Last Observation: 09.24

Note: Dashed lines show annualized three-month rates of the relevant series.

Although the decline in net interest income was partially offset by the relatively strong fees, commissions and banking services income, the rise in other expense items in the third quarter was effective in the decline of profitability.

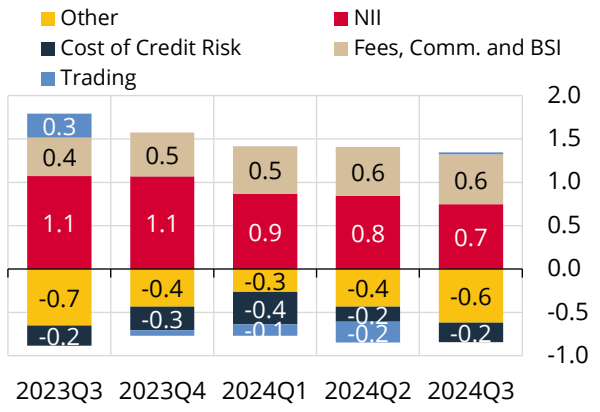
The sector's profitability components suggest that the partial offsetting of the significant decline in net interest income by fees, commissions and banking services income was instrumental in annualized profitability outturn. In this period, the annual decline in the cost of credit risk and other expense items had a positive impact on profitability, while the shift of trading profit from 2023's positive trend to negative in 2024 played a role in the decline of profitability (Chart IV.4.2). The sector's quarterly return on assets has been on the decline since the last quarter of 2023. In the third quarter of 2024, the contribution of net interest income to return on assets remained below the previous quarters, while the contribution of net fees, commissions and services income increased slightly. Although the trading profit/loss effect, which was negative in the first half of the year, turned to zero in the third quarter, thereby somewhat limiting the quarterly decline in profitability, the increase in other expenses and the cost of credit risk were effective in the decrease of profitability in the third quarter of 2024 (Chart IV.4.3).

Chart IV.4.2: Components of Return on Assets (Annualized, % Points)



Source: CBRT Last Observation: 09.24

Chart IV.4.3: Components of Return on Assets (3-Month, % Points)



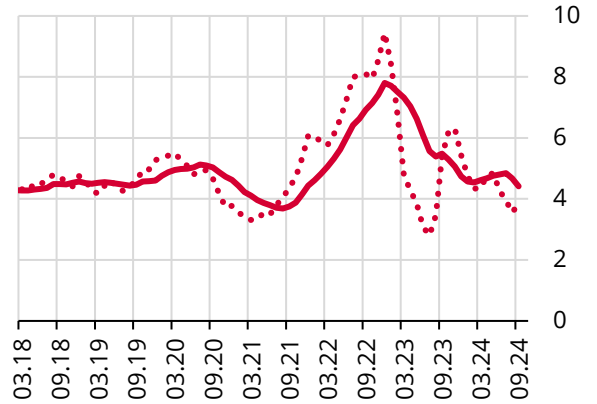
Source: CBRT Last Observation: 09.24

Note: Profits from capital market and foreign exchange transactions are defined as trading profit. Cost of credit risk is the sum of general and specific loan provisions.

The net interest margin continues to decline due to the loan-deposit rate spread.

Having ended the first quarter of 2024 at 4.6%, the net interest margin inched down to 4.4% in the third quarter and has recently been on a relatively weak trend (Chart IV.4.4). The components of the net interest margin indicate that the loan-deposit rate spread remained in negative territory in the last two quarters (Chart IV.4.5).

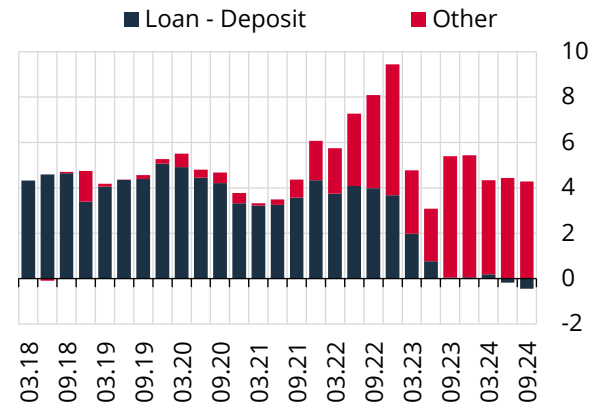
Chart IV.4.4: Net Interest Margin (Annualized, %)



Source: CBRT Last Observation: 09.24

Note: Change in annualized three-month net interest margin is shown in dashed line.

Chart IV.4.5: Components of Net Interest Margin (3-Month, Annualized, %)



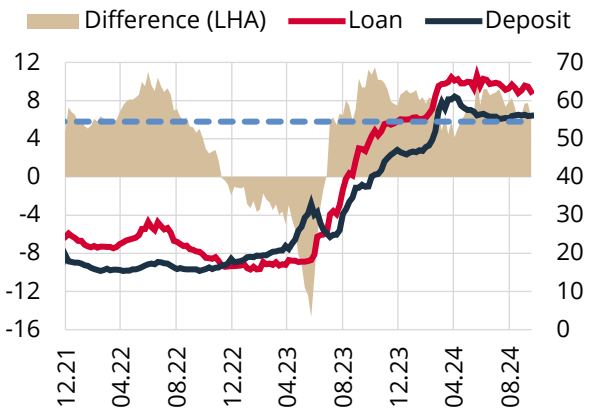
Source: CBRT Last Observation: 09.24

Note: Other interest margin is the sum of securities, other income and expenses items.

Since the second half of 2023, the tight monetary stance affected loan rates, and TL loan rates increased due also to macroprudential policies, led by the implementation of reserve requirements based on loan growth. Loan rates decreased slightly in the second and third quarters of 2024. The flow data reveal that the spread between TL loan and time deposit rates moved into positive territory in the third quarter of 2023 and reached its highest level in the last quarter of the same year, before converging to the long-term average as of October 2024. Meanwhile, the spread between stock TL loan and time deposit rates, which had been negative since the end of 2022, increased as of the second quarter of 2024 and stood at minus

1.6% in September. The flow interest rate spread between TL loans and time deposits is slightly above its average of the 2012-2021 period (Charts IV.4.6 and IV.4.7).

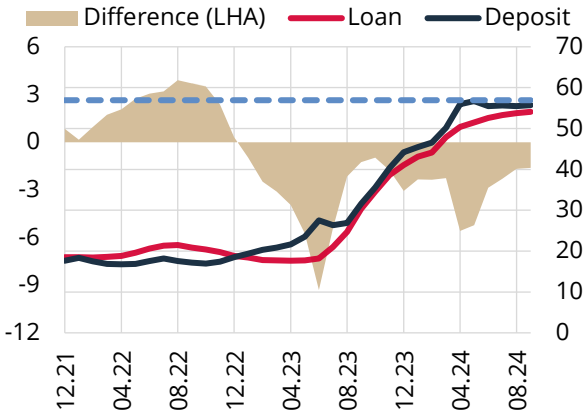
Chart IV.4.6: TL Loan – Time Deposit Rate Spread (Flow, %)



Source: CBRT Last Observation: 18.10.24

Note: Dashed lines show historical averages of 2012-2021.

Chart IV.4.7: TL Loan – Time Deposit Spread (Stock, %)

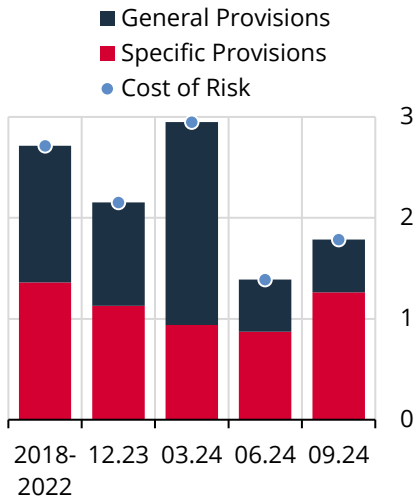


Source: CBRT Last Observation: 09.24

Banks' credit risk costs have been diminishing, while financial services incomes continue to support the sector's profitability.

Banks' credit risk cost increased slightly in the first quarter of 2024, but declined in the second and third quarters due to relatively lower general provisions (Chart IV.4.8). The ratio of net fees, commissions and banking services income to assets continued to increase in 2024 (Chart IV.4.9). Credit cards, which grew more strongly than other loans in the second half of 2023 and the first quarter of 2024, made the most significant contribution to this increase (Chart IV.4.10).

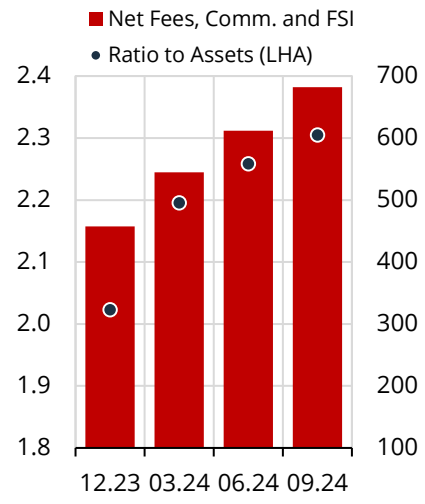
Chart IV.4.8: Cost of Credit Risk (3-Month, Annualized, %)



Source: CBRT Last Observation: 09.24

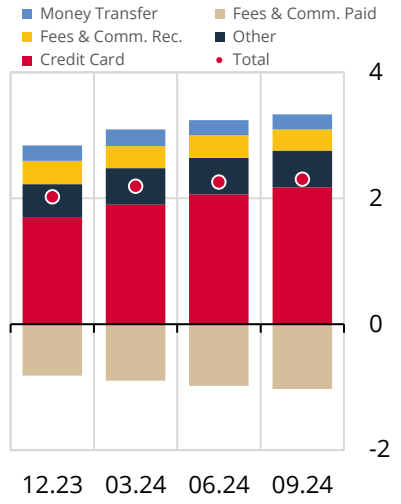
Note: The cost of risk is calculated by dividing the annualized three-month sum of specific and general provisions by the average gross loan amount for the respective period.

Chart IV.4.9: Ratio of Net Fees, Commissions and Services Income to Assets (3-Month, Annualized, TRY Billion, %)



Source: CBRT Last Observation: 09.24

Chart IV.4.10: Distribution of Ratio of Net Fees, Commissions and Services Income to Assets (3-Month, Annualized, %)



Source: CBRT Last Observation: 09.24

Capital ratios remain above regulatory thresholds and the banking sector's resilience is supported by its strong capital outlook.

Capital adequacy ratios increased compared to the previous Report period. As of September 2024, the banking sector's capital adequacy ratio (CAR) and core CAR stood at 18.2% and 14.3%, respectively. The BRSA's forbearance measures for calculation of capital ratios are still in effect[1]. Excluding these forbearance measures, the sector's CAR is 16.2% and core CAR is 12.6%. Capital adequacy ratios of all banks are above the regulatory thresholds and close to their long-term average (Charts IV.4.11 and IV.4.12)[2].

Chart IV.4.11: Capital Adequacy Ratio (%)

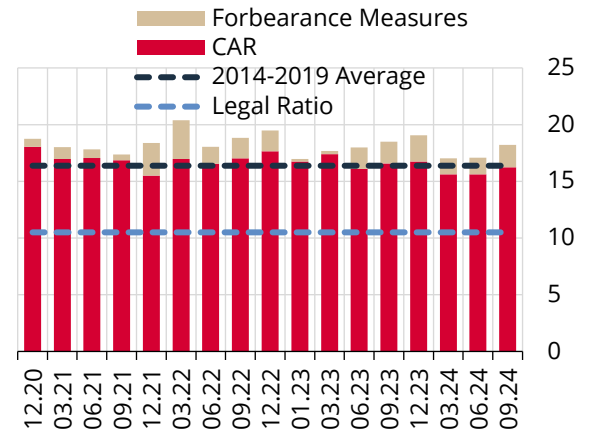
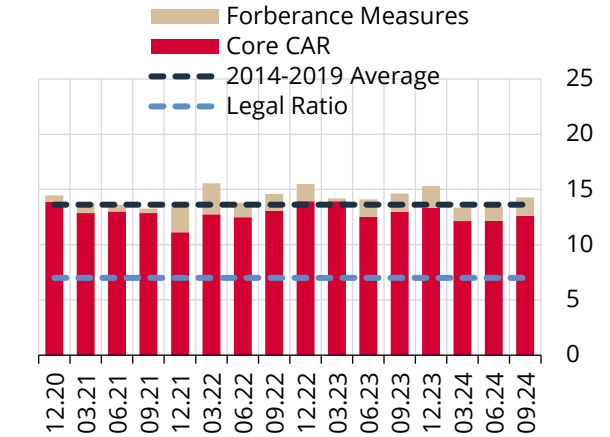


Chart IV.4.12: Core Capital Adequacy Ratio (%)



Sources: BRSA, CBRT Calculations

Last Observation: 09.24

Note: Red bars indicate CAR and core CAR excluding BRSA forbearance measures.

Retail loan risk weights, which are applied more prudently in Türkiye, have been aligned with international standards.

While 35% and 75% risk weights for housing loans and retail loans, respectively, are implemented in Basel standard for calculation of risk weighted assets for credit risk, the BRSA had increased risk weights on July 31, 2023, to 150% for retail loans other than the first-time home purchases in Türkiye. That said, in its announcement of September 2024, the BRSA changed these risk weights to 35% for all housing loan types and to 75% for general-purpose loans, vehicle loans and credit cards (Table IV.4.1). As the change in risk weights is applied to the outstanding balance, the share of items with a 75% risk weight in the distribution of risk weighted items increased (Chart IV.4.13). The return to Basel standards in retail loan risk weights drove the sector's capital adequacy ratio up by approximately 90 bps.

[1] According to the Regulation on Measurement and Assessment of Capital Adequacy Ratios of Banks, the June 2023 exchange rate can be used instead of the current rate for FX items in calculating the amount subject to credit risk. The Regulation also enabled exclusion from equity the negative net revaluation difference of securities under the portfolio of securities at fair value through other comprehensive income as of January 1, 2024.

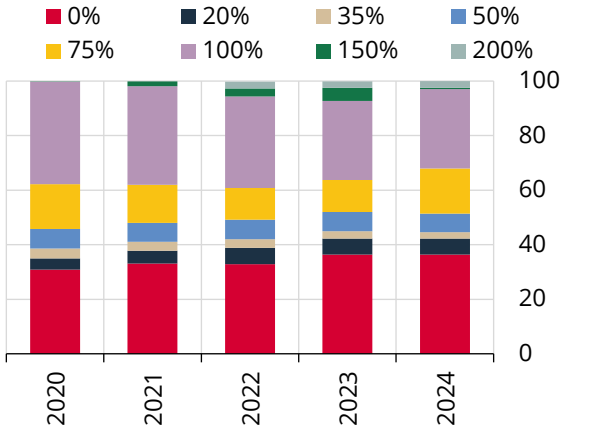
[2] Legal ratios are the sum of bank-specific countercyclical capital buffer, capital conservation buffer, and systemically important bank buffer ratio in addition to the minimum ratio of 8% as per Basel III regulations. In Türkiye, the countercyclical capital buffer ratio is 0%, the capital conservation buffer is 2.5%, and the systemically important bank buffer ratios are between 1-2%. Thus, the minimum consolidated ratios that banks are required to meet for CAR vary between 10.5% and 12.5% depending on the systemic importance of the bank. On the other hand, these ratios may be slightly higher than the countercyclical capital buffer calculated according to banks' exposures in other jurisdictions.

Table IV.4.1: Retail Loan Risk Weights (%)

	Basel Practice	Pre-Regulation	Post-Regulation
		Flow	Stock
Credit Cards			
1-6 month (inc.) maturity	75	150	75
> 6-month maturity	75	150	75
Vehicle Loans			
All maturities	75	150	75
General Purpose Loans			
1-12 month (inc.) maturity	75	150	75
>1-year maturity	75	150	75
Housing Loans			
First house	35	35	35
Other houses	35	150	35

Source: BRSA
Note: Post-regulation period refers to September 2024 and onwards.

Chart IV.4.13: Distribution of Risk Weighted Items for Credit Risk (%, Standardized Approach)

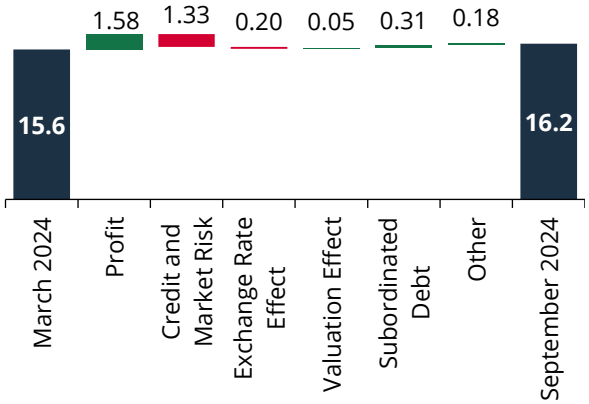


Sources: CBRT, BRSA Last Observation: 09.24

Banks continue to support capital ratios through internal capital generation.

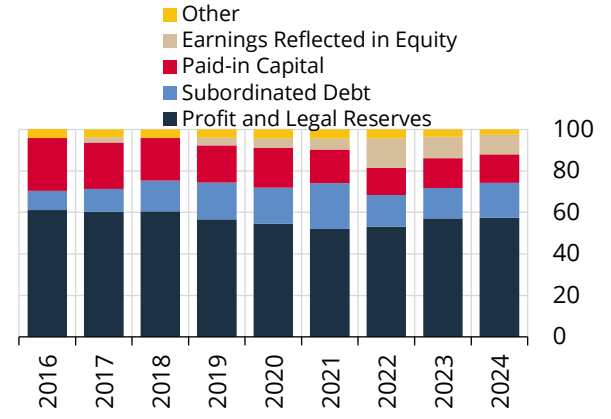
Since the last Report period, profit accumulation has remained the major factor supporting capital adequacy. New subordinated debts in 2024 also reflected positively on capital ratios. The implementation of Basel standards in retail loan risk weights curbed the negative impact of the higher risk weighted assets for credit risk on capital adequacy. Thus, the increase in regulatory capital compensated for the increase in risk-weighted assets and capital ratios rose (Chart IV.4.14). It is essential for banks to increase their capital ratios with their own resources for a well-founded and sustainable capital position. As a matter of fact, the regulatory capital of the banking sector is predominantly composed of core capital. Accordingly, approximately 78% of regulatory capital is composed of core capital, while profit and legal reserves have historically stood out with a share of more than 50% in the composition of regulatory capital. On the other hand, FX-denominated subordinated debts provide banks with a diversity of instruments as well as protection from exchange rate increases through the valuation effect. With improved financing conditions abroad and increased interest from foreign investors, banks issued additional Tier 1 and Tier 2 subordinated debt instruments in 2024. Thus, the share of subordinated debt in equity reached 16.8% (Chart IV.4.15).

Chart IV.4.14: Change in CAR (%, Excluding BRSA Forbearance Measures)



Sources: BRSA, CBRT

Chart IV.4.15: Composition of Regulatory Capital (%)



Sources: BRSA, CBRT Last Observation: 09.24

Note: Share premiums are included in paid-in capital. "Other" covers other equity items, with general provisions having a larger weight.

Banks continue to maintain their above-threshold capital buffers at prudent levels.

Recently, despite the nominal increase in banks' excess capital, the ratio of excess capital to risk-weighted assets has declined. This is attributed to banks' appetite for lending, exchange rate developments, the implementation of risk weights higher than international standards and more prudent provisioning. Banks' available excess capital buffer increased in September due to the reduction in retail loan risk weights (Charts IV.4.16 and IV.4.17). Excess capital increases banks' capacity to absorb unexpected risks and shocks in the short and medium term. It also helps banks finance the real economy and reduces concerns about banks' solvency during economic booms and busts. Banks' loss absorbency capacity is bolstered by discretionary free provisions amounting to TRY 52.5 billion, as well as capital buffers.

Chart IV.4.16: Banks' Excess Capital Buffer (%)

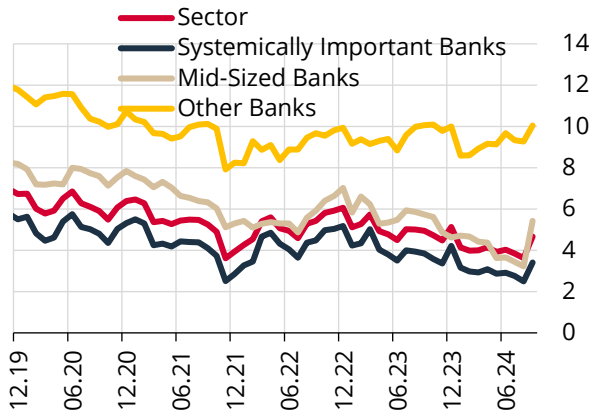
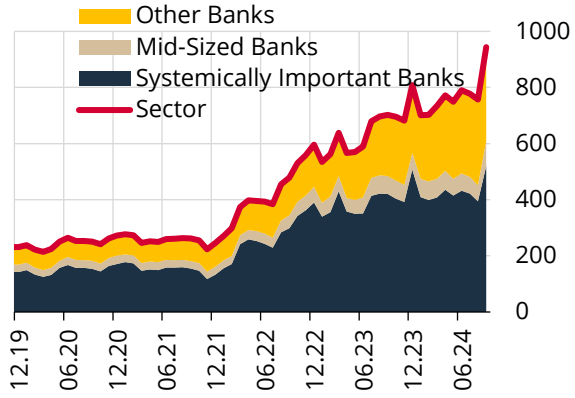


Chart IV.4.17: Banks' Nominal Excess Capital Buffer (TRY Billion)



Sources: BRSA, CBRT

Last Observation: 09.24

Note: CARs excluding BRSA forbearance measures are used. The calculation of excess capital buffers includes the systemically important bank buffer, capital conservation buffer, and bank-specific countercyclical capital buffer in addition to the 8% regulatory limit.