III. Non-Financial Sector

III.1 Household Developments

Household indebtedness in Türkiye remains below the average of advanced and emerging economies.

The downtrend in household indebtedness continues. Although the amount of household debts in Türkiye increased after 2021, GDP increased at a higher rate amid buoyant economic activity and the debt/GDP ratio declined significantly. Macroprudential measures taken towards retail loans played a pivotal role in the decline in indebtedness (Chart III.1.1). In September 2022, the household financial debt/GDP ratio in Türkiye was 11.3%, while this ratio was 40% on average in peer countries (Chart III.1.2). The fact that individual indebtedness is quite low compared to other countries suggests that risks stemming from household debt are manageable.

Chart III.1.1: Change in Household Indebtedness (Percentage Points)

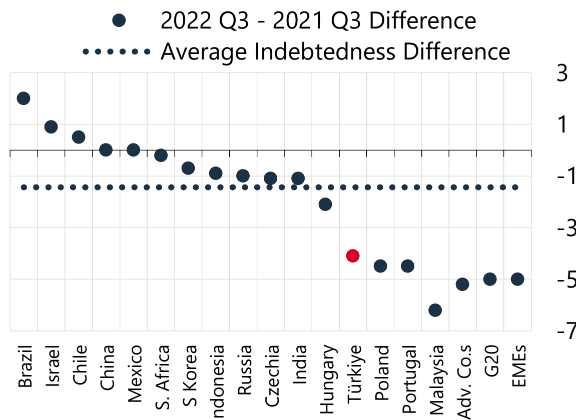
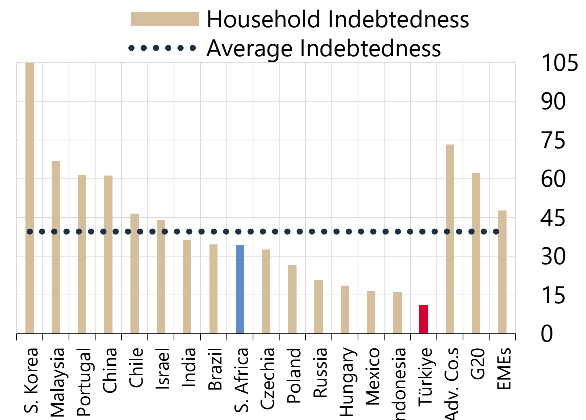


Chart III.1.2: Household Indebtedness (Debt/ GDP, %)



Source: BIS

Last Observation: 2022Q3

Note: Household indebtedness is calculated as the ratio of the total of debt securities and loans of households and nonprofit institutions serving households to GDP. Difference values denote the one-year change in indebtedness ratio. The country marked in blue has median indebtedness in the sample. The horizontal line shows the average values of selected countries.

Chart III.1.3: Ratio of Housing Loans to GDP (% Ratio)

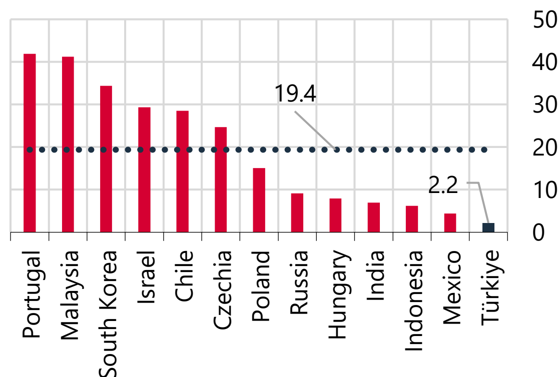
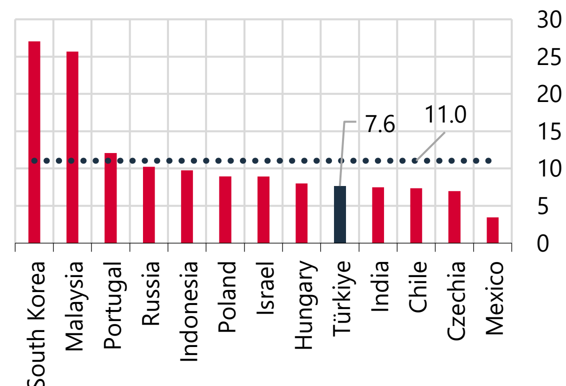


Chart III.1.4: Ratio of Retail Loans Excluding Housing Loans to GDP (% Ratio)



Source: IMF, Global Economy

Last Observation: 12.22

Note: The ratio is calculated as the current total housing loan and retail loans excluding housing loans balance in 2022 divided by the end-2022 (actual or projected) GDP. Horizontal lines are average values for selected countries. Retail loan balance excluding housing loans includes all other types of loans extended to households (such as PCC, vehicle loans, student loans) except housing loans.

A breakdown of indebtedness reveals that the ratio of housing loans to GDP is well below the average of other countries, while the ratio of retail loans excluding housing loans to GDP is also below the averages of peer countries. The fact that maturity of housing loans in Türkiye are shorter and that housing purchases are mostly made without mortgages are considered to be the reasons for this ratio to remain below the averages of other

countries (Chart III.1.3). Credit cards are widely used as a means of payment in shopping in Türkiye, and this is considered to be a factor in keeping the ratio of retail loans excluding housing loans to GDP slightly higher (Chart III.1.4).

Table III.1.1: Household Financial Liabilities

	03.22		09.22		03.23		6-Month Growth (Annualized)
	TL Billion	Ratio to GDP	TL Billion	Ratio to GDP	TL Billion	Ratio to GDP	
Total Liabilities	**1,154.5**	**13.8**	**1,440.5**	**11.5**	**1,987.9**	**12.1**	**90.4**
Housing Loans	355.0	4.2	404.2	3.2	447.4	2.7	22.5
Vehicle Loans	25.4	0.3	41.9	0.3	74.4	0.5	215.1
General-Purpose Loans	500.5	6.0	602.9	4.8	844.2	5.1	96.0
Personal Credit Cards	240.7	2.9	355.4	2.8	585.4	3.6	171.3
AMC Receivables	32.9	0.4	36.0	0.3	36.6	0.2	3.2

Source: CBRT, BRSA, TOKİ
Note: Liabilities also include NPL. Estimated values for 2023Q1 GDP.

Compared to the previous report period, vehicle loans and personal credit cards recorded the fastest increase in household financial liabilities (Table III.1.1).

The rise in the prices of consumer goods and services as well as revisions in wages played an important role in the rapid increase in the PCC, meanwhile advancing future demand and end-of-season campaigns were other factors that boosted the share of vehicle loans in GDP. Due to the macroprudential measures introduced for housing and general-purpose loans in June 2022, the ratio of these loans to GDP tends to decline.

Chart III.1.5: Households' Financial Liabilities to GDP Ratio (%)

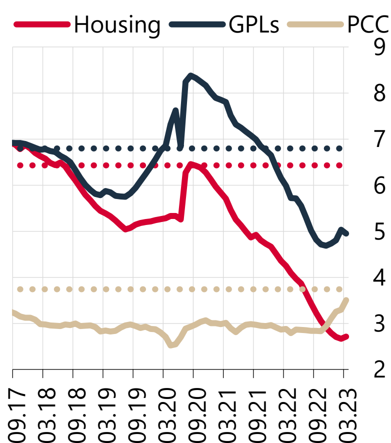


Chart III.1.6: Breakdown of Households' Financial Liabilities (%)

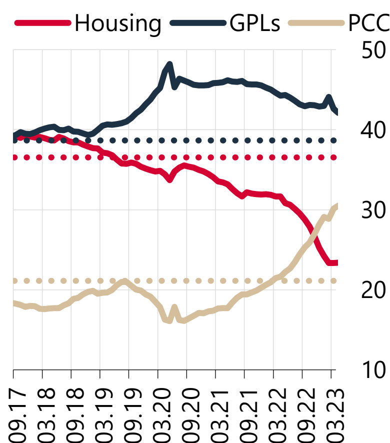
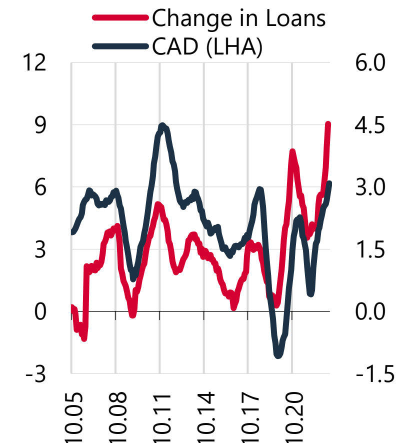


Chart III.1.7: Retail Loans and CAD Relationship (% of GDP)



Source: CBRT, BRSA, TURKSTAT, Author's Calculations Last Observation: 03.23
Note: Liabilities include NPLs. GDP forecasts for 2023Q1 are estimated values. Dashed lines are the average values of the related series for 2012-2019. Change in loans refers to the ratio of the annual balance differences of consumer loans excluding housing and vehicles to annual GDP, and the credited portion of personal credit cards is included in the calculation.

While general-purpose loans have the largest share in household financial liabilities, the share of personal credit cards increased significantly after the pandemic.

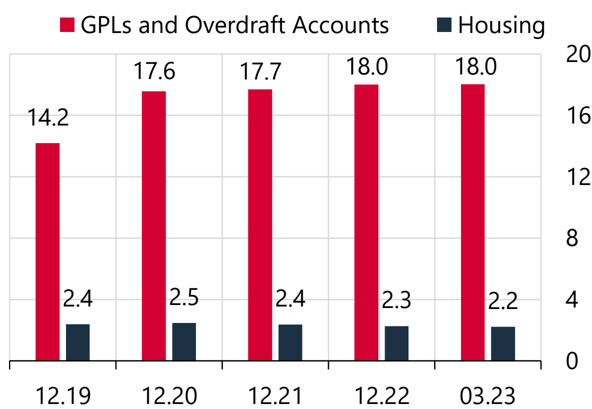
In the period following the loan campaigns during the pandemic, the increase in general-purpose and housing loans lagged behind the increase in economic activity and the share of these loan types in GDP decreased (Chart III.1.5). An analysis of the historical distribution of household liabilities shows that general-purpose and housing loans had the highest share in GDP and followed a close trend until 2018 (Chart III.1.6). The share of housing loans in retail loans has been declining since 2018. Nevertheless, the share of general-purpose loans reached a historically high level at the onset of the pandemic, and declined slightly in the following period. During the pandemic, digital shopping platforms and contactless payments became widespread, and moreover, due to the

determining effect of the recent increase in wages and card limits, the share of the PCC balance in total liabilities significantly increased. The share of housing loans in retail loans, which was 38% on average in the 2012-2019 period, decreased to 24%; while the share of general-purpose loans and PCC increased by 4 percentage points and 9 percentage points over the same period, reaching 44% and 31%, respectively. Meanwhile, retail loans have a close relationship with the current account balance due to their impact on household demand for goods and services (Chart III.1.7). In this context, the impact of general-purpose loans and PCC utilization on the current account balance is closely monitored.

While the number of people with consumer loan debt remains flat, the share of fixed-income earners in consumer loan utilization has been increasing.

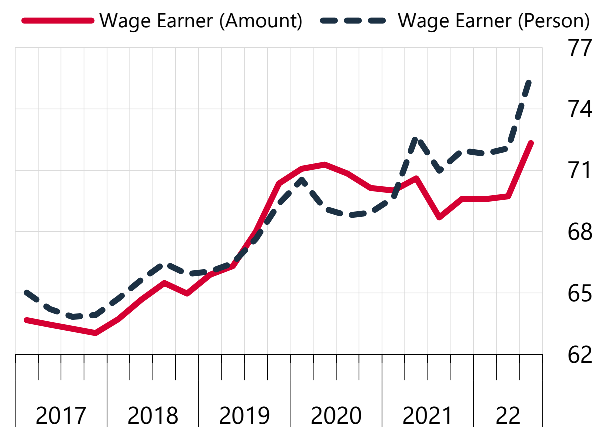
The number of people with housing and general-purpose loans (including ODA) remained flat compared to end-2022 (Chart III.1.8). This is mainly attributed to the maturity restriction in general-purpose loans, which varies based on the loan amount, and the developments in interest rates. As the impact of programs introduced for housing loans will be reflected on loan disbursements starting from March, the housing loan balance and the number of borrowers in the system are likely to increase. Moreover, the revision made in the amount brackets used in loan-to-value ratios in February 2023 is also expected to affect loan developments and the number of borrowers. The rise in the share of wage earners in consumer loan utilization continues (Chart III.1.9). This is attributed to the revisions in wages and banks' gravitation towards this segment of the society. While this ratio has reached a historically high level, the fact that the majority of consumer loan borrowers are wage earners with low income volatility stands out as a factor that reduces the household credit risk on the banking system.

Chart III.1.8: Number of People with Consumer Loan Balance (Million People)



Source: Risk Center, CBRT Last Observation: 03.23
Note: Reports the number of individual general-purpose and housing loan borrowers in the banking sector. General-purpose loans include overdraft accounts. Zero-balance overdraft accounts are excluded.

Chart III.1.9: Income Profile of Consumer Loan Borrowers (% Share)

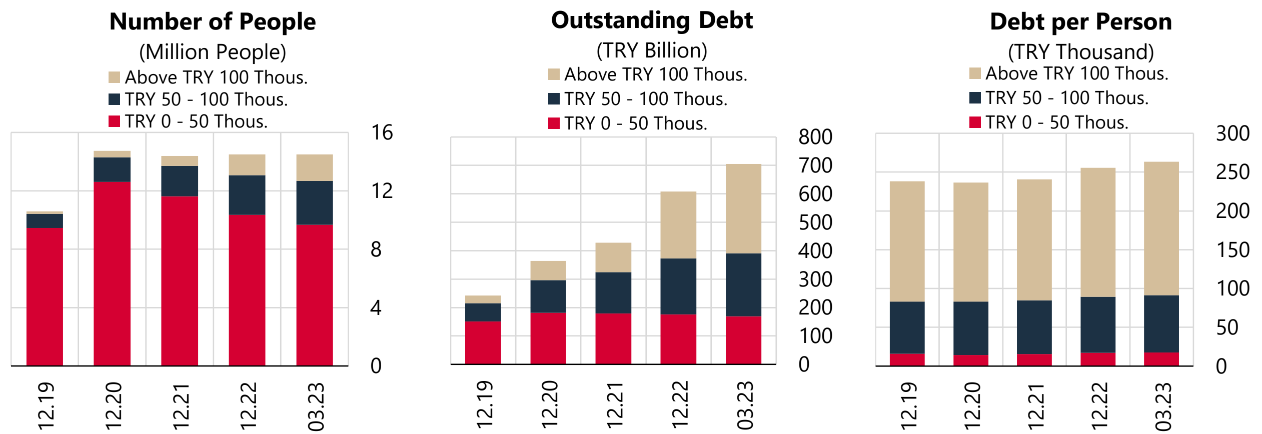


Source: TBB Last Observation: 2022Q3
Note: Loan borrowers have been categorized into two groups as wage-earners and others. The chart shows the share of wage-earners in total. Wage-earner amount-person shares show the quarterly flow developments. Consumer loan is the total of retail loans excluding PCC. The data is obtained from 32 banks that are members of the Banks Association of Türkiye (BAT).

Throughout 2022 and in the first quarter of 2023, general-purpose loan balances increased, while the number of borrowers remained flat. In this period, per capita indebtedness slightly increased.

In 2022, the general-purpose loan balance increased compared to 2021, but this increase remained below the inflation rate (Chart III.1.10). While the total number of people with general-purpose loan debt remained flat, differences in terms of amount breakdown draw attention. The number of people with general-purpose loan debts over TRY 50 thousand increased, while the number of people with general-purpose loans below TRY 50 thousand decreased. A similar trend is observed in general-purpose loan balances. Debt per capita continued to rise due to the significant increase in loans of TRY 50 thousand and above. In the first quarter of 2023, the increase in general-purpose loans was driven by the group of people with loans of over TRY 100 thousand. Another important development was that, in March, general-purpose loans above TRY 70 thousand were included in the scope of securities maintenance obligation based on interest rates. This regulation may limit high-volume loan disbursements.

Chart III.1.10: Number of General-Purpose Loan Borrowers, Outstanding Debt Distribution, and Per Capita Debt by Amount



Source: Risk Center, CBRT

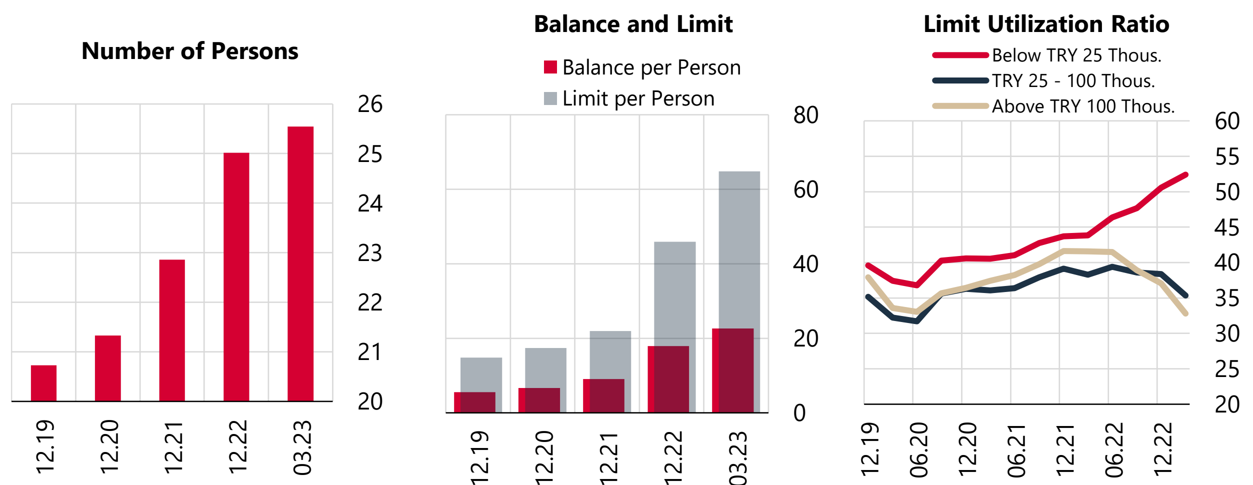
Last Observation: 03.23

Amount brackets show the outstanding general-purpose loan debt amounts per person at all banks. The number of people is the total number of people in the relevant bracket. Overdraft accounts and general-purpose loans classified as NPLs are excluded.

While personal credit card debt per capita increased, limit utilization rates generally decreased due to limit revisions.

In the first quarter of 2023, it is observed that there has been an increasing trend in both the number of active credit card users and credit card debt per capita (Chart III.1.11). Inflation developments, interest rates and spending motivations of individuals are considered to support this trend. Meanwhile, individuals' credit card limits were revised in line with increases in the minimum wage and other wages. Accordingly, credit card limits per capita increased significantly in 2022 and the first quarter of 2023. The limit utilization rate of credit cards with credit limits of TRY 25,000 and below reached 52.4% in March 2023, showing a rise compared to the previous Report period, while the rate declined significantly in cards with limits of TRY 25,000 and above, particularly in cards with limits of TRY 100,000 and above. This trend started in June 2022 and continued through the current period.

Chart III.1.11: Number of Persons Actively Using PCC, Card Balance and Limit Per Customer, Card Limit Utilization Rate (Million People, TRY Thousand, %)



Source: Risk Center, CBRT

Last Observation: 03.23

Note: Chart excludes people with zero credit card balance.

Individuals' performance in credit card repayment on time is improving.

In the last Report period, while the increase in PCC balances continued to be the driver of retail credit growth, the ratio of unpaid debts on PCCs declined in the same period. The ratio of unpaid debts to total card balances

decreased to 11.5% in credit cards for which the minimum payment amount or a payment more than the minimum payment amount is paid; and the same ratio decreased to 6.5% in credit cards for which less than the minimum payment amount is paid (Chart III.1.12 and Chart III.1.13). These developments support the favorable outlook in retail loan indebtedness.

Chart III.1.12: Personal Credit Cards with Unpaid Balance (TRY Billion, %, 3-Month MA)

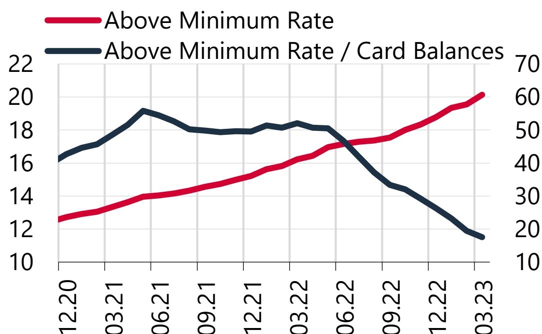
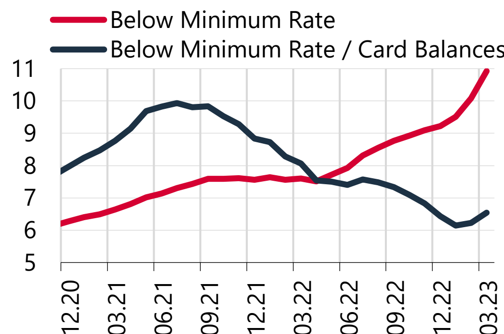


Chart III.1.13: Personal Credit Cards with Unpaid Balances (TRY Billion, %, 3-Month MA)



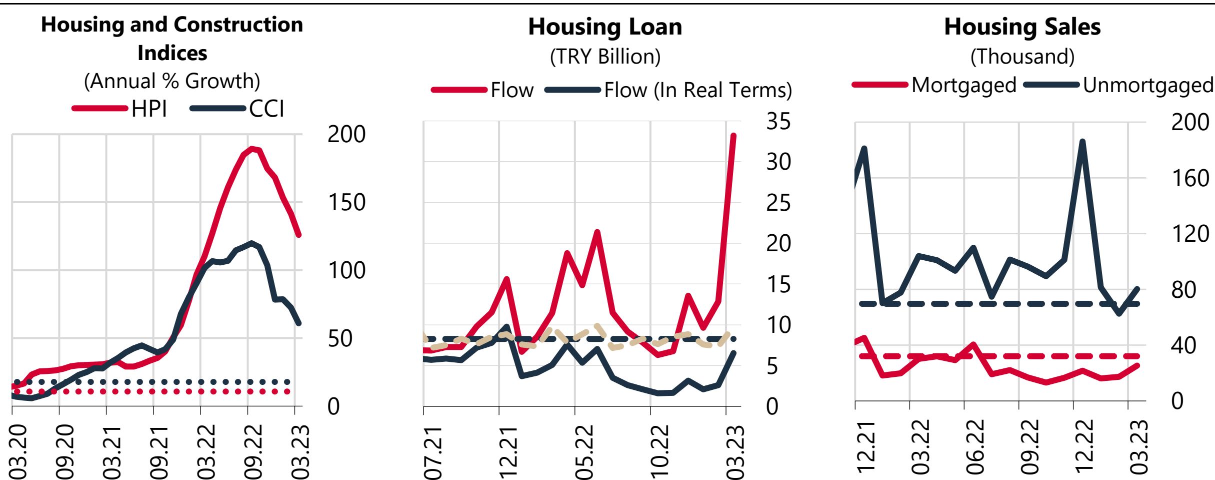
Source: BRSA Last Observation: 03.23

Note: "Above Minimum Rate" refers to the total outstanding debt for PCCs paid at or above the minimum payment rate; "Below Minimum Rate" refers to the total outstanding debt for PCCs for which a payment is made below the minimum payment rate.

Housing loan utilization is below its historical average, while houses are sold mostly without mortgages.

House prices and construction costs started to diverge in 2022, and as of the last quarter of 2022, they started to converge as the increase in house prices lost momentum. Due to the current level of house prices, the decline in long-term and low-cost loans extended by state banks and the macroprudential measures introduced in June 2022, housing loan utilization remained quite slow, but picked up slightly in March due to credit campaigns. Accordingly, although mortgaged house sales increased slightly on the back of loans utilized in March, they have been weak since the second half of 2022 hovering below the seasonal average (Chart III.1.14).

Chart III.1.14: Housing Loans, House Sales and House Prices



Source: CBRT Last Observation: 03.23

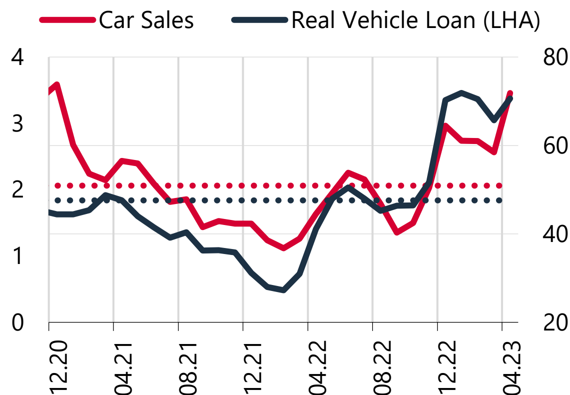
Note: Housing loans are shown in terms of monthly flow disbursements. Dashed straight lines show the average annual index changes (2016-2019 period for CCI), real housing loans extended and related housing sales; the dashed and moving line shows the average housing loans in the relevant months of the 2012-2019 period. Data have been deflated by the HPI, and March data for real loans and the index has been estimated with the CPI.

After a weak outlook in 2021, vehicle loan utilization and car sales have been rising since the last quarter of 2022.

Vehicle loan utilization and new car sales are well above their historical averages (Chart III.1.15) This is attributed to the fact that the negative impact of the pandemic on supply chains and the global chip problem have been mostly eliminated. Meanwhile, the high demand for new cars stands out as another determinant of the buoyant loan utilization and sales. Moreover, domestic automobile production that started in 2023 is expected to provide

additional impetus to new car sales in the coming years. The number of used car vehicles indicate that the used vehicle market is more active compared to the seasonal average (Chart III.1.16).

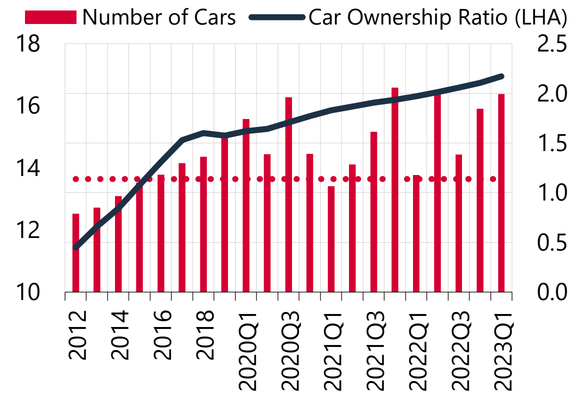
Chart III.1.15: Vehicle Loans and New Car Sales (Thousand Units, TRY Billion, 3-Month MA)



Source: ODD, BRSA Last Observation: 04.23

Note: Data for monthly flow vehicle loans of banks and financing companies, and new car sales have been used. Deflated by the vehicle prices sub-index of the CPI. Dashed lines show the average real vehicle loan disbursements and car sales between 2012 and 2019.

Chart III.1.16: Number of Used Car Sales and Car Ownership Ratio (Million Units, %)



Source: TURKSTAT Last Observation: 2023Q1

Note: Used car sales refer to vehicles whose ownership has changed hands once or more through public notaries. Shows the quarterly sums of the number of vehicles changing hands. Dashed line shows the average number of used car sales amounting to 1.1 million between 2012 and 2019 in quarterly periods. Car ownership ratio is the ratio of cars registered in the traffic to total population.

The rise in the weight of TRY-denominated assets and non-deposit financial instruments in households' financial asset composition continues.

The rise in household financial assets was driven by the growth in TRY-denominated assets. Accordingly, the share of TRY assets in household financial assets continues to increase (Table III.1.2). In this period, the ratio of TRY savings deposit balances, stocks and fund investments to GDP increased. Banks' motivation to achieve the liraization target in deposits, attractive TRY deposit yields and demand for KKM products led to a rise in TRY savings deposits and a decrease in FX savings deposits.

In this Report period, the significant rise in household TRY deposit balances continued (Chart III.1.17). Households' reallocation of their savings from FX deposits to KKM is considered to have played an important role in this development. In fact, the downtrend in households' FX deposits continued in this period (Chart III.1.18). As the improvement in inflation and inflation expectations continues, households' portfolio preferences are expected to continue to grow in favor of TRY deposits and liraization in household assets is expected to strengthen.

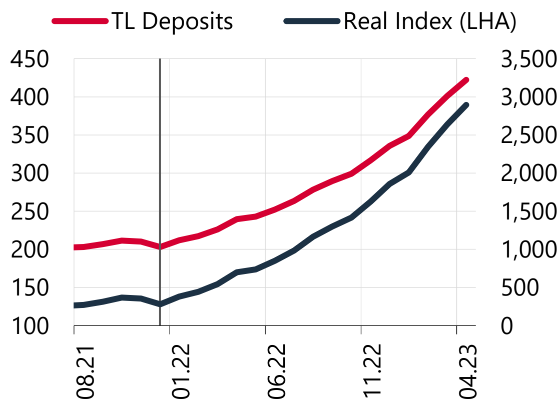
Table III.1.2: Household Financial Assets

	03.22		09.22		03.23		6-Month Growth (Annualized)
	TRY Billion	GDP Share	TRY Billion	GDP Share	TRY Billion	GDP Share	
Total Assets	**4,332.3**	**51.8**	**5,635.9**	**45.0**	**7,134.2**	**43.3**	**60.2**
TL Savings Deposits	1,248.6	14.9	1,894.9	15.1	3,010.0	18.3	152.3
FX Savings Deposits	1,615.9	19.3	1,889.6	15.1	1,554.0	9.4	-32.4
- (Billion USD)	*110.3*		*102.1*		*81.1*		
Precious Metal Deposits	441.2	5.3	475.1	3.8	572.2	3.5	45.1
- (Billion USD)	*30.1*		*25.7*		*29.9*		
Bonds and Bills	107.3	1.3	151.5	1.2	189.9	1.2	57.2
Mutual Funds	479.6	5.7	602.4	4.8	886.8	5.4	116.7
Pension Mutual Funds	250.6	3.0	308.6	2.5	401.7	2.4	69.5
Other Mutual Funds	229.0	2.7	293.8	2.3	485.0	2.9	172.6
Equity Securities	344.3	4.1	537.4	4.3	857.7	5.2	154.7
Repo	7.0	0.1	9.1	0.1	11.8	0.1	70.6
Currency in Circulation	88.4	1.1	76.0	0.6	51.8	0.3	-53.5

Source: CBRT, MKK, PMC

Note: Month-end exchange rates have been used. Pension mutual funds show the total funds of participants in the Private Pension System (PPS) and the Auto Enrollment System (AES), minus the state contribution. Deposits refer to resident real persons' deposits. Estimated value for 2023Q1 GDP data.

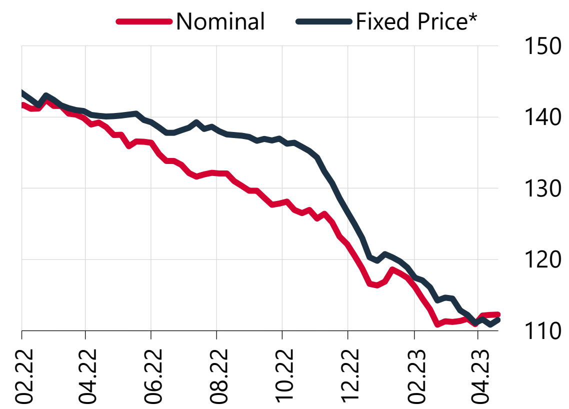
Chart III.1.17: TRY Deposits (Billion TRY, Index 12.2020=100)



Source: CBRT Last Observation: 04.23

Note: TRY deposits of resident real persons. Real index is obtained by adjusting the monthly change in deposits by the CPI. The vertical line marks the FX volatility in December 2021.

Chart III.1.18: FX Deposits (Billion USD)

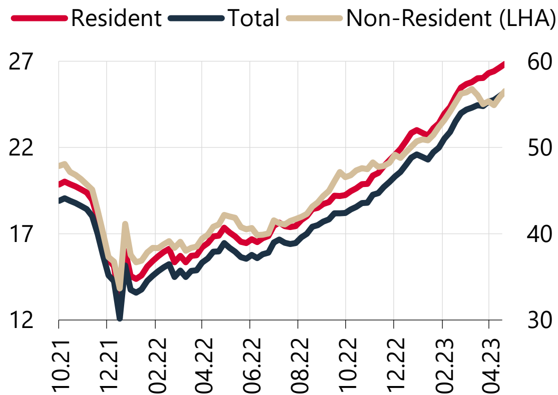


Source: CBRT Last Observation: 04.23

Note: FX deposits refer to resident real persons' deposits, including precious metal accounts. In parity-adjusted series, it was assumed that the parity between exchange rates was constant.

As a result of the developments in households' TRY and FX deposit preferences, the liraization rate continues to increase (Chart III.1.19). While the liraization rate of deposits of resident real persons rose to 59.7%, banks' increasing motivation to achieve the liraization target in deposits indicates that the uptrend may continue. The rise in the liraization ratio was driven by the increase in TRY deposits, which was also supported by KKM accounts, while the decline in FX deposits and the stable course of exchange rates are also considered to be important (Chart III.1.20). After the 3rd quarter of 2022, the liraization rate in savings deposits increased by 20 points. To this rise, the increase in TRY deposits contributed by 18.4 points and the decrease in FX deposits by 4.3 points. Meanwhile, the depreciation in exchange rates in this period led to a relatively limited decline of 2.7 points in the liraization rate. Throughout 2022, the main driver of the increase in the liraization rate after the introduction of the KKM product was the preference for TRY deposits, while the upward effect of the exchange rate-driven increase in FX deposit balances was quite limited.

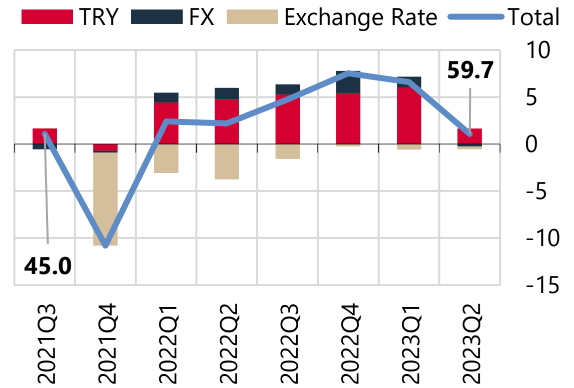
Chart III.1.19: Household Liraization Ratio (%)



Source: CBRT Last Observation: 04.23

Note: Shows the share of real persons' TRY deposits/ total deposits.

Chart III.1.20: Sources of Change in Liraization (Points)



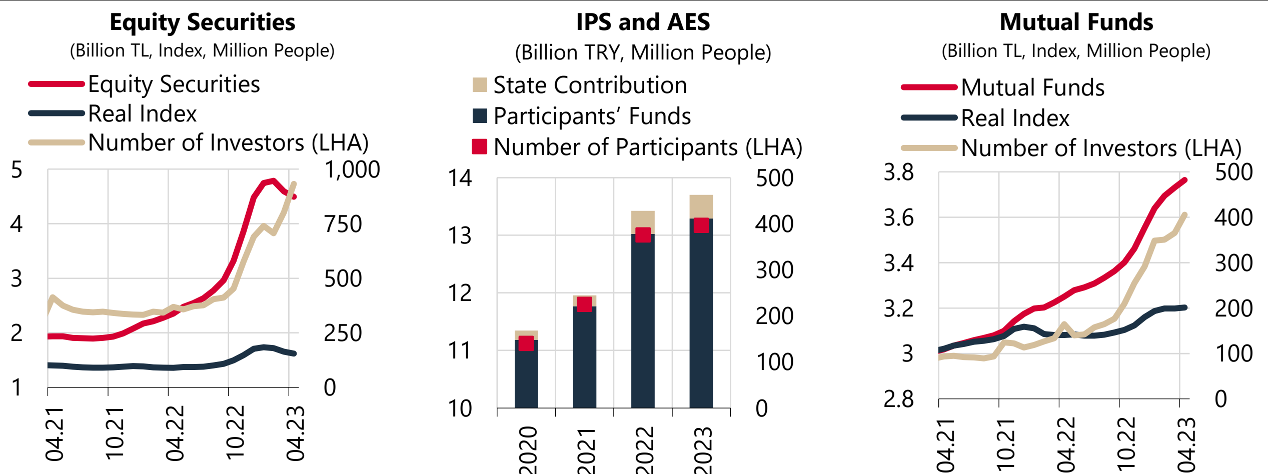
Source: CBRT Last Observation: 2023Q2

Note: The Chart shows the "Total" effect of the change in "FX" and "TRY" deposits and "Exchange Rate" movements on liraization. The values on the chart are the liraization rate for resident real persons in the respective periods. 2023Q2 covers only April data.

Households have been diversifying their savings by increasing their investments in non-deposit financial assets such as equities and mutual funds.

Households' preference for the stock market remained strong throughout 2022, with the number of stock investors reaching 4.7 million at the beginning of April 2023 and the portfolio size reaching approximately TRY 900 billion. In this Report period, price-adjusted equity securities index values show that the stock portfolio increased in value in real terms, albeit with a slight decline in recent months. Funds in the Private Pension System (PPS) and Automatic Enrollment System (OES), which are among the major asset items of households, have been on a moderate rise. Similarly, the number of participants in the pension system exceeded 13 million in this Report period. With a regulation to take effect in the second half of 2023, individuals will have access to lower-cost loans by pledging their savings in the pension system as collateral. On the back of this regulation, individuals' participation in the pension system is expected to increase in the medium and long term. Households' developing a habit of accumulating savings in long-term instruments is expected to contribute to financial stability. While the number of mutual funds held by households continued to increase, the number of investors reached 3.6 million as of April 2023. Similar to the stock market, the price-adjusted real index of mutual funds is also on an uptrend (Chart III.1.21).

Chart III.1.21: Household Non-Deposit Asset Development



Source: MKK, BIST, PMC Last Observation: 04.23

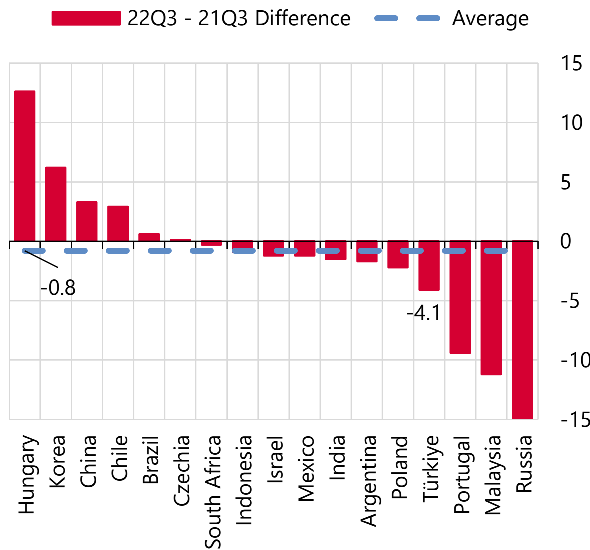
Note: The real index for equities and mutual funds is CPI-adjusted and indexed to 100 in January 2021. PPS and AES data are in aggregated terms, and the number of participants has been singled out. Stocks and mutual funds are 3-month MA.

III.2 Corporate Sector Developments

Financial indebtedness of corporate sector firms is decreasing as in peer countries.

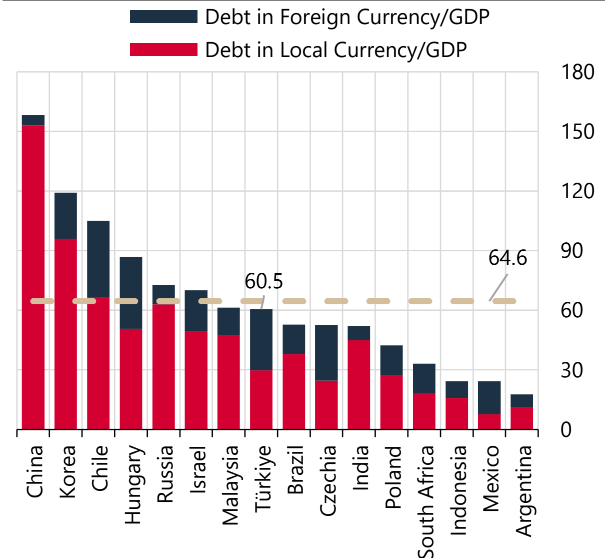
On the back of the economic activity that has revived following the easing of pandemic measures in 2021, corporate sector indebtedness (Financial Debt/GDP) is decreasing on a global scale. The downward trend in corporate sector indebtedness continued throughout 2022. In this period, the financial indebtedness ratio of the corporate sector in Türkiye declined by 4.1 percentage points, exceeding the average of the fall in peer countries (Chart III.2.1). The Financial Debt/GDP ratio stood at 60.5% after this decline. The ratio of the corporate sector's FX debt to GDP continues to decrease in Türkiye (Chart III.2.2).

Chart III.2.1: Change in Debt/GDP Ratio of the Corporate Sector (%)



Source: BIS Last Observation: 09.22
Note: The total financial debt definition includes domestic and external loans utilized by firms, their bond issues, performing and non-performing loans, and credit interest rediscounts. The countries in the chart are ranked from larger to smaller according to the difference between 2022Q3 and 2021Q3. The blue dashed line is the average of 2022Q3-2021Q3 differences.

Chart III.2.2: Debt/GDP Ratio of the Corporate Sector (%)



Source: BIS, IIF Last Observation: 09.22
Note: Calculated based on distribution of debts in local and foreign currencies. The countries in the chart are ranked from larger to smaller according to Total Debt/GDP ratios for 2022Q3. The dashed line shows the average of peer countries' indebtedness in 2022Q3. As Portugal is accepted as an advanced economy according to IIF data, it is not included in the set of peer countries.

While the corporate sector continues to borrow predominantly in TL, the share of FX in its debt composition decreases.

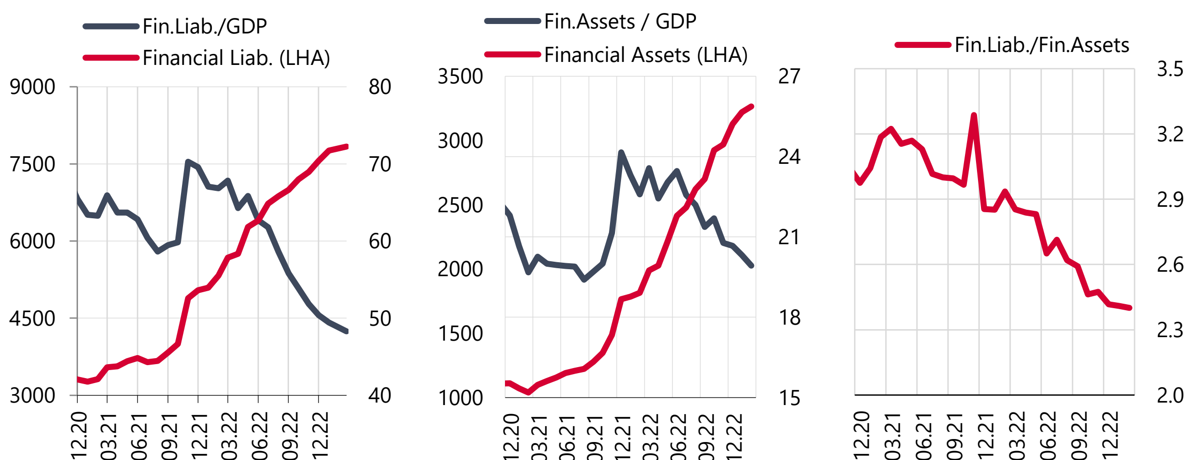
There is a significant downward trend in the GDP share of domestic and external loans as well as the bonds issued abroad (Table III.2.1). The share of loans extended by domestic banks in GDP dropped from 22.2% at end-2021 to 20.7% in the January 2023 period. In the same period, the share of loans extended by foreign banks in GDP decreased by 6.9%. In the current Report period, the share of financing through domestic banks, non-bank financial institutions and issuances in GDP was 35.1% while the share of loans extended by foreign banks remained limited at 12.2%. The amount of FX loans extended by domestic banks decreased in FX-denominated terms whereas FX loans extended by foreign banks increased moderately.

Table III.2.1: Corporate Sector's Financial Liabilities (TL Billion)

	12.21		09.22		02.23		Growth (Annualized)
	TL Billion	Ratio to GDP	TL Billion	Ratio to GDP	TL Billion	Ratio to GDP	
I. Domestic Loans (i+ii)	**3549.2**	**49.0**	**4941.2**	**39.4**	**5689.4**	**35.1**	**32.6**
i. TL	1715.2	23.7	2847.5	22.7	3608.9	22.3	60.6
A. Bank	1606.8	22.2	2687.2	21.4	3352.0	20.7	55.6
B. NBFI	89.0	1.2	126.7	1.0	190.8	1.2	127.0
C. Bonds Issued	19.4	0.3	33.6	0.3	66.1	0.4	286.4
ii. FX (FX-indexed loans included)	1834.0	25.3	2093.7	16.7	2080.4	12.8	-1.3
USD Terms (A+B+C)	*137.6*	*1.9*	*113.1*	*0.9*	*110.3*	*0.7*	*-4.8*
A. Bank	131.5	1.8	112.0	0.9	104.9	0.6	-12.3
B. NBFI	5.4	0.1	4.5	0.0	4.7	0.0	10.9
C. Past-Due Loans Taken Over by SDIF	0.7	0.0	0.7	0.0	0.7	0.0	0.0
II. External Loans	**1370.3**	**18.9**	**1876.1**	**15.0**	**1973.7**	**12.2**	**10.7**
USD Terms	*102.8*	*1.4*	*101.3*	*0.8*	*104.6*	*0.6*	*6.7*
III. Bonds Issued Abroad	**123.8**	**1.7**	**179.3**	**1.4**	**174.4**	**1.1**	**-5.3**
USD Terms	*9.3*	.	*9.7*	.	*9.2*	.	*-9.0*
Total Financial Debt (I+II+III)	**5043.3**	**.**	**6996.6**	**.**	**7837.5**	**.**	**25.5**
For info: Total FX Loans (USD Billion)	*1521.3*	.	226.2	.	*228.4*	.	*1.9*
Financial Debt/GDP (%)	69.6	.	55.8	.	48.3	.	-7.5

Source: CBRT, BRSA Last Observation: 02.23
Note: The "ratio" column shows the ratio of the relevant item to GDP. The last column reflects annualized six-month change between 09.22 and 02.23 using the compound calculation method. Financial Debt/GDP in this column is the difference between the two ratios in the current Report period.

Chart III.2.3: Corporate Sector's Financial Debt and Assets (Ratio, TL Billion)



Source: CBRT Last Observation: 02.23
Note: Financial liabilities include the corporate sector's domestic and external loans, leasing, factoring debts and bond issuances. Financial assets include TL and FX deposits and securities, but direct capital investments abroad and export receivables are not included. Annual GDP values in monthly frequency are calculated by the CBRT. The latest GDP data is the CBRT's estimate. End-month foreign exchange buying rate is used in calculations.

The corporate sector's financial debt/asset ratio is at the lowest level of the last 10 years.

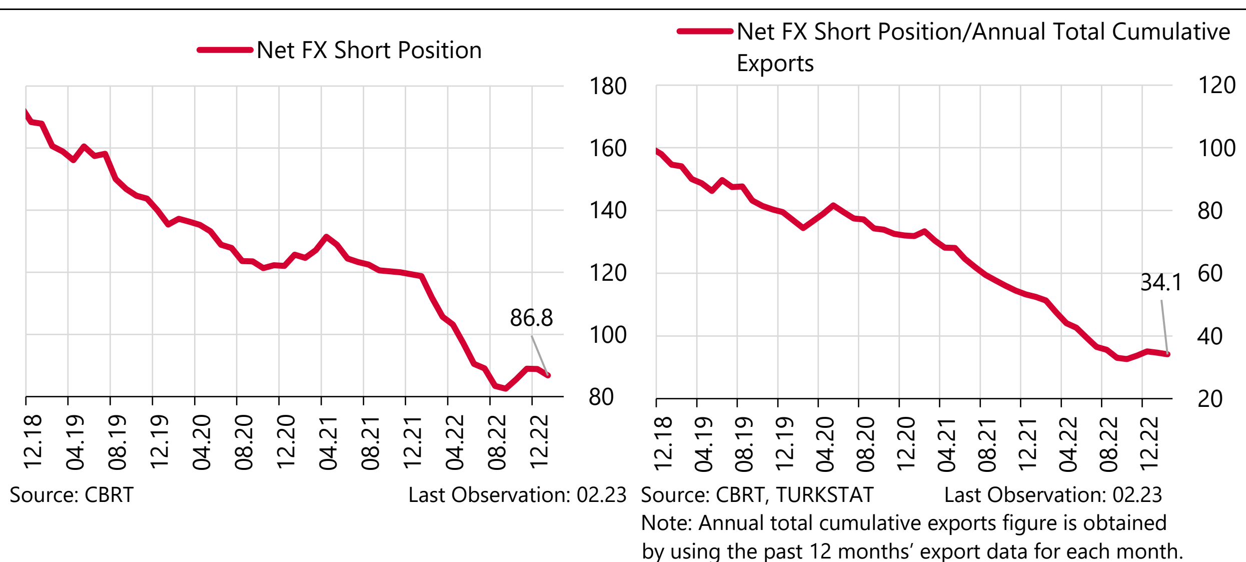
Despite the powerful TL loan growth in 2022, the corporate sector's debt-to-GDP ratio dropped on the back of the slowdown in FX loans and the strong economic activity. Due to the strong economic activity, the ratio of the corporate sector's financial assets to GDP remained almost flat despite the increase in profitability and value of firms' assets. As the growth in corporate sector assets was stronger than the growth in its financial debt, the corporate sector's financial debt/financial asset ratio continued to decrease (Chart III.2.3).

While the corporate sector's tendency to pay off its domestic FX loans continued, the favorable course of its net FX position and other FX debt indicators was maintained.

Although the improvement in the corporate sector's net FX short position lost some pace, its net FX position decreased by USD 33 billion from end-2021 to USD 86.8 billion in February 2023 (Chart III.2.4). In this period, the ratio of net FX short position to annual total export revenues also continued to remain below 40%. While the domestic FX debt of corporate sector firms has declined by USD 27 billion since the beginning of 2022, their external FX debt registered a mild increase after the second quarter of 2022 (Chart III.2.5).

While the external debt rollover ratio of firms assumed a downward trend after August 2022, it still remains above the 135% level (Chart III.2.5). This indicates that the corporate sector's conditions to access external financing are strong at a time of intensified global uncertainties and tightened liquidity conditions.

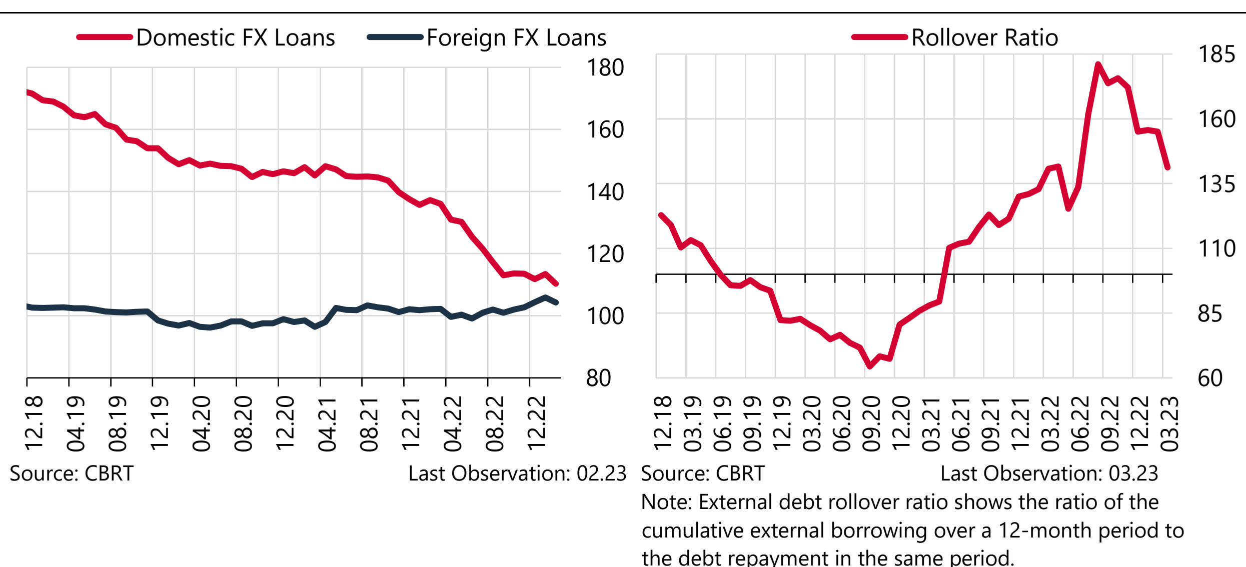
Chart III.2.4: Indicators of Corporate Sector's FX Indebtedness (USD Billion, %)



Source: CBRT Last Observation: 02.23

Source: CBRT, TURKSTAT Last Observation: 02.23
Note: Annual total cumulative exports figure is obtained by using the past 12 months' export data for each month.

Chart III.2.5: Indicators of Corporate Sector's FX Loans and Debt Rollover (USD Billion, %)



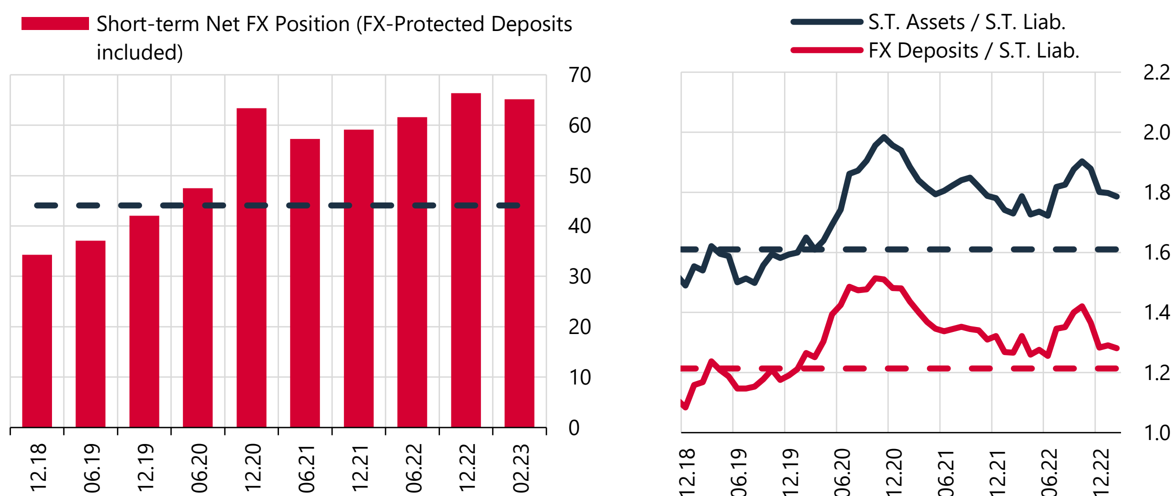
Source: CBRT Last Observation: 02.23

Source: CBRT Last Observation: 03.23
Note: External debt rollover ratio shows the ratio of the cumulative external borrowing over a 12-month period to the debt repayment in the same period.

In addition to the improvement in the general FX position of the corporate sector, the positive outlook in its short-term FX position continues.

The short-term FX long position, which started to increase after 2019, reached approximately USD 70 billion in the second half of 2022. Despite the corporate sector firms' tendency to pay off their FX debts since 2018, their FX liquidity buffers have remained strong. The ratio of firms' short-term debts covered by short-term assets is well above its historical average (Chart III.2.6).

Chart III.2.6: Indicators of Corporate Sector's FX Risk (USD Billion, Ratio)



Source: CBRT

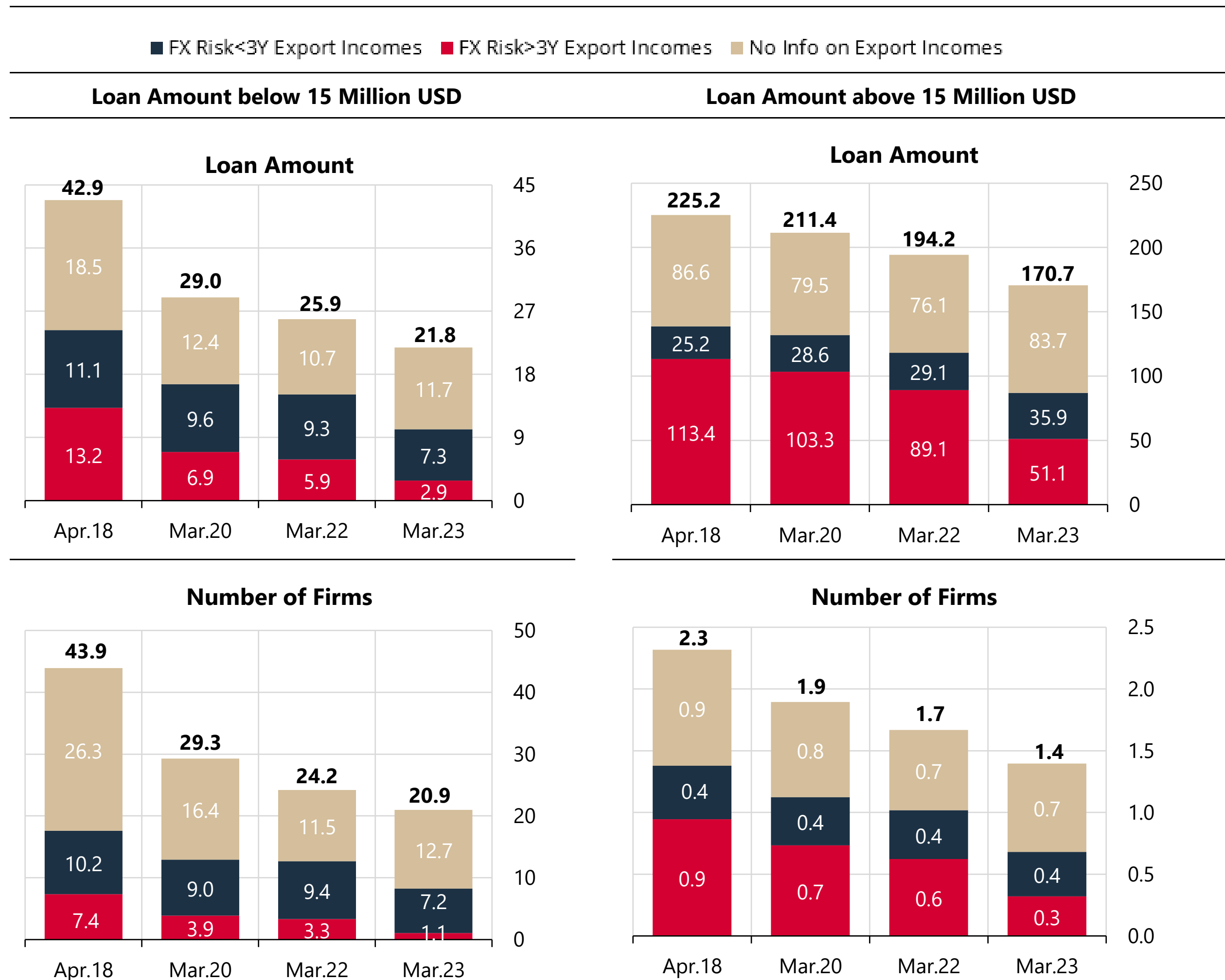
Last Observation: 02.23

Note: FX deposits are the total amount of FX deposits held by resident corporate sector firms in domestic and foreign financial institutions. Net FX position calculations include FX-protected deposits. Dashed lines show the historical average of the relevant data. The S.T. abbreviation in the charts stands for "short-term".

While the downward trend in the number of firms with FX loans continues, the ratio of FX debts covered by export revenues is increasing.

The arrangement that related FX loan utilization of firms with an FX risk below USD 15 million to their FX income within the last three years continues to have positive effects on firms' FX indebtedness in the current Report period (Chart III.2.7). The loan balance of firms with FX loan debts subject to this arrangement dropped by 49% from USD 43 billion in April 2018 to USD 21.8 billion in March 2023, while the number of firms decreased by 52%. The loan balance of firms with FX loan debt above USD 15 million, for which the arrangement did not impose any restrictions, declined by 24% from USD 225 billion to USD 170.7 billion during the same period, while the number of firms went down by 40% to 1,397. For firms with FX loans, the improvement in the ratio of export revenues to FX debt continues. Moreover, among the firms whose export information could be accessed, the share of firms with FX debt exceeding their three-year export revenues in the total decreased. The improvement in the FX debt-export revenue coverage profile of firms not subject to the arrangement curbs the FX risk of the corporate sector.

Chart III.2.7: Firms' FX Loan Balance Compared to Three-Year Export Revenues and Number of Firms (USD Billion, Thousand Firms)



Source: Risk Center, CBRT, TURKSTAT Last Observation: 03.23

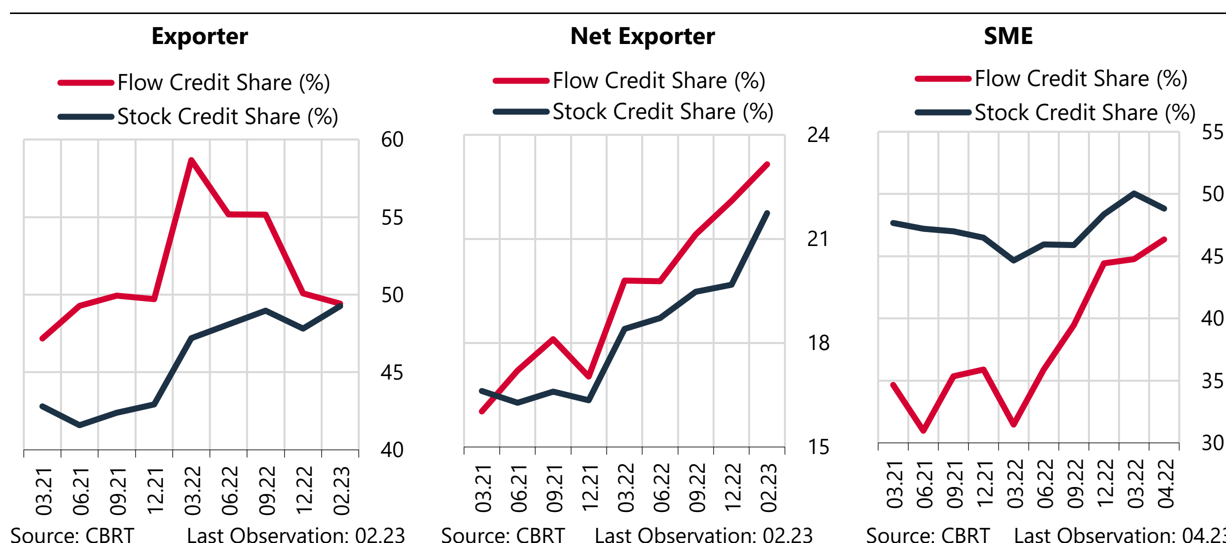
Note: Export revenues are the sum of the firm's year-end revenues from exports of goods over the last three years as of the relevant date. Firms with no export revenue data show firms that do not have export revenue records in the database, and these firms are likely to have revenues from exports of goods or FX-indexed income. FX loan debt includes loans extended from abroad via domestic banks. Direct loans used from abroad are not included.

Due to targeted loan policies, the TL loan utilization of net exporter firms and SMEs is increasing.

Targeted loan policies, fitting their purpose, have contributed significantly to net exporter firms' and SMEs' access to financing. On the back of targeted loan policies, the loan flow to exporter firms increased gradually, and the share that exporter firms received from TL flow loans reached an all-time high in 2022 (Chart III.2.8). Following the arrangement in October 2022 stipulating that firms should be net exporters to obtain export credits under the targeted loan practice, the share of exporter firms started to decline.[1] Nevertheless, across exporter firms, the acceleration in loan utilization of net exporters having an export/import ratio above 110% continues. The share that net exporter firms receive from new loan utilization and stock loans is on the rise. In addition to these firms, flow and stock loan shares of SMEs are also increasing.

[1] In September 2022, the "net exporter firm" definition was introduced for export credits to be taken into account in targeted loan practices. Accordingly, effective from 28 September 2022, credits extended to firms having a minimum 110% ratio of total exports to total imports in the last three fiscal years or in the last fiscal year with a maximum maturity of two years (export credits extended to net exporter firms) are accepted as export credits in terms of the securities maintenance practice.

Chart III.2.8: TL Flow and Stock Loan Shares of Firms Based on Their Exports and Scales (%)



Source: CBRT Last Observation: 02.23 Source: CBRT Last Observation: 02.23 Source: CBRT Last Observation: 04.23

Note: Calculations are based on TL loans. The chart on the left shows the flow and stock loan shares of firms with exports in the previous three fiscal years before the period of loan utilization, and the chart in the middle shows the flow and stock loan shares of net exporter firms with an export/import ratio above 110% in the previous three fiscal years before the period of loan utilization. The flow loan share denotes the ratio of three-month total flow loans to total TL loans, and stock loans denote the stock loan share of relevant firms in total stock commercial loans as of the relevant period.

The share of TL is increasing in the corporate sector's financial asset composition.

The strong growth in the corporate sector's TL deposits continues. Business incomes that have increased as a result of buoyant economic activity following the shift from FX deposits to TL deposits support the assets of firms (Table III.2.2).

Table III.2.2: Corporate Sector's Financial Assets (TL Billion)

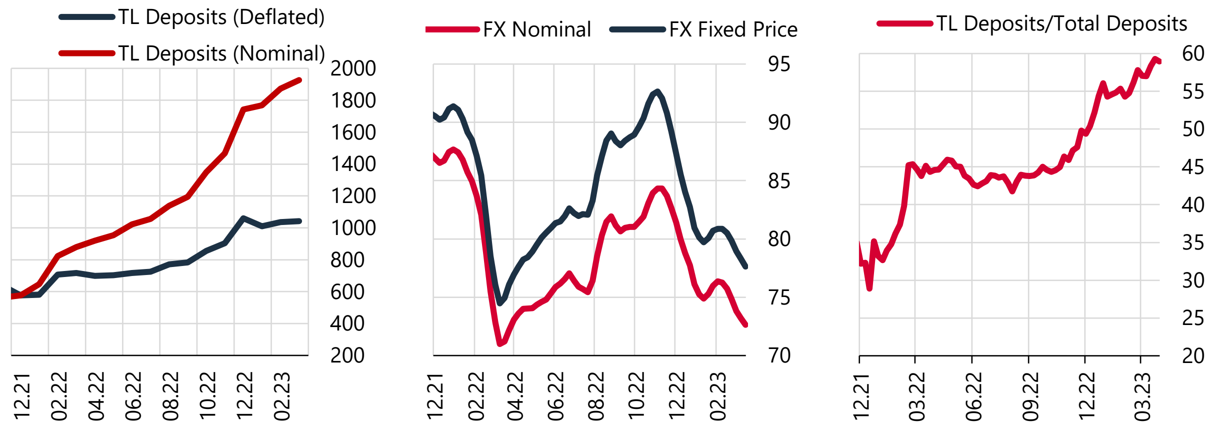
	12.21		10.22		03.23		6-Month Growth (Annualized)
	TL Billion	Share of GDP	TL Billion	Share of GDP	TL Billion	Share of GDP	
Total Assets	**1,802**	**25**	**2,983**	**22**	**3,344**	**20**	**25.6**
TL Commercial Deposit	576	8	1,349	10	1,926	11	104.0
FX Commercial Deposit	1,157	16	1,551	12	1,320	8	-27.6
-(USD Billion)	87		84		70		-29.9
Public Debt Instruments	17.6	0.2	26.5	0.2	35.7	0.2	81.5
Private Sector Debt Instruments	51.5	0.7	56.4	0.4	61.4	0.4	18.4
Total Assets / GDP	24.9		22.3		19.8		-2.5

Source: CBRT Last Observation: 03.23

Note: The share column shows the ratio of the relevant item to GDP. The last column reflects the annualized value of the six-month change between 10.22 and 03.23 calculated using the compound calculation method. Total Assets/GDP in this column is the difference between the two ratios for the current Report period.

While TL deposits of the corporate sector continue to increase in nominal and real terms, they follow a moderately flat path on a real basis in the current Report period (Chart III.2.9). The growth in nominal TL deposits was driven by the conversion of foreign currency deposits to TL deposits following the introduction of the KKM product in early 2022, the increasing TL commercial loan volume and the brisk economic activity. The improvement in the TL deposit rate of the corporate sector continues.

Chart III.2.9: Commercial Deposits (TL Billion, USD Billion)



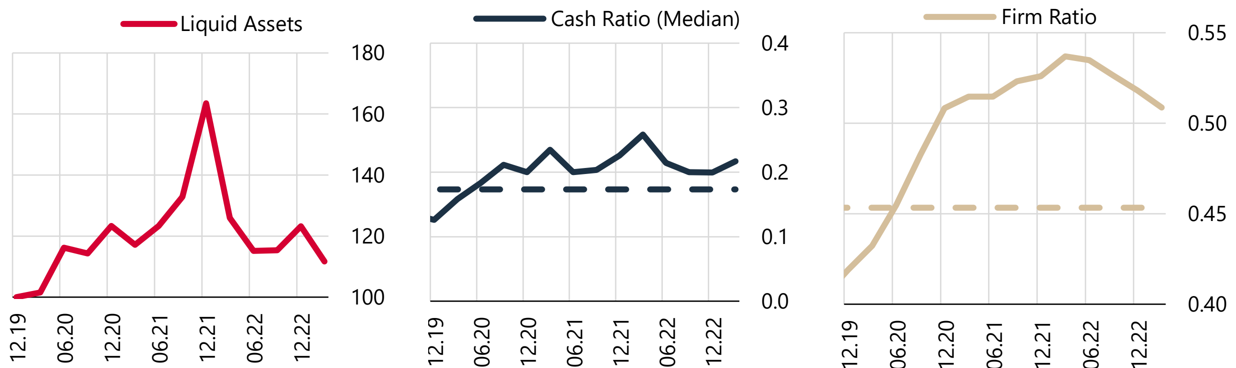
Source: CBRT Last Observation: 03.23

Note: TL deposits (deflated) are obtained by deflating nominal deposits by inflation according to the CPI. Assuming a fixed price for FX deposits; EUR/USD parity and gold oz values are fixed at the exchange rate recorded on 30.07.2020, and the values on the chart are four-week moving average values.

Balance sheets of firms are resilient to possible shocks with their strong liquid assets.

Liquid assets of corporate sector firms are at a historic high in real terms. The liquid assets item, which hit the highest level at end-2021 due to the rise in the exchange rate, remained moderate starting from the second half of 2022. The median cash ratio, calculated as the ratio of liquid assets and securities to short-term liabilities, maintains its course above the historical average. The ratio of firms with a cash ratio higher than the threshold value of 20% to the total number of firms recorded its highest level as of the first quarter of 2022. This ratio continued to hover above 50% despite some decline in the current Report period. The level of the cash ratio, showing the capacity of firms to cover their short-term debts with their existing liquid assets, indicates that firms have a strong liquidity structure against shocks that may come from various channels (Chart III.2.10).

Chart III.2.10: Activity and Liquidity Indicators of Firms (Inflation-adjusted TL Billion, Ratio)



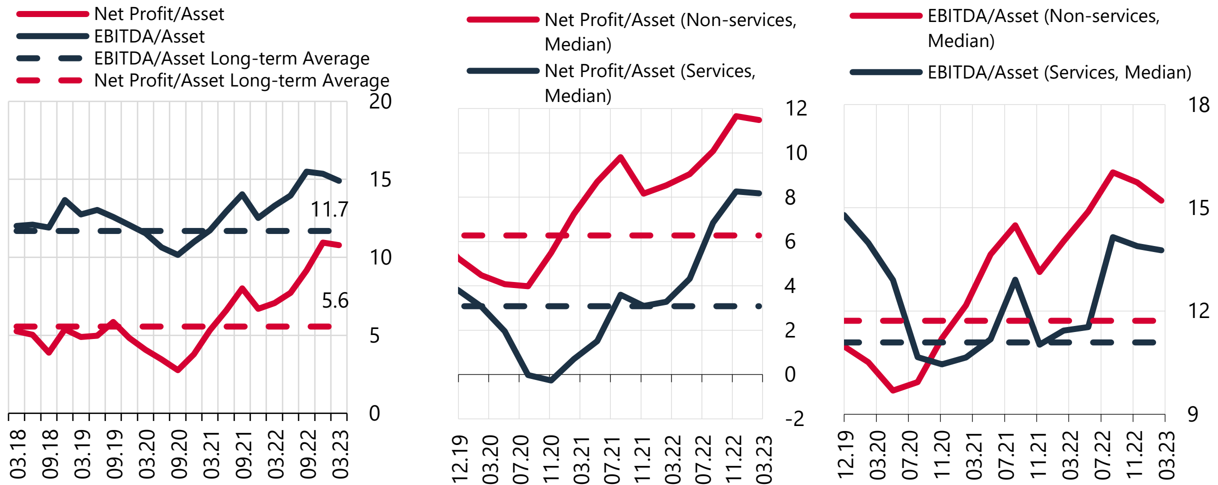
Source: FINNET Last Observation: 03.23

Note: As of the latest data, 300 corporate sector firms were included in the analysis. The cash ratio is the ratio of the sum of liquid assets and securities to the short-term debt. Average cash ratio is the average of the cash ratio calculated separately for each firm. Median cash ratio is the median value of the cash ratios calculated for all firms. The firm ratio gives the ratio of firms with a cash ratio above 20% to the total number of firms. Liquid assets are indexed to 100 for 2019 year-end. Dashed lines show the historical average of the relevant data.

The profitability indicators of firms listed on BIST hover above the historical average.

In the current Report period, the upward trend in firms' profitability was maintained due to the positive effect of the normalization in commodity prices, the decline in exchange rate-driven uncertainties, brisk domestic demand, and the rise in the value of existing inventories. In a breakdown by services and non-services (industrial) sectors, profit margins increased significantly in both segments (Chart III.2.11). The Net Profit/Asset ratio of non-services firms is relatively higher than that of services firms. While this ratio reached 11% in non-services firms in the first quarter of 2023, it was recorded at 8% in services firms. In the first quarter of 2023, the EBITDA/Asset ratio of non-services firms stood at 15% and that of services firms at 14%.

Chart III.2.11: Profitability Indicators and Profitability Distribution of BIST Firms (Ratio, %)

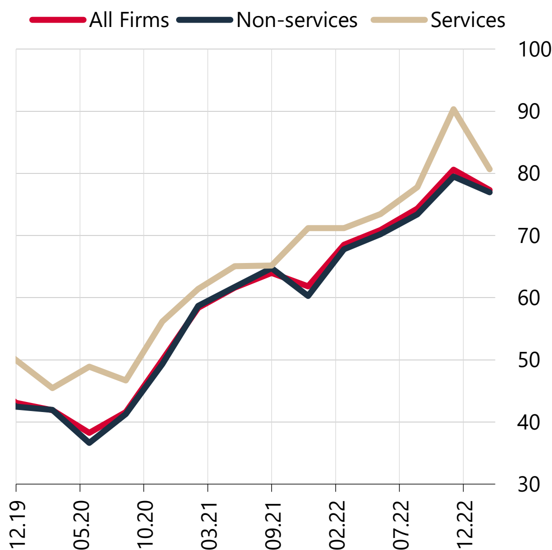


Source: FINNET Last Observation: 03.23

Note: The analysis includes 300 corporate sector firms. EBITDA: Net Profit + Financial Expenses + Tax Expenses + Depreciation and Amortization Costs. The firm ratio shows the ratio of firms with EBITDA/Asset and Net Profit Margin/Asset values above 5% (0.05) to the total number of firms. Long-term EBITDA/Asset and Net Profit Margin/Asset averages are shown in dashed lines. Long-term EBITDA/Asset and Net Profit Margin/Asset average values are calculated for the 2011Q4 – 2023Q1 period.

Among the firms listed on BIST, the share of those with a Net Profit/Asset ratio above 5% rose to 77.3% and the share of firms with an EBITDA/Asset ratio above 5% increased to 81.3%, indicating that strong profitability spread across all firms (Chart III.2.12). While the share of non-services firms with a Net Profit/Asset ratio above 5% approached 80%, this share was above 90% for services sector firms. Likewise, the share of non-services firms with an EBITDA/Asset ratio above 5% was 80%, and the same share was 94% for services firms (Chart III.2.13). In the first quarter of 2023, the share of services firms with profitability above 5% registered a stronger increase than the share of non-services firms with profitability above 5%.

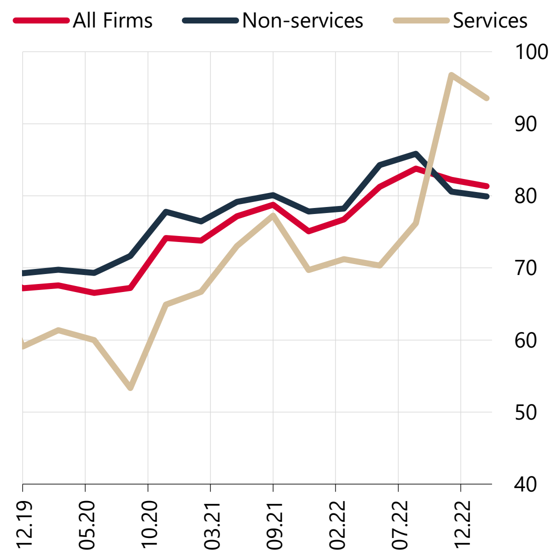
Chart III.2.12: Share of Firms with a Net Profit/Asset Ratio Above 5% (%)



Source: FINNET Last Observation: 03.23

Note: The analysis includes 300 corporate sector firms. The shares of services and non-services firms are calculated using the number of firms in these sectors.

Chart III.2.13: Share of Firms with an EBITDA/Asset Ratio Above 5% (%)



Source: FINNET Last Observation: 03.23

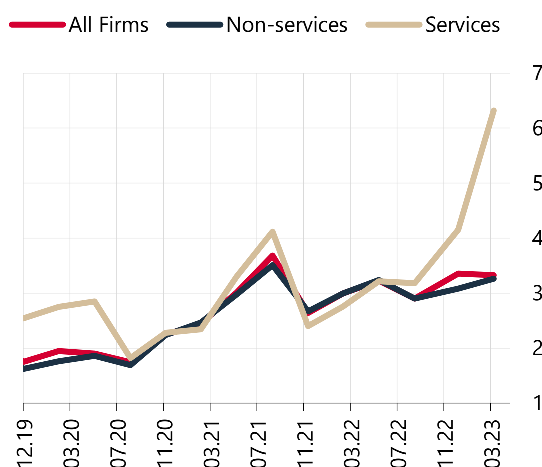
Note: The analysis includes 300 corporate sector firms. The shares of services and non-services firms are calculated using the number of firms in these sectors.

On the back of the decline in financial expenses, indicators of firms' debt payment capability improved significantly.

BIST firms' financial expenses coverage ratio (FECR) dropped somewhat due to exchange rate developments at the end of 2021, while indicators measuring the debt payment capability of firms improved powerfully on the back of the increase in profitability throughout 2022 (Chart III.2.14). Data for the first quarter of 2023 suggest that firms' operating profits can cover their financial expenses for the next 3.3 years. Operating profits of services firms cover longer-term financial expenses than those of non-services firms. Operating profits of services and non-services firms equal financial expenses for the next 6.3 and 3.3 years, respectively. While the median FECR of services sectors increased strongly throughout 2022, that of non-services sectors remained flat.

In the current Report period, 76% of firms have a FECR above the threshold value of 1.5. While 75% of non-services firms have a FECR above 1.5, the ratio of services firms with a FECR above 1.5 is 84% (Chart III.2.15). The upward trend in the FECR and the increase in the share of firms with a FECR above the threshold value indicate that services and non-services firms have a low probability to experience financial distress in the face of an external shock and that they are financially liquid and strong.

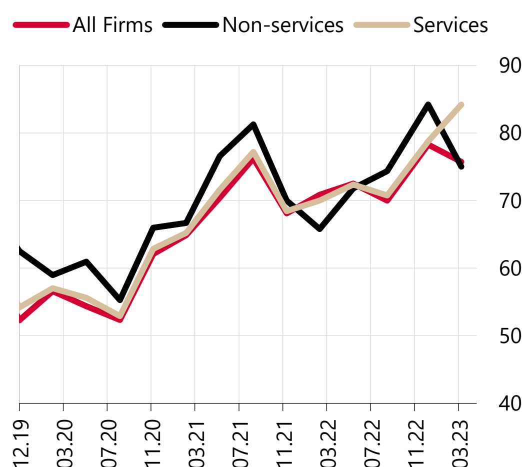
Chart III.2.14: BIST Firms' Financial Expenses Coverage Ratio (Median, Ratio)



Source: FINNET Last Observation: 03.23

Note: Financial Expenses Coverage Ratio (FECR)= EBITDA/Financial Expenses. The analysis includes 300 corporate sector firms.

Chart III.2.15: Share of Firms with Financial Expenses Coverage Ratio Above 1.5 (%)



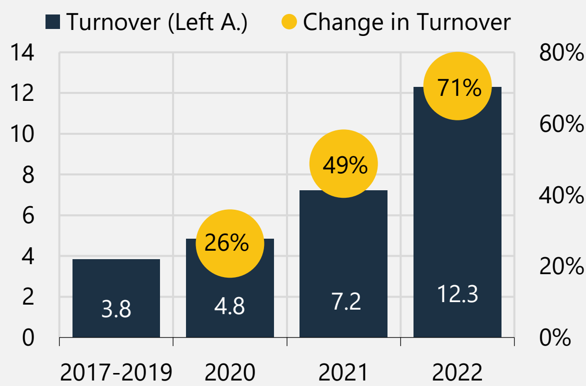
Source: FINNET Last Observation: 03.23

Note: The firm ratio shows the ratio of firms with a financial expenses coverage ratio above 1.5 to the total number of firms. The analysis includes 300 corporate sector firms.

Box III.2.I: Financial Indicators of Corporate Sector Firms in the Post-Pandemic Period

The change in consumer habits and market structure triggered by the factors that emerged in the Turkish economy during and after the pandemic affected balance sheet performance indicators on a sectoral and firm basis. This box presents a sectoral analysis of the change in financial indicators of corporate sector firms in the period following the Covid-19 pandemic that led to economic and structural changes in Türkiye and across the world. The study includes a comparison of the pre-pandemic (2017-2019 period) and post-pandemic (2020-2022 period) revenues of approximately 400,000 corporate taxpayer firms.[1]

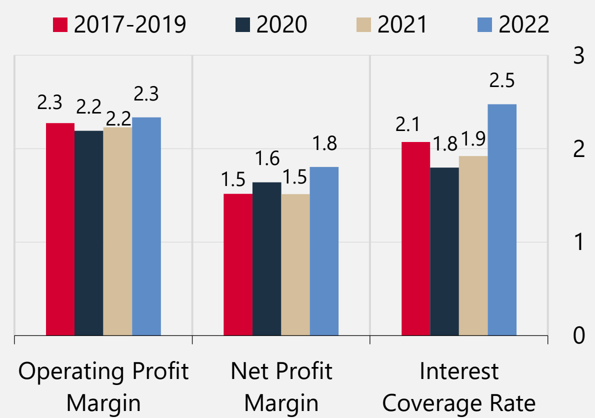
Chart III.2.I.1: Average Turnover of Firms (Million TL)



Source: Presidency of Revenue Administration (PRA) Last Observation: 09.22

Note: Calculations do not include E-Water supply, sewerage, K-Financial and insurance activities, O-Public administration and defense, T- Activities of households as employers, U-Activities of extraterritorial organizations and bodies, and V-Activities regarding income from movable capital on one's own account. Outturns for the first three quarters of 2022 have been annualized. Turnovers show the average net amount of sales per firm as a share of the number of firms. Yellow circles show the growth in turnover compared to the previous year.

Chart III.2.I.2: Profitability and Interest Coverage Ratio of Firms (%, Ratio)



Source: PRA Last Observation: 09.22

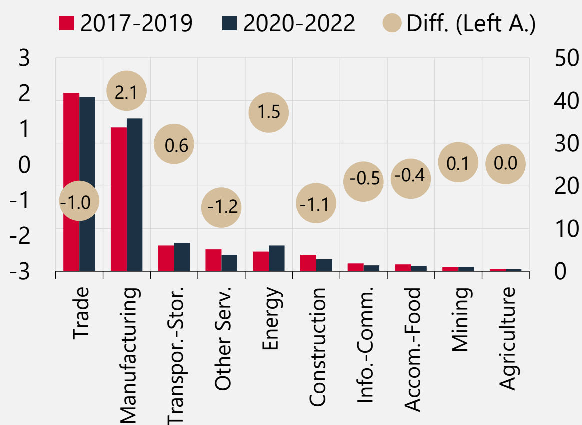
Note: Calculations do not include E-Water supply, sewage, K-Financial and insurance activities, O-Public administration and defense, T- Activities of households as employers, U- Activities of extraterritorial organizations and bodies, and V- Activities regarding income from movable capital on one's own account. The interest coverage ratio denotes the ratio of operating profit to financial expense. 2022 values are annualized values. Median values.

The average turnover (net sales) of corporate sector firms grew by 26% from the 2017-2019 period to 2020, by 49% from 2020 to 2021, and by 71% from 2021 to 2022 (Chart III.2.I.1). While some portion of this growth was driven by inflation, there were also other factors such as the liquidity facility offered due to the pandemic, domestic and external demand that strengthened after the pandemic, channeling of additional demand to Türkiye as a result of the pandemic's impact on supply chains, and Turkish firms' orientation towards exports and/or boost of their existing export revenues. The turnover growth maintained an upward trend over the years in the periods analyzed whereas the average profitability and interest coverage ratio per firm were more variable (Chart III.2.I.2). While operating profit margins of firms recovered their pre-pandemic level in 2022, net profit margins increased somewhat throughout 2020 on the back of operating costs that decreased due to low commodity prices and financing costs as well as supportive measures such as the short-time work allowance. Net profit margins declined in 2021 amid growing input costs and inflationary pressures but exceeded previous years' levels in 2022 due to brisk domestic demand and the fall in financing costs. Meanwhile, in 2022, the interest coverage ratio stood above the averages of all periods analyzed on the back of the low financing environment.

[1] The relevant data sets cover nearly one million corporate taxpayers for the 2017-2022 period. The analyses include firms that had submitted full datasets for those years, while firms with missing data for each period and firms with outliers are excluded. The 2017-2021 period reflects the year-end values, and the 2022 period reflects the annualized values as of September 2022.

To observe the sectoral differentiation in economic activity, we analyzed the distribution of and the change in shares that sectors received from the total turnover (Chart III.2.I.3). Accordingly, trade and manufacturing sectors continue to dominate the shares in turnover, with the manufacturing sector registering the largest increase in its share with 2.1 percentage points in the 2020-2022 period. This increase is attributed to the strong domestic demand as well as the rise in Türkiye's export sales driven by the post-pandemic changes in the global supply market, and particularly the targeted loan policies implemented effectively in 2022. The energy sector, which was favorably affected by global energy prices and growing interest in renewable energy, and the transportation-storage sector, which boosted its sales on the back of strengthened exports, were the other sectors that increased their turnover shares the most compared to the 2017-2019 average. Other services and construction sectors stood out as the sectors with the largest decline in their shares.

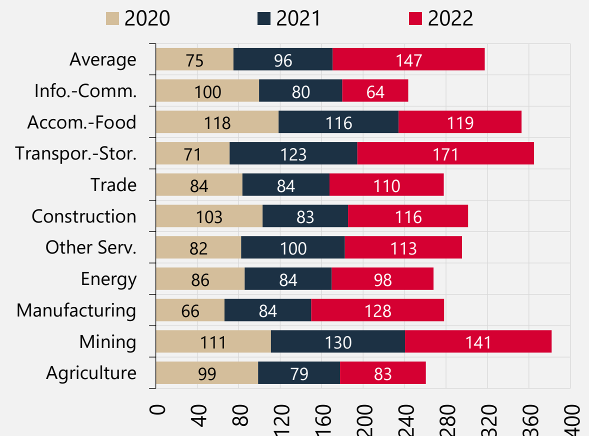
Chart III.2.I.3: Distribution of Sectoral Shares in Net Sales (%, % Change)



Source: PRA Last Observation: 09.22

Note: The chart shows the share of sectoral net sales in total net sales and the change in this share. The columns are ranked from the largest to the smallest based on the 2020-2022 value. The Other Services sector in the chart covers L- Real estate activities, M- Professional, scientific and technical activities, N- Administrative and support service activities, P- Education, Q- Health, R- Arts, sports and recreation, and S- Other service activities in the NACE classification.

Chart III.2.I.4: Firm Concentration in Net Sales by Sectors (HH Index, 2019=100)

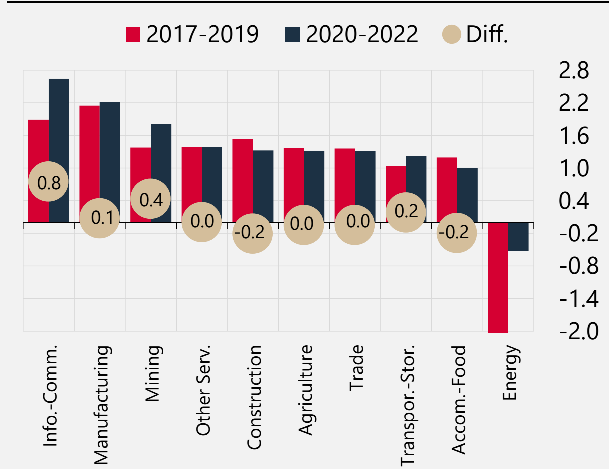


Source: PRA Last Observation: 09.22

Note: The HH (Herfindahl-Hirschman) index is used in calculations, and the year 2019 is indexed to 100 on a sectoral basis. The HH index is calculated as the sum of the squares of the turnover share of each firm in the sector.

The HH (Herfindahl-Hirschman) index has been calculated to measure whether the increase in net sales in 2020, 2021 and 2022 was broad-based (Chart III.2.I.4). To this end, defining the year 2019 as the base year, values for this year have been taken as 100 basis points, and a comparison has been made regarding the broad-basedness of trade activities considering the country-wide and sectoral shares of firm sales in total sales in the following years. As a general rule, a rise in the index denotes a concentration of net sales in certain firms and a fall in the index points to more broad-based increases in turnover. Accordingly, the average increase in turnover in 2020 and 2021 was more broad-based than in 2019, whereas turnover increases were relatively less broad-based in 2022. While net sales increases were more broad-based in the information-communication, agriculture-livestock, and manufacturing sectors, turnover increases were less broad-based across the sector in the mining, transportation-storage, accommodation-food service, and construction sectors.

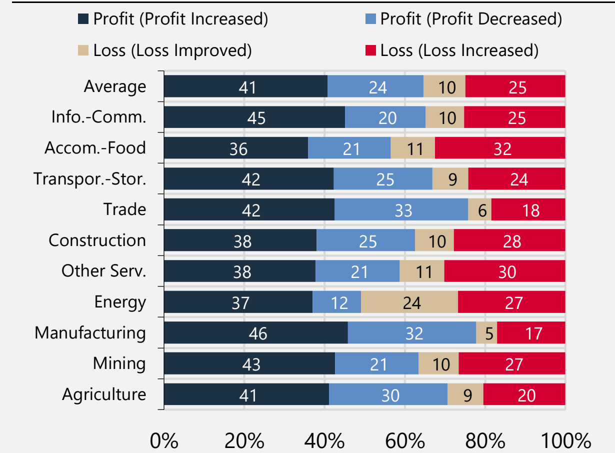
Chart III.2.I.5: Change in Net Profit Margin by Sectors (Median firm, % Ratio)



Source: PRA Last Observation: 09.22

Note: Median values are used in the calculations. Values in the chart show the net profit/net sales ratio of firms and the change in this ratio. The columns are ranked from the largest to the smallest based on the 2020-2022 value. Values for the energy sector are calculated as -5.50 and the change as 5 for the 2017-2019 period but cannot be precisely displayed on the chart due to visual integrity concerns.

Chart III.2.I.6: Share of Firms Based on the Change in Net Profit Margin by Sectors (%)



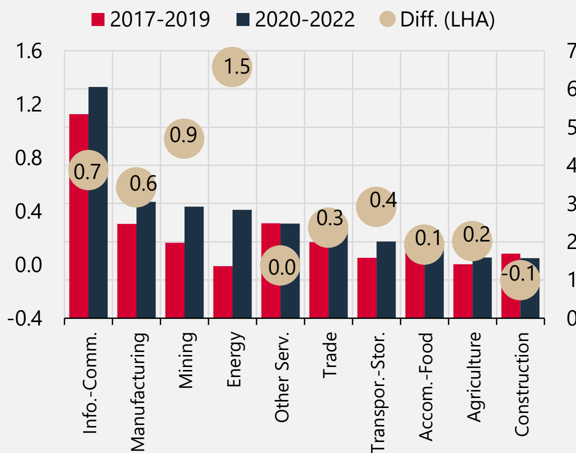
Source: PRA Last Observation: 09.22

Note: Values in the column chart are the percentages of the number of firms corresponding to the profit margin change in the relevant sector between the 2017-2019 and 2020-2022 periods.

In the 2020-2022 period, the median net profit margin of firms declined somewhat in the construction and accommodation-food service sectors compared to the pre-pandemic period while the largest increase was recorded in the energy, information-communication, mining, and transportation-storage sectors (Chart III.2.I.5). The rise in commodity and energy prices in the post-pandemic period affected input costs of firms negatively, which exerted downward pressure on firms' profitability. Nevertheless, sectoral profitability increased in general. The energy sector recorded the largest change in net profit margin between the pre- and post-pandemic periods despite its negative net profit margin, which corresponded to 5 percentage points of change between the two periods. The increase in Renewable Energy Sources Support Mechanism (YEKDEM) revenues due to exchange rate developments, the rise in electricity prices, and the Russian-Ukrainian conflict positively affected the profitability of the energy sector. Meanwhile, the profitability growth in the information-communication sector was driven by the pandemic-induced change in consumer behavior and increased digitalization. An analysis of the distribution of the number of firms based on the average net profit change by sectors reveals that 65% of firms were in profit (with 41% of them having an improvement in their net profitability and 24% of them registering a decline in their net profitability), while the remaining 35% were in loss in the 2020-2022 period (Chart III.2.I.6). Manufacturing and trade sectors were the leading sectors whose profitability was broad-based, whereas losses were broad-based in energy, accommodation-food service and other services sectors. In general, firms have increased their profitability in the post-pandemic period.

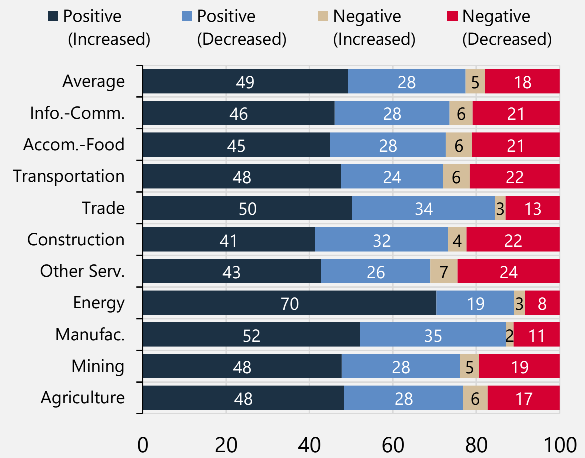
The interest coverage ratio has improved across almost all sectors in the post-pandemic period (Chart III.2.I.7). On a sectoral basis, the largest change in the interest coverage ratio was registered in the energy sector, followed by mining, information-communication, manufacturing, and transportation-storage sectors. This change is attributed largely to the increase in EBITDA for reasons cited above and to financial expenses falling behind firms' profitability due to favorable financing conditions. In the two periods analyzed, on average, the interest coverage ratio of a large portion of firms (75%) remained positive whereas a smaller portion of firms had a negative interest coverage ratio (Chart III.2.I.8). While energy, manufacturing, and trade sectors diverged positively in terms of a broad-based change in their interest coverage ratio, other services, transportation-storage, and accommodation-food service sectors were among those with a relatively larger number of firms with a negative interest coverage ratio.

Chart III.2.I.7: Interest Coverage Ratio by Sectors (%)



Source: PRA Last Observation: 09.22

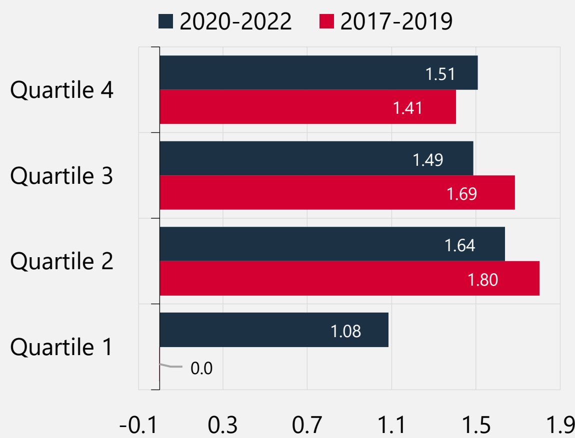
Chart III.2.I.8: Share of Firms Based on the Change in Interest Coverage Ratio by Sectors (%)



Source: PRA Last Observation: 09.22

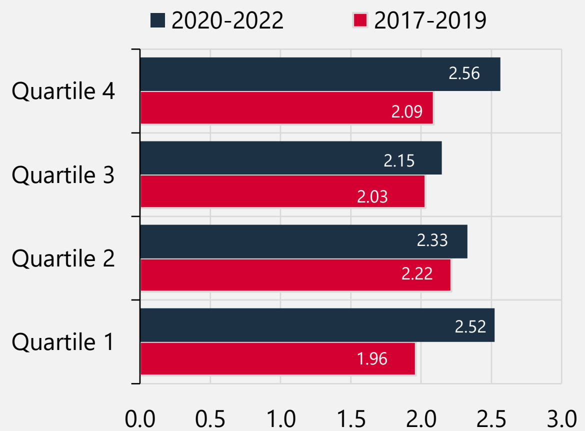
Analyzing the change in net profit margin of firms based on turnover size, profit margins of the relatively largest (quartile 4) and the smallest (quartile 1) firms rose in the 2020-2022 period whereas profit margins of medium-sized firms in the middle quartiles decreased somewhat (Chart III.2.I.9). An analysis of the change in the interest coverage ratio of corporate sector firms based on turnover size reveals that the interest coverage ratio of firms in all quartiles improved. This improvement was more visible particularly in the largest (quartile 4) and the smallest (quartile 1) firms (Chart III.2.I.10). The interest coverage ratio hovered above the threshold value of 2 in both periods and all scale groups, which indicates that firms have a robust financial structure in terms of debt payment capacity.

Chart III.2.I.9: Net Profit Margin Based on Turnover Size (%)



Source: PRA Last Observation: 09.22

Chart III.2.I.10: Change in the Interest Coverage Ratio by Sectors (Ratio, Difference)



Source: PRA Last Observation: 09.22

Note: Quartile 1, Quartile 2, Quartile 3 and Quartile 4 show the firms in the sample that are in the first 25% bracket (the smallest firms), the 25%-50% bracket, the 50%-75% bracket, and the 75%-100% bracket (the largest firms), respectively, according to their turnover size.

Findings of this study suggest that the turnover, profitability, and interest coverage indicators of firms have improved in general in the post-pandemic period compared to the pre-pandemic period. The turnover volume in the corporate sector displayed an upward trend in the periods analyzed, and the net profit margin and interest coverage ratios of firms increased. On the other hand, having varied across sectors and firms, the improvement in these indicators was broad-based. Findings of this study also confirm that the post-pandemic structural transformation in the global economy and the measures taken have had positive implications for economic activity and sectors' balance sheet performance in Türkiye.