

IV. Financial Sector

After having increased in March-July 2020 due to measures limiting the economic impact of the pandemic, total loan growth has been slowing amid gradual tightening steps since August. The slowdown in loan growth is evident across all loan types. Loan growth is expected to slow further due to the tightening in liquidity facilities provided by the CBRT, the gradually-loosened AR rule that will cancel at the end of the year, and a balancing in the supportive stance of state-owned banks.

Interest rates have recently increased across subcategories of corporate and retail loans due to rising funding costs, while their maturities have shortened. Firms opt for shorter maturities in TL commercial loans as interest rates go up due to the transmission channel from the CBRT's tightening steps. On the other hand, maturities for FX loans shortened on account of slowing investments and companies' reluctance to take on long-term currency risk. Meanwhile, maturities for all subcategories of retail loans shortened due to the termination of loan incentives as well as macroprudential measures reducing the maximum maturity period.

In the current reporting period, the NPL balance remained almost flat, while the NPL ratio decreased due to the robust increase in the volume of performing loans. The BRSA's decision that extends the periods for classifying a loan's status as Stage 2 or NPL as well as heightened loan restructuring and installment deferrals buoyed up the sector's asset quality outlook. Future asset quality and credit risk indicators will be determined by the course of the pandemic and the path of economic activity.

The banking sector remains resilient to liquidity shocks. The sector's current LCRs, calculated for total and FX assets, are well above the minimum legal limits. The loan-to-deposit ratio remained flat as the strong loan growth was backed by deposit growth.

Global and national liquidity measures taken in response to the coronavirus outbreak supported the banking sector access domestic and external financing. The decisions taken amid increased geopolitical risks by credit rating agencies regarding the outlook of a country and banking sector caused banks to bear a higher cost of accessing external funds. However, despite rising costs, the increase in external debt rollover ratios, especially for syndicated loans, indicate that the sector encountered no significant difficulty accessing external funds in the current reporting period.

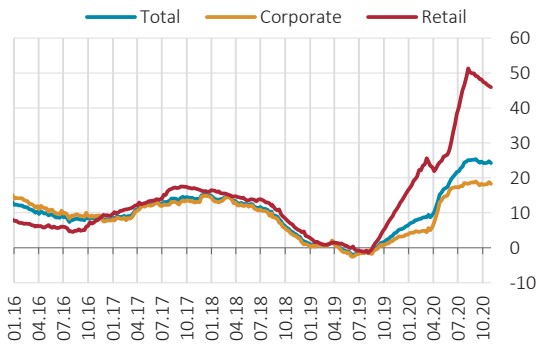
In the current reporting period, profitability indicators remained at reasonable levels and partially flat. Profitability was positively affected by increased net interest income, the asset quality outlook and securities trading revenues. This effect, however, was balanced by the fall in non-interest income and the rise in non-interest expenses. The faster pass-through from higher interest rates to average deposit pricing due to the maturity structure may put downward pressure on profitability in an environment of slowing loan growth. On the other hand, provisions prudently earmarked by banks may restrain the NPL growth-driven pressure on profitability.

The capital structure of the banking sector remains strong. There was a significant increase in CAR in March-May 2020 due to the BRSA's regulation on CAR calculation and the capital support provided to state-owned banks. Despite falling marginally due to the credit stimulus afterwards, the sector's CAR has recently flattened out in response to the slowdown in loans.

IV.1 Credit Developments and Credit Risk

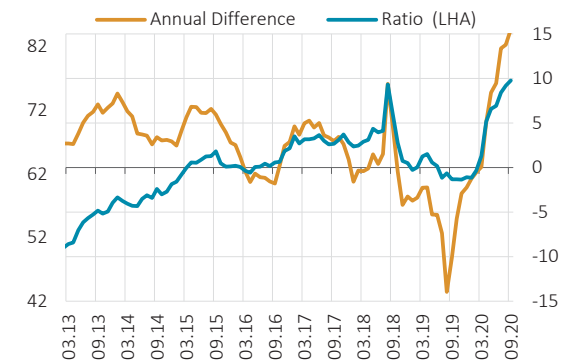
As a result of the coronavirus epidemic, which started early in March 2020 and swept the world in April, as well as the restrictive measures taken to contain the epidemic, a significant contraction was observed in domestic economic activity in the second quarter of the year. With the credit incentives introduced in this period, the annual credit growth adjusted for exchange rate effect increased from 17% in May 2020 to 25% in August (Chart IV.1.1).¹ Thanks to the measures and incentives introduced to keep the credit channel operational, the liquidity needs of individuals who experienced loss in income and the working capital needs of companies whose activities slowed down have been supported (FIR May 2020, Box I.1.I). Thus, in the third quarter of 2020, a widespread recovery was observed in economic activity, except for the service sector. As the recovery became more evident, gradual tightening steps started to be taken in monetary policy as of August, the BRSA loosened the AR implementation and a rebalancing was observed in the supportive stance of state banks (Box I.1.I). In the upcoming period, annual loan growth rates are expected to decline significantly due to the monetary tightening achieved.

Chart IV.1.1: Annual Loan Growth (FX-adjusted, %)



Source: CBRT Last Observation: 06.11.20
 Note: FX-indexed loans are included in FX loans. FX-adjusted loan growth is measured by taking into account the TL loan changes and the product of FX (basket) loan changes by the average exchange rate for the period.

Chart IV.1.2: Credit / GDP Ratio (%)



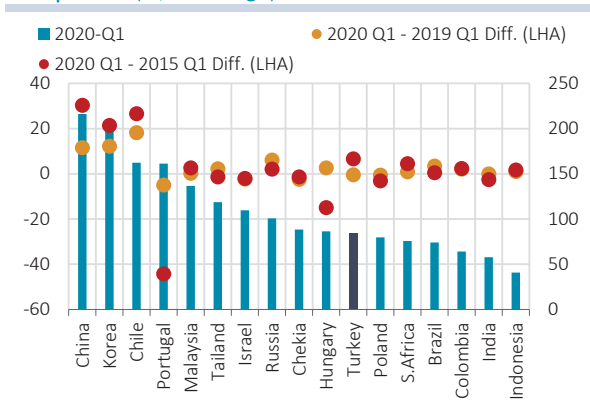
Source: CBRT Last Observation: 09.20
 Note: The ratio takes the monthly nominal stock of credit over the sum of GDP provided by the Turkish banking sector over the past 12 months.

In August 2020, the credit / GDP ratio, which is calculated over the total nominal stock loan amount, increased by 15 percentage points year-on-year and reached 76.6% (Chart IV.1.2). This rise was driven by the rapid growth in loans despite the contraction in economic activity in the second quarter as well as the increase in the TL equivalent of FX loans due to the appreciation of exchange rates. With the slowdown effect of the gradual tightening steps taken in monetary policy since the beginning of August and the V-shape recovery in economic activity as indicated by leading indicators, the loan / GDP ratio will likely to converge to the pre-pandemic level in the upcoming period.

An international comparison of the financial debt/GDP ratio, in which bond issues and interest rediscunts are included-, reveals that Turkey ranks lower than the average of peer countries (Chart IV.1.3). The average of the said ratio in emerging economies was 142% in the first quarter of 2020, while it was 84% in Turkey. Although the loan / GDP ratio increased in Turkey during the pandemic, Turkey's indebtedness continues to be below the EMU average, since there is a similar uptrend in other countries due to the expansionary policies and the contraction in economic activity on a global scale.

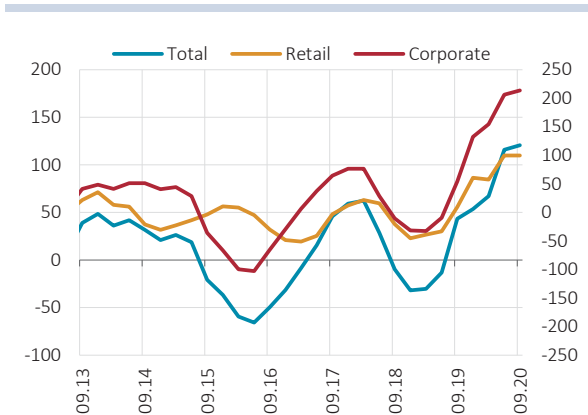
¹ Due to the significant differentiation in the composition of TL and FX-denominated loans and FX loans and exchange rate developments, the exchange rate adjustment method was updated in order to create a healthier aggregate loan growth indicator. For the technical explanation of the new method, which calculates the total FX-adjusted loan growth by taking into account the TL loan changes and multiplication of FX (basket) loan changes with the average exchange rate of the period. [For technical details, please see.](#)

Chart IV.1.3: Total Financial Debt / GDP Ratio International Comparison (% , % Change)



Source: BIS Last Observation: 03.20
 Note: Total financial loans cover performing and non-performing loan receivables, bond issues and loan rate rediscount.

Chart IV.1.4: Credit Standards (Annual, %)



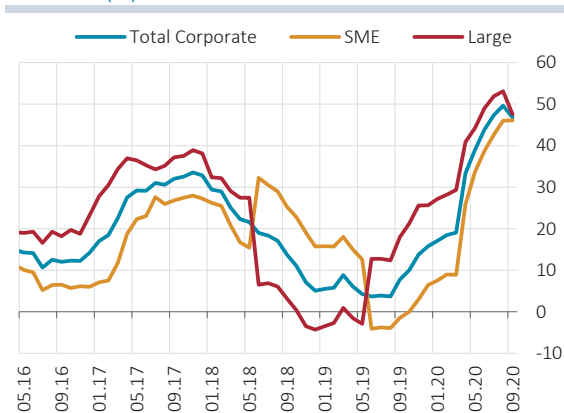
Source: CBRT Last Observation: 09.20
 Note: The credit standards series is calculated by 4-quarter cumulative value of BLTS answers weighted by credit volume and adjusted for historical averages.

According to the Bank Loans Tendency Survey (BLTS) results, in the period from the second half of 2019 until the pandemic, as a result of the recovery in economic activity and interest rate cuts, there was an improvement in total loan standards of the banks, particularly in corporate loans (Chart IV.1.4). Thanks to the pandemic measures taken to ensure uninterrupted operation of the credit channel, banks stated that the improvement in loan standards continued in the second and third quarters. With the gradual tightening steps taken in monetary policy since the beginning of August, a moderate tightening in credit standards is expected to be observed in the last quarter of the year.

IV.1.1 Corporate Loans

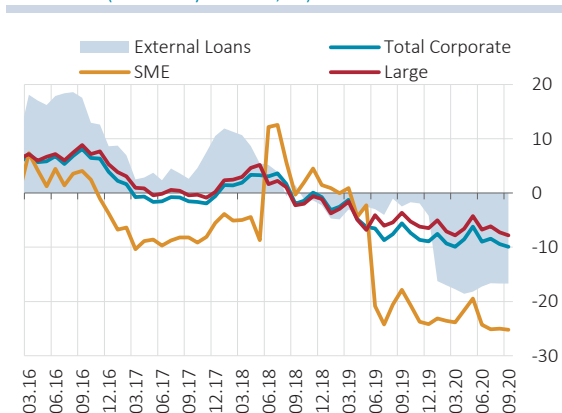
TL-denominated corporate loans assumed a rapid growth trend as of the second half of 2019, and this trend has further continued on the back of credit campaigns led by public banks and the practices encouraging the use of credits during the pandemic period (Chart IV.1.5). In August, the total TL loan balance of large-scale companies grew more than 50%, in annual terms. For SMEs, loan growth was almost 50%. The decline in FX-denominated corporate loans used by the corporate sector from domestic banks and foreign financial institutions, which has been observed since the last quarter of 2018, continued in the current Report period as well (Chart IV.1.6).

Chart IV.1.5: Annual Growth of TL Corporate Loans by Firm Size (%)



Source: CBRT Last Observation: 09.20
 Note: FX-indexed TL loans are excluded from calculations. The new SME definitions were announced on the Official Gazette of 24 June 2018, and influenced the shifts in June 2018 and June 2019.

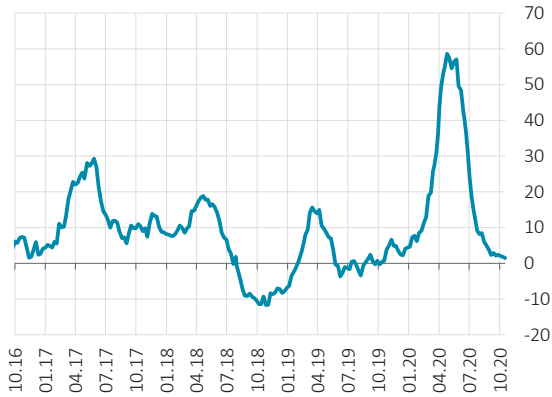
Chart IV.1.6: Annual Growth of FX Corporate Loans by Firm Size (Currency Basket, %)



Source: CBRT Last Observation: 09.20
 Note: FX-indexed TL loans are excluded from calculations. The new SME definitions were announced on the Official Gazette of 24 June 2018, and influenced the shifts in June 2018.

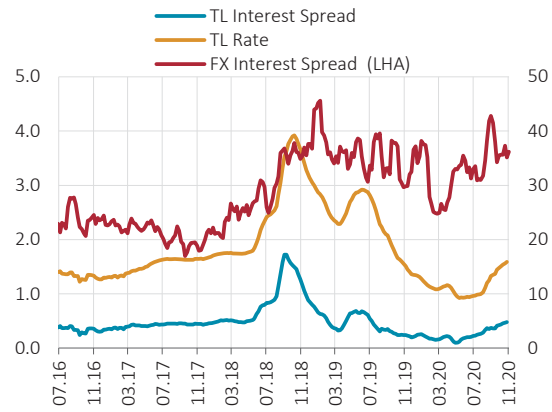
The effects of the monetary tightening steps taken since August on commercial loans have started to be observed in the weekly data. The annualized value of the 13-week FX-adjusted commercial loan growth, which was approximately 60% in June, decreased below 5% in September (Chart IV.1.7).² The slowdown in commercial loan growth with tightening steps taken in the monetary policy are deemed to be positive with respect to the efficient functioning of the transmission channel. Accordingly, the slowdown in loans demanded by real sector firms in order to maintain their activities and to compensate for their deteriorating cash flows during the pandemic may continue in the upcoming period.

Chart IV.1.7: Commercial Loan Growth (13-Week Momentum, FX-Adjusted, Annualized %)



Source: CBRT
Last Observation: 06.11.20
Note: FX-adjusted loan growth is measured by taking into account the product of TL loan changes and the product of FX (basket) loan changes by the average exchange rate for the period.

Chart IV.1.8: Commercial Credit-Deposit Interest Rate Spreads (4-Week MA, %)



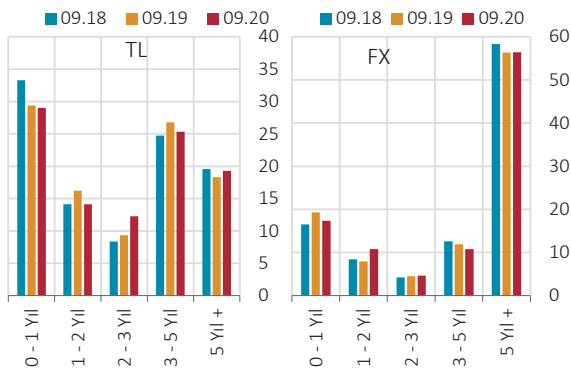
Source: CBRT
Last Observation: 06.11.20
Note: Interest rate spreads are the differences between TL and FX corporate loan rates and corresponding deposit rates. Eximbank loans, overdraft accounts, credit cards and zero-rate loans have been excluded.

During the pandemic period, commercial loan rates and the commercial loan-deposit rate spread dropped significantly as a result of the downward effect of loan campaigns led by public banks and the AR regulation on loan pricing. The TL commercial loan-deposit rate spread, which fell below 1% in April, has increased since August and reached 4.2% according to the latest data (Chart IV.1.8). The fact that the decline in FX loan rates was rather limited compared to the decrease in TL loan rates was an additional factor in the continued weak course of FX loans that has been observed since 2018.

In the current Report period, the maturities of TL-denominated loans lengthened compared to the same period of the previous year (Chart IV.1.9). This can mainly be attributed to incentive packages such as KGF with grace periods and long maturities, and the desire of companies to remain liquid for the long term due to uncertainties regarding the course of the pandemic and the future path of interest rates. With the effect of decreasing loan incentives and increasing interest rates as of August, companies are expected to opt for shorter-term loans in the near future. Moreover, banks offering variable rate pricing for TL loans with a maturity longer than three years that fell outside the scope of incentives and firms' cautious approach to variable rate loans due to uncertainties regarding the course of the epidemic stand out as other factors that shorten TL loan maturities. Historically, FX loans have been the most preferred type of loans for financing of investments; maturities in FX loans have been shortening due to the deceleration in investments and companies' efforts to avoid long-term currency risk, and the share of FX loans with a maturity of three years or more have been decreasing (Chart IV.1.9).

² The 13-week momentum growth indicator is the annualized value of the 13-week total commercial loan growth calculated by the new FX-adjustment method.

Chart IV.1.9: Maturity Distribution of Domestic TL and FX Loans (%)

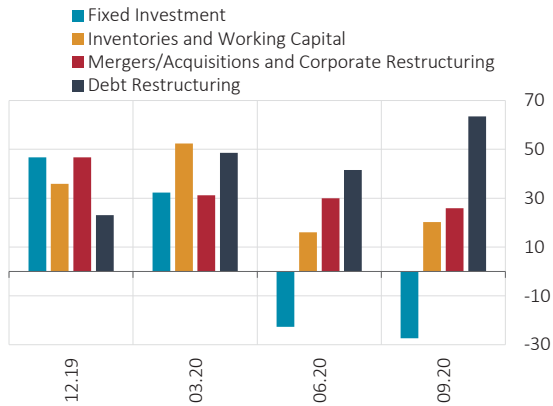


Source: CBRT

Last Observation: 09.20

Note: Maturities on the day of extension have been taken into account. FX-indexed loans have been included in FX loans.

Chart IV.1.10: Factors Contributing to Corporate Loan Demand-Financing Needs (Net % Change)



Source: CBRT

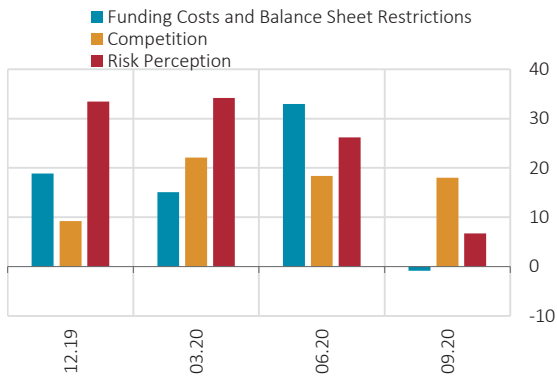
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Last Observation:

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

According to the BLTS results of June and September 2020, which were carried out following the onset of the epidemic in Turkey, the most important factor determining companies' loan demand in the survey quarters was restructuring of debts (Chart IV.1.10). Firms' demand to restructure their overdue debts was driven by the cash flow problems they experienced in the second quarter and by a desire to benefit from the low-interest loan facilities offered in the second and third quarters. Surveys conducted during the pandemic period revealed that investment appetite has decreased significantly.

Chart IV.1.11: Factors Contributing to Corporate Loan Supply (Net % Change)

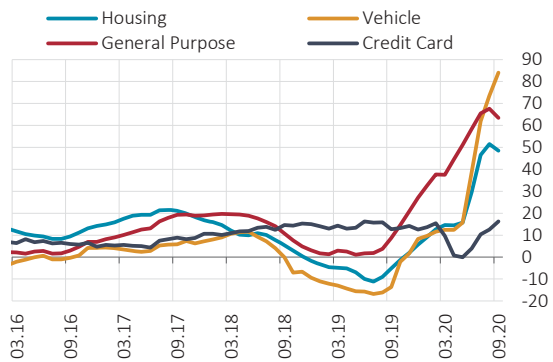


Source: CBRT

Last Observation: 09.20

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

Chart IV.1.12: Retail Loan Growth (%)



Source: CBRT

Last Observation: 09.20

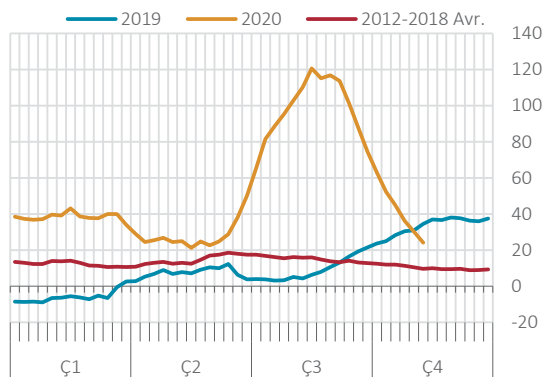
The results of the BLTS in June reveal that the most important factors that increased corporate loan supply in the second quarter of 2020 were the decline in funding costs of banks and their strong positions in the capital and liquidity-led balance sheet constraints (Chart IV.1.11). In the September surveys, participants stated that the factors stemming from funding costs and balance sheet constraints had a decreasing effect on the loan supply and that competition in the sector played a pivotal role in the improvement in loan supply conditions. The decline in the positive impact of funding can be attributed to the downgrading of Turkey's rating by rating agencies, increase in exchange rate volatility and the rise in CBRT funding costs. According to the same survey results, banks expect loan supply conditions to tighten moderately in the last quarter of 2020.

IV.1.2 Retail Loans

The uptrend in growth in general purpose loans, which started to be observed as of the second half of 2019 on the back of policy rate cuts and the improvement in financial conditions, has accelerated with the supportive arrangements introduced during the pandemic period (Chart IV.1.12). The annual growth of general-purpose loans, which had reached 37% in the pre-pandemic period, was 68% in August. Individuals, whose income decreased due to the pandemic, wanted to benefit from commercial banks' loan campaigns with favorable interest rates and grace periods, and this led to a rapid growth in general-purpose loans. Similarly, while growth rates in vehicle and housing loans, which were 12% and 15% in March, respectively, jumped to 74% and 52%, respectively, in August. This rise can be attributed to deferred vehicle and housing demand, changing consumer preferences due to the pandemic, low-rate credit campaigns and the arrangement stipulating a rise in the loan-to-value ratio. The housing and vehicle market, which had been stagnant for a long time, revived again supporting the almost stand-still in economic activity via the demand channel. Retail loan growth, which slowed down in September on the back of the gradual tightening steps, is expected to continue its downward trend in the upcoming period.

The downward trend in retail loan utilization, which started at the beginning of August due to the effect of gradual tightening steps taken in monetary policy, continues (Chart IV.1.13). The annualized value of the 13-week growth rate in retail loans, which was recorded at 120% in June due to the measures taken under extraordinary conditions during the pandemic, fell below 45% in October. The recent slowdown in the total retail loans trend is also observed in general purpose loans (Chart IV.1.14). The slowdown was driven by tightening steps that have been taken in monetary policy since August and the BRSA's reduction of the maximum maturity of consumer loans from 60 months to 36 months (Box I.1.I and Box II.1.I).

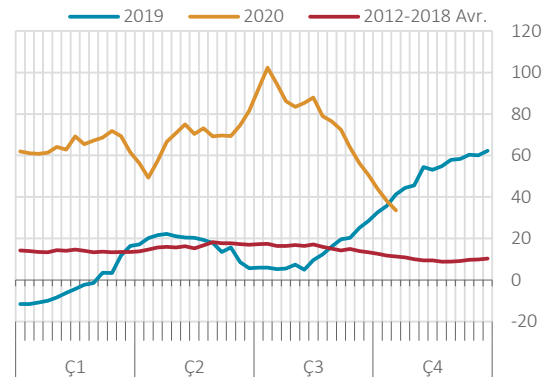
Chart IV.1.13: Retail Loan Growth
(13-week momentum, Annualized, %)



Source: CBRT Last Observation: 06.11.20

Note: The 13-week momentum growth indicator is the annualized value of the 13-week total retail loan growth.

Chart IV.1.14: General Purpose Loan Growth (13-week momentum, Annualized, %)



Source: CBRT Last Observation: 06.11.20

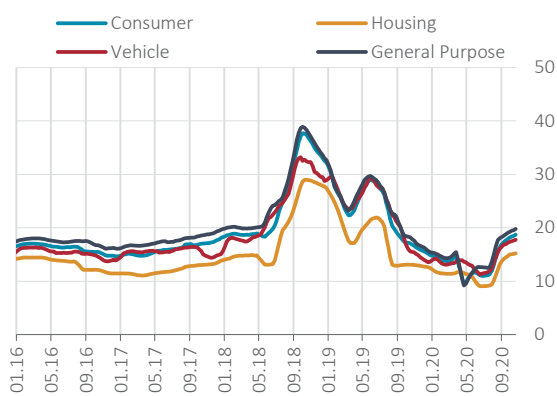
Note: The 13-week momentum growth indicator is the annualized value of the 13-week total retail loan growth.

The weighted average consumer loan interest rates, which have been decreasing since the second half of 2019, came down to 11% in June 2020 in annual terms (Chart IV.1.15). An analysis of consumer loans by sub-categories reveals that as a result of campaigns implemented in the sector, interest rates on housing loans realized below 10% annually in June. In August, loan campaigns were terminated and retail loan rates started to increase. In November 2020, the annual general-purpose loan rates were almost at 20% and housing loan rates approached 15%.

Average maturities of consumer loans, which have been climbing since the last quarter of 2019, continued this uptrend in the second and third quarters of the year (Chart IV.1.16). The average maturity in mortgage loans, which exceeded 100 months, has encouraged individuals to become homeowners with favorable mortgage payment opportunities. Thanks to general-purpose loan campaigns with maturities of 60 months and a grace period of one year offered for people that lost their income during

the pandemic, the average maturity of general-purpose loans has exceeded 40 months. With the BRSA's regulation restricting consumer loan terms to 36 months and the termination of housing loan campaigns, the shortening in loan maturities is expected to continue in September.

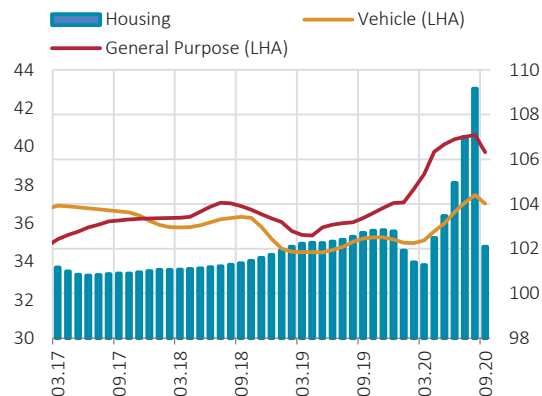
Chart IV.1.15: Retail Loan Rates and Interest Rate Spreads (4-Week MA, %)



Source: CBRT

Last Observation: 06.11.20

Chart IV.1.16: Average Maturities in Consumer Loans of the Banking Sector (3-Month MA, Month)



Source: CBRT

Last Observation: 09.20

IV.1.3 Non-Performing Loans

NPL ratios reached 5.4% by the end of 2019. The asset quality outlook of the sector was supported by the BRSA's decision extending the period of close monitoring and NPL classification that were in practice in the last Report period, the debt restructuring and installment deferral practices, the strong increase in credit volume and the rapid recovery in economic activity in the current Report period.³ In this framework, while the NPL balance remained flat in the current Report period, the volume of performing loans significantly increased with the effect of steps taken, and thus, the NPL ratio of the sector decreased to 4.1% in September 2020. Moreover, the rise in the TL equivalent of FX loans due to exchange rate developments increased performing TL-denominated loan balance and stimulated a decrease in the NPL ratio. In September, the NPL ratio in commercial and retail loans was 4.6% and 2.3%, respectively. Compared to the previous Report period, commercial and retail NPL ratios decreased by 0.9 and 0.7 percentage points, respectively (Chart IV.1.17).

A set of comprehensive measures have been taken to prevent the downside risks posed by the pandemic on household and company incomes from causing deterioration in the asset quality outlook. With the contribution of measures, economic activity showed a strong recovery in the third quarter of the year. The strengthening of cash flow of firms and debt payment capacity of households have supported NPL collections (Chart IV.1.18). Moreover, the recovery observed in the real estate sector thanks to low interest rates and long-term payment options in housing loans positively affected the collateral valuations, and collections increased as a result of the rise in sales. With the intensive debt restructuring and installment deferral, coupled with the BRSA's decision extending the periods for Stage 2 and NPL classification of loans have limited additions to NPL, and the NPL balance was almost flat in the current Report period. These developments helped the increase in NPL balance as well as the balance classified as Stage 2 loans remain moderate during the pandemic (Chart IV.1.19). After June, as a reflection of banks' prudent stance, there was a limited increase in the ratio of loans classified as Stage 2 loans in the commercial segment. The extent to which this increase will be reflected on the NPL balance in the upcoming period will depend on the course of the pandemic and economic activity.

³ The legal period for the delayed payment in the NPL classification of banks, which was 90 days, was increased to 180 days, valid until December 31, 2020, and loans with a delay of up to 180 days were allowed to be classified in the first and second stages.

Chart IV.1.17: NPL Ratios (%)

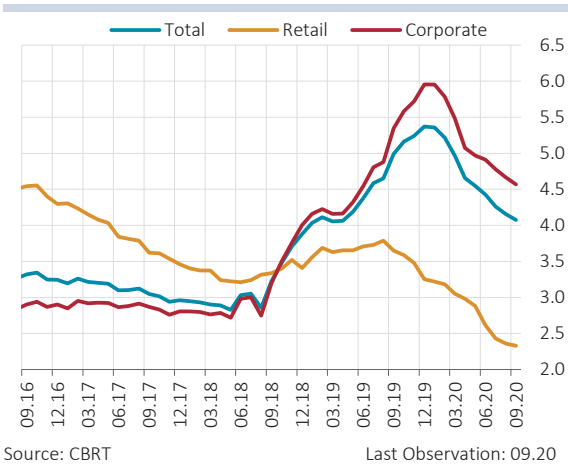
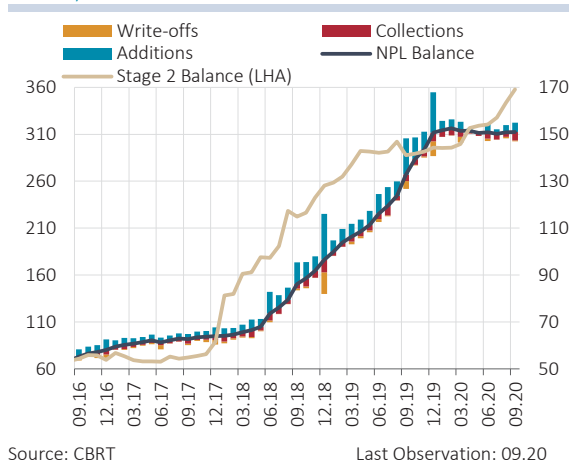


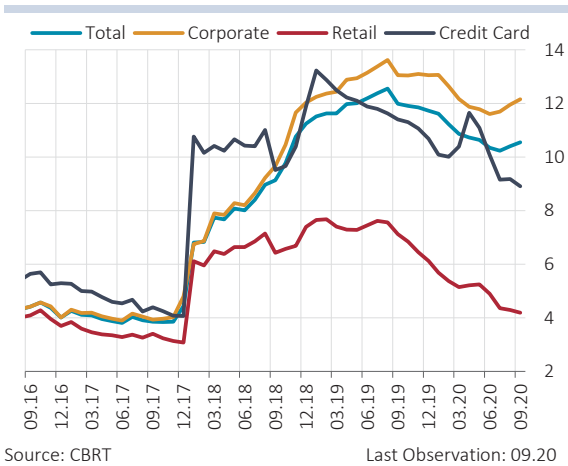
Chart IV.1.18: NPL Balance and Components (TRY Billion)



An analysis of the development of credit risk indicators in selected countries reveals that the NPL ratio generally increased in the two-year period including the pandemic (Chart IV.1.20). As a result of the BRSA's decision to transfer to the NPL account at the end of the financial structure assessment studies in 2019, the NPL ratio of Turkey, which diverged from the average of peer countries, has recently converged to the average with a downtrend.

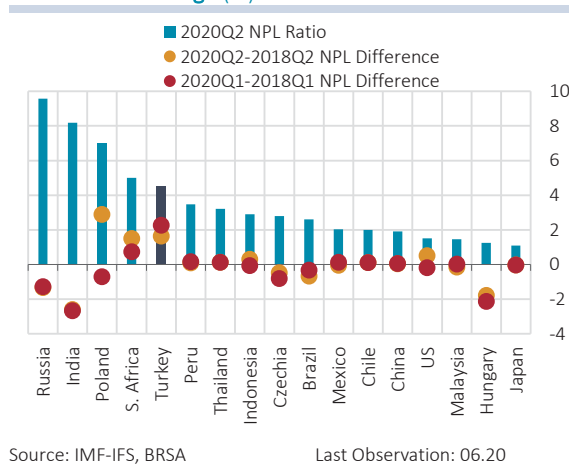
In September 2020, the NPL ratios of large firms and SMEs were 3.7% and 6.5%, respectively (Chart IV.1.21). The NPL ratio of SMEs, which may be more sensitive to developments in the economic activity, peaked at 9.2% at the beginning of 2020. While the strong increase in retail loans during the pandemic period supports households' solvency, it can also positively affect the cash flow of companies thanks to payments or expenditures. Moreover, as the rapid rise in commercial loans in the post-pandemic period spread across all scales, the NPL ratio in the SME segment decreased significantly.

Chart IV.1.19: Ratio of Stage 2 Loans (%)



Note: Series have been calculated to show the ratio of Stage 2 loans to performing loans.

Chart IV.1.20: International Comparison of the NPL Ratio and Its Change (%)



Note: As data for India, Japan and Thailand have not been reported yet, bars show 2020Q1 values and two-year differences taken over 2020Q1.

The positive outlook in the NPL ratio of retail loans is observed across all sub-categories (Chart IV.1.22). Comprehensive macroprudential measures, which have been introduced regarding retail loans taking into account the evolution of macroeconomic conditions, have played an important role in keeping the increase in NPL ratio in retail loans at a historically low level. In addition to the strong increase in consumer loans, various campaigns including low interest rates and long maturities supported the debt

repayment capacity of individuals, resulting in a positive trend in collections and a decrease in the NPL ratio.

The NPL ratio in personal credit cards increased in the second quarter when economic activity contracted and individuals' solvency deteriorated due to the negative impact of the pandemic; and then took up a downtrend in line with sub-categories. It is projected that the possible effects of the pandemic on income and debt service capacity of households via economic activity and the labor market will continue to be determinant for the NPL ratios of retail loans in the upcoming period.

Chart IV.1.21: Corporate NPL Ratios (%)

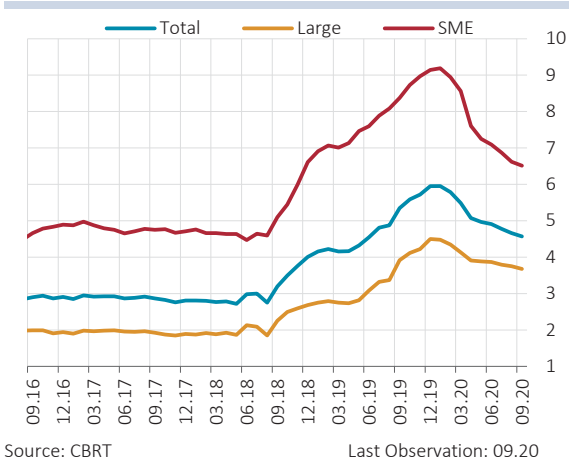
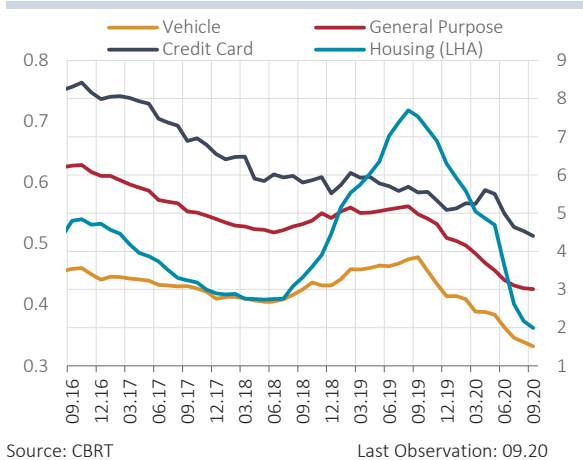


Chart IV.1.22: NPL Ratios for Retail Loans (%)



With the contribution of monetary and fiscal policy measures introduced at the onset of pandemic, the functionality of the credit channel was supported, and the economic activity recovered rapidly in the third quarter of the year. Moreover, the recent restructuring and installment deferral practices and the BRSA's decision extending the period of classification as Stage 2 loans and NPL have limited the negative effect of the pandemic on economic activity on the quality of assets. It is projected that the NPL ratio may increase in the upcoming period due to the development of the relevant decision of the BRSA, the slowdown in loan growth as well as approaching due dates of payments of the structured or deferred loans. Meanwhile, the spread of the pandemic with a second global wave and its impact on economic activity and financial markets may pose an additional risk. In this context, it is projected that uncertainties caused by the pandemic and the likely course of economic activity in the upcoming period will be the determinant factors in the development of the sector's credit risk and asset quality. However, it is considered that the banking sector's current capital and balance sheet structure are at a level that the risks arising from asset quality can be handled.

Box IV.1.1

Housing Incentives and Their Effects

This box gives a brief account of the housing loan incentives that was initiated by state-owned banks starting from 2018 when residential house sales began to stagnate, and of the impacts of the stimulus.

As housing loans offer long-term financing in larger amounts, interest rates have traditionally had a significant influence on housing demand. In fact, historically, there has been a highly negative correlation between the change in housing loan rates and mortgage sales (-93%). Thus, high housing loan rates have driven the share of mortgage sales lower. Periods of high loan rates were marked by exceptionally sluggish housing investments and a postponed demand for houses, but this postponement caused sales to accelerate when loan rates were lower. The housing demand appears to be particularly buoyant when loan rates are below the psychological upper limit of 1% monthly.

In 2013, mortgage sales accounted for 40% of all sales, which, in later years, dropped to 33% on average and to a range of 20% to 25% as of 2018 (Table IV.1.1.1). On the supply side, banks have been more cautious about issuing housing loans due to recent uncertainties. After reaching 39% in September 2019 thanks to incentives with affordable loan rates offered mostly by state-owned banks, mortgage sales averaged 25% over the whole of the year. With the announcement of another round of incentives by state-owned banks in the summer of 2020, the mortgage sales hit a record 57% in July, before falling to 46% in August.

Housing incentives also affect the composition of house sales, i.e. new vs. used homes. New (first-time) and used (second-hand) home sales were almost the same between 2013 and 2018, but being on the decline since 2018, the share of new home sales fell to 38% in 2019 and 31% in 2020 (Table IV.1.1.1).

Table IV.1.1.1: Home Sales by Years

Year	Annual Home Sales (Number of unit)	Change (%)	Jan-Aug Home Sales (Number of unit)	Mortgage Sales (Number of unit)	Share of Mortgage Sales (%)	New Home Sales (Number of unit)	Share of New Home Sales (%)
2013	1,157,190		760,101	460,112	40	529,129	46
2014	1,165,381	0.7	715,501	389,689	33	541,554	46
2015	1,289,320	10.6	844,132	434,388	34	598,667	46
2016	1,341,453	4.0	826,893	449,508	34	631,686	47
2017	1,409,314	5.1	890,430	473,099	34	659,698	47
2018	1,375,398	-2.4	875,064	276,820	20	651,572	47
2019	1,348,729	-1.9	718,570	332,508	25	511,682	38
2020/8	1,024,534	-24.0	1,024,534	473,114	46	317,832	31

Source: TURKSTAT

Note: The column of change shows the year-on-year change in home sales. Figures are as of August 2020. Share of Mortgage Sales and Share of New Home Sales are the percentages of mortgage sales and new home sales, respectively, within total sales. New home sales refer to a house registered as a condominium unit or a construction servitude and sold for the first time by the construction company or the company or individual owning the property, whereas mortgage sales indicate a house bought with bank loans.

Recent Housing Loan Incentives

State-owned banks offering a monthly housing loan rate of less than 1% for a short time helped revive the housing demand when it was stagnant (Table IV.1.1.2). Although these incentives were first announced by state-owned banks, private banks joined them by offering similar affordable rates and helped boost the market. The first stimulus package of May 2018 offering lower borrowing costs was followed by another one that was also tied up with several construction companies in December. In June 2019, the incentives were backed by inflation-indexed prices and low inflation expectations fostered the demand for housing. In August 2019, housing loan rates were again reduced below 1% and the number of private banks cutting loan rates increased, which stimulated the housing demand that had been delayed for some time.

Table IV.1.1.2: Key Housing Loan Incentives Between 2018 and 2020

Period	Loan Rates, Maturities and Terms
May 2018	State-owned banks: A maximum maturity of 120 months with a monthly interest rate of 0.98% for loans up to TRY 500k. Participating private banks: A maximum maturity of 60 months with a monthly interest rate of 0.98%–0.99% for first-time borrowers.
December 2018	State-owned banks: A maximum maturity of 120 months with a monthly interest rate of 1.78% for loans up to TRY 500k and homes from selected construction companies (monthly interest rates paid by the borrower and the company were 0.98% and 0.80%, respectively). Participating private banks: A maximum maturity of 120 months with a monthly interest rate of 1.78% for loans up to TRY 500k (monthly interest rates paid by the borrower and the company were 0.98% and 0.80%, respectively).
June 2019	State-owned banks: Inflation-Indexed Housing loan Package. A maximum maturity of 120 to 180 months for up to 80% of the purchase. Interest rate: Inflation rate (CPI) + margin set by the bank (0.19% monthly). Interest rate periodically revised (every 3, 6 or 12 months as chosen by the borrower during loan origination) by the inflation rate (CPI). Participating private banks: A maximum maturity of 120 months, CPI + monthly margin of 0.5%, revisions every 6 or 12 months.
August 2019	State-owned banks: A maximum maturity of 180 months with a monthly interest rate of 0.99% for loans up to TRY 500k (0.79% monthly for select new construction projects). Participating private banks: A minimum monthly interest rate of 1.15% (September), lower than 1% (November).
June 2020	State-owned banks: A maximum maturity of 180 months with a grace period up to 12 months for loans up to TRY 750k in İstanbul, İzmir and Ankara and TRY 500k in other provinces, interest rates at a monthly 0.64% and 0.74% for new and used houses, respectively. Participating private banks: A minimum monthly interest rate of 0.87%.

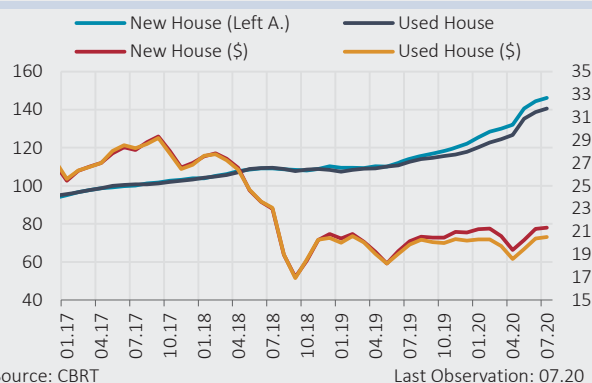
Sources: CBRT, bank websites and other media.

Lastly, a new package was announced in June 2020 to rekindle the housing market that came to a standstill with the coronavirus outbreak. Accordingly, loan rates were set at a record low of 0.64% and 0.74% for new and used houses, respectively, with a grace period of 12 months, a maturity up to 15 years and an increased loan-to-value ratio. House purchases soared throughout June and in the first half of July. In the first week of August, loan rates were raised, the grace period of 12 months was canceled, and the maximum maturity was lowered from 15 to 10 years.

New and Used Home Sales and Prices

The stimulus packages offered by state-owned banks involving lower rates for new homes contributed to depleting new home inventory and supplying cash flow to companies operating in the industry. On the other hand, due to the sluggish demand, house prices reflected little of the input cost upsurge since 2018, but the stimulus-driven demand growth led to price changes. With costs factored in house prices, the spread between prices for new and used houses widened (Chart IV.1.1.1), and notwithstanding more favorable loan rates for new houses, the demand shifted towards more affordable used houses.

Chart IV.1.1.1: Prices for New and Used Houses (Index)



Source: CBRT

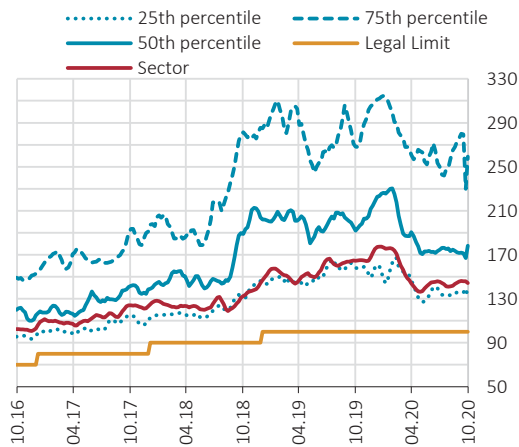
Last Observation: 07.20

Note: The \$ sign in the chart refers to the monthly average USD equivalent of the respective price index. The base year for the relevant TL index is 2017.

IV.2 Liquidity Risk

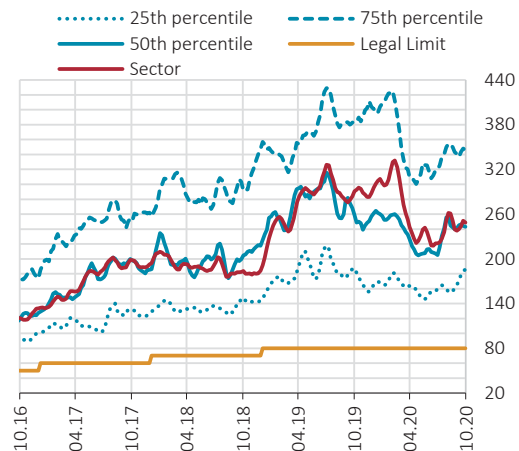
The banking sector remains resilient to short-term and long-term liquidity shocks. The post-pandemic global and national liquidity steps have supported the banking sector's ability to access to domestic and international financing sources. In the current Report period, the share of domestic funds used by the sector continued to increase and contributed to limiting the sensitivity to external volatility. Credit rating agencies' ratings and outlook assessments of Turkey and the banking sector outlook amid climbing geopolitical risks increased the cost of banks' access to international sources. However, the decline in international interest rates despite increasing risk premium has reduced the pressure on financing costs, and the rise observed in medium and long-term external debt rollover ratios, particularly in syndicated loans, indicating that the sector's access to external sources was limited in the current Report period. On the other hand, after the gradual policy steps taken regarding monetary policy and liquidity management, a significant tightening has been achieved in financial conditions, and TL funding costs has increased domestically.

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



Source: CBRT Last Observation: 30.10.20
 Note: Development and investment banks excluded. Based on nonconsolidated reports. These quantiles represent the banks on the top of the first, second and third quartiles, sorted based on an ascending order of banks' LCRs. Legal limit for total LCR is 100%.

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

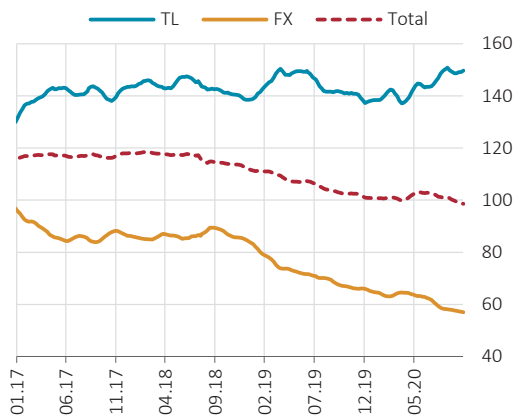


Source: CBRT Last Observation: 30.10.20
 Note: Development and investment banks excluded. Based on nonconsolidated reports. These quantiles represent the banks on the top of the first, second and third quartiles, sorted based on an ascending order of banks' LCRs. Legal limit for FX-LCR is 100%.

In October, the sector's LCRs calculated for total and FX were well above the minimum legal limits, at 144% and 249%, respectively (Chart IV.2.1 and IV.2.2). There are differentiations between banks LCRs and the BRSA's temporary exemption meeting the minimum legal LCR requirement until the end of year has provided flexibility to banks. Even if these measures are terminated, the decrease in LCRs are projected to be limited.

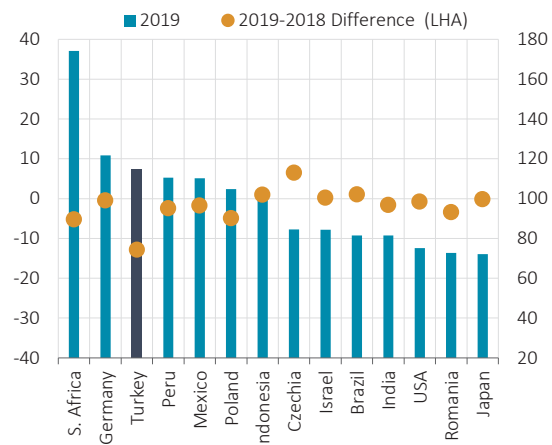
The loan-to-deposit ratio (LDR), which is an indicator for the long-term liquidity position of banks, shows the extent to which loans are financed by deposits. The increase in loans owing to loan campaigns led by state banks in June was supported by the growth in deposits and the sector's LDR stood at 99% in October 2020 (Chart IV.2.3). Credit growth was more remarkable in TL credits, thus this became a determinant in the uptrend in TL LDR. The weak FX loan demand and increasing FX deposit preferences of depositors, which got stronger due to the gold ounce price and exchange rate developments, led to a slight decline in the FX LDR. In October 2020, TL and FX LDR were 150% and 57%, respectively. An international comparison reveals that Turkey's LDR decreased slightly compared to end- 2018 and remained close to peer countries (Chart IV.2.4).

Chart IV.2.3: Loan-to-Deposit Ratio (4-Week MA, %)



Source: CBRT Last Observation: 30.10.20
Note: Development and investment banks excluded.

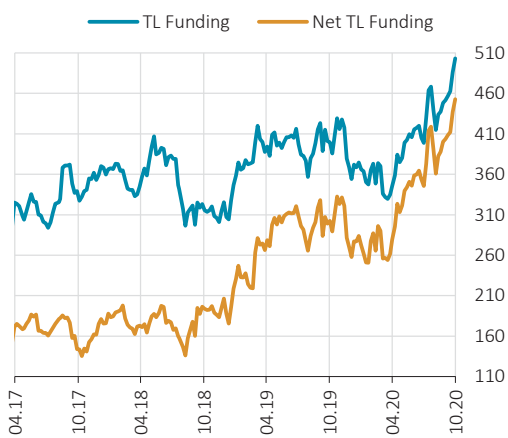
Chart IV.2.4: International Comparison of Loan-to-Deposit Ratio (%)



Source: IMF Last Observation: 2019

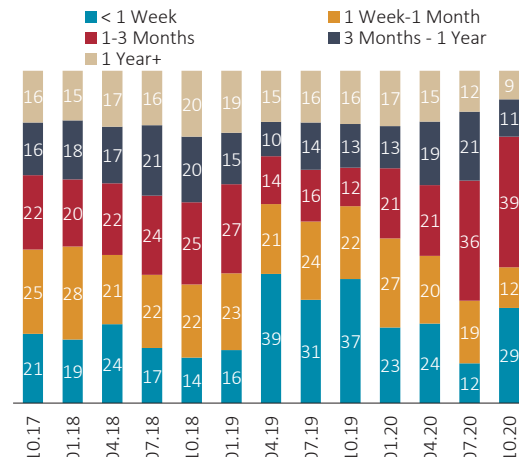
In the current Report period, due to the increase in banks' need for TL liquidity, a rise was observed in the net TL funding from the currency swap market and this amount was realized at TRY 453 billion in October 2020 (Chart IV.2.5). The limit and maturity facilities that the CBRT provides in currency swap transactions have supported banks' access to financing from this market (Box I.1.1). The BRSA's decisions to limit short-term transactions with non-residents to a certain percentage of a bank's equity for paying and receiving TL at the maturity date as well as the CBRT's proliferation of maturities and currency types in swap auctions steered banks towards domestic CBRT transactions and maturities became longer (Chart IV.2.6 and Box IV.2.1). Recently, there has been an increase in short-term transactions, following the flexibility provided by the BRSA regarding the swap regulation (Box I.1.1).

Chart IV.2.5: Amounts of TL Currency Swap Transactions (TRY Billion)



Source: CBRT Last Observation: 30.10.20

Chart IV.2.6: Remaining Maturity Brackets of Spot TL Buying Currency Swaps (Stock, % Share)

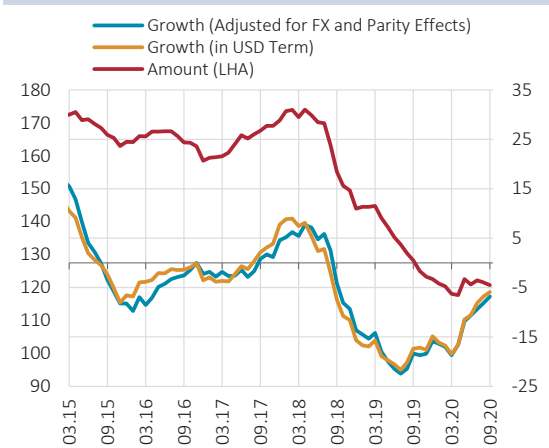


Source: CBRT Last Observation: 30.10.20

The banking sector's external debt balance slightly increased in the period between April and August (Chart IV.2.7). Costs of syndicated loans increased by approximately 25 basis points due to CDS developments and the decisions of credit rating agencies, and approximately 90% of syndicated loans that matured have been renewed (Chart IV.2.8). Although the number of participating banks in foreign

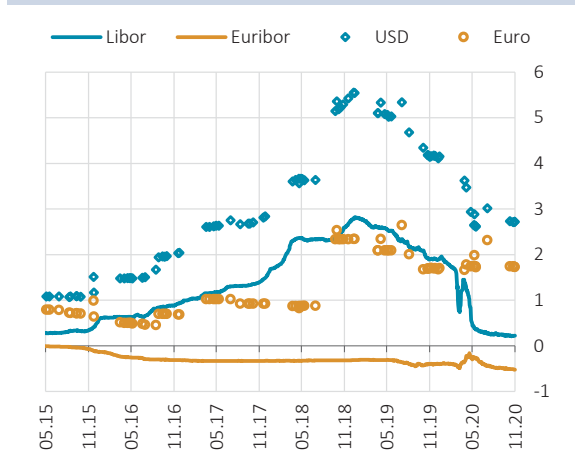
borrowing decreased due to US and European banks’ desire to remain liquid and to prioritize financing of companies in their own countries, the increase in debt rollover ratios compared to the previous Report period indicates that the financing constraint of banks remained at a limited level.

Chart IV.2.7: Amount and Growth Rate of Banks’ External Liabilities (Annual % Increase, USD billion)



Source: CBRT, MKK Last Observation: 09.20
 Note: The USD equivalents of TL and Euro-denominated external debts have been re-calculated with the average parity of the last 12 months.

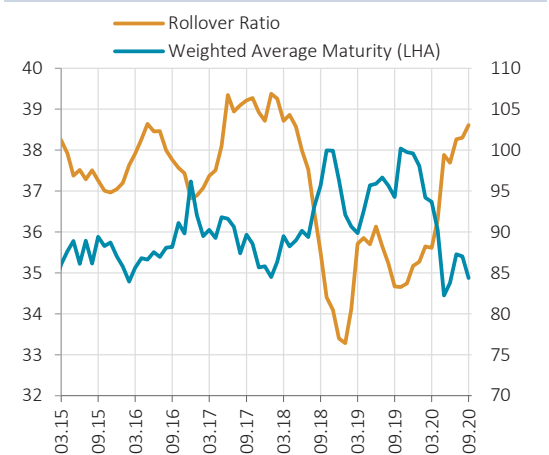
Chart IV.2.8: Cost of Syndicated Loans with a Maturity of 367 days (Transaction-Based, %)



Source: KAP Last Observation: 04.11.20
 Note: Calculated for 10 large banks.

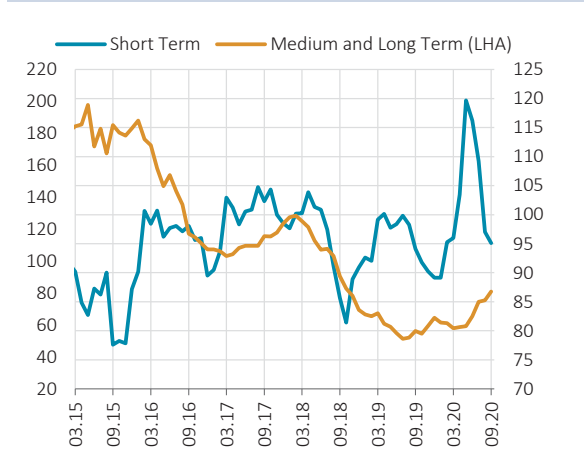
In April and May, the time of external debt repayments, high rollover rates were observed and external debt rollover ratios increased. In the current Report period, the external debt rollover ratio, particularly in bilateral credit and syndicated loans, increased and stood at 103% in September 2020 (Chart IV.2.9). The average remaining maturity of external debts remained partly flat at 35 months. In September 2020, the short-term external debt rollover ratio was 95%, and the medium and long-term external debt rollover ratio was 81% (Chart IV.2.10).

Chart IV.2.9: Total External Debt Rollover Ratio and Its Average Maturity (% , Month)



Source: CBRT, MKK Last Observation: 09.20
 Note: The external debt rollover ratio is calculated based on 6-month weighted moving totals of banks’ total borrowings and repayments of external liabilities including securities issued abroad.

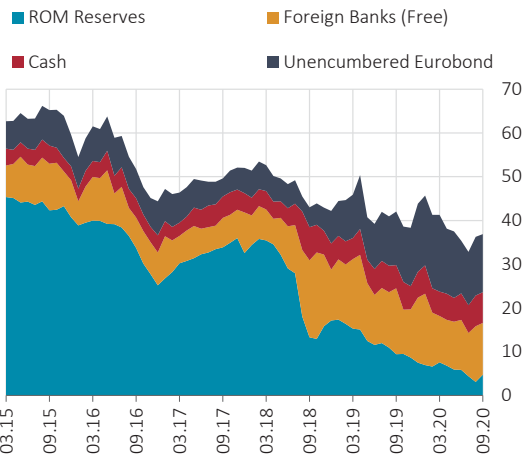
Chart IV.2.10: External Debt Rollover Ratio (%)



Source: CBRT, MKK Last Observation: 09.20
 Note: External debt rollover ratios are calculated based on 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.

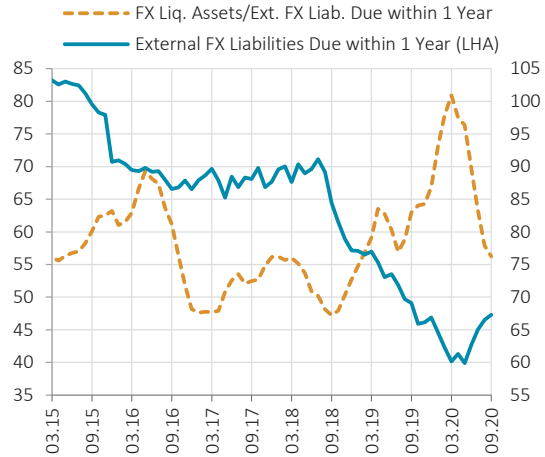
The sector's FX liquid assets portfolio supports the resilience of banks against possible shocks that may occur in international markets. The ratio of banks' FX-denominated external debt due in one year covered by banks' liquid assets including ROM reserves was 76% in September. When FX RR limits are included, liquidity buffers can exceed the entire short-term external debt (Chart IV.2.11 and Chart IV.2.12).¹

Chart IV.2.11: Amount of FX Liquid Assets (USD billion)



Source: CBRT Last Observation: 09.20
 Note: FX liquid assets include ROM reserves and cash reserves, free accounts at foreign banks, and unencumbered eurobonds and are calculated at the month-end exchange rate.

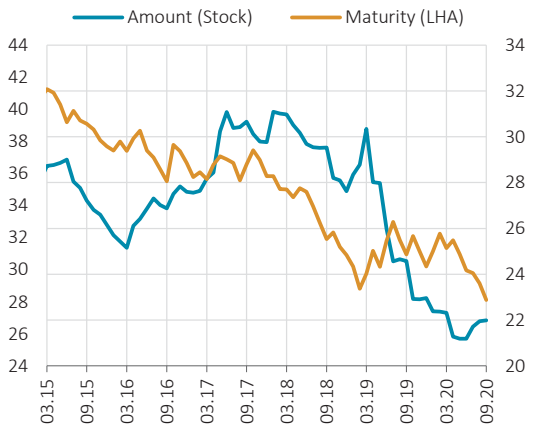
Chart IV.2.12: FX External Debt Due within 1 Year and Ratio of FX Liquid Assets (% , USD billion)



Source: CBRT Last Observation: 09.20
 Note: FX external debt due within 1 year is calculated as exclusion of FX and TL deposits from banks short-term external debt stock. The dashed line represents the three-month moving average of the FX Liquid Assets / Short-Term FX External Debt ratio.

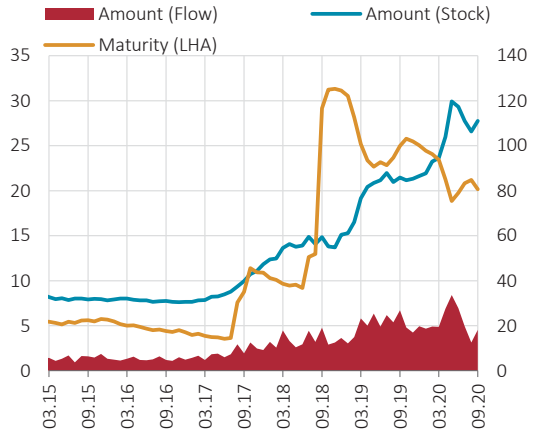
In this Report period, banks' issuance of FX-denominated securities remained flat due to rise in costs arising from the country risk premium (Chart IV.2.13). Despite the high cost, strong demand for Eurobonds issued by the Ministry of Treasury and Finance implies that there is no borrowing problem on this market, but any rise in financing for banks via this channel will depend on the CDS level. On the domestic front, security issuances contributed to financing of the liquidity need arising from the accelerated TL credit growth.

Chart IV.2.13: FX Securities Issued Abroad and Average Remaining Maturity (USD Billion, Month)



Source: MKK Last Observation: 09.20

Chart IV.2.14: TL Securities Issued in Turkey and Average Remaining Maturity (TRY billion, month)



Source: MKK Last Observation: 09.20

¹The banking sector's external debt that will be due within one year is USD 47.3 billion, while banks' cash, accounts at foreign banks, eurobonds and ROM reserves are USD 5.6 billion, USD 11.2 billion, USD 16.8 billion and USD 7.5 billion, respectively.

Box IV.2.1

Effects of Decisions Concerning TL-FX Derivative Transactions with Non-Residents

The effects of the BRSA decisions regarding derivative transactions of banks with non-residents on amount and maturity composition are analyzed in this box. With the press release issued by the BRSA on 18 December 2019, the amount of banks' derivative transactions with non-residents with remaining maturity of 7 days or less where at the maturity date, local banks pay TRY and receive FX in exchange should not exceed 10% of the bank's most recently calculated regulatory capital.. Limitations were introduced to banks' transactions receiving TL at maturity on 9 February 2020, and transactions receiving and paying TL at maturity on 12 April 2020.

Following the recent decline in the uncertainty in financial markets led by the coronavirus pandemic and policy steps in effect, limits for banks' derivative transactions receiving and paying TL at maturity were raised on 25 September and 11 November 2020 (Box I.1.1). As a result of these decisions, volatility declined in respective maturities. However, apart from the recent adjustments, no significant change has been recorded among maturities.

Chart IV.2.1.1: Maturity Breakdown and Weighted Average Maturity of Derivative Transactions Paying TL at Maturity with Non-residents (Percentage Share, Days, Remaining Maturity)

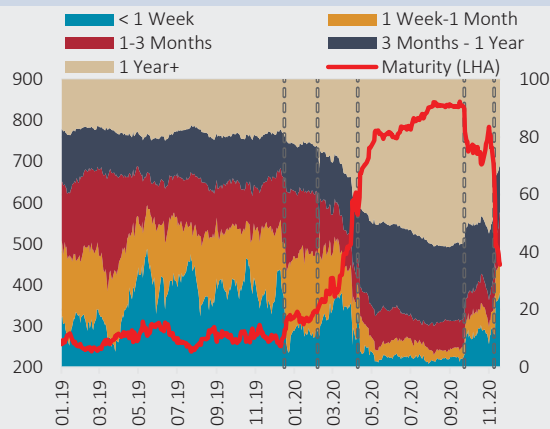
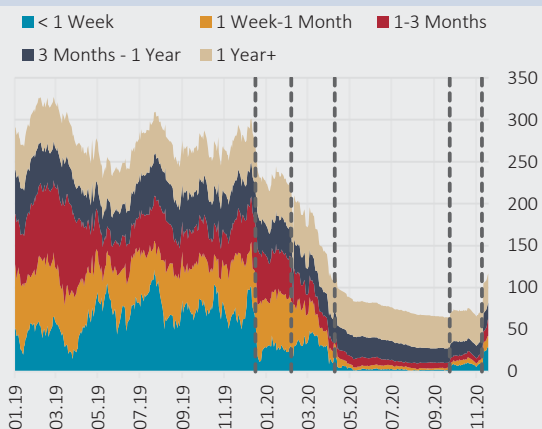


Chart IV.2.1.2: Maturity-Bracket-Based Derivative Transactions Paying TL at Maturity with Non-residents (Billion TRY, Remaining Maturity)



Source: CBRT

Last Observation: 19.11.20

Note: Dashed lines show the BRSA's press releases of 18 December 2019, 9 February 2020, 12 April 2020, 25 September 2020 and 11 November 2020.

The total amount of contracts in excess of the new limit in the banking sector calculated in consideration of the regulatory capital was TRY 16.9 billion on 19 December 2019, the date of enforcement of the restrictive decisions on derivative transactions paying TL at maturity with maturities shorter than 7 days. This excess made up 6.6% of all derivative transactions paying TL at maturity in the banks' portfolios and 36.1% of derivative transactions to mature in 7 days as of the announcement date.¹

As banks that were affected by this decision were not be able to carry out new transactions in the said maturity bracket, the amount of transactions with 7-day or shorter maturities remaining

¹ The amount of TRY selling derivative transactions with remaining maturities of 7 days or less with non-residents displayed a high volatility before the decision, surged in certain periods and reached TRY 121.8 billion TRY on 23 July 2019 (Chart IV.2.1.2).

declined sharply. Moreover, on 23 December 2019, the amount of transactions fell to TRY 11.5 billion, while the share thereof dropped to 5% (Charts IV.2.I.1 and IV.2.I.2). As a result, the average remaining maturities of transactions paying TL at maturity, which was 291 days on 18 December 2019, the announcement date, was extended up to 320 days as of 30 December 2019. Owing to the facilitation of conducting new transactions to replace maturing ones as of that date, banks resumed transactions with the said maturity bracket and the average remaining maturity remained flat until 9 February 2020 (Chart IV.2.I.1). Falling figures were registered in all maturity brackets in this period. No shifts were observed to longer maturities in maturity brackets subject to decision in the said period (Chart IV.2.I.2).

With the press release dated 9 February 2020, the BRSA reduced the limitation on the ratio of derivative transactions receiving TL at maturity that banks carry out with non-residents to pay FX and receive TL in exchange to regulatory capital from 25% to 10%. The average maturity of transactions paying TL at maturity increased notably following this decision (Chart IV.2.I.1). Although this decision was based on transactions receiving TL at maturity, banks did not renew transactions paying TL at maturity especially those within 1-3 month maturity brackets as of that date, which resulted in a rapid volume decline from TRY 50 billion (Chart IV.2.I.2). This is attributed especially to the impact of the limitation introduced to derivative transactions receiving TL at maturity on the TL liquidity abroad. Short-term transactions in particular were not renewed in this period, which led to the extension of average remaining maturity of transactions paying TL at maturity from 339 days to 625 days. This maturity extension was driven by the smaller decline in the amount of transactions with maturities longer than 3 months compared to the decline in those with maturities shorter than 3 months, rather than the increase in long-term transactions. In sum, the decision introduced on 9 February 2020 had repercussions on liquidity, which translated into a considerable decline in the amount of banks' derivative transactions paying TL at maturity, being more apparent in short-term transactions. Thus, apart from affecting the amount of transactions receiving TL at maturity, this decision shaped the maturity composition of transactions paying TL at maturity as well.

Table IV.2.I.1: Upper Limits Set By Decisions dated 12 April, 25 September and 11 November 2020

Transaction Type	Pre-decision Current Amount			Post-decision Upper Limit			
	10 April	24 Sept	10 Nov	12 April	25 Sept	11 Nov	
	Billion TRY			Ratio (%)	Ratio (%)	Ratio (%)	Corresponding Amount (Billion TRY)
Receiving TL at maturity	46,9	32,8	34,7	1	10	10	74,8
Paying TL at maturity							
- up to 7 days	21,4	2,8	8,7	1	2	5	37,4
- up to 30 days	34,2	5,2	18,3	2	5	10	74,8
- up to 1 year	72,8	28,4	41,4	10	20	30	224,6
- longer than 1 year	45,4	36,7	34,9	-	-	-	-

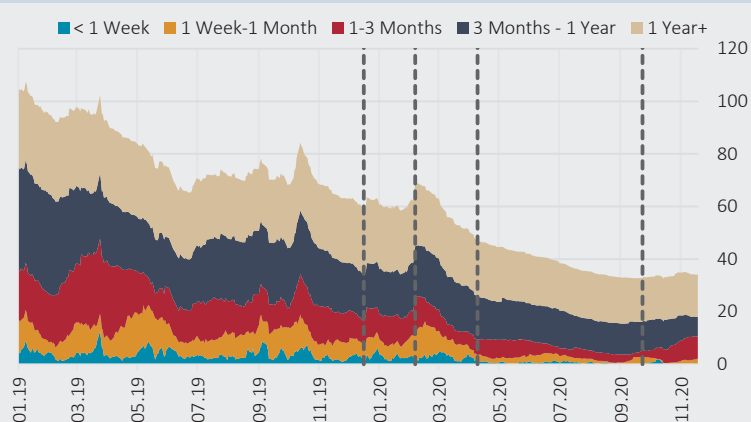
Note: Ratios set by the decisions will vary from month to month with regulatory capital, and values in the table show finalized upper limits for November 2020.

With the press release dated 12 April 2020, the BRSA limited derivative transactions receiving TL at maturity that banks carry out with non-residents to pay FX and receive TL in exchange to 1% of the bank's regulatory capital. Additionally, the ratio of derivative transactions paying TL at maturity with remaining maturity of 7 days, 30 days or 1 year were limited to 1, 2 and 10%, respectively of the bank's regulatory capital (Table IV.2.I.1). From 12 April to 25 September 2020, the amount of transactions paying TL at maturity fell from TRY 118 billion to TRY 65 billion, and the average remaining maturities of these transactions got extended from 571 days up to 828 days (Chart IV.2.I.2). This proved to be a natural consequence of the banks' inability to renew short-term transactions because of the upper limits that had been imposed. For transactions receiving TL at

maturity, as the current transactions were above the set limit, the sector could not renew the maturing transactions and a downtrend in total amounts was observed consistent with the maturity breakdown (Chart IV.2.I.3).

On 25 September 2020, the upper limit for banks' derivative transactions receiving TL at maturity was raised to 10% of their capitals, while the limits for transactions paying TL at maturity with remaining 7 days, 30 days and 1 day to maturity were raised to 2%, 5% and 20% of their capitals. On 11 November 2020, these upper limits were set as 5%, 10% and 30%. The latest regulatory capital of the Turkish banking sector calculated as of the date of decision (September 2020) was TRY 748 billion. Accordingly, the upper limit for transactions receiving TL at maturity, the total value of which was TRY 32.8 billion on 25 September 2020, varies from month to month, yet it corresponded to TRY 74.8 billion for November 2020 (Table IV.2.I.1). Similarly, upper limits set for transactions paying TL at maturity are summarized in Table IV.2.I.1.

Chart IV.2.I.3: Maturity-Bracket-Based Amounts of Forward TRY Buying Derivative Transactions with Non-residents (Billion TRY, Remaining Maturity)



Source: CBRT

Last Observation : 19.11.20

Note: Dashed lines show the BRSAs' press releases of 18 December 2019, 9 February 2020, 12 April 2020, 25 September 2020 and 11 November 2020.

Following the increase in upper limits, other maturity brackets remained almost flat, yet transactions receiving TL at maturity with 1-3-month maturities posted a slight uptick. Significant increases were recorded in transactions paying TL at maturity with maturities up to 3 months, and the total amount increased from TRY 65 billion to TRY 117 billion in the period following the decision (Chart IV.2.I.2). In this period, banks' transactions with 3-month and longer maturities edged down, whereas those with 3-month and shorter maturities surged, resulting in the shortening of total remaining maturity from 828 days to 449 days (Chart IV.2.I.1).

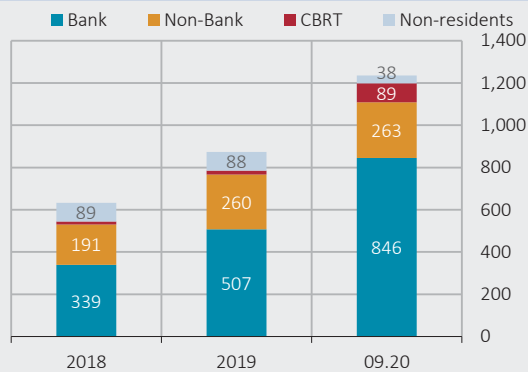
To sum up, the BRSAs has recently enacted a set of decisions regarding derivative transactions in consideration of the developments in financial markets. Following these recent decision, the high volatility in the amount of transactions with 1-week maturity declined. This is considered to have caused a decline in the volatility in the exchange rate and foreign currency swap market in the period subject to the decision. On the one hand, it is inferred that no significant shifts have been recorded from derivative transactions at maturity brackets with relatively high volatility to other maturity brackets in this period. On the other hand, after the recent increase in upper limits, transactions paying TL at maturity especially with maturities up to 3 months have increased significantly.

Box IV.2.II

Developments in Securities Portfolios of Banks During the Pandemic

Following the surge in coronavirus cases in Turkey, the financing need triggered by the postponement of taxes and the increase in public expenditures was met with new security issuances by the Ministry of Treasury and Finance (MTF). The securities portfolio of the banking sector substantially increased due to the conjuncture-driven rise in the domestic debt rollover ratio, the decline in government domestic debt securities (GDDS) portfolios of foreign investors, and the Asset Ratio practice. This box examines the impact of the recently increased public borrowing on the balance sheets of banks.

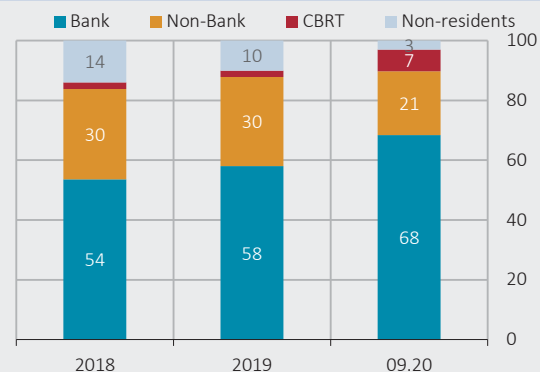
Chart IV.2.II.1: Distribution of the GDDS Stock by Holders (TRY Billion)



Source: MTF

Last Observation: 09.20

Chart IV.2.II.2: Distribution of the GDDS Stock by Holders (%)



Source: MTF

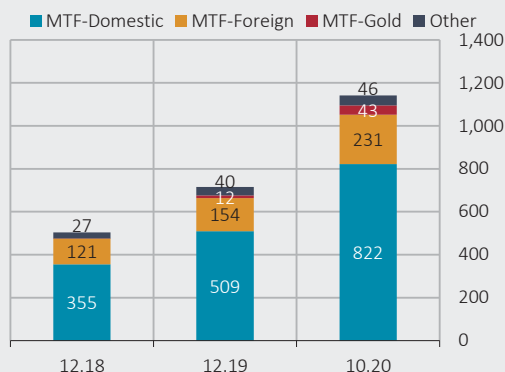
Last Observation: 09.20

Note: CBRT refers to amounts stemming from open market operations. The non-bank sector covers real and legal entities as well as securities mutual funds.

As of 6 November, the MTF conducted TRY 438 billion worth of domestic borrowing and USD 6.5 billion worth of eurobond issuances in 2020. Stock data as of September 2020 show that the distribution of GDDS holdings has also changed. The CBRT's GDDS holding rate has increased as a result of the purchases made within the scope of the facility that allowed Primary Dealer banks to sell the GDDS they had bought from the Unemployment Insurance Fund to the CBRT under the terms and limits set by the CBRT. Accordingly, the GDDS portfolio of banks grew by approximately TRY 338 billion in 2020 and the rate of GDDS holdings reached 68% (Charts IV.2.II.1 and IV.2.II.2).

The securities portfolio of banks increased by approximately 60% to TRY 1.1 trillion by the end of October 2020 compared to 2019. An analysis of this surge in terms of instruments reveals that domestic securities issuances of the MTF rose by TRY 312 billion, eurobonds by TRY 76 billion, and the issuances of gold bonds and gold-backed sukuks lease certificates by TRY 31 billion (Chart IV.2.II.3). Banks, whose gold liquidity increased due to growing interest in gold deposits, showed great interest in gold bonds issued by the MTF in 2020. Accordingly, the share of gold bonds in banks' portfolios rose to 4% (Chart IV.2.II.4.)

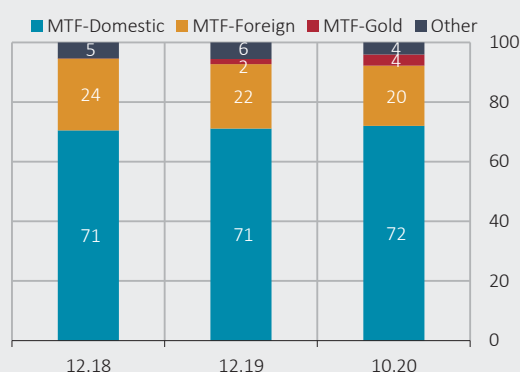
Chart IV.2.II.3: Distribution of Banks' Securities Portfolio by Type (TRY Billion)



Source: CBRT

Last Observation: 10.20

Chart IV.2.II.4: Distribution of Banks' Securities Portfolio by Type (%)



Source: MTF

Last Observation: 10.20

In the analysis period, the securities portfolio of the banking sector changed in favor of fixed rate securities. Accordingly, the share of fixed-rate securities in the total portfolio increased to 57.1% in 2020 from 54.2%, while the share of FX-denominated securities also rose. This increase was led by public banks (Table IV.2.II.1).

Table IV.2.II.1: Currency and Interest Rate Structure of Banks' Securities Portfolio (Stock, %)

	Public		Other		Sector	
	December 2019	October 2020	December 2019	October 2020	December 2019	October 2020
TL-Denominated	69.2	56.8	62.0	59.1	64.9	58.0
Fixed-rate	33.4	27.3	19.2	16.1	25.0	21.4
Floating-rate	34.9	28.9	39.3	35.8	37.5	32.6
Other*	0.9	0.6	3.5	7.2	2.4	4.1
FX-Denominated	30.8	43.2	38.0	40.9	35.1	42.0
Fixed-rate	29.8	41.9	28.9	30.2	29.3	35.7
Floating-rate	0.0	0.0	0.4	0.4	0.3	0.2
Other*	1.1	1.3	8.6	10.4	5.6	6.1

Source: CBRT

Last Observation: 10.20

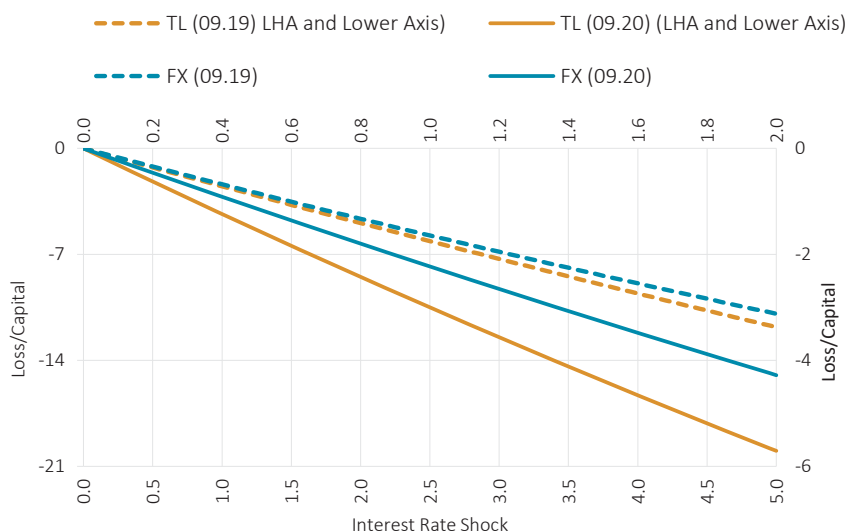
Note: Other includes instruments whose returns are not based on interest rate.

Banks' share in the GDDS stock increased due to the rise in the MTF's issuances during the pandemic and, particularly, banks' growing demand for GDDS driven by the BRSA's asset ratio practice. The growth in banks' securities portfolio stemmed from domestic securities issuances and gold-backed instruments. In 2020, the share of securities subject to repo transactions or given as collateral in total securities increased. Using their securities portfolio in repo transactions or as collateral, banks gained flexibility in liquidity management during the pandemic.

IV.3 Interest Rate and Exchange Rate Risk

The sector's interest rate-sensitive TL and FX positions' susceptibility to the repricing channel was exposed to a sensitivity analysis.¹ Accordingly, based on the economic value approach, the probable loss to capital ratio was calculated by allowing up to 5 and 2 percentage points of a positive interest rate shock exposure on interest rate-sensitive TL and FX positions, respectively. In a scenario of positive TL and FX interest rate shock exposures, loss to capital ratios were driven higher by the growing credit volume compared to the same period last year (Chart IV.3.1).

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



Sources: BRSA, CBRT calculations

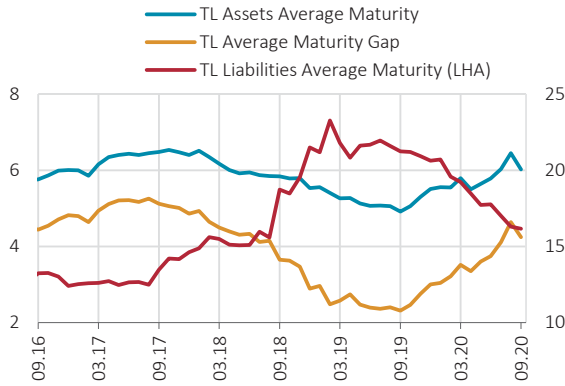
Last Observation: 09.20

Note: In the economic value approach, the change in the present value of interest rate-sensitive assets and liabilities is taken into account in the face of a change in interest rates. On the Chart, the upper and lower axis show the amount of the interest rate shock on TL and FX positions, while left and right axis show the probable loss to capital ratio that may incur on TL and FX positions as a result of the interest rate shock, respectively..

In the current reporting period, the positive maturity gap for the sector's interest rate-sensitive items widened in TL denominated items but remained relatively flat in FX denominated items. Compared to the previous reporting period, the weighted average maturity of interest rate risk-sensitive TL assets lengthened by one month to 20 months on the back of loans. Meanwhile, the average maturity of interest rate risk-sensitive liabilities decreased by two months to four months due to subordinated debts and derivative instruments (Chart IV.3.2). On the other hand, the slowing loan growth and the monetary tightening since August 2020 caused the weighted average maturity of interest rate risk-sensitive TL assets to shorten, which was the main driver of the narrowing positive maturity gap in the third quarter. The average maturity of interest rate-sensitive FX liabilities remained at 14 months whereas that of FX assets shortened by one month to 24 months due to loans and the negative contribution of derivative instruments (Chart IV.3.3). The recent increase in interest rates will pass on to average deposit pricing at a faster pace due to the maturity structure, which may put downward pressure on profitability in an environment of slowing loan growth.

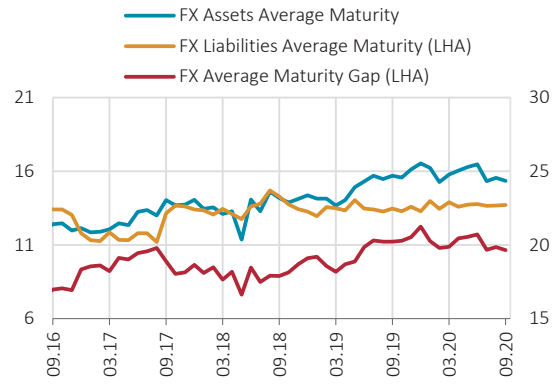
¹ Excluding participation banks.

Chart IV.3.2: Weighted Average Maturity of Interest Rate-Sensitive TL Assets and Liabilities by Repricing Period (%)



Source: CBRT Last Observation: 09.20
 Note: TL items with no maturity are excluded.

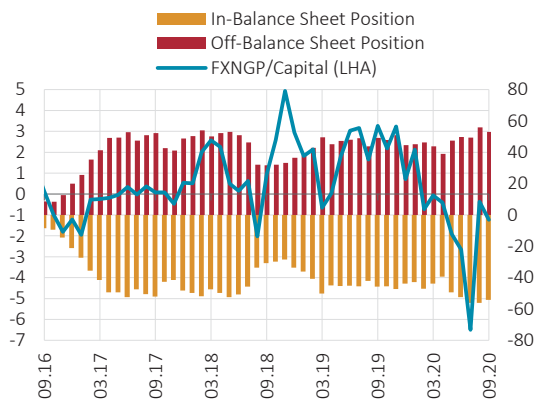
Chart IV.3.3: Weighted Average Maturity of Interest Rate-Sensitive FX Assets and Liabilities by Repricing Period (%)



Source: CBRT Last Observation: 09.20
 Note: FX items with no maturity are excluded.

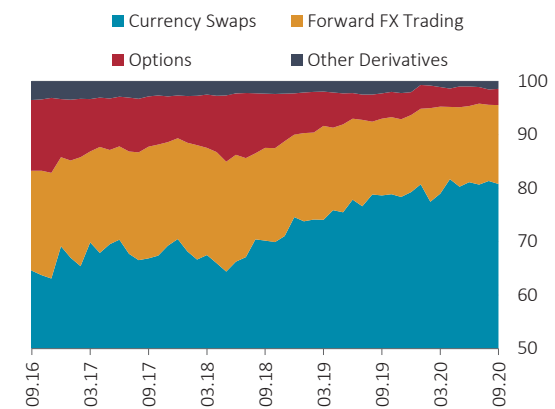
Banks maintained their prudent stance regarding their net FX position and managed the currency risk. The banking sector's on and off-balance sheet FX open position amounted to a total of USD 1.2 billion as of September 2020.² At about -1.2%, the sector's FX net general position/capital ratio was well below the two-way legal limit of 20% in September 2020 (Chart IV.3.4). A breakdown of off-balance sheet FX transactions actively employed by the sector in currency risk management reveals that currency swaps continued to be used intensively (Chart IV.3.5).

Chart IV.3.4: Banking Sector's FX Position (USD Billion, %)



Source: CBRT Last Observation: 09.20
 Note: FXNGP refers to FX net general position. Based on month-end exchange rates.

Chart IV.3.5: Shares of Gross Positions (Assets + Liabilities) of Off-Balance Sheet FX Transactions (%)



Source: CBRT Last Observation: 09.20

² The banking system's on-balance sheet and off-balance sheet FX positions are largely shaped in line with the TL funding need. As the FX liquidity is in excess, the banking system meets its TL liquidity need predominantly through currency swaps. The CBRT covers a significant portion of the liquidity shortage in the market through currency swaps. Thus, the sector registers an on-balance sheet FX open position and an off-balance sheet FX excess position.

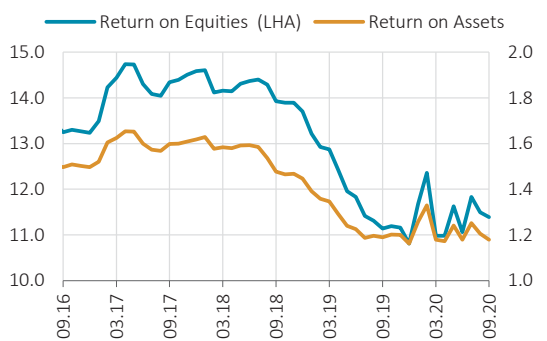
IV.4 Profitability and Capital Adequacy

Remaining moderate similar to the previous reporting period, profitability indicators of the banking sector were partially flat in the current reporting period (Chart IV.4.1). However, the impact of COVID-19 on financial markets produced some short-lived fluctuations. Loan provisions prudently earmarked by banks may alleviate the pressure rising NPLs exert on profitability.

In the current reporting period, increased net interest income, the asset quality outlook and securities trading revenues were the key drivers of return on equity and ROAs. However, this outlook was offset by reduced non-interest income and higher non-interest expenses. Looking at the volume effect and the interest margin effect, the increase in net interest income seems to have provided a more balanced contribution. Nonetheless, the gradual tightening that started in the third quarter of 2020 curbed the rise in net interest income. Decreased banking services revenues were the main driver of the fall in non-interest income while expenses were largely driven higher by general provisions.

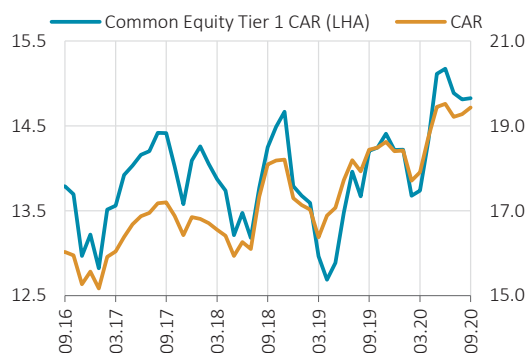
Banks have a strong equity structure. The BRSA’s revised CAR calculation and the capital support provided to state-owned banks led to a significant increase in CAR in March-May 2020 (Chart IV.4.2). Due to the credit stimulus afterwards and the resulting acceleration in loans, the sector’s CAR posted a slight decline, but has recently flattened out in response to policy measures and slowing loans.

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



Source: CBRT Last Observation: 09.20
 Note: Profitability ratios are calculated by dividing the annual cumulative profit by one year's average denominator.

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



Source: CBRT Last Observation: 09.20

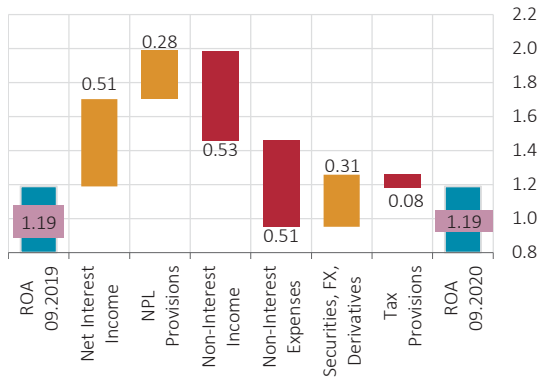
IV.4.1 Profitability

Among factors that affected the change in ROA over the past year, net interest income, the asset quality outlook and trading of capital market instruments had a positive effect on profitability. On the other hand, non-interest income and expenses had a negative effect on profitability (Chart IV.4.3). As of September 2020, the sector’s ROA was unchanged from a year earlier at 1.19%.

Twelve-month cumulative net interest income remained on the rise in the current reporting period. In this respect, net interest income contributed positively to the sector's ROA in the last 12-month period by around 51 basis points. Volume and interest margin effects contributed to the change in net interest income at a similar rate (Chart IV.4.4). The rise in net interest income was mostly due to the decline in the amount of interest paid surpassing the fall in interest income (Chart IV.4.5). Meanwhile, the upsurge in loan and deposit rates since the third quarter of 2020 brought the net interest margin down. The rapid pass-through from recent rate hikes to average deposit pricing due to the maturity structure may put downward pressure on profitability in an environment of slowing loan growth. New regulations on reducing financial intermediation costs might support bank profitability.

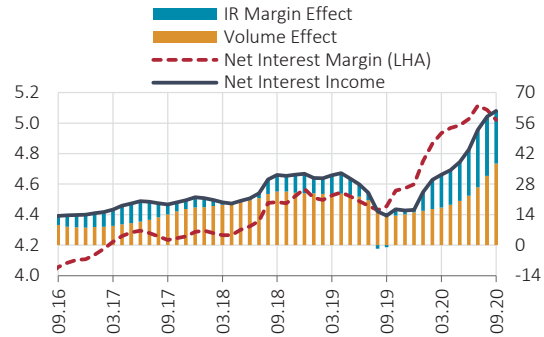
The other non-interest income/expenses item, in which banks record their profits and losses in securities trading, derivatives and foreign exchange transactions, had a positive impact on profitability compared to a year earlier. Despite short-lived volatility in interest rates, transaction costs for currency swaps dropped (Chart IV.4.6). Profits on securities trading have recently buoyed up profitability.

Chart IV.4.3: Effect of Income/Expense Items on ROA (Annual, %)



Source: CBRT Last Observation: 09.20
 Note: Red columns denote downward impact whereas yellow columns denote upward impact.

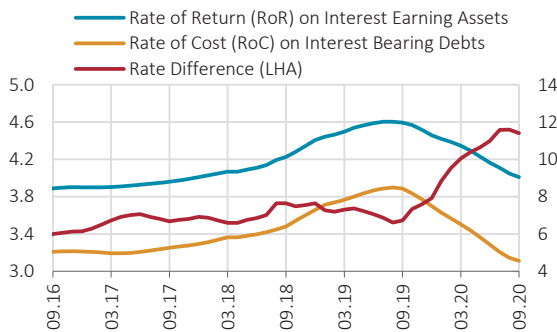
Chart IV.4.4: Contribution to Changes in Net Interest Income (12-Month Cumulative, TRY Billion, %)



Source: CBRT Last Observation: 09.20

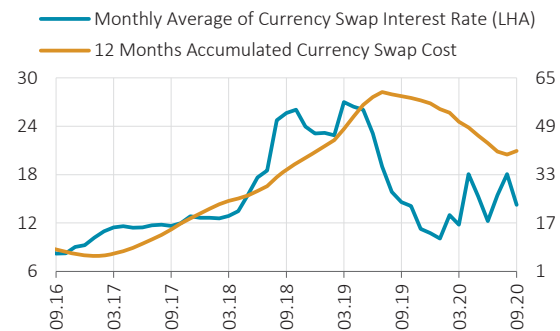
In the current reporting period, ROA was down about 53 basis points due to the fall in non-interest income led by reduced banking services revenues. On the other hand, fueled by rising expenses on general provisions, non-interest expenses brought ROA down by about 51 basis points. The rise in expenses was mostly driven by the cautious stance that banks maintained against the possibility of a worsening asset outlook.

Chart IV.4.5: RoR on Interest Bearing Assets and RoC on Interest Bearing Debts (%)



Source: CBRT Last Observation: 09.20
 Note: RoR (RoC) is 12-month interest income (expenses) divided by the 12-month average value of an asset (debt) on which interest is received (paid).

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



Sources: CBRT, Bloomberg, authors' calculations. Last Observation: 09.20
 Note: In calculating the currency swap interest rate, the monthly simple average of 3-month USD-TRY currency swap interest rates was used as a reference rate and the cost was estimated by using the monthly average net TRY-FX currency swap positions of banks and the monthly average USD rate.

IV.4.2 Capital Adequacy

The banking sector maintains a strong capital position. Legal capital was positively affected by increases in profit, reserves and paid capital in the current reporting period, mostly on the back of banks raising capital reserves and state-owned banks receiving a capital support of TRY 21 billion. Additionally, amid rate cuts and an AR-induced growth in the securities portfolio, equities were bolstered by positive valuation differences related to securities at fair value through other comprehensive income (Chart

IV.4.7). Nevertheless, the monetary tightening since the third quarter might mitigate this positive contribution.

Although there has been no significant change in the composition of risk-weighted assets, credit exposure growth and asset growth were up in the current reporting period, but lost momentum due to slowing loan growth. Meanwhile, the ratio of risk-weighted assets to total assets dropped dramatically with the contribution of the state bank-sponsored credit stimulus (Chart IV.4.8). The marked growth in banks' securities portfolio also had an effect on the drop of this ratio.

Chart IV.4.7: Changes in Equity (TRY billion)

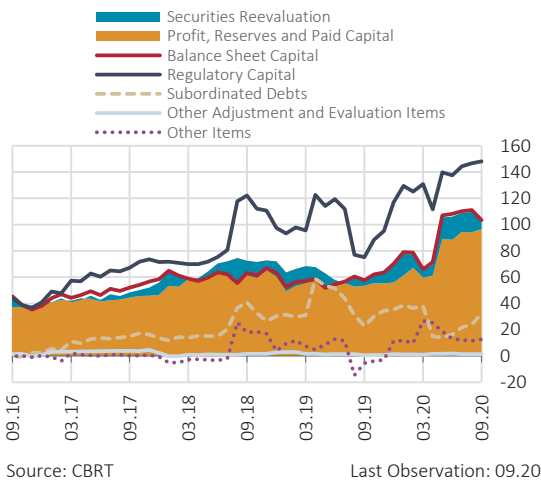
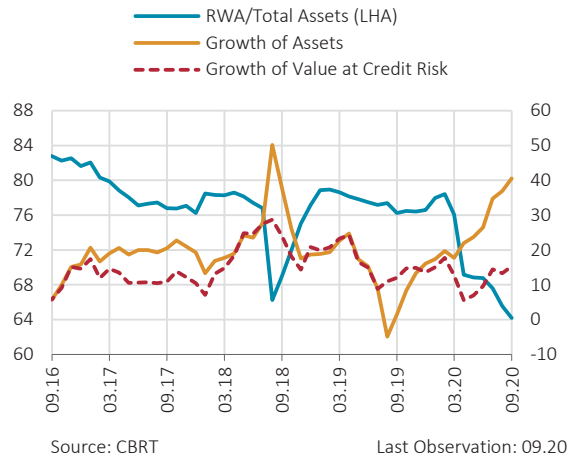
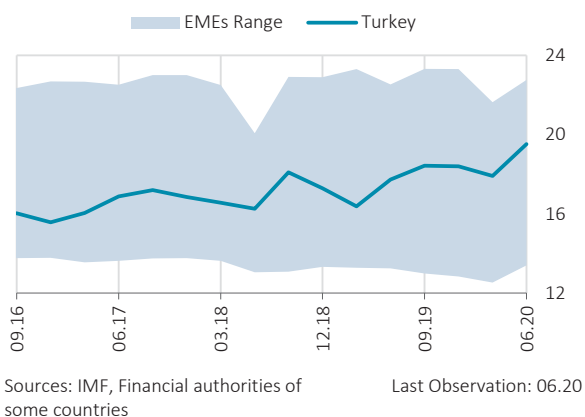


Chart IV.4.8: Risks and Asset Developments (%)



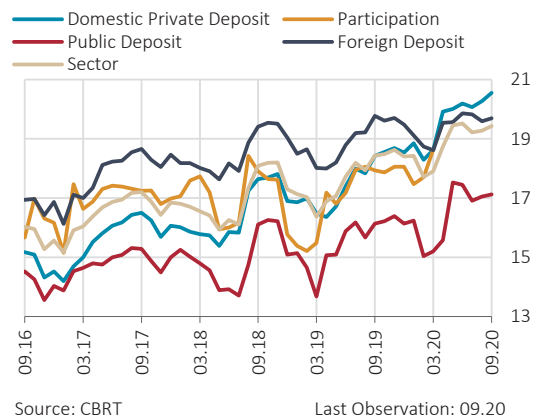
The CAR level of the Turkish banking sector hovers around the average for selected peer emerging economies (Chart IV.4.9). In the current reporting period, CARs were generally higher across all types of banks due to the BRSA's supporting regulation about CAR calculation valid until 31 December 2020 (Chart IV.4.10).¹ In addition, the capital support provided to state-owned banks in May 2020 strengthened the CARs of state-owned deposit banks.

Chart IV.4.9: Quarterly CARs in Turkey and EMEs (%)



Note: EMEs range represents the range of CARs of the banking sectors in selected EMEs, including Brazil, Indonesia, South Africa, Colombia, Malaysia, Hungary, Poland, Romania and Chile, from the highest to the lowest.

Chart IV.4.10: CARs by Sector and Types of Banks (%)



¹ CARs may go slightly down once the BRSA's supporting regulation is revoked and bank profits decrease.