

# INFLATION REPORT

2024-II

May 9, 2024



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# 1. Overview

**Consumer inflation was 69.8% in April 2024, hovering above the forecast range presented in the first Inflation Report of the year.** The underlying inflation, which had been declining since September, posted an increase in January due to wage revisions as well as backward-indexation behavior in time-dependent price setting and in administered price adjustments. While the underlying inflation weakened in the subsequent months and reverted to the level it reached in December, it remained above the path envisaged in the first Inflation Report of 2024. Following geopolitical tensions and production cuts, global commodity prices rose in the first quarter, led by the energy group. These geopolitical developments led to the preference for alternate trade routes, prolonged delivery times and raised freight charges. Food prices saw strong increases in the last reporting period, with red meat prices rising notably. The tight monetary policy stance pushed 12- and 24-month-ahead inflation expectations down, yet year-end expectations remained above the Inflation Report forecasts. The diffusion index, which provides information on how widely the price increase trend has spread, showed no significant change in March and April, following increases in the first two months of the year. Aggregate demand conditions followed a strong course, and credit usage increased in the first quarter. The rise in real wages has been a supporting factor for domestic demand conditions. The backward-indexation behavior led to the maintenance of inertia in services inflation, with the rent subgroup particularly standing out. More frequent wage revisions compared to the past were another development that contributed to the persistence of services inflation.

**Indicators for the underlying monthly inflation increased in January in line with projections and slowed down in the subsequent period, yet followed a higher-than-expected course.** After having declined more than projected in the last quarter of 2023, seasonally adjusted monthly increases in core indicators strengthened in January, led by services inflation. The underlying inflation declined in the following period, yet remained higher than projected. Alternative underlying inflation indicators such as median inflation, SATRIM, and Dynamic Factor also confirmed this outlook by displaying a similar pattern. It is projected that the slowdown in the underlying inflation will continue as the effects of monetary tightening become more evident.

**Inflation is projected to be 38% by the end of 2024 and to fall to 14% by the end of 2025.** While the end-2024 inflation forecasts were revised upwards, end-2025 inflation forecasts were kept unchanged. Data released for the first quarter of the year suggests that the rebalancing process for demand will be more delayed compared to the projections in the previous Inflation Report. Resilient domestic demand, the slower-than-anticipated decline in the underlying trend of inflation, and the upward revision in assumptions for commodity and import prices were the main factors that pushed the inflation forecasts upwards. On the other hand, strong monetary policy tightening and measures taken to support the monetary transmission mechanism are expected to limit the deterioration in the inflation outlook. It is expected that inflation expectations will converge to inflation forecasts and support the disinflationary process, and that tightening financial conditions will weaken the resilient course of domestic demand, thereby exerting a downward influence on inflation.

**The disinflation process starting in June is projected to continue with a stronger pace in the second half of the year.** Owing to the notable policy rate hike of March coupled with the additional macroprudential measures, financial conditions are considered to be significantly tightened. Given the lagged effects of policy measures, the moderation in domestic demand is projected to become more evident from the second quarter of the year onward. Medium-term projections are based on an outlook in which the tight monetary policy stance will be maintained until the inflation outlook displays a significant improvement and the coordination among economic policies will be preserved. Forecasts rely on a monetary policy that will remain tight until a significant and sustained decline in the underlying trend of monthly inflation is observed, and inflation expectations converge to the projected forecast range. With the contribution of the monetary policy forward guidance emphasizing the decisive tight stance, the convergence of inflation expectations to the Inflation Report forecasts in the short term and to the inflation target in the medium term is critical for ensuring an enduring price stability. Moreover, it is assumed that the fiscal discipline will be preserved in the forecasting period and fiscal policies will support the disinflation process in coordination with the monetary policy. The decisive monetary policy stance is expected to ensure moderation in domestic demand, real appreciation in the Turkish lira and improvement in inflation expectations. All these factors are expected to lower the underlying trend of monthly inflation and establish disinflation in the second half of 2024.

***In the last quarter of 2023, economic activity remained strong and indicated that the rebalancing in domestic demand lost momentum.*** In the last quarter, GDP grew by 4% on an annual basis, and by 1% on a quarterly basis. Thus, the growth rate reached 4.5% across 2023. On the expenditures side, private consumption, which had contracted in the third quarter, improved markedly in the last quarter and confirmed the resilience of household demand. Net exports made a positive contribution to growth, albeit less than in the previous quarter. On the production side, quarterly growth was mainly driven by services value added, while the industrial sector had a limiting impact on growth.

***Indicators for the first quarter of 2024 point to a strong course in domestic demand, while leading indicators for April suggest that domestic demand is not as strong as in the first quarter.*** The retail sales volume index accelerated in the first quarter as of February, on both a quarterly and annual basis. In contrast, the growth rate of the trade sales volume index slowed down in the same period due to the relatively weaker outlook in the wholesale trade volume index, one of the subcategories of the index. Card spending suggests that the higher consumption demand in the first quarter of the year continued on a quarterly basis. In this period, sales of white goods gained a significant momentum on a quarterly basis, while car sales maintained their rising momentum on the back of special offers and special consumption tax (SCT)-exempt sales. After declining in the previous quarter, manufacturing firms' registered orders from the domestic market increased again in the first quarter of the year, amid wage adjustments. On the other hand, firms' expectations for domestic market orders over the next three months posted a decline in this period. Interviews with firms indicated that domestic sales increased on a quarterly basis in the first quarter, due to wage increases, additional promotions introduced by firms, and the demand brought forward. On the production side, industrial production, adjusted for seasonal and calendar effects, rose by 3.4% in the first quarter as of February compared to the previous quarter. Likewise, seasonally adjusted employment increased by 1.4% (449,000 people) on a quarterly basis in the same period. On the other hand, in addition to the rise in the labor underutilization rate in the first quarter, survey data imply that signs of weakening have emerged in the labor market. High frequency data for April and field observations involve some signals of a moderation in domestic demand. Card spending, in real terms, posted a monthly decline in April, which includes the religious holiday. Similarly, interviews with firms for April imply a deceleration in consumption spending due to the demand brought forward in the previous quarter as well as the extended holiday. PMI data also indicate that, as of April, both new orders and production remained under the threshold value and registered a moderate weakening in the second quarter. On the other hand, imports of consumption goods increased in April, diverging from this outlook.

***The improvement in the current account balance gained momentum in the first quarter due to the narrowing of the foreign trade deficit and the strong outlook for the services balance.*** The foreign trade deficit continued to narrow on the back of the increase in exports excluding gold and the decrease in imports. In the first quarter, foreign demand remained subdued despite a partial recovery, whereas exports excluding gold increased further in seasonally and calendar-adjusted terms. Gold exports, on the other hand, declined significantly due to higher gold demand in the domestic market. On the imports side, the seasonally and calendar-adjusted imports excluding gold and energy remained almost unchanged in the first quarter due to resilient domestic demand. In the first quarter of 2024, energy imports were close to their previous quarter levels, while gold imports fell on a quarterly basis, leading to a continued decline in imports. Additionally, as of February, the flat course of terms of trade and the real balancing in foreign trade supported the improvement in the foreign trade deficit. In the first quarter of the year, import volumes fell not only in capital goods and intermediate goods, but also in consumption goods. The favorable trend in the services balance continued to strengthen on the back of travel revenues. Against this background, amid the ongoing increase in the goods trade balance and the growing positive contribution of the services balance to the current account balance, the seasonally and calendar-adjusted current account deficit narrowed significantly compared to the previous quarter. On the financing front, the weight of long-term items increased in the first quarter, while net errors and omissions recorded outflows, and reserves declined.

***Although the disinflation process continues across the globe, inflation is still above the targets, and upside risks to the inflation outlook remain in many countries.*** While tight labor markets and related wage pressures lead to stickiness particularly in services inflation across the globe, geopolitical developments also adversely affect the disinflation process through energy prices and global supply conditions. The US economy started to diverge from other major economies in terms of growth and inflation outlook, which has also led to a partial divergence in expectations regarding the monetary policy of the US Federal Reserve

(Fed). Compared to the previous reporting period, markets have priced in later and slower policy rate cuts across all advanced economies, with this change being more evident for the Fed. In many emerging economies, inflation has receded to levels within the tolerance band, while rate cuts also continue. In the coming period, rate cuts are likely to spread across advanced and emerging economies depending on the fall in inflation. However, considering the level and persistence of inflation, increased uncertainties and risks, rate cuts are expected to be carried out in a way that will maintain sufficient monetary tightness and ensure a continued decline in inflation.

***The global risk appetite weakened in the current reporting period, and the monetary tightening process supported the positive divergence of Türkiye's risk premium from peer countries.*** While global financial conditions tightened due to geopolitical risks and postponed expectations for monetary policy easing in advanced economies, risk perceptions towards emerging economies deteriorated. Against this backdrop, risk premium indicators rose in emerging economies, whereas Türkiye's CDS premium diverged positively, falling below 300 basis points again. On the other hand, the exchange rate volatility of the Turkish lira surged in shorter maturities but the increase remained limited in longer maturities. The Central Bank of the Republic of Türkiye (CBRT)'s gross international reserves decreased to USD 124.1 billion as of 26 April, driven by the decline in CBRT's swap funding in this period. In the current reporting period, government domestic debt securities (GDDS) yields rose in shorter and medium maturities in line with the higher policy rate, but the increase remained subdued in longer maturities.

***Financial conditions continued to tighten as a result of the monetary policy decisions and other measures supporting the monetary tightening process.*** In addition to the policy rate hike, regulations towards increasing the share of Turkish lira deposits, quantitative tightening decisions, and steps taken to simplify the macroprudential framework have continued to strengthen the transmission mechanism and improve the funding composition of the banking system since the previous reporting period. In the current reporting period, deposit rates rose by an average of 14.0 percentage points across all maturities, and the share of Turkish lira deposits in total deposits increased while the decrease in FX-protected accounts continued. Meanwhile, general-purpose and TL-denominated commercial loan rates increased substantially. In commercial loans, TL-denominated loan growth decreased, while FX loans accelerated. The 13-week annualized growth rate of total commercial loans adjusted for exchange rate rose by 19.5 percentage points to 34.7% in the current reporting period. On the other hand, the 13-week annualized growth rate of retail loans decreased slightly to 51.7% due to the fall in the growth rates of personal credit card stock balance.

## 1.1 Monetary Policy Decisions

***Taking into account the lagged effects of monetary tightening established through a strong rate-hike cycle of eight months, as well as other policy measures supporting monetary transmission, the CBRT kept the policy rate constant in February.*** Due to month-specific and time-dependent price and wage adjustments, the underlying trend of monthly inflation rose in January in line with the inflation projections, and headline inflation edged up. In addition, stickiness in services inflation, geopolitical risks, and food prices kept inflation pressures alive. The CBRT communicated that it would closely monitor the alignment of inflation expectations and pricing behavior with projections, and the impact of wage increases on inflation. It also provided forward guidance that the monetary policy stance would be tightened if a significant and persistent deterioration in the inflation outlook is foreseen.

***Underlining the deterioration in the inflation outlook, the CBRT decided to raise the policy rate in March.*** In February, the underlying trend of monthly inflation turned out higher than projections, led by services inflation. Recent indicators suggest that the resilient course of domestic demand continued to strengthen due also to the changes made in the methodology. Medium-term inflation expectations continued to decline, while year-end inflation expectations for 2024 and 2025 rose. Accordingly, in response to the deterioration in the inflation outlook, the CBRT raised the policy rate to 50% at its March Monetary Policy Committee (MPC) meeting. Additionally, the CBRT also made a technical adjustment and decided to set the overnight borrowing and lending rates 300 basis points below and above the one-week repo auction rate, respectively. The CBRT emphasized that the tight monetary stance would be maintained until a significant and sustained decline in the underlying trend of monthly inflation was observed, and inflation expectations converged to the projected forecast range. The CBRT maintained the forward guidance that the monetary policy stance would be tightened in case a significant and persistent deterioration in the inflation outlook was anticipated.

***In April, the CBRT kept the policy rate unchanged but reiterated its cautious stance against upside risks to inflation.*** In March, the underlying trend of monthly inflation turned out higher than expected despite the ongoing weakening. While consumption goods and gold imports contributed to the improvement in the current account balance, other indicators pertaining to the recent period implied a persistent resilience in domestic demand. The high level and the stickiness of services inflation, inflation expectations, geopolitical risks, and food prices keep inflationary pressures alive. The actions taken in March led to a significant tightening in financial conditions. Noting that the effects of monetary tightening on credit conditions and domestic demand were closely monitored, and considering the lagged effects of the monetary tightening, the CBRT kept the policy rate unchanged and emphasized its cautious stance against upside risks to inflation. The CBRT reiterated its forward guidance that the monetary policy stance would be tightened if a significant and persistent deterioration in the inflation outlook is foreseen.

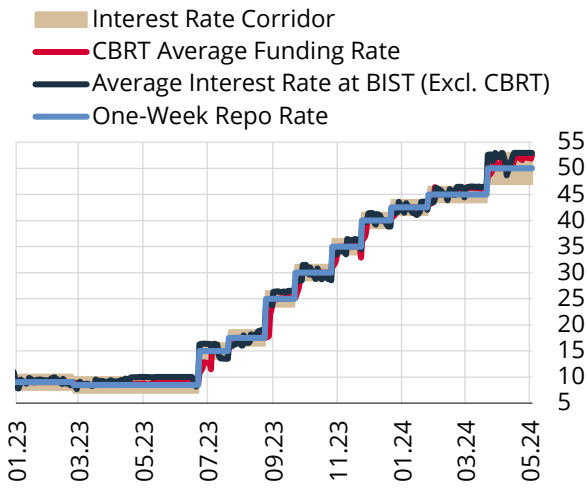
***The CBRT continued to take macroprudential measures to support the monetary transmission mechanism.*** In this context, the monthly growth limit for TL-denominated commercial loans and general-purpose loans was reduced to 2% from 2.5% and 3%, respectively, and the 2% growth limit for vehicle loans was maintained. To increase the effectiveness of this regulation, the CBRT replaced the securities maintenance with maintenance of Turkish lira reserve requirements in blocked accounts for a period of one year for the portion of these loans exceeding the monthly growth rate. Thresholds for the credit growth rates have been designed to not serve as an alternative to the main policy instrument, but as a counterbalancing factor in the face of an additional credit demand that may arise from fluctuations in expectations. Additionally, the CBRT raised the maximum monthly interest rate on credit card cash advances and overdraft accounts to 5% from 4.42% and the maximum monthly contractual interest rate for credit card transactions to 4.25% from 3.66%, in order to balance excess consumption demand.

***The CBRT continues to take policy steps supporting Turkish lira deposits in order to strengthen monetary transmission.*** Accordingly, an improvement target of 0.5 percentage points was introduced for TL legal entity deposit share of those banks with a share below 50%. Meanwhile, the growth target for the TL share of real persons was revised and the commission rate to be applied in case of not achieving these targets was increased from 2% to 3%. The remuneration of reserve requirements for banks meeting the target for transition to TL was extended to include demand deposits and deposits with maturities up to one month. The upper limit of the remuneration rate applied to required reserves maintained for Turkish lira deposits, which is based on the TL conversion rate, was set at 80% of the policy rate, thus the upper limit was increased from 36% to 40%. The upper limit of the remuneration rate applied to required reserves maintained for FX-protected accounts, which is based on the renewal and Turkish lira conversion rate, was set at 60% of the policy rate, thus the upper limit increased from 25% to 30%. Moreover, in order to decrease volatility in market liquidity and support monetary transmission, the CBRT decided that a portion (15% or 25% based on the asset size of the bank) of the required reserve amount for Turkish lira liabilities which used to be maintained on 14-day average basis in free accounts, would be kept in blocked accounts.

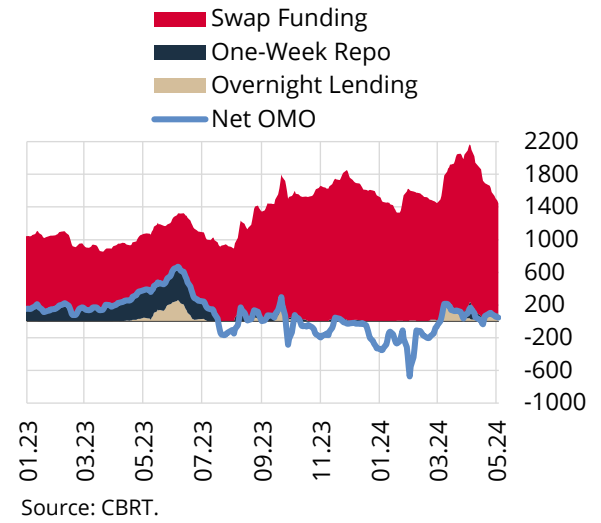
***The CBRT continues to simplify macroprudential policies to improve the functionality of market mechanisms and strengthen macro financial stability.*** With the change on 6 April 2024, the securities maintenance ratio applied to liabilities subject to securities maintenance was reduced from 4% to 1%, and the implementation regarding securities maintenance based on loan growth was terminated. With the amendment dated 9 May 2024, the securities maintenance regulation was completely abolished.

***While the amount of the CBRT's swap transactions has gradually decreased since the end of March, the funding provided through Open Market Operations (OMO) has fluctuated.*** In the current reporting period, overnight rates moved within the CBRT interest rate corridor depending on liquidity conditions in the market (Chart 1.1.1). The amount of currency swap transactions, which was TRY 1.45 trillion as of 8 February 2024 due to exchange rate difference payments to FX-protected deposits, the CBRT's FX transactions and government expenditures, decreased to TRY 1.31 trillion on 29 February 2024. Then, it climbed throughout March and reached TRY 1.82 trillion as of 1 April 2024 before displaying a significant downtrend and dropped to TL 1.18 trillion as of 3 May 2024. The OMO funding, which was volatile in the current report period due to the CBRT's FX transactions, exchange rate difference payments for FX-protected deposits and government expenditures, increased from TRY -110.4 billion on 8 February 2024 to TRY 53.2 billion on 3 May 2024 (Chart 1.1.2).

**Chart 1.1.1: CBRT Interest Rates and Short-term Interest Rates (%)**



**Chart 1.1.2: CBRT OMO and Swap Transactions (One-Week Moving Average, TRY Billion)**

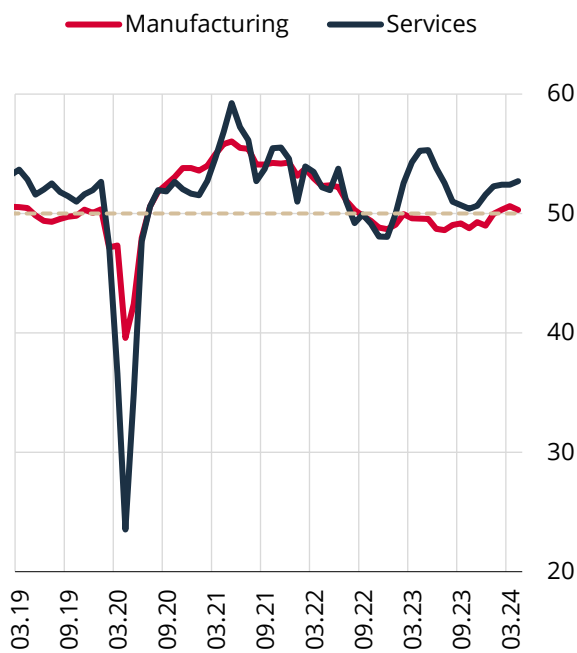


## 2. Economic Outlook

### 2.1 Global Economy

**While leading indicators pointed to a limited improvement, economic activity nevertheless remained weak in the first quarter of the year. Meanwhile, in terms of the growth outlook, the divergence between the US and other advanced economies became more pronounced.** Global PMI data for the manufacturing industry registered a gradual recovery and exceeded the threshold value. However, the index continued to remain below the threshold value in advanced economies for the nineteenth consecutive month. Having lost significant momentum in the second half of 2023, the services sector gained pace again. Accordingly, leading indicators point to a partial improvement in the growth outlook over the previous reporting period, chiefly driven by services (Chart 2.1.1). The growth forecasts were revised upwards in many of Türkiye's trading partners, but the improvement remained limited in countries except the US (Table 2.1.1). Against this backdrop, the global growth index weighted by the export shares of Türkiye's trading partners is estimated to increase by 2.1% in 2024, with an upward revision of 0.1 points compared to the previous reporting period. While the US economy diverges positively from other major economies despite a partial loss of momentum in economic activity in the first quarter of the year, the outlook for the euro area remains weak. As for Chinese economy, the projection for a slowdown in growth in 2024 and 2025 was maintained despite the higher-than-expected first-quarter growth and the slight improvement in forecasts.

**Chart 2.1.1: Global PMI Indices (Level)**



Source: S&P Global.

**Table 2.1.1: Growth Forecasts for Türkiye's Main Trading Partners\* (%)**

	2023	Forecast for 2024		Forecast for 2025	
		IR 2024-I	IR 2024-II	IR 2024-I	IR 2024-II
<b>Euro Area</b>	0.4	0.5	0.5	1.3	<b>1.4</b>
<b>Germany</b>	-0.3	0.3	<b>0.1</b>	1.2	<b>1.1</b>
<b>USA</b>	2.5	1.4	<b>2.3</b>	1.7	1.7
<b>UK</b>	0.1	0.2	<b>0.3</b>	1.0	<b>1.2</b>
<b>Italy</b>	0.9	0.5	<b>0.7</b>	1.0	1.0
<b>Iraq</b>	-0.6	3.7	<b>2.3</b>	0.5	<b>0.7</b>
<b>Spain</b>	2.5	1.3	<b>1.7</b>	1.8	1.8
<b>France</b>	0.9	0.7	0.7	1.3	1.3
<b>Netherlands</b>	0.1	0.5	<b>0.7</b>	1.6	<b>1.4</b>
<b>Israel</b>	2.0	1.6	<b>1.5</b>	3.4	<b>3.8</b>
<b>Russia</b>	3.6	1.7	<b>2.3</b>	1.1	<b>1.4</b>
<b>UAE</b>	2.9	4.2	4.2	1.5	<b>2.1</b>
<b>Romania</b>	2.1	3.2	<b>2.9</b>	3.7	<b>3.5</b>
<b>Belgium</b>	1.5	1.0	<b>1.1</b>	1.5	<b>1.4</b>
<b>Poland</b>	0.2	2.8	<b>2.9</b>	3.5	<b>3.7</b>
<b>Egypt</b>	3.8	3.5	<b>3.8</b>	4.4	<b>4.8</b>
<b>Bulgaria</b>	1.8	2.2	<b>2.2</b>	2.8	<b>3.0</b>
<b>China</b>	5.2	4.6	<b>4.7</b>	4.3	<b>4.4</b>

Source: Consensus Economics, S&P Global.

\* IR stands for Inflation Report. Countries are ranked according to the size of their share in Türkiye's exports in 2021.

**The global growth outlook and composition, increased geopolitical risks, financial conditions, and supply-side factors continue to play a determining role in commodity prices.** Compared to the previous reporting period, price increases have spread across commodities. There are substantial increases in energy commodity prices. Due to the escalating geopolitical tensions in Russia-Ukraine and the Red Sea as well as the decisions by the OPEC+ member countries to extend production cuts, upward supply-side pressures on oil prices continue. Meanwhile, the global growth outlook, levels of oil stocks, and financial conditions cause fluctuations in oil prices. Brent oil prices per barrel have risen by 4.3% compared to the previous reporting



period. Although natural gas prices have increased somewhat in recent months, there has been a significant decline in annual terms due to the weak course of the economic outlook in the euro area as well as the high levels of natural gas stocks thanks to mild climate conditions and increased imports of liquefied natural gas. Industrial commodity prices, which have historically been on a path consistent with the global growth outlook and China's growth in particular, have posted substantial increases compared to the previous reporting period. On the other hand, although agricultural commodity prices exhibit heterogeneity, the headline index for agricultural commodities has gone up by 1.0% compared to the previous reporting period (Table 2.1.2).

**Table 2.1.2: Commodity Prices (%)**

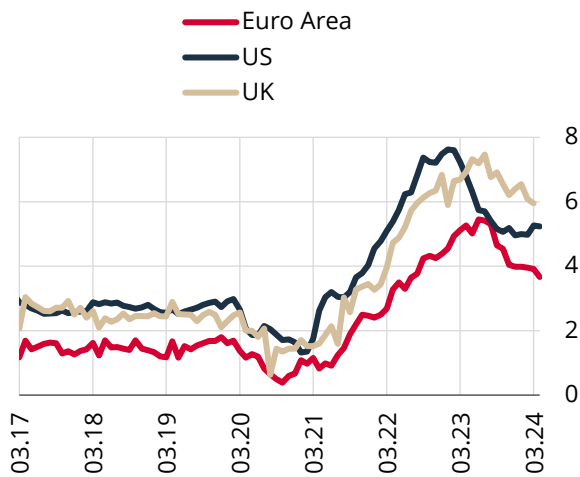
	January 2024	February 2024	March 2024	April 2024	Annual	Compared to the Previous Reporting Period*
<b>Headline Commodity Index</b>	<b>0.9</b>	<b>2.1</b>	<b>3.1</b>	<b>3.9</b>	<b>1.9</b>	<b>5.4</b>
<b>Energy</b>	<b>1.8</b>	<b>3.1</b>	<b>3.4</b>	<b>3.7</b>	<b>4.5</b>	<b>3.8</b>
<b>Agricultural Commodities</b>	<b>-3.4</b>	<b>-1.2</b>	<b>0.4</b>	<b>2.5</b>	<b>-14.9</b>	<b>1.0</b>
<b>Industrial Metals</b>	<b>-0.1</b>	<b>-1.1</b>	<b>3.8</b>	<b>9.0</b>	<b>3.4</b>	<b>19.6</b>
<b>Precious Metals</b>	<b>-0.4</b>	<b>-0.5</b>	<b>7.2</b>	<b>8.0</b>	<b>16.0</b>	<b>12.9</b>
<b>Non-Energy</b>	<b>-0.4</b>	<b>0.7</b>	<b>2.8</b>	<b>4.2</b>	<b>-1.7</b>	<b>7.7</b>
<b>Brent Oil</b>	<b>2.5</b>	<b>4.6</b>	<b>2.1</b>	<b>5.1</b>	<b>5.7</b>	<b>4.3</b>
<b>Natural Gas (USA)</b>	<b>7.5</b>	<b>-34.6</b>	<b>-2.2</b>	<b>2.5</b>	<b>-18.1</b>	<b>3.9</b>
<b>Natural Gas (Europe)</b>	<b>-16.9</b>	<b>-14.3</b>	<b>4.4</b>	<b>7.9</b>	<b>-31.1</b>	<b>5.3</b>
<b>Coal</b>	<b>-10.8</b>	<b>-5.9</b>	<b>8.3</b>	<b>-0.7</b>	<b>-32.0</b>	<b>18.0</b>
<b>Aluminum</b>	<b>0.5</b>	<b>-1.1</b>	<b>2.4</b>	<b>11.5</b>	<b>6.6</b>	<b>16.8</b>
<b>Copper</b>	<b>-1.0</b>	<b>-0.5</b>	<b>4.8</b>	<b>9.4</b>	<b>8.9</b>	<b>23.3</b>
<b>Iron</b>	<b>1.1</b>	<b>-6.6</b>	<b>-12.6</b>	<b>-3.8</b>	<b>-9.9</b>	<b>-14.1</b>
<b>Wheat</b>	<b>-1.9</b>	<b>-2.8</b>	<b>-7.1</b>	<b>4.1</b>	<b>-15.4</b>	<b>-0.6</b>
<b>Soy Beans</b>	<b>-6.0</b>	<b>-5.1</b>	<b>0.9</b>	<b>-1.3</b>	<b>-21.8</b>	<b>-4.0</b>
<b>Rice</b>	<b>2.0</b>	<b>5.0</b>	<b>-5.3</b>	<b>2.4</b>	<b>4.7</b>	<b>1.3</b>
<b>Corn</b>	<b>-3.5</b>	<b>-6.5</b>	<b>1.7</b>	<b>1.1</b>	<b>-33.6</b>	<b>1.4</b>
<b>Cotton</b>	<b>3.0</b>	<b>12.7</b>	<b>1.7</b>	<b>-12.1</b>	<b>2.3</b>	<b>-12.5</b>
<b>Sugar</b>	<b>1.5</b>	<b>3.9</b>	<b>-6.7</b>	<b>-5.2</b>	<b>-16.0</b>	<b>-17.8</b>

Source: Bloomberg.

\* Denotes the percentage change between 8 February 2024 and 30 April 2024.

***The downtrend in advanced economies' headline inflation has recently been replaced by a rather flat course due to energy price hikes, whereas core inflation has continued to decline.*** However, inflation is still above the targets, and upside risks to the inflation outlook remain. While tight labor markets and related wage pressures lead to stickiness particularly in services inflation, geopolitical developments also adversely affect the disinflation process through energy prices and global supply conditions. Services inflation in advanced economies is higher compared to the headline inflation that fluctuates within the 3-to-3.5% band (Chart 2.1.2). While this picture is supported by the relatively strong economic activity in the US, inflation rates for the first four months of 2024 have exceeded expectations. On the other hand, recent inflation developments have been more favorable in the UK and the euro area. While inflation rates across emerging economies have continued to converge to the targets in general, the number of countries where the inflation rate has dropped so as to remain within the tolerance range has increased over the previous reporting period (Chart 2.1.3). Thus, the global disinflation process is ongoing, but the importance of sectoral rigidities and risk factors in attaining the targets increases as inflation declines.

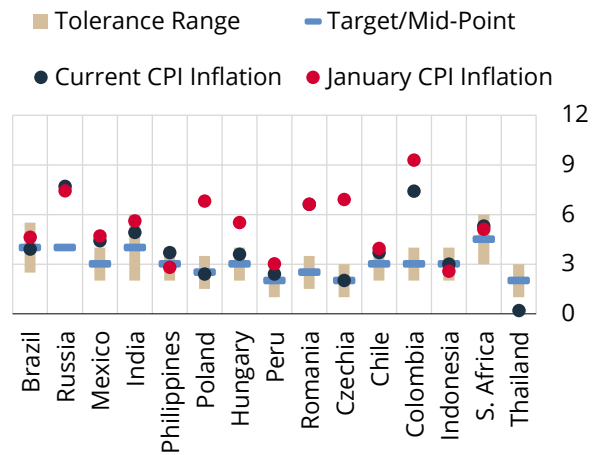
**Chart 2.1.2: Services Inflation in Advanced Economies** (Annual, %)



Source: Bank of England, ECB, St. Louis Fed.

**Chart 2.1.3: Consumer Inflation in Emerging Economies**

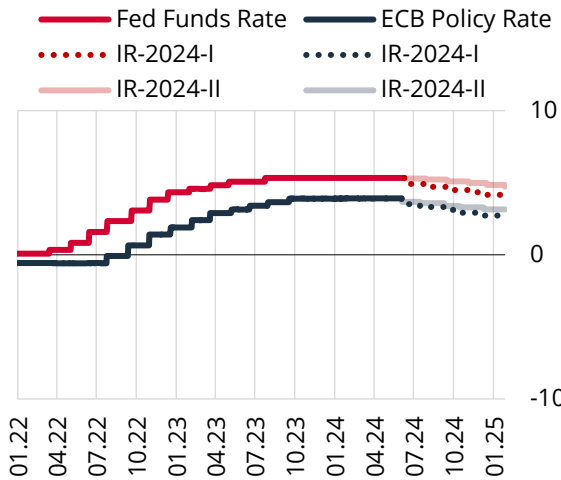
(Target, Tolerance Range, Realizations %)



Source: Bloomberg.

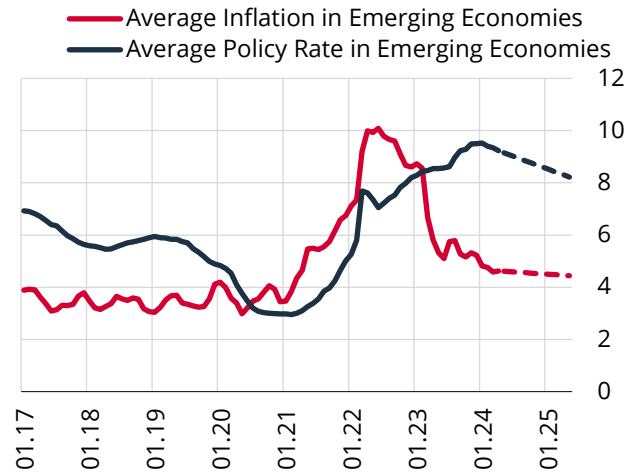
**Due to the stickiness in inflation and upside risk factors, expectations for more cautious rate cuts by major central banks have strengthened.** As the US economy has diverged from other major economies in terms of growth and inflation outlook, expectations regarding the monetary policy also started to diverge. Compared to the previous reporting period, expected rate cuts by both the Fed and the ECB have been postponed, and a slower pace of rate cuts by both banks has been priced in. However, the market pricing of the ECB policy rate for the year-end has increased by 43 basis points whereas this increase has been more significant for the Fed at 68 basis points (Chart 2.1.4). While the Fed kept the policy rate unchanged at 5.5% in March, the median rate-cut projection of the committee members for 2024 also remained the same at 75 basis points. After its May meeting, the Fed stated that the stickiness in inflation may last longer than anticipated and signaled that it would be patient in reducing rates. Although market pricing at the start of the year was beyond the three rate cuts implied by the Fed in December and March, the upside surprises in inflation rates throughout the reporting period and the Fed’s communication led the amount of rate cuts priced by the market to decline even below the 75 basis points that the Fed had implied. Meanwhile, having maintained its policy rate for the fifth consecutive meeting in April, the ECB revised its inflation forecasts downwards and signaled that it may deliver rate cuts in the coming meetings unless there is a new development that will prevent inflation from returning to the target in a sustained manner. In the current reporting period, due to inflation rates climbing above its target, the Bank of Japan took its first policy tightening step in 17 years and raised its policy rate to a positive level while also ending its long-term interest rate targeting policy. On the other hand, interest rate cuts continue in an increasing manner in emerging economies on the back of the ongoing improvement in the inflation outlook. In the current reporting period, Banco Central do Brazil (50 basis points), Banco de México (25 basis points), Central Reserve Bank of Peru (25 basis points), Central Bank of Colombia (100 basis points), Czech National Bank (100 basis points), Central Bank of Chile (75 basis points), and Magyar Nemzeti Bank (225 basis points) cut their policy rates. However, having delivered a more limited monetary tightening in the previous period, Bank Indonesia raised its policy rate by 25 basis points, underlining the increased global uncertainty and the pressure on exchange rates. In the coming period, rate cuts are likely to spread across advanced and emerging economies depending on the fall in inflation. However, considering the level and persistence of inflation, increased uncertainties and risks, rate cuts are expected to be carried out in a way that will maintain sufficient monetary tightness and ensure a sustained decline in inflation. In this respect, futures-implied policy rates suggest that policy rates in emerging economies will continue to be set above the inflation rates (Chart 2.1.5).

**Chart 2.1.4: Market-Implied Policy Rate Paths (Effective, %)**



Source: Bloomberg.

**Chart 2.1.5: Futures-Implied Policy Rate and Inflation Expectations\* (% Points)**



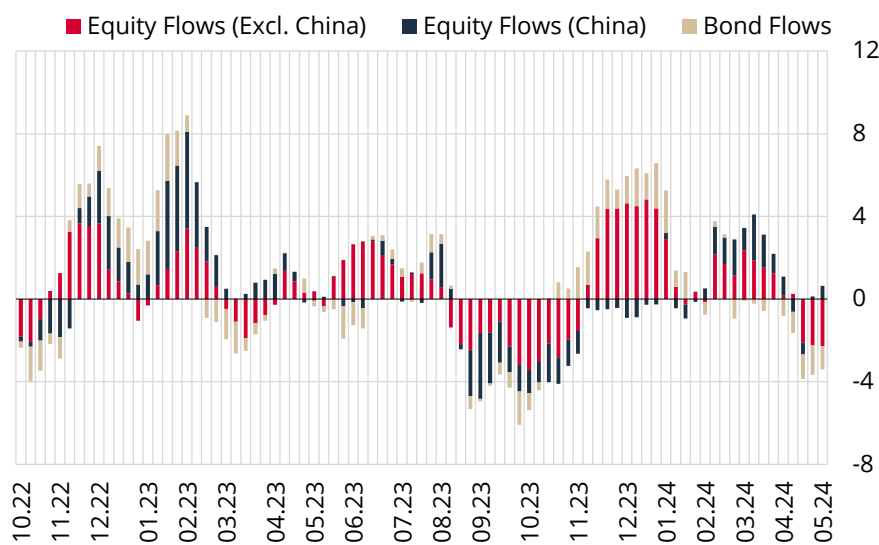
Source: Bloomberg.

\* Inflation expectations have been taken from the Bloomberg survey. Emerging economies include Brazil, Chile, Colombia, Czechia, Hungary, India, Indonesia, Mexico, Peru, the Philippines, Poland, Romania, Russia, South Africa and Thailand.

**Fluctuations in the global risk appetite and the changes in expectations for rate cut cycles of major central banks, the Fed in particular, lead to a volatile course in portfolio inflows to emerging economies.**

Between 6 November 2023 and 2 February 2024, corresponding to the previous reporting period when rate cuts by major central banks were strongly priced in, portfolio inflows totaled USD 56.3 billion, USD 17.3 billion of which was to bond markets and USD 39 billion to equity markets excluding China. In the current reporting period, however, there were outflows from bond markets as well as from equity markets excluding China, due to weakened market pricing of rate cuts and increased risk perception. On the back of the financial support program and the facilitation of equity transactions by Chinese citizens and foreign investors from the same market, portfolio inflows (totaling USD 15.9 billion) were registered in China's equity market, which had seen portfolio outflows (totaling USD 30.4 billion between 7 August 2023 and 19 January 2024) for six months in a row (Chart 2.1.6).

**Chart 2.1.6: Weekly Portfolio Flows to Emerging Economies (Four-Week Moving Average, USD Billion)**

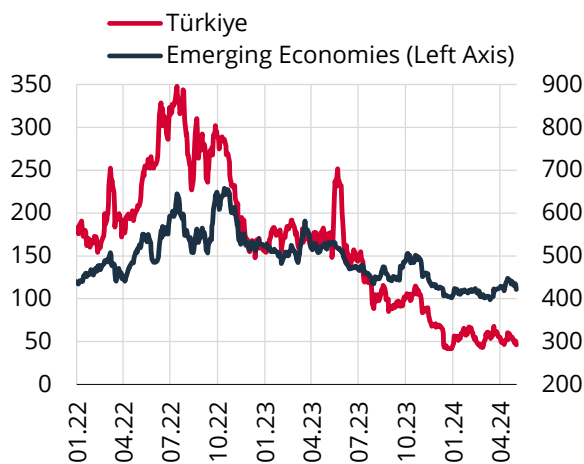


Source: IIF.

## 2.2 Financial Conditions

**The global risk appetite weakened in the current reporting period, while the CBRT's monetary tightening supported the positive divergence of Türkiye's risk premium from peer countries.** As financial conditions became tighter due to heightened geopolitical risks and stronger expectations that emerging economy central banks would be more cautious in rate cuts, the global risk appetite declined, particularly in April. Accordingly, risk sentiment towards emerging market economies deteriorated. Türkiye's risk premium, on the other hand, diverged positively from those of emerging economies in general. Having fluctuated in February and March, Türkiye's five-year CDS premium decreased, particularly after the MPC decision on 21 March, and fell below 300 basis points again (Chart 2.2.1). While international investors sold emerging market assets due to the deterioration in risk appetite, Turkish GDDS and equity markets recorded net inflows of USD 0.56 billion and USD 0.28 billion, respectively (Chart 2.2.2).

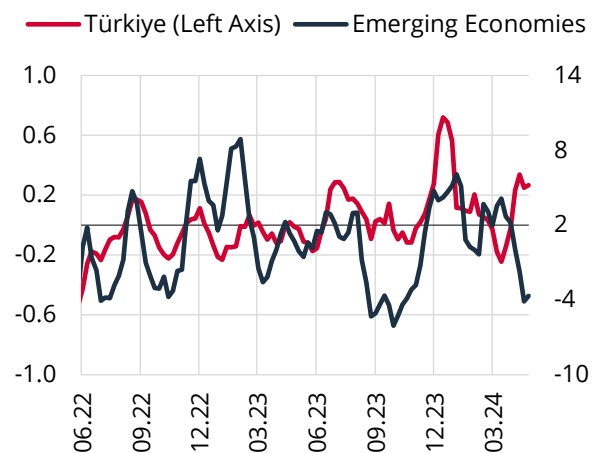
**Chart 2.2.1: CDS Premium in Türkiye and Emerging Economies\*** (Five-Year, Basis Points)



Source: Bloomberg.

\* Emerging economies include Brazil, Chile, Colombia, Indonesia, Malaysia, Mexico, Philippines and South Africa.

**Chart 2.2.2: Portfolio Flows to Türkiye\* and Emerging Economies** (Four-Week Average, USD Billion)

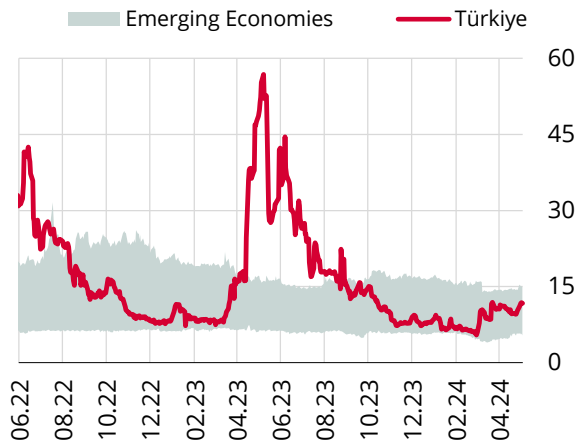


Source: CBRT, IIF.

\* Turkish data includes portfolio flows to equity and GDDS markets. Repo is excluded from the GDDS data.

**The volatility of the Turkish lira has increased since March.** In the current reporting period, emerging market currencies depreciated against the US dollar amid deteriorating global risk appetite, with the Turkish lira depreciating more. Having hovered at very low levels for a long time, the short-term implied volatility of the Turkish lira climbed to middle ranks among emerging market currencies. The increase in long-term FX volatility, on the other hand, was limited. In the current reporting period, the one-month implied volatility of the Turkish lira exceeded 11%, while the 12-month volatility approached 22% (Charts 2.2.3 and 2.2.4). The difference between short and long-term volatilities indicates that policies continue to have an impact on exchange rate stability, but longer-term risks persist.

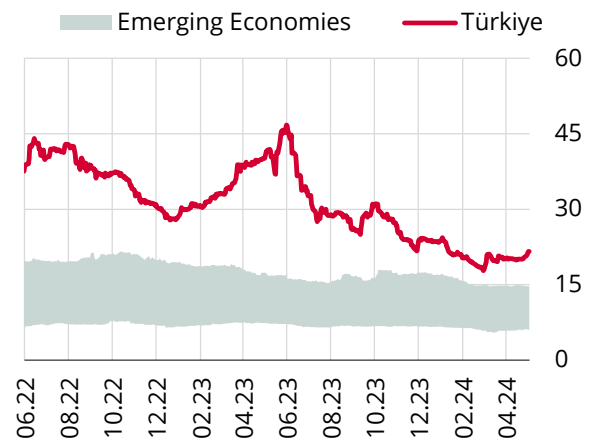
**Chart 2.2.3: Implied Volatility of FX Options\***  
(Against USD, One-Month Maturity, %)



Source: Bloomberg.

\* Emerging economies include Brazil, Chile, Colombia, Hungary, Indonesia, Malaysia, Mexico, Philippines, Poland, Romania and South Africa.

**Chart 2.2.4: Implied Volatility of FX Options\***  
(Against USD, 12-Month Maturity, %)

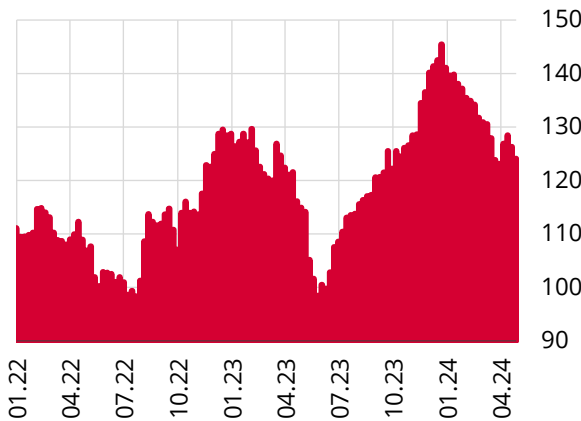


Source: Bloomberg.

\* Emerging economies include Brazil, Chile, Colombia, Hungary, Indonesia, Malaysia, Mexico, Philippines, Poland, Romania and South Africa.

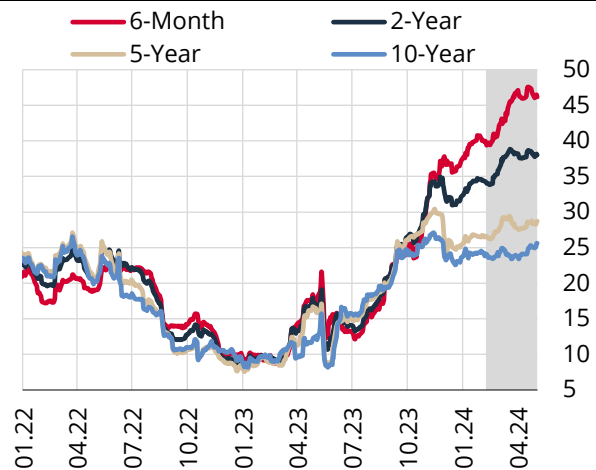
**The strong monetary tightening in March reversed the decline in CBRT reserves.** The CBRT's gross international reserves had trended down due to increased FX demand from residents and non-residents since January, however they started to recover on the back of the monetary tightening delivered in the March MPC meeting and stood at USD 124.1 billion as of 26 April 2024 (Chart 2.2.5). Meanwhile, the decline in CBRT reserves was mainly driven by the fall in the CBRT's swap transactions, and the share of swaps in the composition of reserves decreased significantly.

**Chart 2.2.5: CBRT's Gross International Reserves** (Weekly, USD Billion)



Source: CBRT.

**Chart 2.2.6: GDDS Yields (%)**



Source: Bloomberg.

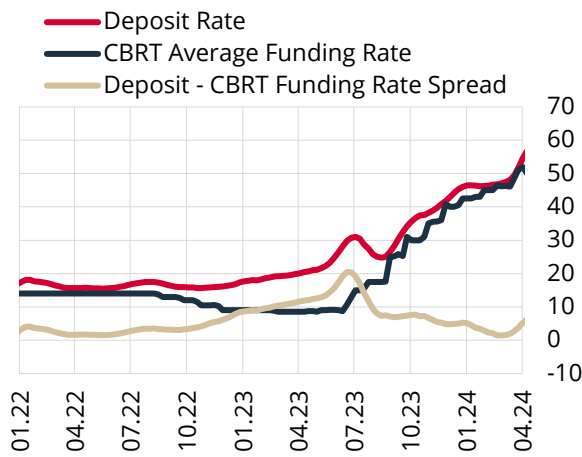
**Policy rate hikes were largely mirrored in short and medium-term GDDS yields, while the increase in long-term GDDS yields remained subdued** (Chart 2.2.6). On the other hand, due to the market sentiment after the MPC decision of 21 March that the peak had been reached in the policy rate, the rise in GDDS yields was replaced by a relatively flat course. The phasing out of the securities maintenance practice in the recent period also supported price formation that is aligned with market conditions. In the period ahead, as the disinflation process continues to strengthen, it is expected that market expectations will be anchored more effectively and bond yields will move in tandem with long-term inflation expectations.

**TL commercial and consumer loans continued to increase as a result of rising funding costs and other macroprudential measures.** To support the increase in Turkish lira deposits, the CBRT, in addition to the

rate hike, has made a number of regulations since the previous reporting period, regarding the Turkish lira share growth target for legal entities, revision of practices related to Turkish lira share growth targets for real persons, and remuneration of required reserves. In response to these regulations, Turkish lira deposit rates continued to increase and reached 60.3% as of 26 April (Chart 2.2.7). Higher interest rates on Turkish lira deposits led to higher preference for these products, while FX deposits and FX-protected accounts continued to decrease (Charts 2.2.9 and 2.2.10). Moreover, there has been an increasing tendency towards alternative Turkish lira assets in addition to Turkish lira deposits (Zoom-In 2.1). Personal loan rates and TL commercial loan rates increased significantly due to higher funding costs, the lowering of monthly loan growth rate limits for personal loans and TL commercial loans to 2% from 3% and 2.5%, respectively, and the replacement of the securities maintenance with the required reserve maintenance in case of exceeding growth limits. In the current reporting period, personal and TL commercial loan rates were up by 20.6 and 13.6 points to 81.3% and 67.1%, respectively, on 26 April. In the same period, housing loan rates remained flat at 44.7% due also to the limited demand, while vehicle loan rates receded on account of car sales campaigns (Chart 2.2.8).

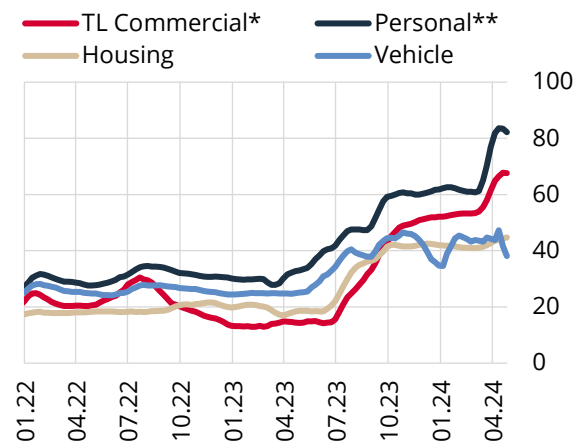
**Chart 2.2.7: Turkish Lira Funding Rates**

(Four-Week Moving Average, %)



Source: CBRT.

**Chart 2.2.8: Loan Rates** (Flow, Four-Week Moving Average, %)

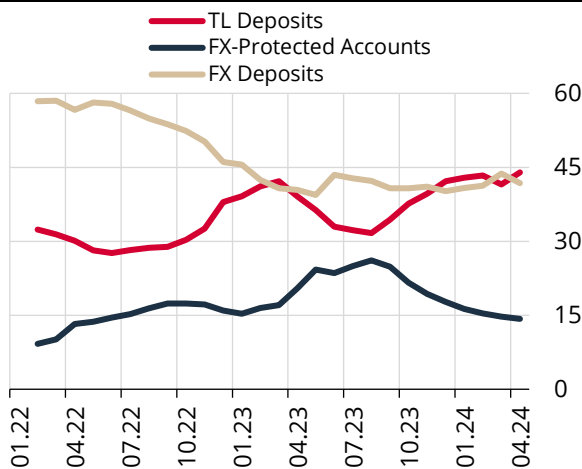


Source: CBRT.

\* Excluding overdraft accounts and credit cards.

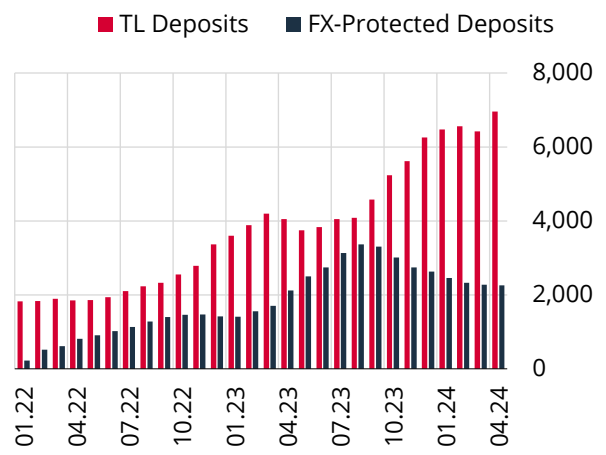
\*\* Excluding overdraft accounts.

**Chart 2.2.9: Deposit Composition** (% Share)



Source: CBRT.

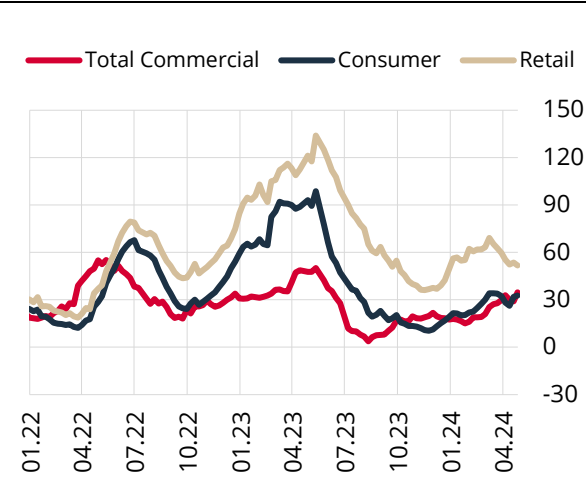
**Chart 2.2.10: Turkish Lira Deposit Composition** (TRY Billion)



Source: CBRT.

**Chart 2.2.11: Loan Growth**

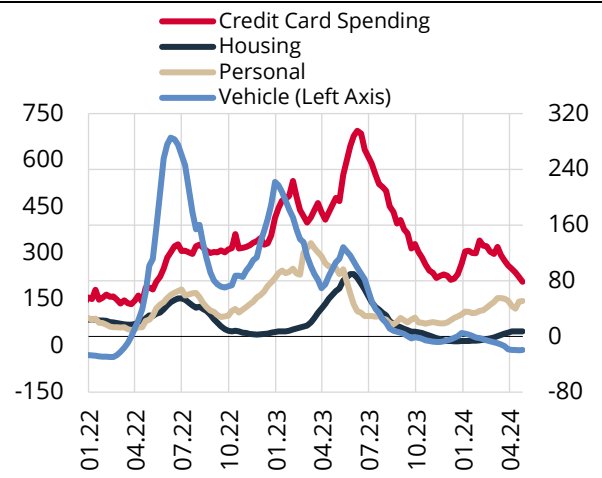
(13-Week Annualized, FX-Adjusted, %)



Source: CBRT.

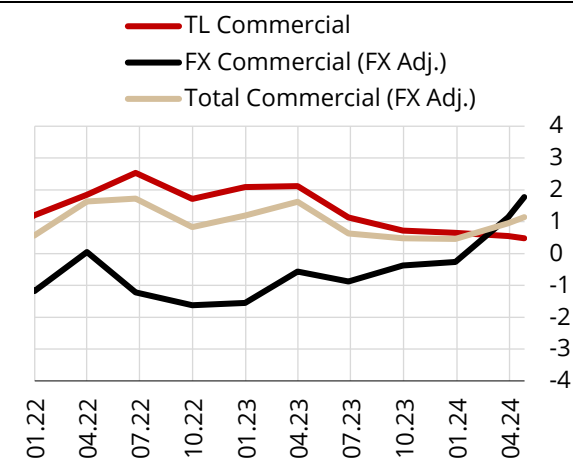
**Chart 2.2.12: Retail Loan Growth**

(13-Week Annualized, %)



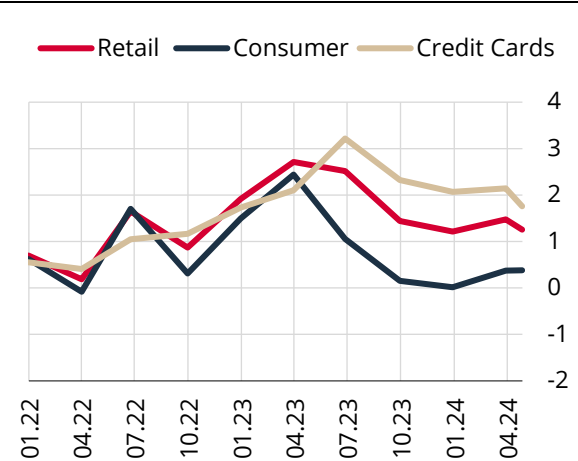
Source: CBRT.

**Chart 2.2.13: Credit Change\*** (Quarterly, Real, Standardized Value)



Source: CBRT.

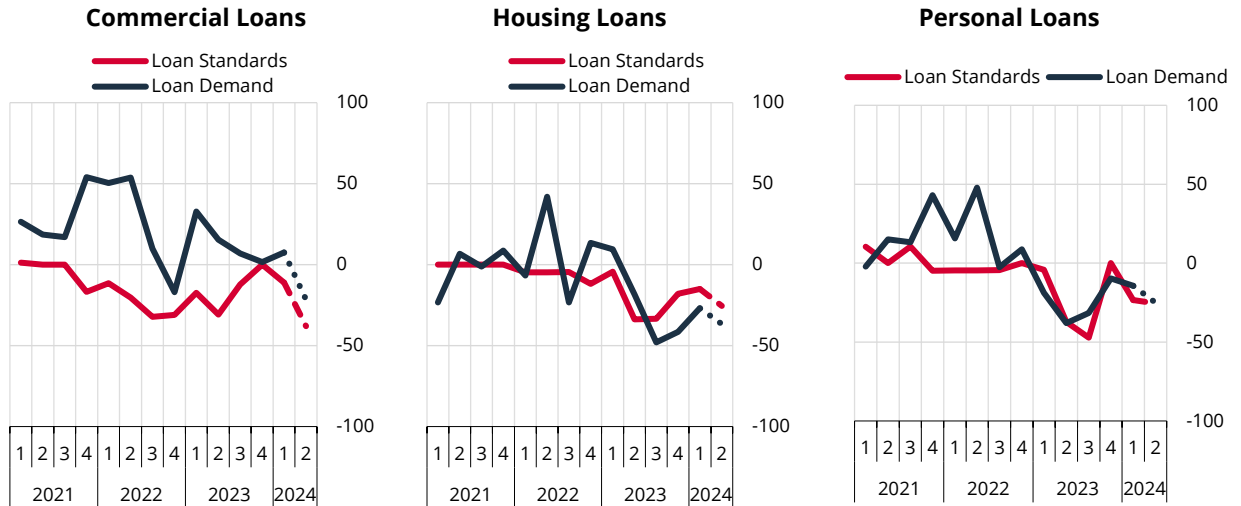
\* Series are deflated by CPI. The mean and standard deviations of the series are calculated based on the 2006-2019 period. The quarterly average is taken after weekly real changes are standardized.



**The effect of tight financial conditions on credit growth started to become more pronounced as of the second quarter of 2024.** In the current reporting period, the exchange rate-adjusted commercial loan growth rate increased, while retail loan growth declined. As of 26 April, the 13-week annualized growth rates of exchange rate-adjusted total commercial loans and retail loans were 34.7% and 51.7%, respectively (Chart 2.2.11). In retail loans, the 13-week annualized growth rates of housing and personal loans rose to 7.1% and 51%, respectively, as of 26 April (Chart 2.2.12). Due to the increase of interest rates on credit card cash advances and credit card installments, the 13-week annualized growth rate of personal credit card balances fell to 78.6% in the current reporting period. The 13-week annualized growth rate of vehicle loans, which rose slightly with year-end sales campaigns that continued into February, returned to negative territory and stood at -13.9%. To tighten financial conditions, the CBRT lowered the monthly growth rate limits for personal and Turkish lira commercial loans on 6 March, and replaced the securities maintenance practice with maintenance of reserve requirements when growth rate limits were exceeded. After this date, loan rates increased significantly and had an impact on curbing loan demand, resulting in a decline in Turkish lira commercial and personal loan growth. Real changes in credits reveal that in the first quarter of 2024, Turkish lira commercial loans converged to their long-term averages, while FX-adjusted total commercial loans deviated from their long-term averages due to the rise in exchange rate-adjusted FX

commercial loans. On the other hand, as the decline in personal credit card balances was offset by personal loans, the change in retail loans remained relatively flat. (Chart 2.2.13). Meanwhile, the Bank Loans Tendency Survey (BLTS) suggests a quarter-on-quarter decrease in the commercial loan demand as well as a continued decline at a stronger pace in housing and personal loan demand for the second quarter of 2024. Banks expect that commercial, personal and housing loan standards will tighten further in the second quarter (Chart 2.2.14).

**Chart 2.2.14: Loan Standards and Loan Demand\***



Source: CBRT BLTS.

\* Denotes banks' expectations. Loan standards and loan demand are calculated as follows: Banks are asked how their loan standards (loan demand) have changed in the past three months. Net trends, which are calculated using percentages, show the direction of change in loan standards (loan demand). An index above zero indicates easing in loan standards (increase in loan demand).

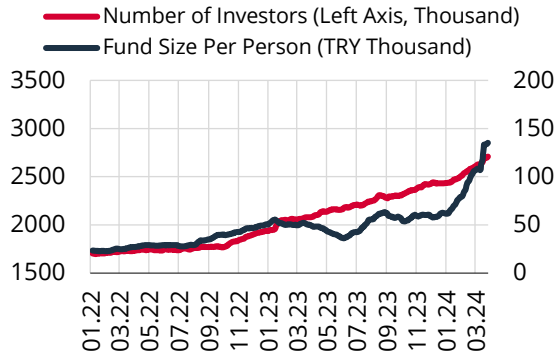
## Zoom-In 2.1

### Developments in Money Market Funds

**Money market funds stand out as an alternative investment instrument to deposits for investors who are willing to invest their savings in short-term and low-risk instruments.** In March 2024, the number of people investing in money market funds increased to 2.5 million, and the fund size per person rose to TRY 135,000 (Chart 1). The size of money market funds compared to deposits increased particularly in 2024. In March 2024, the ratio of money market fund size to total deposits and Turkish lira deposits rose to 2.4% and 4.2%, respectively (Chart 2). The exemption of money market fund earnings from withholding tax from 23 December 2020 to 30 April 2024 is also considered to have contributed to the expansion of these funds.



**Chart 1: Number of Money Market Fund Investors and Fund Size per Person\* (One-Week Moving Average)**

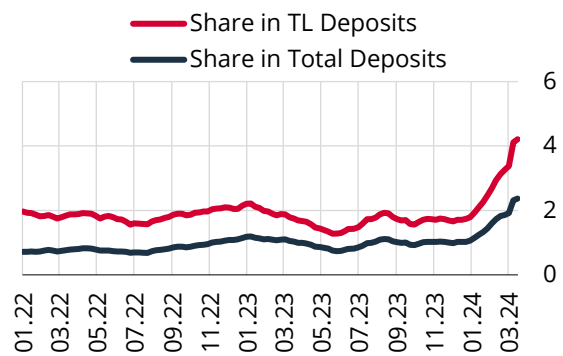


Source: TEFAS.

\* Shows the number of unique investors per fund. The same person investing in different funds is counted in the number of investors multiple times.

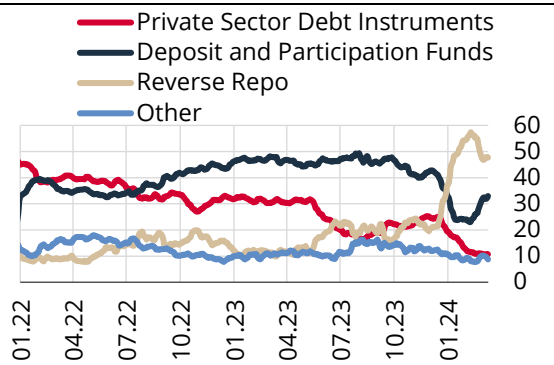
**Money market funds direct investments mainly to low-risk reverse repo, Turkish lira fixed income securities and deposits.** The weight of these instruments in investment funds shows variations in line with periodical changes in their returns (Charts 3 and 4). The share of reverse repo transactions, which had remained below 20% until 2024, recorded an increase up to 60% in 2024. This is attributable to the BIST Repo-Reverse Repo Market rates exceeding Turkish lira deposit rates in 2024. Money market fund yields surpassing Turkish lira deposit rates after January 2024 seem to be effective in the increase in the size of money market funds compared to deposits in this period. In 2023, when interest rates in the BIST Repo-Reverse Repo Market and Turkish lira deposit rates diverged, money market fund yields exceeded deposit rates due also to the contribution of returns on private sector debt instruments. However, further depreciation in the Turkish lira and investors' preference for FX-protected deposit accounts in this period are thought to have helped keep the size of money market funds from increasing compared to deposits. Meanwhile, in 2024, the relative stability in exchange rates and stronger investor preference for Turkish lira amid regulations encouraging Turkish lira deposits prompted investors to opt for Turkish lira investment instruments based on their returns.

**Chart 2: Size of Money Market Funds Compared to Deposits (%)**



Source: BRSA, TEFAS.

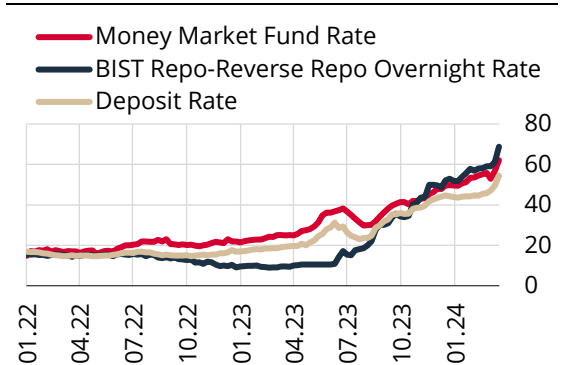
**Chart 3: Money Market Funds-Portfolio Breakdown\* (One-Week Moving Average, % Share)**



Source: TEFAS.

\* The chart shows the breakdown weighted by instrument amounts. The other item includes public borrowing instruments and receivables from the Takasbank money market.

**Chart 4: Turkish Lira Market Rates\* (%)**



Source: CBRT, TEFAS.

\* Money market fund rate is calculated by weighting the daily returns on the funds with their portfolio volumes, and by compounding them under the assumption that they are renewed daily. The BIST Repo-Reverse Repo overnight interest rate has been compounded. Deposit interest rates reported as compound interest have been adjusted assuming a withholding rate of 5%.

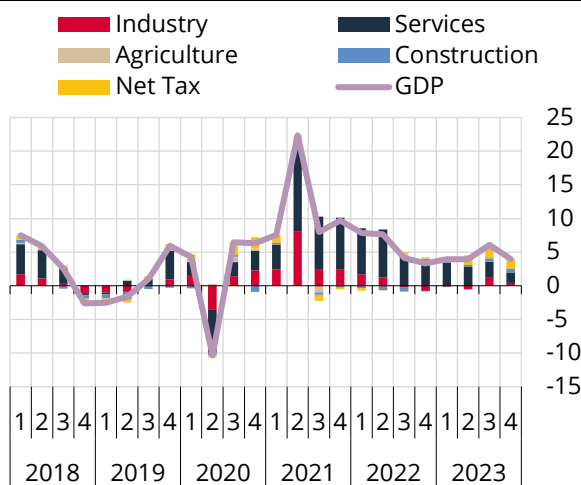
**The CBRT's policy rate decisions and liquidity steps affect primarily the interest rates on short-term instruments, and then longer-term interest rates.** Therefore, these decisions are first mirrored in interest rates on reverse repo transactions, then in TL deposit rates, and finally in interest rates on private sector debt instruments. Money market funds are considered to support the transmission of monetary policy decisions to market rates by investing in instruments with different maturities and by changing the investment composition periodically. These funds have recently stood out as an alternative instrument that channels low-volume savings, on which lower interest rates are offered (see Box 2.1), towards saving instead of consumption, and for the savings to be invested in short term. The increase in the size of alternative TL investment instruments through financial deepening is expected to support the transmission of the monetary policy to market rates.

## 2.3 Economic Activity

### Supply and Demand Developments

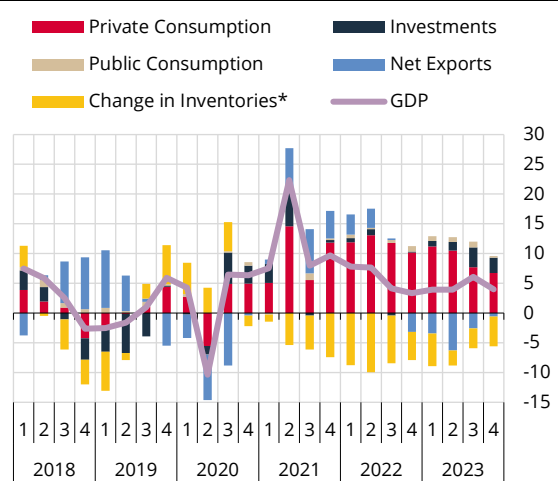
**In the last quarter of 2023, economic activity remained robust, indicating that the rebalancing in demand lost pace.** In the final quarter, GDP grew by 4% year-on-year and by 1% quarter-on-quarter. Thus, the overall growth rate for 2023 was 4.5%. In the final quarter of 2023, the main driver of annual growth on the production side continued to be the services sector. While the contribution of the industrial sector to annual growth remained limited, that of the construction sector continued (Chart 2.3.1). On the expenditures side, final domestic demand made the largest contribution to annual growth by 9.6 points. Most of this contribution, almost 6.7 points, came from the rise in private consumption (Chart 2.3.2). In this period, while the change in inventories pushed annual growth down by 5 points, the contribution of investments to annual growth was 2.6 points, with machinery-equipment investments making the largest contribution among investment items. On the other hand, the negative contribution of net exports to annual growth, which was 0.6 points, was quite limited compared to the previous quarter. On a quarterly basis, private consumption, which contracted in the third quarter, picked up in the last quarter of 2023, confirming the resilience of household demand. Net exports, meanwhile, made a positive contribution to growth, despite a quarter-on-quarter decline. Accordingly, the demand motive brought forward by sales campaigns and expected wage hikes in the last quarter weakened the rebalancing in demand.

**Chart 2.3.1: Annual GDP Growth and Contributions from Production Side**  
(% Points)



Source: CBRT, TURKSTAT.

**Chart 2.3.2: Annual GDP Growth and Contributions from Expenditures Side**  
(% Points)

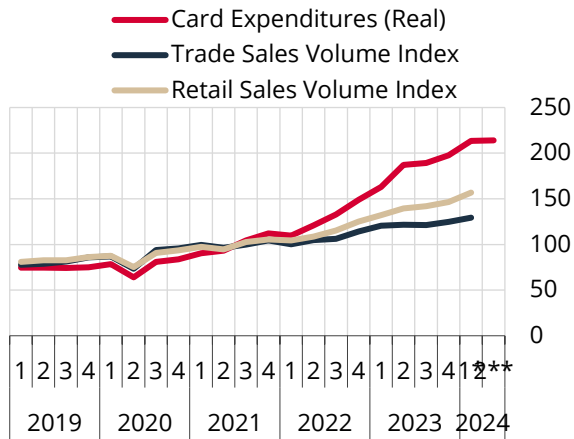


Source: CBRT, TURKSTAT.

\* Includes changes in inventories and statistical discrepancy due to chain-linking.

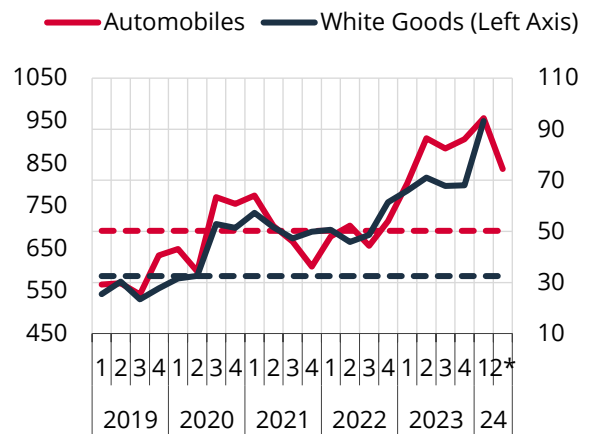
**Indicators for the first quarter of 2024 point to a strong course in domestic demand, while leading indicators for April suggest that domestic demand is not as strong as it was in the first quarter.** In January 2024, TURKSTAT started to publish the retail sales volume index, an important indicator of household demand, with some changes in the base year and the calculation method. Accordingly, the slowdown in the quarterly growth of retail sales implied by the old index for the second half of 2023 in the previous Inflation Report was replaced by a stronger domestic demand outlook in this period with the new index (Zoom-In 2.2). In the first quarter of 2024, retail sales reaccelerated in both quarterly and annual terms as of February. Meanwhile, the commercial sales volume index, which TURKSTAT started to publish for the first time in January, continued to increase in the same period, although this rise decelerated due to the relatively weaker outlook in the wholesale trade volume index, a sub-item of the index. Credit card expenditures suggest that the rise in consumption demand continued to increase on a quarterly basis in the first quarter (Chart 2.3.3). In this period, sales of white goods posted a significant quarterly acceleration, while automobile sales maintained their upward momentum on the back of campaigns and SCT exemptions. Thus, sales of automobiles and white goods remained above their historical averages (Chart 2.3.4). After declining in the previous quarter, manufacturing industry firms' registered domestic market orders increased again in the first quarter amid wage revisions and continued to rise in the second quarter as of April, albeit at a more subdued pace. On the other hand, firms' expectations for domestic market orders over the next three months decreased in this period. Firm interviews revealed that in the first quarter, domestic sales increased on a quarterly basis due to wage hikes, firms' additional campaigns and demand that was brought forward. High-frequency data and field observations for April exhibit some signs of stabilization in domestic demand (Box 2.2). In April, which included the Ramadan holiday, inflation-adjusted credit card spending implies a month-on-month decline and a flat quarterly outlook. Automobile sales, which posted a significant increase in the first quarter, declined by 20.6% year-on-year in April, recording the first such contraction since August 2022. Similarly, firm interviews for April suggest that consumption expenditures are losing momentum due to the demand brought forward in the previous quarter as well as the long holiday break.

**Chart 2.3.3: Consumption Indicators**  
(Seasonally and Calendar Adjusted, Annual % Change, 2015=100)



Source: CBRT, TURKSTAT.  
\* Average of January-February retail sales and commercial sales volume index.  
\*\* As of April.

**Chart 2.3.4: Sales of White Goods and Automobiles\*\***  
(Thousand, Seasonally and Calendar Adjusted)

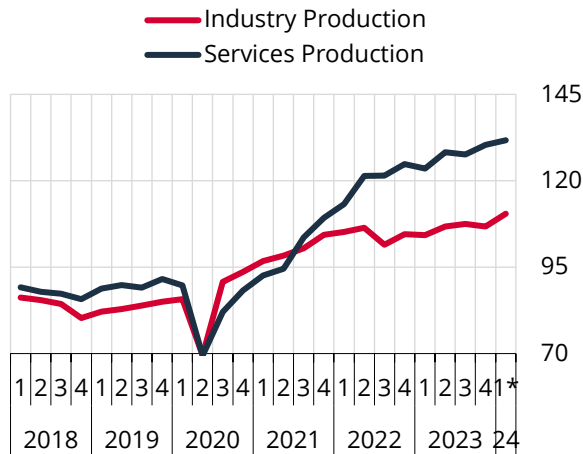


Source: CBRT, ODMD, TURKBESD.  
\* As of April.  
\*\* Dashed lines show the average for the 2011-2019 period.

**In the first quarter of 2024, industrial production grew stronger on a quarterly basis, while services production remained relatively flat.** As of February, seasonally and calendar-adjusted industrial production increased by 3.4% in the first quarter compared to the previous quarter (Chart 2.3.5). Excluding sectors that are typically highly volatile, such as other transportation, the increase was more limited at 2.1%. In January, TURKSTAT started to publish the services production index that can be linked to both production and demand in the services sector (Box 2.3). Accordingly, services production, which posted a quarterly increase by 2.4% in the last quarter of 2023, posted a quarterly rise of 0.7% in the first quarter of this year as of

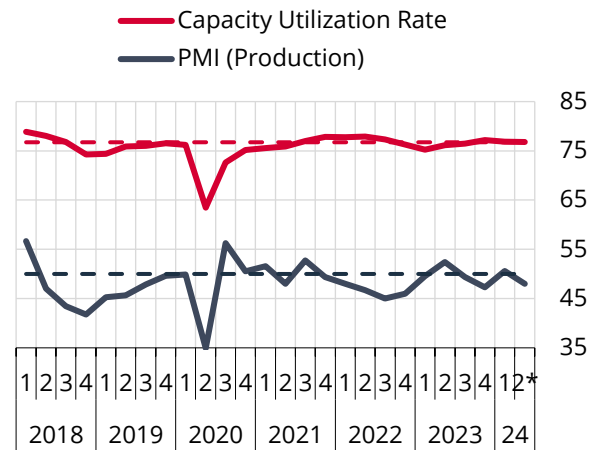
February. Excluding the transportation and storage sector, which has a high weight in the index, services production followed a relatively stronger course. Survey-based indicators suggest that in line with industrial production data, PMI data indicate that production increased in the first quarter, but remained below the threshold in the second quarter as of April, implying a moderate weakening in production (Chart 2.3.6). After a moderate decline in the first quarter, the capacity utilization rate remained almost flat at 77% in the second quarter and continued to hover close to its historical averages.

**Chart 2.3.5: Industrial Production and Services Production Indices\***  
(Seasonally and Calendar Adjusted, 2021=100)



Source: TURKSTAT.  
\* Average of January- February.

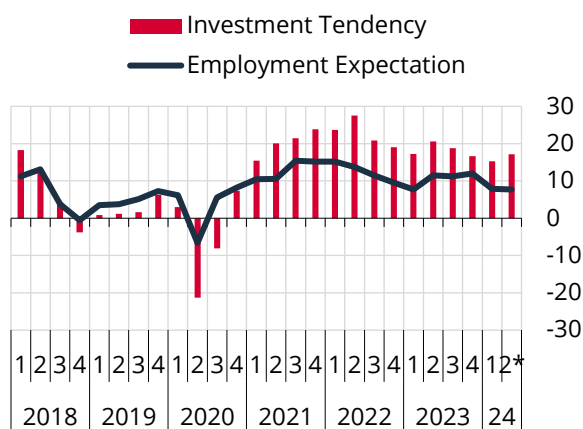
**Chart 2.3.6: Capacity Utilization Rate and PMI\*\*** (Seasonally and Calendar Adjusted, %)



Source: S&P, TURKSTAT.  
\* As of April.  
\*\*Dashed lines show the average CUR for the 2014-2019 period, Threshold value for PMI is 50.

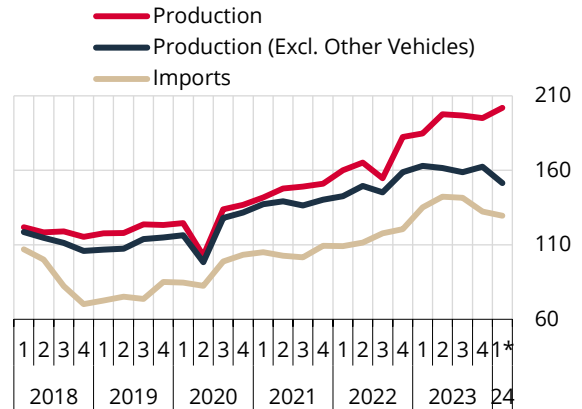
**In the first quarter of 2024, investment tendencies of manufacturing industry firms posted a slight decline, while employment expectations remained relatively weak** (Chart 2.3.7). Indicators for the production of capital goods and foreign trade confirm the downward outlook for investments. Although the production of capital goods excluding vehicles posted a quarterly increase in February, excluding the other transportation item, which is typically volatile and recorded a sharp increase in February, capital goods production remained relatively weak. Imports of capital goods excluding transport vehicles fell by 7.5% on a quarterly basis in February (Chart 2.3.8).

**Chart 2.3.7: BTS Expectations for Fixed Capital Investment Spending and Employment**  
(Up-Down, Seasonally Adjusted, %)



Source: CBRT.  
\* As of April.

**Chart 2.3.8: Production and Import Quantity Indices of Capital Goods Excluding Vehicles**  
(Seasonally Adjusted, 2015=100)

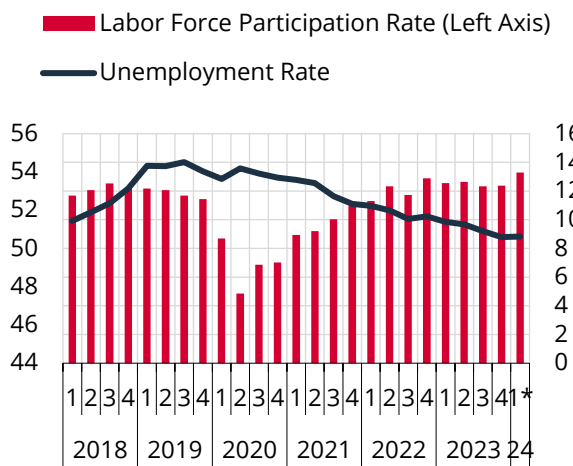


Source: CBRT, TURKSTAT.  
\* Average of January-February.

## Labor Market Developments

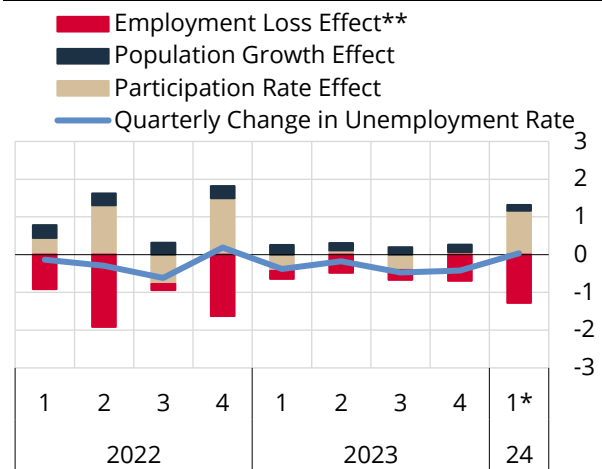
**In the first quarter, employment displayed a strong increase in line with the economic activity outlook.** As of February, seasonally adjusted employment increased by 1.4% (449 thousand people) quarter-on-quarter. The seasonally adjusted labor force participation rate increased by 0.7 points to 54% (Chart 2.3.9). Meanwhile, the unemployment rate remained flat quarter-on-quarter and stood at 8.8% in the first quarter. In this period, population growth and the increase in the participation rate had an upward effect on the unemployment rate by 0.15 and 1.17 points, respectively, while employment growth had a downward effect by 1.28 points (Charts 2.3.10 and 2.3.11). On the other hand, as of February, the idle labor force, which is the sum of time-dependent underemployment, the potential labor force and the unemployed, increased by 2.6 points in the first quarter of 2024. Meanwhile, the gradual decline in the average weekly working hours continued, dropping by 0.4 hours, which implies that signs of a weakening in the labor market have started to be observed.

**Chart 2.3.9: Total Unemployment Rate and Labor Force Participation Rate**  
(Seasonally Adjusted, %)



Source: TURKSTAT.  
\* Average of January-February.

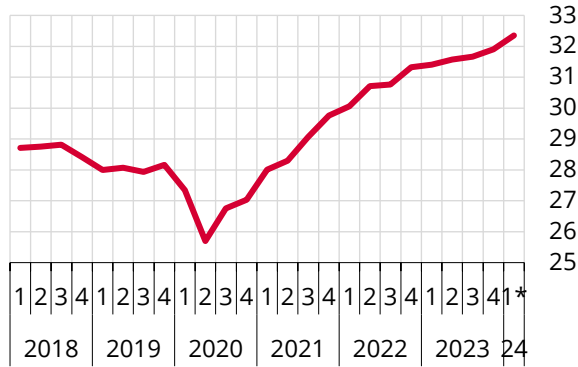
**Chart 2.3.10: Contributions to Change in Total Unemployment Rate**  
(Seasonally Adjusted, % Points)



Source: CBRT, TURKSTAT.  
\* Average of January-February.  
\*\* Negative value of the employment loss effect indicates an increase in employment.

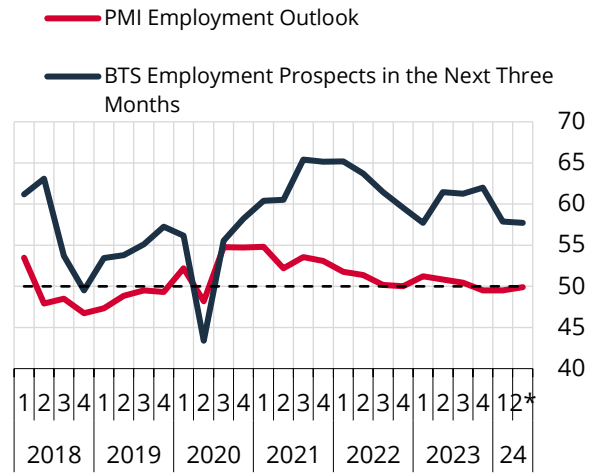
**Survey indicators and high-frequency data suggest that demand in the labor market has slightly weakened.** As of April, new job listings remain close to last year's levels. Meanwhile, survey data for manufacturing firms suggest that firms' employment outlook deteriorated slightly, while employment expectations for the next three months fell below their historical averages (Chart 2.3.12).

**Chart 2.3.11: Total Employment**  
(Seasonally Adjusted, Million People)



Source: TURKSTAT.  
\* Average of January-February.

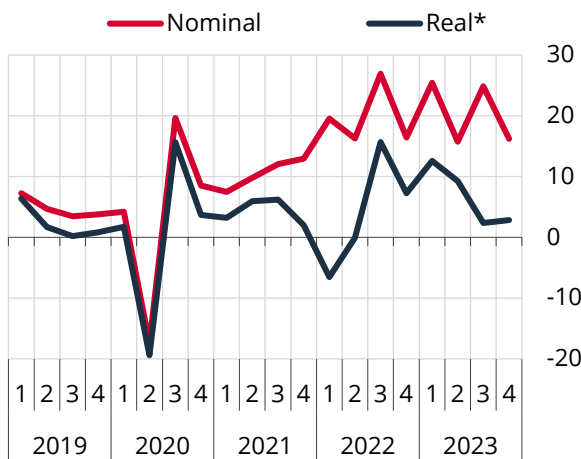
**Chart 2.3.12: Employment Outlook and Expectation in the Industrial Sector\*\***  
(Seasonally Adjusted, Up-Down)



Source: S&P Global, CBRT.  
\* As of April.  
\*\* BTS indicator is adjusted so that its neutral level will be 50 in line with the PMI.

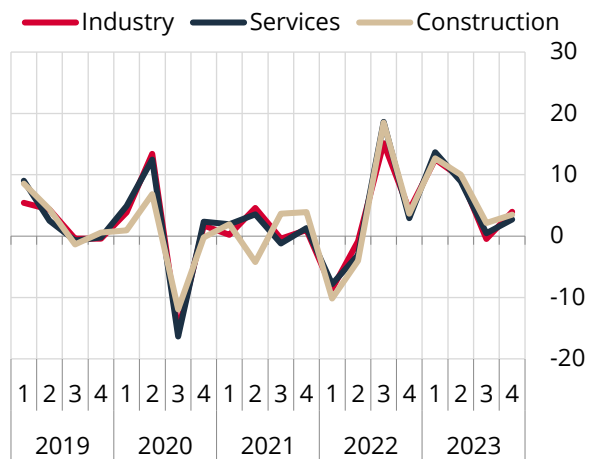
**The real increase in the non-farm gross wage and payroll index displayed a moderate trend in the final quarter of 2023** (Chart 2.3.13). Meanwhile, the moderate increase in the seasonally adjusted real earnings index spread across all sectors in the final quarter (Chart 2.3.14). In 2023, the nominal wage increase was higher compared to the previous year, and this mainly stemmed from the biannual minimum wage adjustment and the backward indexation behavior. After the first quarter, when the minimum wage hike supported domestic demand, the projected milder course of economic activity and the absence of additional wage revisions are expected to support the disinflation process through real unit wages.

**Chart 2.3.13: Non-Farm Gross Wage and Payroll Index**  
(Seasonally Adjusted, Quarterly % Change)



Source: CBRT, TURKSTAT.  
\* Deflated by the CPI.

**Chart 2.3.14: Non-Farm Hourly Earnings Index\***  
(Seasonally Adjusted, Quarterly % Change, Real)



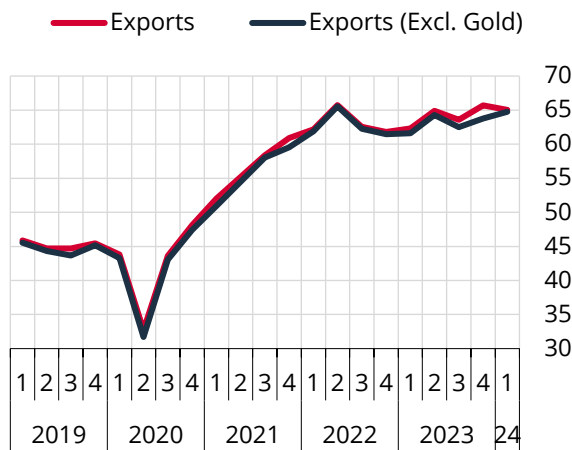
Source: CBRT, TURKSTAT.  
\* Deflated by the CPI.

**Foreign Trade and Balance of Payments Outlook**

**In the first quarter of 2024, exports excluding gold increased, while the downtrend in imports continued.** Despite the partial recovery in economic activity in our main trade markets, external demand conditions remained weak in the first quarter, nevertheless, seasonally and calendar-adjusted exports excluding gold continued to increase (Chart 2.3.15). Gold exports, which made a significant contribution to export growth

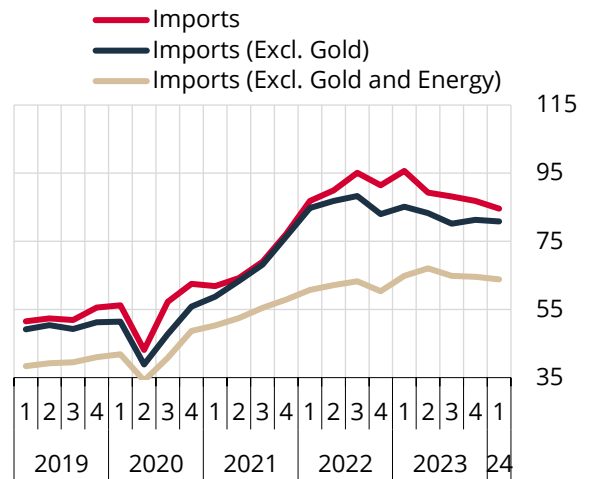
in the last quarter of the previous year, declined significantly in the first quarter of this year due to the rise in domestic demand for gold and played a role in the limited quarterly decline in total exports. In this period, food, chemicals, pharmaceuticals, clothing and textiles sectors made a positive contribution to exports. Exports to the EU recovered, while exports to the Middle East and Africa remained relatively flat. On the imports side, imports excluding gold and energy remained almost flat in seasonally and calendar-adjusted terms as domestic demand remained resilient in the first quarter (Chart 2.3.16). Gold imports declined, while energy imports remained close to the previous quarter's level in seasonally and calendar-adjusted terms. In the first quarter, seasonally and calendar-adjusted imports excluding gold remained the same as the previous quarter, while the downtrend in total imports continued. Accordingly, the seasonally and calendar-adjusted foreign trade deficit continued to narrow in the first quarter, while the gold trade deficit decreased and the energy trade deficit increased slightly. On the other hand, provisional data for foreign trade indicate that the foreign trade deficit in April was above the first quarter's average and imply that unlike signs of slowdown in other domestic market indicators, imports of consumption goods remained strong. Therefore, the course of imports, particularly of consumer goods, will continue to be closely monitored in the rest of the quarter with respect to the rebalancing in demand.

**Chart 2.3.15: Exports**  
(Seasonally and Calendar Adjusted, USD)



Source: CBRT, TURKSTAT.

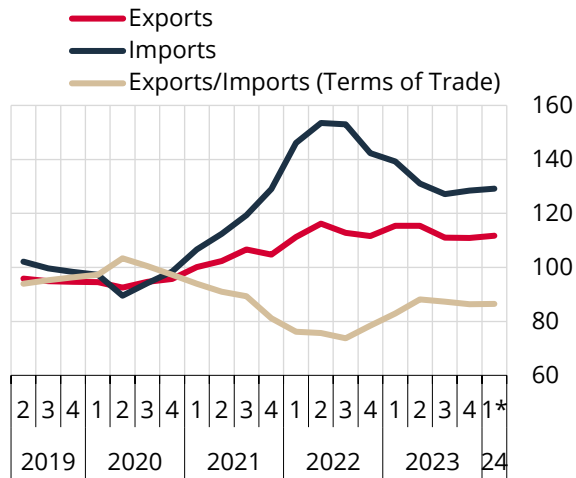
**Chart 2.3.16: Imports**  
(Seasonally and Calendar Adjusted, USD)



Source: CBRT, TURKSTAT.

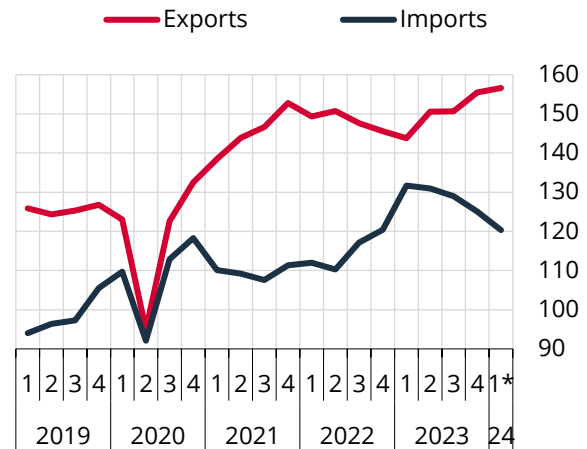
**As of February, the flat course of the terms of trade and the real rebalancing in foreign trade supported the improvement in the foreign trade deficit.** According to the foreign trade unit value indices for the first quarter calculated based on the January-February average, export and import prices increased slightly quarter-on-quarter (Chart 2.3.17). The terms of trade maintained their relatively high level recorded in the last three quarters, supporting the downtrend in the foreign trade deficit. Meanwhile, according to the foreign trade quantity indices calculated by using the January-February average, seasonally and calendar adjusted exports increased while imports decreased (Chart 2.3.18). Thus, the real rebalancing in foreign trade made a favorable impact on the foreign trade balance. Across goods groups, the downtrend in imports of intermediate goods and investment goods, which started in the previous quarter, was accompanied by the decline in imports of consumption goods that showed a decline in the first quarter for the first time in a long period (Chart 2.3.19).

**Chart 2.3.17: Foreign Trade Unit Value Indices**  
(2015=100)



Source: TURKSTAT.  
\* Average of January-February.

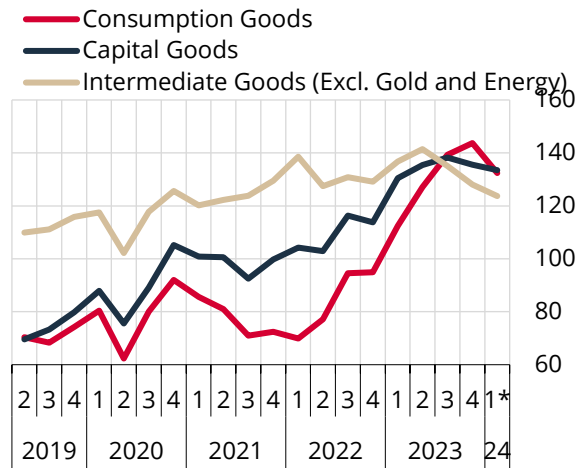
**Chart 2.3.18: Foreign Trade Quantity Indices**  
(Seasonally Adjusted, 2015=100)



Source: CBRT, TURKSTAT.  
\* Average of January-February.

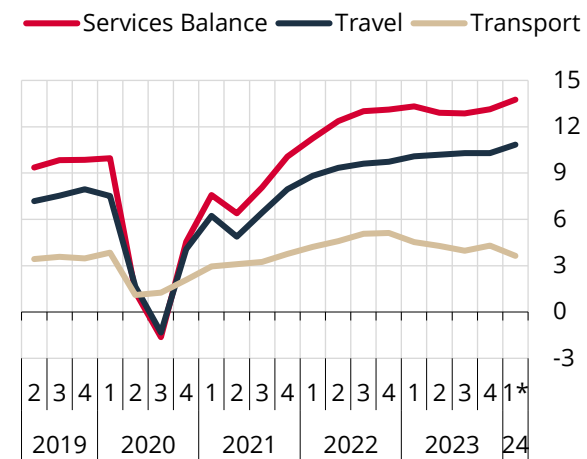
**The favorable course in the services balance continues to strengthen on the back of travel revenues.** As the rise in seasonally and calendar-adjusted net travel revenues continued in February, the services balance surplus continued to rise in the first quarter, while another important item, transportation revenues posted a slight decline (Chart 2.3.20). Despite the regional geopolitical problems that emerged in the previous two quarters, the uptrend continued in the number of foreign visitors in seasonally and calendar-adjusted terms and became the main driver of the increase in travel revenues. Leading indicators suggest that the number of foreign visitors will remain relatively high in March and net travel revenues will maintain their historically high levels.

**Chart 2.3.19: Import Quantity Indices by Good Categories**  
(Seasonally Adjusted, 2015=100)



Source: CBRT, TURKSTAT.  
\* Average of January-February.

**Chart 2.3.20: Services Balance**  
(Seasonally and Calendar Adjusted, USD Billion)



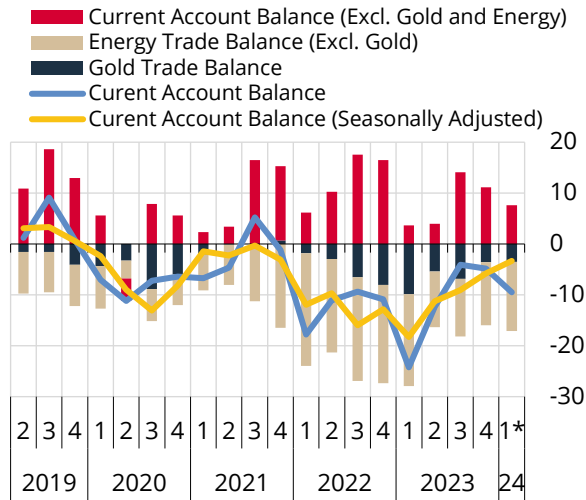
Source: CBRT.  
\* Average of January-February.

**The improvement in the current account balance accelerated in the first quarter due to the decline in the foreign trade deficit and the strong outlook in the services balance.** On the back of the ongoing uptrend in the balance of payments-defined goods trade balance and the continued favorable contribution of the services balance to the current account balance, in the first quarter, the seasonally and calendar-adjusted current account deficit narrowed significantly quarter-on-quarter (Chart 2.3.21). The current account surplus excluding gold and energy, which is an underlying trend indicator, increased in seasonally and calendar-adjusted terms. After the first quarter, when domestic demand-driven upward pressures



persisted, the impact of the tightening in financial conditions, the normalization in credit growth and the improvement in inflation expectations on domestic demand is likely to become more evident and support the rebalancing process, therefore leading to a further decline in the current account deficit.

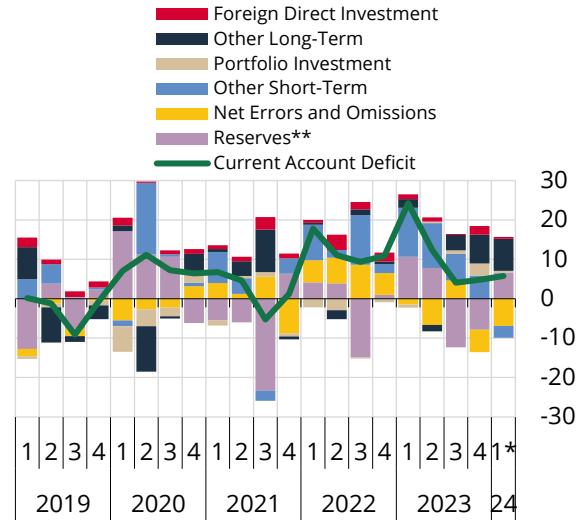
**Chart 2.3.21: Current Account Balance**  
(Quarterly, USD Billion)



Source: CBRT.

\* The values implied by foreign trade data have been used for March.

**Chart 2.3.22: Financing of the Current Account Deficit**  
(USD Billion)



Source: CBRT.

\* Cumulative as of February.

\*\* Denotes the CBRT reserves plus the cash and deposits at banks abroad. A negative value indicates an increase in reserves.

**While the weight of long-term items in financing the current account balance increased, the net errors and omissions item posted outflows and reserves decreased in the first quarter.** As of February, non-residents' direct investments decreased in the first quarter due to the quarter-on-quarter decline in capital inflows. Portfolio inflows to equity and debt securities markets and short-term investment items such as non-residents' deposits remained limited compared to the previous quarter. Capital inflows were mainly driven by long-term external bond issues (Chart 2.3.22). Outflows from the net errors and omissions item increased in the first two months of the year, while reserves, which had increased significantly in the previous two quarters following the tightening in monetary policy, decreased in this period. Leading indicators suggest that official reserves increased again in April after having declined in March. In the upcoming period, when the current account deficit will narrow due to seasonal effects, the decrease in the financing need and the improvement in the financing composition in favor of capital inflows will also contribute to reserve accumulation.

**Public Finance Developments**

**In the first quarter of the year, the central government budget ran a deficit of TRY 513.5 billion and a primary deficit of TRY 263.0 billion.** The ratio of the annualized budget deficit to national income, which was 5.2% at the end of 2023, is estimated to be 5.6% as of March. In this period, the financing need was met by both domestic and external borrowing, and approximately USD 5.2 billion worth of financing was obtained from international capital markets. It is estimated that the ratio of the central government debt stock to national income was 25.6% in March 2024, while the ratios of domestic and external debt stocks to national income were 12.2% and 13.4%, respectively.

**In the first quarter of the year, 19.4% of allocations were used for central government budget expenditures, and the ratio of expenditures to GDP is estimated to have increased by 6.3 points year-on-year to 26.2%.** In the first quarter, primary expenditures increased by 101.3% compared to the same period of the previous year. The most significant contribution to the annual growth in primary expenditures came from current transfers and personnel expenditures. In the first quarter of the year, state economic enterprises did not receive any transfer of funds associated with natural gas, while the Electricity Generation Corporation received a total of TRY 55.3 billion for its assignment expenditures. Meanwhile,

central government budget revenues increased by 106.0% year-on-year in this period. Annualized budget revenues as a percentage of national income, which were 17.5% in the same period of the previous year, are estimated to have increased to 20.6% as of March. Tax revenues remained strong due to the performance of domestic demand, the course of inflation and the arrangements made in July 2023. In fact, the SCT and VAT items, which are highly sensitive to domestic demand, made the most significant contribution to the annual growth of tax revenues. While the strong performance of tax revenues affected the budget balance positively, the weak course of non-tax revenues limited this effect.

**Earthquake expenditures will be one of the main drivers of the budget deficit in 2024.** Accordingly, spending from the earthquake allocation of TRY 1.28 trillion in the 2024 budget is closely monitored. In the first quarter of the year, 0.7% of the initial allocations were used from the capital transfers item, which also includes costs related to the construction of earthquake housing.

## Zoom-In 2.2

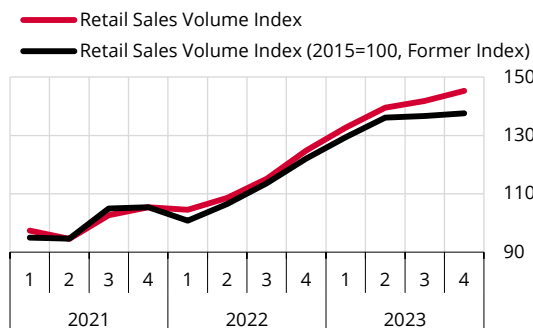
### Change of Base Year and Methodology in Retail Sales Volume Index

**As part of its regular revisions in the Short-Term Business Statistics, TURKSTAT made some changes in the base year and methodology in the retail sales volume index data.** In its press release of 4 March 2024, TURKSTAT announced that it had completed the incorporation of the changes made in the EU Business Statistics regulation into the Short-Term Business Statistics and the production of new indicators. In this context, the retail sales volume index data, previously published taking the base year as 2015=100, started to be published with a base year of 2021=100 in the first release of the Trade Sales Volume Index Bulletin in March.

**TURKSTAT determines the product structure of each sector using the results of the "Annual Turnover Survey by Products" and calculates deflators for each sector with appropriate price data.** Turnover values are adjusted for price changes using these deflators. Accordingly, the deflation by prices at three-digit, four-digit and special activity levels in previously published indices with a base year of 2015, is now made at the four-digit activity level with the introduction of the new index. Moreover, changes in the data source and main activities of enterprises in 2021 and beyond have also been reflected in the indices. Accordingly, the retail sales volume index has been revised since 2010.

**The calculation using the new methodology revised the level of the retail sales volume index upwards.** Additionally, since the second half of 2023, quarterly changes in the RSVI have increased significantly in the new series, implying a quarterly acceleration contrary to the outlook presented in the previous reporting period (Charts 1 and 2).

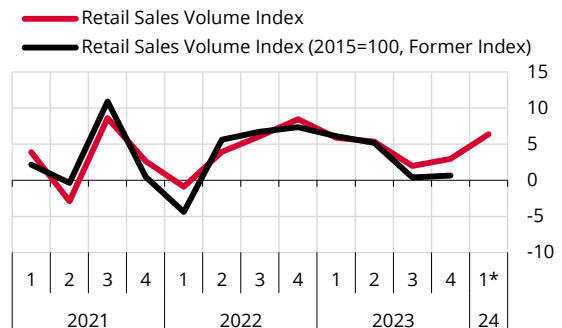
**Chart 1: Retail Sales Volume Index\* (2021=100)**



Source: TURKSTAT.

\* The former index with a base year of 2015=100 is adjusted as 2021=100 to allow for a comparison among levels.

**Chart 2: Retail Sales Volume Index (Quarterly % Change)**



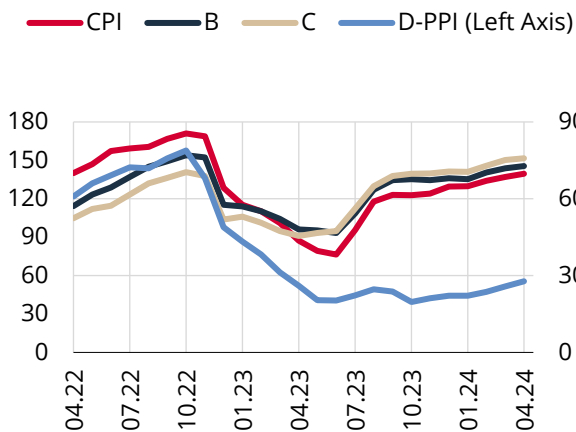
Source: TURKSTAT.

\* As of February.

## 2.4 Inflation

**Annual consumer inflation rose by 3.73 points in the first quarter of 2024 to 68.50%, 0.9 points above the forecast range presented in the Inflation Report 2024-I.** The uptrend in annual inflation continued in April, rising to 69.80%. USD-based commodity prices increased in the first quarter, which was more evident in the energy group. Freight charges, which rose in January amid geopolitical developments before declining in the following months, remained high. Longer supplier delivery times, which extended in January, partially normalized in the following period. The Global Supply Chain Pressure Index hovered around its historical average in the first quarter. The increase in the exchange rate basket was slightly higher than that in the previous quarter, at 9.8%. In addition to cost-side effects, wage adjustments played a significant role in keeping demand resilient in the first quarter, which eased the pass-through of other non-wage cost increases to prices. Against this background, producer price-driven pressures have strengthened. Medium-term inflation expectations declined, yet remained above medium-term targets and continued to pose an upside risk to the inflation outlook. An analysis of first-quarter developments by sub-items reveals that the services sector made the largest contribution to the rise in annual consumer inflation, followed by the energy group (Chart 2.4.2). Services prices saw a significant increase in this period, driven by items with time-dependent pricing behavior and a strong backward indexation tendency such as administered groups, as well as groups with a high wage sensitivity (Box 2.4). Although the underlying inflation declined following a rise in January, it was higher than projected in the previous Inflation Report, led by services inflation.

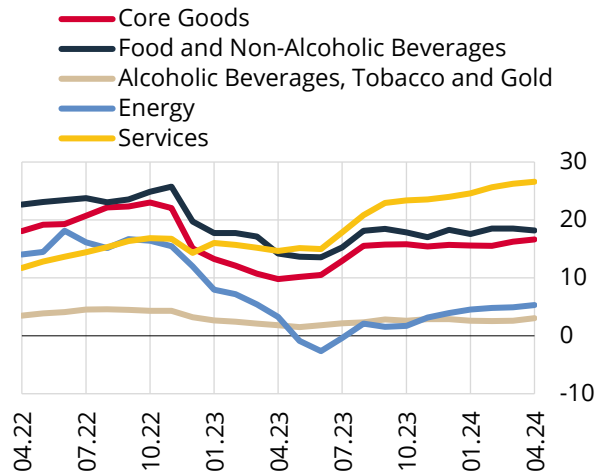
**Chart 2.4.1: CPI, B Index, C Index and D-PPI\***  
(Annual % Change)



Source: TURKSTAT.

\* B index: CPI excluding unprocessed food, energy, alcoholic beverages, tobacco, and gold. C index: CPI excluding food and non-alcoholic beverages, energy, alcohol-tobacco, and gold.

**Chart 2.4.2: Contributions to Annual CPI**  
(% Points)

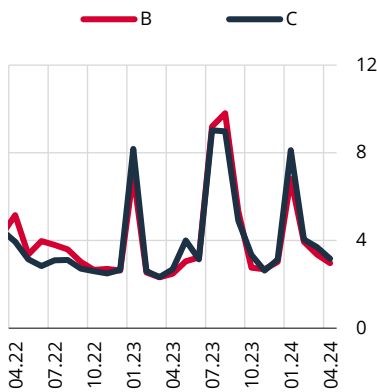


Source: CBRT, TURKSTAT.

**The monthly rate of increase in core indicators slowed down following the high levels seen in January, falling back to December levels, but remained above the projections. Annual inflation rates rose compared to the previous quarter.** The seasonally adjusted B and C indices, which declined more than projected in the last quarter of 2023, posted significant monthly increases in January. This was mainly due to wage adjustments as well as services items with a high time-dependent price-setting behavior and backward-indexation tendency. The monthly increases of indices remained above forecasts, albeit rising at a slower pace in the following months (Chart 2.4.3). The seasonally adjusted average monthly increases in the B and C indices were 4.7% and 5.3%, respectively, in the first quarter (2.8% and 3.0%, respectively, in the last quarter of 2023). Alternative indicators such as median inflation, SATRIM and dynamic factor also displayed a similar trend and confirmed this outlook. As of April, the seasonally adjusted monthly increases in core indicators have continued to ease and were close to December 2023 levels (Chart 2.4.4). An analysis of the subgroups of the B index reveals that price increases picked up across all subgroups quarter-on-quarter in the first three months of the year, and the main driver of the strong increase in inflation was the services sector (Chart 2.4.5). Services prices increased notably across all subgroups compared to the previous quarter. The highest quarterly price increase was in the rent subgroup. The rise in the restaurants-

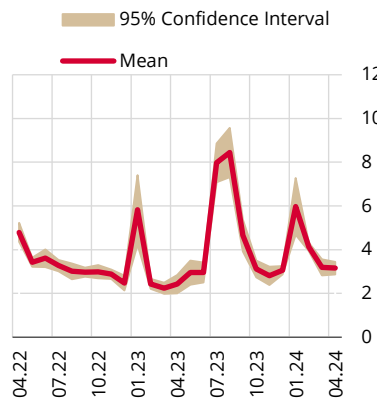
hotels group was driven by catering services, which are highly sensitive to food prices, particularly red meat, and minimum wage developments (Table 2.4.1). Education, health, and insurance services, in which indexation behavior is widespread, as well as maintenance-repair services, which encompass labor expenditures, stood out in the other services subgroup, another notable subgroup in this period. Price increases remained strong in communication services with contractual price rigidities, on the back of internet and phone call charges. Transportation services prices with a high time-dependent pricing tendency were driven by fuel prices as well as minimum wage developments. Accordingly, the contribution of services to annual consumer inflation increased by 2.24 points quarter-on-quarter to 26.23 points, thus becoming the most significant contributor to consumer inflation (Chart 2.4.2). Price increases in core goods followed a relatively milder path compared to other B index subgroups (Chart 2.4.5). Durable goods price hikes were volatile, and the strong domestic demand conditions eased the pass-through of cost increases to durable goods prices. Electrical and non-electrical household appliances as well as the labor-intensive furniture sector were the main drivers of price increases in this group. In the first quarter, automobile prices rose at a relatively milder pace. The prices of processed foods, another subgroup of the B index, displayed a strong course in January and February, but remained moderate in March. In line with the outlook for red meat, processed meat products, milk and dairy products, oils and fats, and bread and cereals had a significant impact on the group prices. Processed food prices maintained their relatively mild pace in April. In seasonally adjusted terms, core goods prices converged to December 2023 levels in April, while services prices remained strong, albeit at a slower pace.

**Chart 2.4.3: B and C Indices**  
(Seasonally Adjusted, Monthly % Change)



Source: CBRT, TURKSTAT.

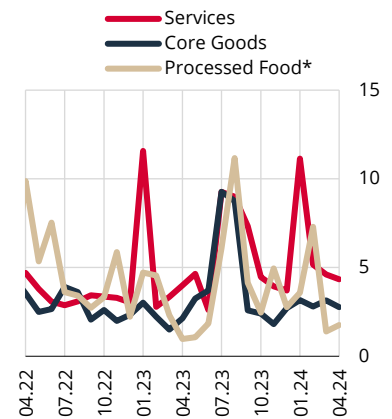
**Chart 2.4.4: Seven Different Indicators of Underlying Inflation\*** (Seasonally Adjusted, Monthly % Change)



Source: CBRT, TURKSTAT.

\* Monthly average of seasonally adjusted B and C indices, SATRIM, Median, the index excluding most volatile items, indicators produced by principal components, and dynamic factor models. Shaded area shows 95% confidence interval.

**Chart 2.4.5: Subgroups of B Index**  
(Seasonally Adjusted, Monthly % Change)



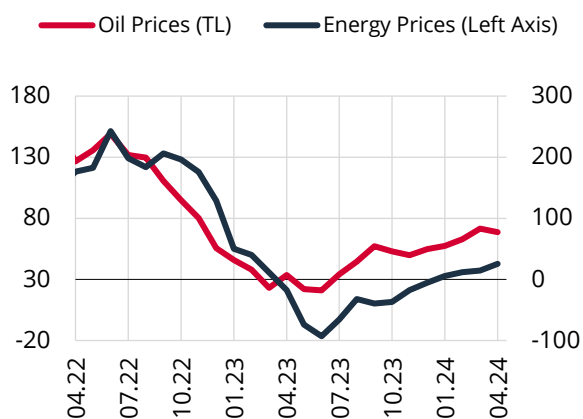
Source: CBRT, TURKSTAT.

\* Processed food is not adjusted for seasonality due to absence of statistically significant seasonal effects.

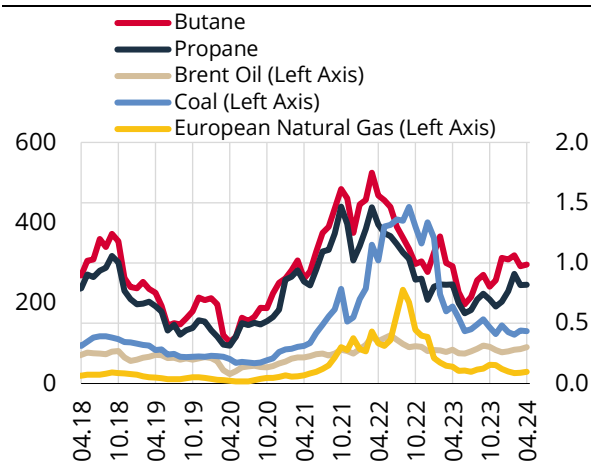
**In the first quarter, fuel prices came to the fore in the course of energy prices, in parallel with the outlook for natural gas and oil prices, and annual energy inflation continued to rise.** Despite the flat course of energy prices in April, annual energy inflation increased due to base effects (Chart 2.4.6). Domestic energy prices were up 10.80% in the first quarter of the year (Table 2.4.1). The international Brent crude oil price, which was USD 78 on average in December, ended March at around USD 85 on average. The USD exchange rate also increased by approximately 10% during this period. The producer inflation in the second half of 2023 was passed through to the lump sum SCT on fuel and bottled gas in January, and the tax hike had a significant impact on energy inflation that month. Natural gas, the first 25 m<sup>3</sup> of which are provided free of charge, had a significant impact on annual consumer inflation in January due to consumption-driven developments. However, this mechanical effect was rather subdued in February and March. Thus, the effect of natural gas on annual consumer inflation in the first quarter was 0.38 points in total. The downward trend seen in energy commodity prices in the last quarter ended in January on the back of the oil price outlook, and prices increased in the first quarter. Meanwhile, propane prices rose, whereas butane, coal, and natural gas prices declined, diverging from this outlook (Chart 2.4.7). In line with global energy prices, solid fuel prices slowed down, and the uptrend in municipal water prices weakened in the first quarter. Against this background, the contribution of the energy group to annual consumer inflation increased by 1.01 points quarter-on-quarter to 4.91 points (Charts 2.4.6 and 2.4.2). Despite the fuel price hikes in line

with global developments in April, energy prices remained flat, by being balanced by the consumption-driven downward mechanical effect on natural gas prices. Annual energy inflation rose to 42.83% in April due to the base effects but still lags considerably behind the other main groups.

**Chart 2.4.6: Energy Prices (Annual % Change)**



**Chart 2.4.7: Energy Commodity Prices\* (USD, EUR)**



\* Brent oil prices are per barrel, coal prices are per ton, butane and propane prices are per gallon. European natural gas prices are in euro and per MWh.

**Table 2.4.1: Consumer Prices**

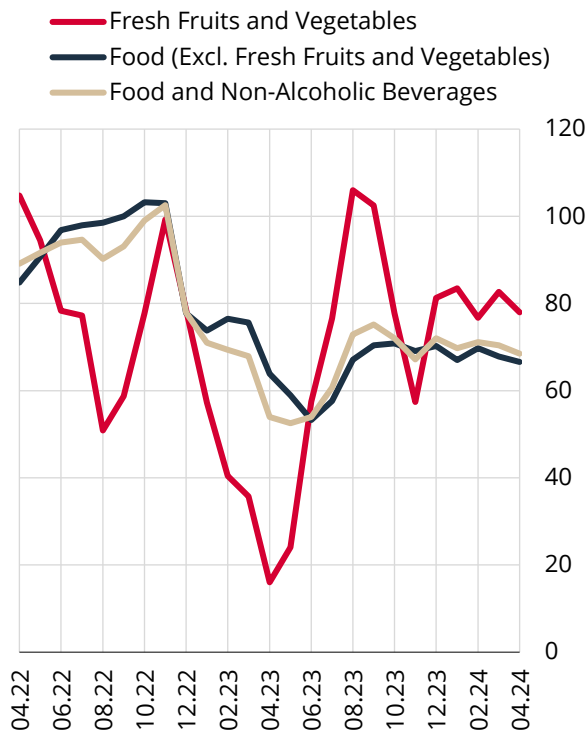
	Quarterly % Change (Seasonally Adjusted)				Annual % Change			
	2023			2024	2023			2024
	II	III	IV	I	II	III	IV	I
<b>CPI</b>	<b>6.01</b>	<b>26.49</b>	<b>10.32</b>	<b>13.78</b>	<b>38.21</b>	<b>61.53</b>	<b>64.77</b>	<b>68.50</b>
<b>B</b>	<b>8.83</b>	<b>26.26</b>	<b>8.83</b>	<b>14.99</b>	<b>46.63</b>	<b>67.22</b>	<b>68.02</b>	<b>71.89</b>
<b>C</b>	<b>9.99</b>	<b>24.55</b>	<b>9.47</b>	<b>16.92</b>	<b>47.33</b>	<b>68.93</b>	<b>70.64</b>	<b>75.21</b>
<b>1. Goods</b>	5.40	24.86	9.12	10.01	30.92	52.39	55.46	58.17
<b>Energy*</b>	<b>-20.84</b>	<b>33.71</b>	<b>17.08</b>	<b>10.80</b>	<b>-16.52</b>	<b>10.25</b>	<b>27.19</b>	<b>37.32</b>
<b>Food and Non-Alcoholic Beverages</b>	<b>12.63</b>	<b>22.36</b>	<b>10.49</b>	<b>11.89</b>	<b>53.92</b>	<b>75.14</b>	<b>72.01</b>	<b>70.41</b>
Unprocessed Food	21.69	23.74	8.93	12.27	68.44	96.17	91.23	84.14
Fresh Fruits and Vegetables	29.32	35.32	-1.69	6.15	57.49	102.46	81.29	82.67
Processed Food*	3.96	22.81	10.50	12.68	43.36	59.95	58.05	58.97
<b>Core Goods</b>	<b>9.15</b>	<b>21.98</b>	<b>7.22</b>	<b>9.55</b>	<b>36.69</b>	<b>53.23</b>	<b>52.81</b>	<b>56.46</b>
Clothing and Footwear	6.95	16.33	9.04	9.15	20.04	31.36	39.74	49.12
Durable Goods (Excl. Gold)	12.55	23.61	5.55	9.80	43.30	65.61	60.70	61.11
Furniture	4.14	21.99	7.84	16.72	37.52	62.08	55.21	60.00
Automobile	17.16	29.15	3.88	5.09	46.61	72.91	72.24	66.93
Electrical and Non-Electrical Appliances*	7.56	22.01	6.56	10.79	42.53	57.63	47.89	54.94
Other Durable Goods*	6.51	23.07	9.30	13.75	36.33	53.37	55.64	62.98
Other Core Goods*	4.13	22.69	9.17	11.31	37.75	50.10	50.42	55.25
<b>Alcoholic Beverages, Tobacco Products, and Gold*</b>	<b>12.25</b>	<b>26.24</b>	<b>9.45</b>	<b>6.58</b>	<b>40.14</b>	<b>67.19</b>	<b>71.18</b>	<b>65.30</b>
<b>2. Services</b>	<b>11.50</b>	<b>27.80</b>	<b>12.71</b>	<b>22.44</b>	<b>59.45</b>	<b>86.46</b>	<b>90.66</b>	<b>96.48</b>
Rent	17.50	24.52	19.47	28.05	75.91	95.03	108.58	123.95
Restaurants and Hotels	13.95	24.31	12.38	22.64	67.22	92.48	93.24	94.97
Transport	3.20	59.37	5.34	12.35	36.25	95.97	92.44	94.41
Communication	14.48	14.16	13.21	16.09	43.84	55.04	63.92	71.99
Other Services	9.88	27.83	12.44	20.45	57.42	81.64	85.20	90.41

Source: CBRT, TURKSTAT.

\* No seasonality detected.

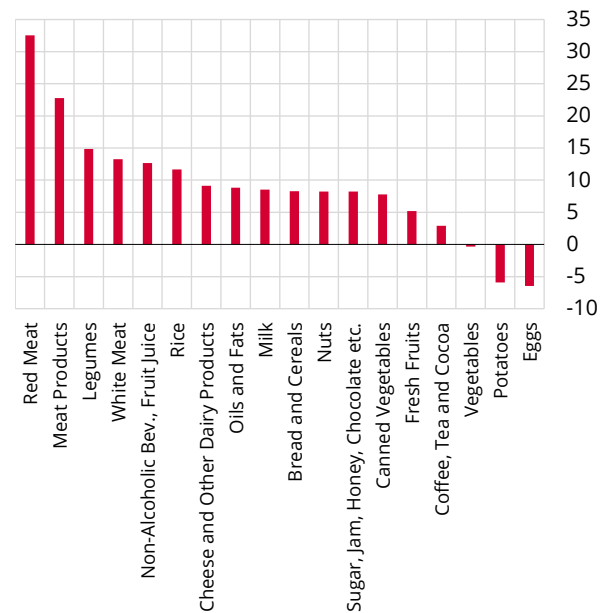
**Inflation in food hovered above headline inflation on an annual basis in the first quarter but was slightly below headline inflation in April.** Annual inflation in food and non-alcoholic beverages was on an upward trend in the second half of 2023, reaching 75.14% in September. In the following six months, it followed a resilient course fluctuating around 70% (Chart 2.4.8). Seasonally adjusted data pointed to a quarter-on-quarter pickup in food inflation (Table 2.4.1). After falling in the previous quarter, prices of fresh fruits and vegetables rose by 6.15% in the first quarter. Meanwhile, vegetable prices increased at a rate close to their historical average, while fruit prices rose at a rate above their trend. The main driver of the outlook in food prices in the first quarter was red meat prices (Chart 2.4.9). Red meat prices had a negative impact on substitute white meat prices and pushed prices of processed meat products significantly upwards. Food prices excluding fresh fruits and vegetables strengthened on a quarterly basis, driven mainly by meat prices as well as price developments in pulses, non-alcoholic beverages, rice, milk and dairy products, and oils. Rice prices were affected by external prices as well, while the impact of the raw milk reference price hike in January (17.4%) on prices of milk and dairy products was visible in the first quarter. Olive oil prices, which have been on the rise since the second half of the year due to foreign demand and falling yields, and for which export measures have been taken, resumed their upward trend in the first quarter. In the first quarter of the year, potato and egg price increases were below historical averages (Chart 2.4.9). Food price increases slowed in April, and the unprocessed food subgroup's prices were the main driver of the monthly increase. The prices of red and white meat continued to rise.

**Chart 2.4.8: Food Prices (Annual % Change)**



Source: CBRT, TURKSTAT.

**Chart 2.4.9: Food Prices by Sub-Items\* (2024Q1 % Deviation of Change from Historical Average, Sorted)**



Source: CBRT, TURKSTAT.

\* Denotes the difference between the 2024Q1 quarterly percentage change and the historical average (first quarter average of the 2012-2021 period).

**Prices of alcoholic beverages and tobacco products rose by 5.42% in the first quarter of the year, while price increases in tobacco products due to producer firms pushed the monthly increase in April to 9.56%.**

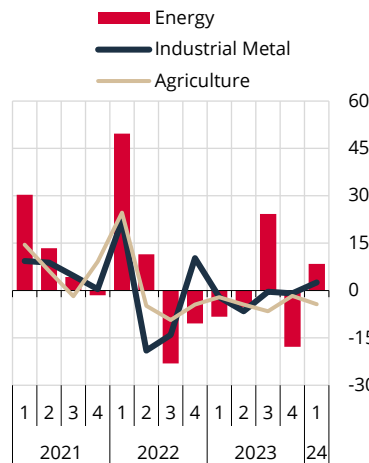
The tax reform on tobacco products led to a limited price increase in January. Alcoholic beverage prices rose by 30.39% in the first quarter due also to the tax hike, while prices of tobacco products increased at a low rate of 3.49%. Thus, annual inflation in the alcoholic beverages and tobacco group decreased by 8.28 points quarter-on-quarter to 62.98%, and the contribution of the alcohol-tobacco group to annual inflation

fell by 0.33 points. In April, prices of alcoholic beverages and tobacco rose by 9.56% amid the price hikes driven by producer firms, pushing annual inflation up by 15.56 points to 78.53%.

### Drivers of Inflation

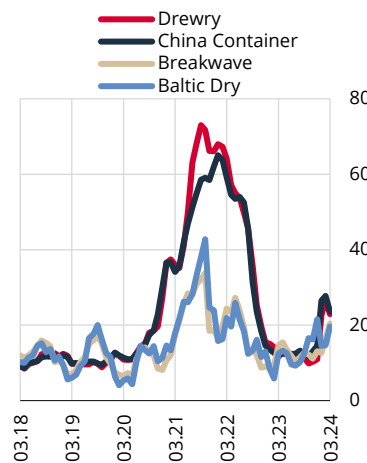
**Global commodity prices posted increases in the first quarter of the year, led by the energy group.** Global crude oil prices went up due to production cuts along with geopolitical developments and were the main driver of higher energy commodity prices. Domestic fuel prices soared dramatically in the first three months of the year, adversely affected by tax and exchange rate hikes in addition to global developments. The rise in fuel prices pushed consumer inflation up indirectly through production costs and transportation, together with its direct effects. Meanwhile, global natural gas prices declined in the first quarter, curbing the rise in energy commodity prices. After having displayed moderate price movements in 2023, industrial metal prices edged up in the first quarter of the year, while prices in the agriculture group remained on a downward track (Chart 2.4.10). Following these developments in the first quarter of the year, commodity prices increased across the board in April, with industrial metal and energy prices posting stronger increases. Escalating geopolitical tensions had a negative impact on international transportation costs. The preference for alternate routes led to prolonged delivery times and increased freight charges. Tracked indicators suggest that the rise in freight charges was moderate compared to the 2021 and 2022 realizations (Chart 2.4.11). Meanwhile, as of February, the import unit value index remained close to its value in the last quarter of 2023, as the limited increase in the intermediate goods sub-index was offset by the declines in the investment and consumption goods sub-indices (Chart 2.4.12).

**Chart 2.4.10: Commodity Price Indices** (Quarterly % Change)



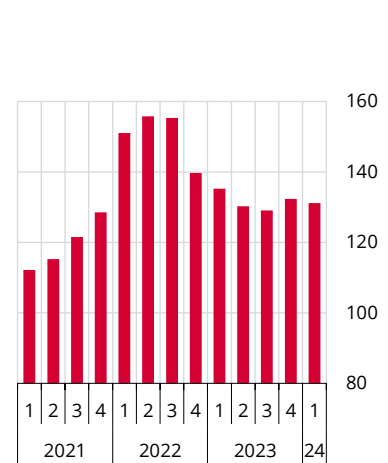
Source: Goldman Sachs.

**Chart 2.4.11: Global Freight Charges** (2016-2019 Average =100)



Source: Bloomberg.

**Chart 2.4.12: Import Unit Value Index\*** (2019Q4=100, USD)



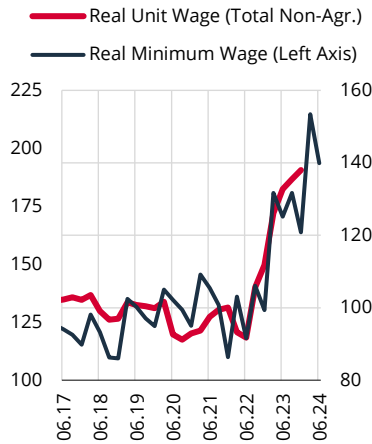
Source: TURKSTAT.

\* Quarterly data denote the last month of the respective period. As of February for 2024Q1.

**The underlying producer inflation regained strength following the minimum wage increase.** As the minimum wage was revised twice and at high rates in 2023, the rise in nominal wages across the economy took on a sustained pattern, pushing the real unit wage upwards. Accordingly, the real unit wage increased significantly in the third quarter due to the minimum wage increase in mid-2023 and continued to rise in the following quarter, albeit at a slower pace. Likewise, the real unit wage is expected to have increased significantly in the first quarter of the year following the minimum wage revision at the beginning of 2024, but this increase is projected to lose pace in the second quarter (Chart 2.4.13). After having increased by 8.8% in the last quarter of 2023, the currency basket increased by 9.8% in the first quarter of this year (Chart 2.4.14). The depreciation of the Turkish lira remained below the current inflation rate, leading to a slight appreciation in the real exchange rate. The depreciation of the Turkish lira at close to the rate in the previous quarter led to a more limited inflationary pressure driven by items with high import intensity at a time when global prices of certain commodity products, particularly energy prices, and freight charges rose due to geopolitical tensions. While risks stemming from geopolitical developments have recently gained in importance, the impact of global developments on domestic costs has been more pronounced in the energy group but limited in the non-energy groups. Domestic developments, especially wage realizations as

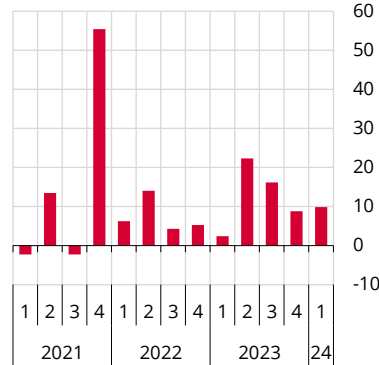
well as rising food prices, were the other main drivers of the increase in the underlying producer inflation (Chart 2.4.15).

**Chart 2.4.13: Real Unit Wage per Hour Worked\*** (Value Added, 2015=100, Seasonally Adjusted) **and Real Minimum Wage\*\*** (2015=100)



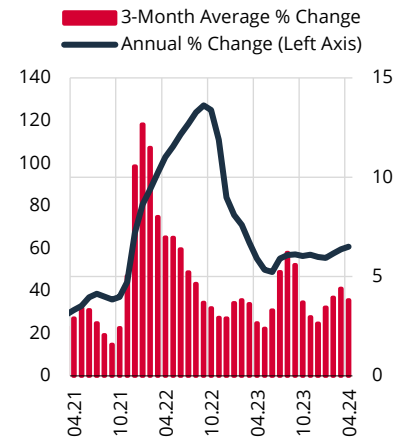
Source: CBRT, TURKSTAT.  
 \* Deflated by the CPI. Real wage per hour worked/productivity.  
 \*\* Deflated by the seasonally adjusted CPI.  
 Forecast is used for the 2024Q2 inflation data.

**Chart 2.4.14: Currency Basket\*** (Quarterly % Change)



Source: CBRT.  
 \* USD and euro have equal weights. Calculations are based on the average exchange rate in the last month of the relevant quarter.

**Chart 2.4.15: Manufacturing Prices Excluding Petroleum and Base Metals**



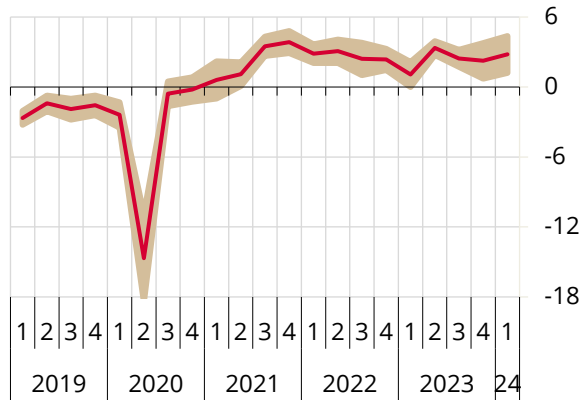
Source: CBRT, TURKSTAT.

**Demand conditions remained strong in the first quarter of the year.** In the last quarter of 2023, GDP growth accelerated on the back of domestic demand following the expected wage increase and campaigns and materialized at a figure close to potential. Consistent with this development, the main output gap indicator followed an almost flat course. Leading indicators suggest that growth strengthened somewhat, and the output gap expanded in the first quarter of 2024. Meanwhile, the uncertainty band derived from the output gap series monitored by the CBRT widened slightly in the first quarter (Chart 2.4.16). Survey-based indicators moved upwards, while indicators based on statistical filtering moved downwards, thereby widening the band.<sup>1</sup> Wage adjustments have an impact through the demand channel as well as the cost channel and are among the main drivers of inertia in inflation. Wage increases stood as a key factor driving domestic demand in the first quarter, and total credit change hovered above its historical average. Credit change strengthened despite the monetary tightening measures (Chart 2.4.17). In the first quarter of the year, both corporate and consumer loans, mainly credit cards, grew, yet retail loans in particular saw a slowdown in April (Chart 2.2.13). It is projected that loan growth will be more constrained starting in the second quarter of the year as the lagged effects of monetary policy become more evident and that the output gap will start to narrow as wage increases slow down, thereby bolstering the disinflationary path.

<sup>1</sup> For further information, see Box 3.1 of the Inflation Report 2024-I.



**Chart 2.4.16: Output Gap\* (%)**



Source: CBRT.

\* Displayed with 95% confidence interval, which is computed based on eight output gap indicators calculated with different methods.

**Chart 2.4.17: Total Credit Change\* (13-Week Average, Real, Standard Value)**

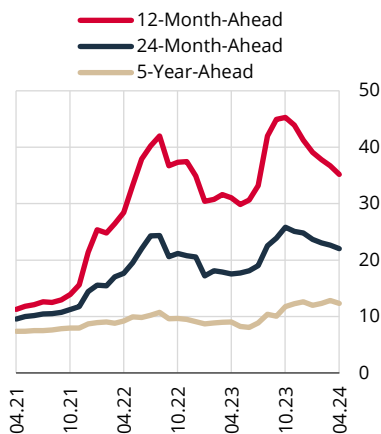


Source: CBRT.

\* Weekly credit changes adjusted for exchange rates are deflated by the CPI. The 13-week average is taken after weekly real changes are standardized. The mean and standard deviations of the series are calculated based on the 2006-2019 period.

**Inflation expectations continued to decline, albeit remaining above the projections in the previous Inflation Report.** The results of the Survey of Market Participants in April reveal that the 12-month-ahead inflation expectation decreased by 3.92 points over the previous reporting period to 35.17%, while the 24-month-ahead inflation expectation receded by 1.64 points to 22.05%. Meanwhile, the 5-year-ahead inflation expectation edged up by 0.31 points to 12.32% (Chart 2.4.18). Despite the favorable changes in expectations, inflation expectations for end-2024 stood at 44.16%, above the forecast presented in the previous Inflation Report. Data from the Business Tendency Survey and the Consumer Tendency Survey indicate that the real sector and consumers have higher and more rigid inflation expectations. While the distribution of responses to the Survey of Market Participants' 12-month-ahead CPI inflation expectation shifted to the left, indicators reflecting the dispersion of expectations, such as the coefficient of variation, decreased slightly (Chart 2.4.19). The diffusion index for consumer prices picked up again amid the minimum wage and administered price adjustments but remained almost flat in the following months (Chart 2.4.20). It is projected that the services sector will continue to spread the impact of shocks over time in the upcoming period, and hence the diffusion index for the sector will register high values. The diffusion index for the core goods sector, on the other hand, will start to decline.

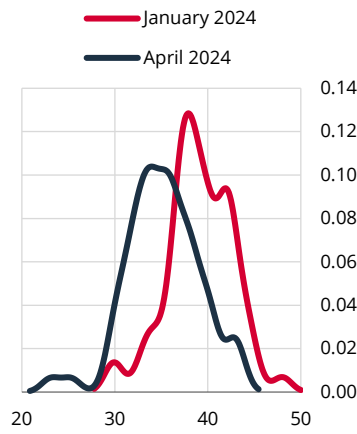
**Chart 2.4.18: Consumer Inflation Expectations\* (%)**



Source: CBRT.

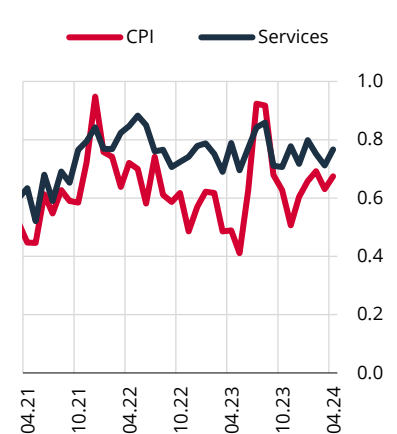
\* Results of the CBRT Survey of Market Participants that polls real and financial sector representatives as well as professionals.

**Chart 2.4.19: Distribution of Survey of Market Participants (12-Month-Ahead CPI Expectations)**



Source: CBRT.

**Chart 2.4.20: Diffusion Indices of CPI and Services Sector\* (Seasonally Adjusted, Monthly)**



Source: CBRT, TURKSTAT.

\* Calculated as the ratio of the difference between the number of items with increasing prices and the number of items with decreasing prices to the total number of items.

***Despite the revisions made at the beginning of the year, the impact of taxes and administered items waned in the first quarter due to natural gas-related developments.*** Administered items posted significant price increases in January. While certain taxes and charges were raised at the revaluation rate, fuel and bottled gas prices increased due to the hike in the lump sum SCT. As a result of the minimum wage adjustment and the rise in fuel prices, the fees of certain transportation services soared in January and February. Revisions to the tariffs of the Turkish Medical Association and the Turkish Dental Association led to sharp price increases in health care services, particularly in January. In education services, where fees are indexed to past inflation as required by regulations, prices rose significantly in February and March, mainly for preschool as well as primary and secondary education. Increases in municipal water tariffs were high in January but weakened significantly in the following months. In February, milk and dairy products recorded price hikes due to the increase in the raw milk reference price effective from the last week of January. To be applicable as of early May, the raw milk reference price was raised again, albeit to a lesser extent than in January. Prices of tobacco products, which had seen tax-induced increases in January, rose again in April, driven by producer firms. Taxes and administered prices pushed headline inflation upwards in the first four months of the year, while their overall effect weakened compared to the previous quarter due to natural gas. In fact, in the last quarter of 2023, the natural gas item drove headline inflation significantly upwards as the free-of-charge consumption limit was exceeded due to rising consumption. Prices in the index maintained their upward course in January, albeit at a slower pace, and remained almost flat in the two subsequent months. On the other hand, natural gas prices, which declined in April on the back of falling consumption, are projected to rise significantly in May due to the termination of free-of-charge consumption.

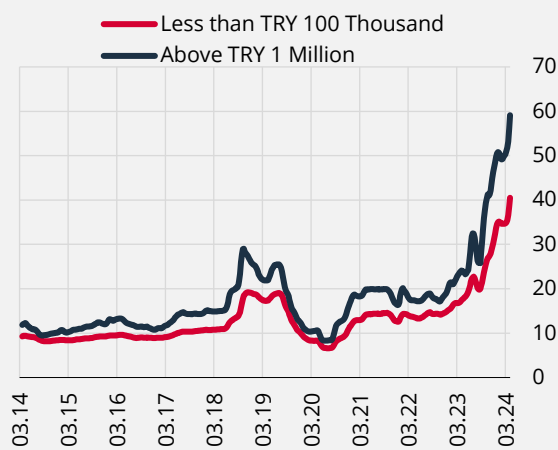
## Box 2.1

### The Difference Between High- and Low-Volume Deposit Rates and Its Reasons

The size of TL savings deposits is an important factor in determining the interest rate offered by banks. The analysis of deposits below TRY 100 thousand as low-volume deposits and deposits over TRY 1 million as high-volume deposits reveals that banks offered lower interest to low-volume deposits compared to high-volume deposits during the last decade (Chart 1). The bargaining power of the depositors is higher when the volume of their deposits is high since the bank will be more affected by the withdrawal of higher volume of deposits relative to lower amounts. In addition, because holders of large deposits are more likely to have higher financial literacy and to invest in alternative instruments compared to deposits, their elasticity of deposits is higher. On the other hand, although convincing more low-volume deposit holders to keep their savings in the bank may bring an operational burden, increasing the number of low-volume deposit holders is important for banks in terms of reducing their liquidity risk. For this reason, compared to the high-volume deposits group whose bargaining power is relatively higher, it is considered that, when necessary, banks may tend towards the low-money deposit group and offer them similar interest rates to that of the high-volume deposit group in order to increase liquidity and reduce possible volatility in liquidity despite its operational burden.

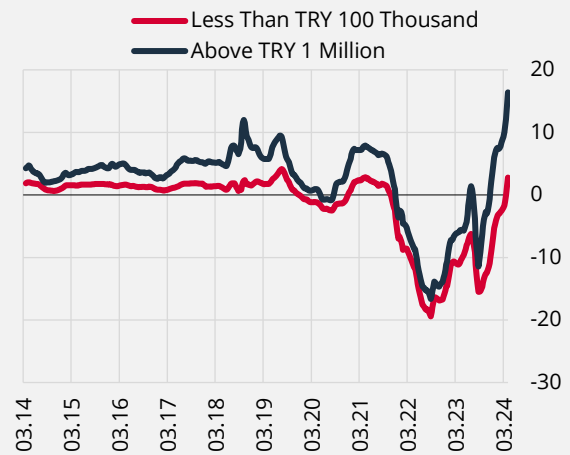
The difference between the nominal interest rates of high- and low-volume deposit holders changes over time (Chart 1). While the difference between high- and low-volume deposit rates was 3.7 percentage points between 2014 and 2022, this gap widened to 10.7 percentage points in the following period. The rise in inflation expectations after 2022 has an increasing impact on the difference between the nominal interest rates of these groups. While the difference between the interest rates of high- and low- volume deposits in real terms adjusted for 12 month-inflation expectations was 3.3 percentage points on average between 2014 and 2022, this difference increased to 7.8 percentage points between 2023 and 2024 (Chart 2).

**Chart 1: High- and Low-Volume Nominal Interest Rates of TL Savings Deposits (Four-Week Average, %)**



Source: CBRT.

**Chart 2: High- and Low-Volume Real Interest Rates of TL Savings Deposits (Four-Week Average, %)**

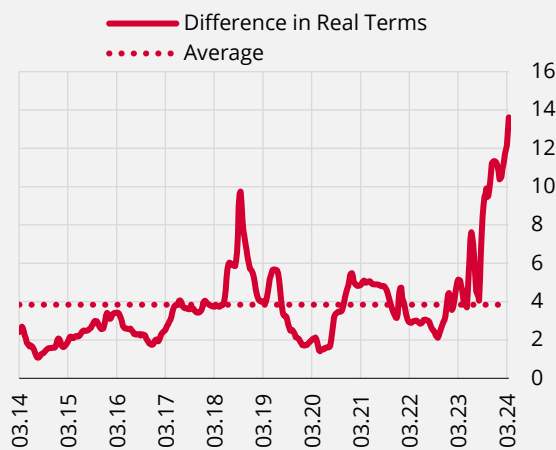


Source: CBRT.

It is noteworthy that the divergence between high- and low-volume deposit rates in real terms was above the long-term average for three time periods in the last decade (Chart 3). The first interval is between June 2018 and July 2019, when the 2018 exchange rate shock was experienced, inflation expectations increased and a tight monetary policy was implemented (Chart 4). The second is the time interval between November 2020 and October 2021, including the period between November 2020 and March 2021 during which monetary policy was gradually tightened and then

inflation expectations began to increase with policy interest rate cuts. The third interval covers January 2023 and onwards when monetary policy also tightened as in the other two periods. In addition, the difference between the deposit rates of the two groups in the last period is higher than during the other two periods. In sum, it is seen that the interest rate differences between high- and low-volume deposits increase in periods when monetary policy tightens and banks' funding costs increase. As it is known, banks' asset durations are higher than their liability durations which creates a maturity mismatch problem. In periods when interest rates increase, banks' profitability is negatively affected due to maturity mismatches. In addition, depositors' Turkish lira and FX preferences change in periods when exchange rate volatility increases and inflation expectations deteriorate. In these periods, banks may prefer to gain customers with high-volume deposits by offering them higher interest in order to mitigate the decrease in their profitability while maintaining their TL and FX liquidity positions. In October 2022, commission rates began to be collected on the required reserves held for FX deposits according to the banks' TL deposit share, while in January 2023, the security maintenance rate was differentiated according to the TL deposit share. Therefore, it is assessed that targets to increase the share of TL deposits<sup>1</sup> may have an impact on the increase in the difference between high- and low-volume deposit real interest rates during the period from October 2022 to June 2023 when monetary policy begin to tighten. It is evaluated that banks may have preferred to make use of high-volume deposits to reach their targets urgently during this period.

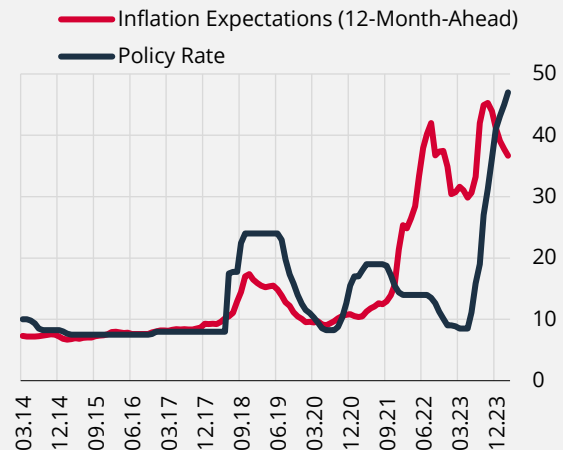
**Chart 3: High- and Low-Volume Real Interest Rate Difference for TL Savings Deposits\*** (Four-Week Average, % Points)



Source: CBRT.

\* 12-month ahead inflation expectations are used for the calculation of real interest rates.

**Chart 4: Inflation Expectations and Policy Rate (%)**

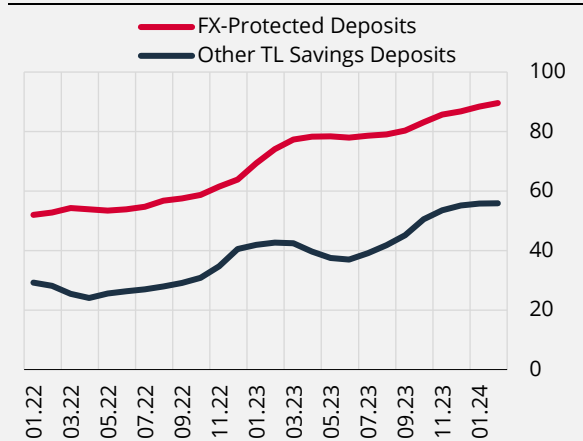


Source: CBRT.

It is seen that after 2023, the gap between high- and low-volume deposit interest rate increased considerably and reached 13.6 percentage points as of 5 April. It is assessed that the goal to transition away from FX-protected accounts to TL deposits, which was implemented in August 2023, was also effective in the increase in this period. The share of high-volume deposits in total deposits is higher in FX-protected accounts (Chart 5). In addition, with the effect of the target to transition to TL deposits, the interest paid by banks on other TL deposits is higher compared to the interest rates on exchange rate-protected accounts (Chart 6). In sum, it is considered that the difference between high- and low-volume deposit rates has widened as a result of the fact that banks offer much higher interest rates in order to convince the customers with high-volume deposits, whose share in the transition from exchange rate-protected accounts to TL accounts is relatively higher, under the influence of the transition targets to TL deposits.

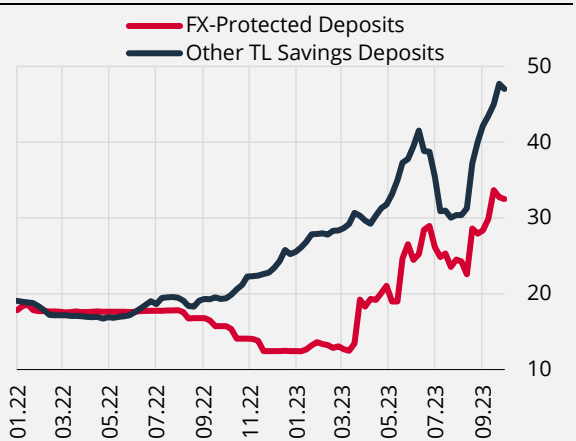
<sup>1</sup> In the TL share targets before August 2023, FX-protected deposits were accepted as TL deposits.

**Chart 5: Share of High-Volume TL Savings Deposits Over Total TL Savings Deposits (%)**



Source: CBRT.

**Chart 6: Interest Rate of FX-Protected Accounts and Other TL Savings Accounts\* (%)**

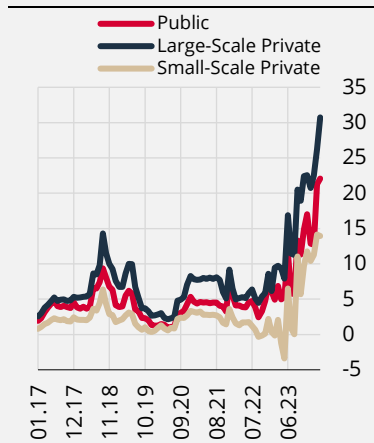


Source: CBRT.

\* Other TL deposits include both the interest rate for those who switch from FX-protected deposits to TL deposits and the interest rates of customers who continue to invest their savings in standard TL deposits.

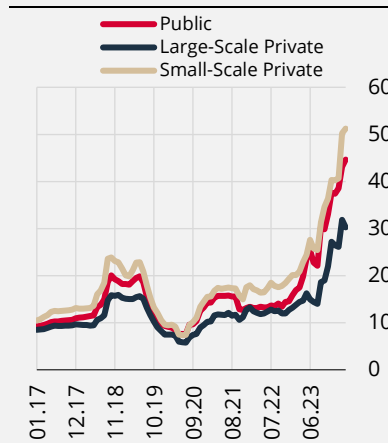
The divergence of interest rate paid by banks on high- and low-volume deposits may be closely related to the liquidity positions of banks, their sizes, ownership structure and business models. For this purpose, participation banks and development and investment banks were excluded from the analysis, and the data of 19 deposit banks, which constitute 84% of the asset size of the banking sector, were employed in the analysis. To examine the effect of banks' size and ownership structure, banks are grouped as public deposit banks, large-scale private deposit banks and small-scale private deposit banks. To analyze the effect of banks' liquidity positions on the divergence of deposit rates, two different variables were used: liquid asset ratio and TL market funding share. Liquid asset ratio is the ratio of cash values, free securities not subject to repo and collateral, foreign free deposits, receivables from money markets, receivables from domestic banks, reverse repo receivables and required reserves to assets. TL market funding share is the ratio of TL funding obtained through swap and open market transactions to its assets. Banks with liquidity ratios above the median value were grouped as banks with high liquid ratio, and the others were grouped as banks with low liquid ratio, and the divergence in deposit interest rates of these two groups was examined.

**Chart 7: High- and Low-Volume TL Savings Deposits Nominal Interest Rate Difference, by Banks' Groups (Four-Week Average, % Points)**



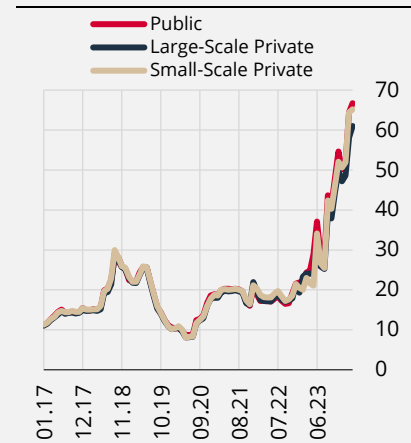
Source: CBRT.

**Chart 8: Low-Volume TL Savings Deposits Nominal Interest Rate Difference, by Banks' Groups (Four-Week Average, % Points)**



Source: CBRT.

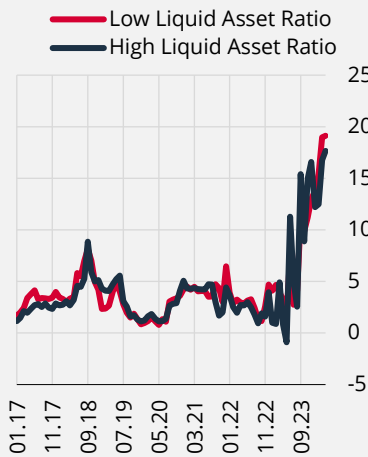
**Chart 9: High-Volume TL Savings Deposits Nominal Interest Rate Difference, by Banks' Groups (Four-Week Average, % Points)**



Source: CBRT.

It is considered that banks' ownership and size are also an important determinant in the difference between high- and low-volume deposit rates. In the entire period examined, the deposit rate difference in small-scale private deposit banks is lower compared to other bank groups, while the deposit rate difference in large-scale private banks is higher. However, it is seen that the dispersion in terms of banking segments resulted from the differences in interest rates applied to low-volume deposits rather than to high-volume deposits. Large-scale private banks offer lower deposit interest for deposits with low-volume compared to other banks, and this has an impact on the divergence (Chart 7 and Chart 9).

**Chart 10: High- and Low-Volume TL Savings Deposits Nominal Interest Rate Difference by Banks' Liquid Asset Ratio** (Four-Week Average, % Points)



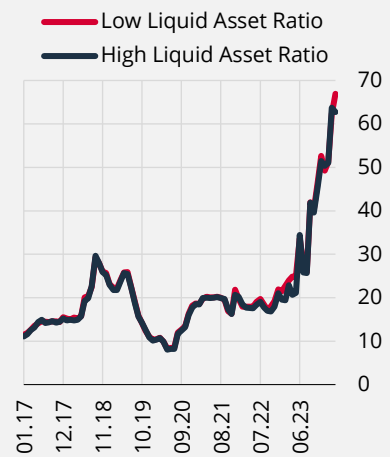
Source: CBRT.

**Chart 11: Low-Volume TL Savings Deposits Nominal Interest Rate Difference, by Banks' Liquid Asset Ratio** (Four-Week Average, % Points)



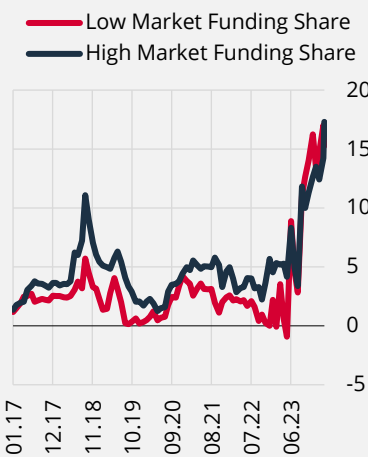
Source: CBRT.

**Chart 12: High-Volume TL Savings Deposits Nominal Interest Rate Difference by Banks' Liquid Asset Ratio** (Four-Week Average, % Points)



Source: CBRT.

**Chart 13: High- and Low-Volume TL Savings Deposits Nominal Interest Rate Difference by Banks' Market Funding Share** (Four-Week Average, % Points)



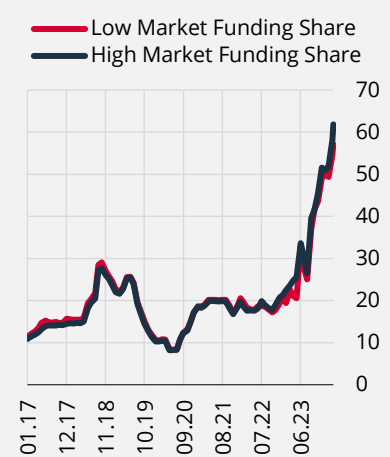
Source: CBRT.

**Chart 14: Low-Volume TL Savings Deposits Nominal Interest Rate Difference by Banks' Market Funding Share** (Four-Week Average, % Points)



Source: CBRT.

**Chart 15: High-Volume TL Savings Deposits Nominal Interest Rate Difference by Banks' Market Funding Share** (Four-Week Average, % Points)



Source: CBRT.

It is seen that there is no differentiation between high- and low-volume deposit rates of banks with low and high liquid asset ratios (Charts 10-12). On the other hand, the deposit rate difference of banks with a high TL market funding share is higher compared to that of banks with a low TL market funding share until June 2023. Similar to bank groups, this difference between high- and low-deposit rates is influenced by the divergence in low-volume deposit interest rates rather than the divergence in interest rates offered for high-volume deposits. It is seen that banks with a high share of TL market funding offered lower interest rates for low-volume deposits until June 2023 compared to other banks. The fact that these banks preferred to meet their liquidity needs through market funding during this period reduced their demand for TL deposits and caused them to pay lower interest on low-volume deposits. On the other hand, it is seen that this divergence disappears after June 2023. It is assessed that the increase in the balance of FX-protected deposits due to the depreciation in TL and the increase in TL liquidity in the market may be effective in this situation (Charts 13-15).

In sum, it is observed that the interest rate paid by banks to high- and low-volume deposit holders increases in periods when monetary policy tightens, inflation expectations deteriorate and exchange rate volatility increases. It is evaluated that the concentration of FX-protected deposits in the high-volume deposit group and the introduction of targets for switching from these accounts to TL deposits in August 2023 also contributed to the difference in deposit rates in the following period. In addition, it is seen that the ownership structure, size and TL market funding share of the banks are also effective in the interest rate difference according to the deposit volume. It is assessed that this deposit rate difference will decrease as the share of FX-protected deposits decreases and inflation expectations improve with the contribution of policies to reduce FX-protected deposits. Receiving similar interest rates on high-volume deposits increases low-volume depositors' preferences for savings rather than consumption, which will contribute positively to the inflation outlook.

## Box 2.2

### Findings from Interviews with Firms

The CBRT holds face-to-face meetings with firms as part of the “Economic Lens to the Real Sector” (ELRS).<sup>1</sup> This box summarizes the findings from the interviews conducted in the January-March 2024 period.

***It was observed that the positive outlook in economic activity conditions continued in the first quarter of the year.***

While domestic demand remains buoyant, mainly due to consumers' demand for durable products, the export outlook has been preserved with the support of sales to non-prime markets. As a result of these developments, aggregate demand conditions were considered to be relatively positive compared to the previous quarter. On the other hand, expectations of a slowdown in domestic demand starting from the second quarter were widely communicated during the initial quarter interviews, and the first observations obtained in April also indicated a loss of momentum.

While the weak course of the investment stance continued, it has been noted that companies with investment plans were focusing more on cost-cutting and efficiency-enhancing investments. In the last quarter, companies reflected their increasing costs, especially labor costs, significantly on their prices.

***The buoyance in domestic sales, which started in mid-January, continued throughout the quarter.***

It has been observed that, wage increases and campaigns stimulate consumer demand on the one hand, while demand is brought forward depending on expectations and the tendency to spend becomes stronger on the other. It has been widely emphasized that, especially with the beginning of the second quarter, expectations regarding exchange rate developments and the expansion of the scope of tight economic policies caused consumers to bring forward their demand. It has been observed that final consumer demand was especially strong in white goods and automobiles, while sales on the housing side were weak. In intercompany trade, although weakness was seen in some construction-related sectors in parallel with domestic demand developments, the weakness in the machinery sector became prominent.

It was stated that sales of food and fast-moving consumer goods were buoyant compared to the previous quarter, due to the effect of wage increases in January. Apparel sales remained vibrant with the support of campaigns, and sales were more positive in stores selling affordable products. It has been reported that demand for white goods products were strong, especially with the support of credit card installments limitation expectations. Furniture products behaved similarly to white goods, and the acceleration that started in February became more evident in March. It has also been noted that the sales of companies with an organized sales network and relatively affordable prices differed positively. It was reported that the automotive industry started the year with high sales figures, and this strong trend was maintained throughout the quarter. The demand for SCT-exempt vehicles, the support of fleet purchases postponed from previous years, and the ongoing campaigns, although decreasing, have been highlighted as the factors behind the dynamism in the sector. In the housing sector, it has been observed that high prices and credit conditions continued to suppress demand for residential purposes.

***It was observed that first-quarter exports followed a similar course to that of the previous quarter.***

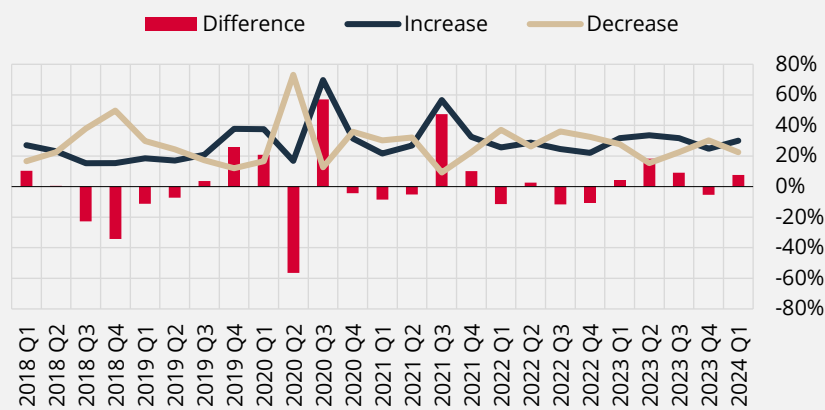
While the pressure on foreign demand conditions has started to ease compared to previous periods, it has been observed that the activities of exporting companies in accessing new markets and product development continue to create opportunities. On the other hand, geopolitical risks and high costs in TL terms continued to be highlighted as factors that pose a risk to the export outlook.

<sup>1</sup>The main purpose of this study is to obtain information on periodic production, domestic and international sales, investments, employment, credit conditions, and cost and price developments in a timely manner, to closely monitor economic activity, and to improve the communication between the CBRT and real sector representatives, through meetings with firms in different sectors. The findings obtained from the semi-structured interviews constitute a high-quality and timely source of information for monetary policy decisions. Interviews are held with firms in the manufacturing industry, and trade and services sectors within the framework of the sample created by considering their weight in the total economic activity at sectoral, regional and scale levels. The charts are produced by scoring the anecdotal information obtained from the firm interviews. This study includes evaluations and inferences based on interviews with firms and does not reflect the views of the Central Bank of the Republic of Türkiye. The information and findings obtained may differ from the official statistics, information and findings that will be published later.



The analysis on a sectoral basis reveals that cost pressures continued in the textile and apparel industry, but Türkiye's share in value-added product groups was preserved. In addition, it was reported that the demand shifting to Türkiye, especially in textiles, due to the developments in the Red Sea, supported the sales. The flat course in furniture sector exports was maintained on a quarterly basis. It has been stated that the motivation to access new export markets was strong in the sector, and hence, the American continent was seen as a potential market for exports. While the weakness in the demand conditions of European countries continued in the white goods sector, the increase in production costs has been emphasized as a risk factor in the sector's exports. It was stated that automobile exports, which were weak due to the shutdowns in the automotive industry in January, returned to their normal course in February. While the main industry was flat due to ongoing projects, a more positive trend has been observed in sub-industry companies with the commissioning of projects by global main producer companies. High energy costs, quotas and increasing Far East competition in basic metal industry exports continued to affect sales negatively. On the other hand, it has been reported that the supply problems, delays and freight increases arising from the problems in the Red Sea have supported steel exports recently.

**Chart 1: Demand Perception of Firms\*** (Compared to the Previous Quarter)



Source: CBRT ELRS.

\* Demand perception shows the evaluation made by considering the current sales, orders and expectations of the firms. The difference series shows the difference between firms with a positive perception of demand and those with a negative perception of demand compared to the previous quarter, and provides information on the prevalence of the change in demand perception, not the size of the change.

***Demand conditions in the first quarter of 2024 slightly supported production, which started to slow down in the second half of 2023.***

Sectors such as automotive, white goods, chemicals and food stood out among the sectors where domestic demand supported production in the first quarter. On the other hand, predictions of a weakening domestic demand have suppressed production since the second quarter of the year. In exporting companies, production maintained its course compared to the previous quarter.

Looking at sectoral developments, in the automotive main industry, strong sales in the domestic market in the first quarter of the year allowed the production plans for the year to be unchanged. On the export side, activity remained buoyant in line with production plans for strong foreign demand in both the main industry and the sub-industry. In white goods and consumer electronics, foreign demand remained flat on a quarterly basis, while production was buoyant in line with the strong course of domestic demand. In furniture, while foreign demand was similar to the previous quarter, production was slightly higher than that in the previous quarter due to vivid domestic market since February. In machinery and equipment, while companies on the export side benefited from the relatively positive demand conditions in markets outside the EU, the limiting effects of the slowdown in demand for investment goods in the domestic market were felt on production. In the chemicals industry, production increased on a quarterly basis amid buoyant domestic and foreign markets. In textiles and apparel, the weakness in production continued due to the lack of dynamism in foreign

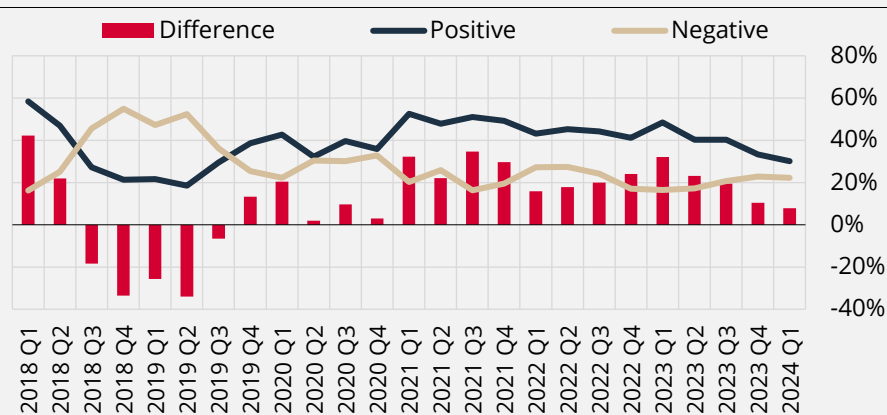
demand, except for orders that were reported to be due to developments in the Red Sea and were considered temporary. In the basic metals, despite the orders due to the developments in the Red Sea, production was similar to that in the previous quarter due to the weak course of the domestic market. It was seen that urban transformation projects in the domestic market and construction-infrastructure activities in the earthquake zone support production in the construction sub-industry.

***The weakening of companies' investment stance continued in the first quarter of the year.***

In this period, the increase in financing costs and uncertainties regarding domestic demand were highlighted among the reasons for companies that did not have investment plans. It has been observed that companies that are more cautious about starting new investments in the current period have largely continued the investments they had already started.

It appeared that the investment appetite of companies that diversified their products and gained new customers and markets were more positive. Increasing production and labor costs directed companies with strong resources to invest in machinery and equipment. In addition, energy investments continued to be prioritized with the motivation of reducing costs as well as making more sustainable and competitive production.

**Chart 2: Investment Stance of Firms\* (Next 12 Months, %)**



Source: CBRT ELRS.

\* Investment stance shows the evaluation made by considering the investment appetite of the firms for the next 12 months. The difference series shows the difference between the number of firms with a positive investment stance and firms with a negative investment stance, and provides information on the prevalence of the change in investment stance, not the size of the change.

On a sectoral basis, it has been observed that the investment stance is positively differentiated in the manufacturing industry sector, especially in the food, machinery-equipment and automotive sub-industry sectors. In the food manufacturing industry sector, investments to increase production capacity and introduce new products were at the forefront. It has been observed that the investment appetite in the automotive sub-industry sector was relatively strong with the support of demand conditions. Among the sectors where the weak demand outlook suppressed the investment stance; textile, apparel, and the construction sector stood out. It was reported that the negative investment stance in the textile sector was also due to the fact that the sector had been operating with idle capacity for a while. In the construction sector, high land prices, the weak course of housing demand and the tightening in financial conditions were cited as factors suppressing investment appetite.

***It was observed that employment plans were maintained in the first quarter of the year, led by exporting companies.***

Despite the weak course of investment, expansionary investments supported employment plans in companies whose demand was relatively strong. While companies' emphasis on high employee turnover continued, the motivation to retain trained personnel was effective in maintaining employment across sectors. In this period, cost increases, financial tightening, companies' efforts to increase automation and productivity in the production process have come to the fore as factors that suppress plans to increase employment.

***Companies' financing needs remained high in the first quarter of the year.***

Although the financing need, which mainly consists of working capital decreased slightly in January due to the impact of global commodity prices, it increased in the following months. In cases of high working capital needs, companies highlighted wage increases, raw material and exchange rate-related costs, and increased business volume as driving factors. Regarding investment financing, emphasis was placed on the need for financing, especially from investments that started in the past.

While the tightening in loan conditions due to interest rates continued throughout the quarter, an extension was observed in loan maturities for working capital. It was reported that banks' appetite for lending remained high in the first two months of the quarter but started to decrease after the additional tightening steps in March, and this situation was also reflected in limit allocations in the relevant month.

High TL loan costs continued to suppress companies' loan demands. However, expectations that access to credit would become difficult after the second quarter played a role in increasing loan demand. The demand for rediscount loans continued as they were more cost-effective, and exporting companies underlined the importance of these loans.

Although it was stated that the conditions in intercompany trade were largely similar to the previous quarter, the emphasis on tighter conditions increased in March. Maturity mismatches and cash discount rate rises parallel to the interest rates caused cash purchases to become widespread in intercompany trade. On the other hand, it has been stated that some companies were trying to extend their payment terms in order to retain cash. Despite the tightening in maturities and delays in receivables, it was reported that there were no significant problems in receivables collection throughout the quarter. However, the increase in financing costs and expectations of weakening in demand as well as the widespread use of checks have led to increased concerns about collections across sectors.

***While the cost pressure on companies increased in the first quarter of the year, there was a limited decline in the ratio of companies planning price increases.***

Wage increases came to the fore as the main reason for cost increases, followed by input costs excluding the exchange rate effect and exchange rate-related costs. It has been observed that input costs were cited more heavily due to reflection of labor costs on raw material prices, as well as supply delays and increased freight costs due to developments in the Red Sea. In addition, it has been reported that there was an increase in the costs of sectors with high exchange rate sensitivity that use direct and indirect imported inputs due to exchange rate developments.

Although it was stated that the companies reflected their increasing costs, especially labor, on the prices within the quarter, the decline in the price increase plans was observed to be limited. It was understood that expectations as well as the part of the costs that could not be reflected played a role in keeping the decline in price increase plans limited.

## Box 2.3

### Services Production Index: Relation to Supply and Demand

TURKSTAT started to publish the Services Production Index (SPI) in March 2024 as part of the efforts to reflect the recent changes in the EU Business Statistics legislation to Short-Term Business Statistics. The new index is calculated with an average of 100 in 2021 and published at a monthly frequency starting from 2017. The SPI covers the following service sectors:

- H - Transportation and storage
- I - Accommodation and food service activities
- J - Information and communication
- L - Real estate activities
- M - Professional, scientific and technical activities
- N - Administrative and support service activities

Since the SPI aims to provide information on the volume of output produced in the services sector in a given period, it is adjusted for price effects. In the price-adjustment (realization) process, turnover values at the quadruple activity level according to the NACE Rev. 2 classification and appropriate deflators mostly obtained from the services PPI are used.<sup>1</sup> The SPI is calculated according to the chain index method, and the higher level indices of the NACE Rev. 2 classification are aggregated by using the GDP value added weights of the relevant sectors.

Given that most of the services are by nature non-stockable, the SPI is assessed to provide timely and valuable information on both the demand and supply of services. The share of services value added in national income averages around 57% over the 1998-2023 period, while services expenditures account for about half of final household consumption (45.9% on average over the 2009-2023 period). Considering that national income statistics are released with a two-month lag from the reference period, this new index will be useful in tracking production and demand conditions in a timely manner by providing insights on the production and consumption of services. These insights may constitute an input to the information set considered in the monetary policy decision-making processes. A better understanding of the link between this statistic and the supply and demand for services will help to interpret and use the SPI in a more reliable manner. To that end, this box analyzes the relationship between the SPI and the supply and demand for services.

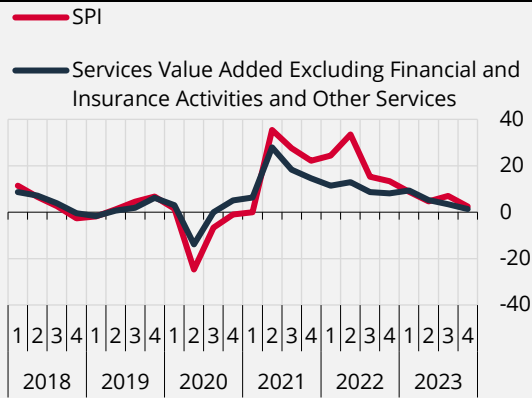
#### SPI and Services Production

The SPI includes all GDP services sub-items except financial and insurance activities and other services. Therefore, it would be more accurate to include the matching services items under GDP by production approach in the analysis when looking at the leading power of the SPI for services production. As a result, services value added in real terms excluding financial and insurance activities and other services items is preferred for the comparison with SPI. An analysis of the annual and quarterly changes in the SPI and the real value added of related services reveals that the series are largely consistent with each other (Charts 1 and 2). The coefficient of correlation between the two series is calculated as 0.93 for annual changes and 0.95 for quarterly changes.

The high correlation between the two series suggests that the SPI may be a good leading indicator for the real services value added. On the other hand, from a supply-side perspective, although the index is consistent with selected services value added items, there are some divergences. It is possible that a significant part of these divergences stems from the fact that the SPI is compiled from turnover and therefore does not fully capture value added.

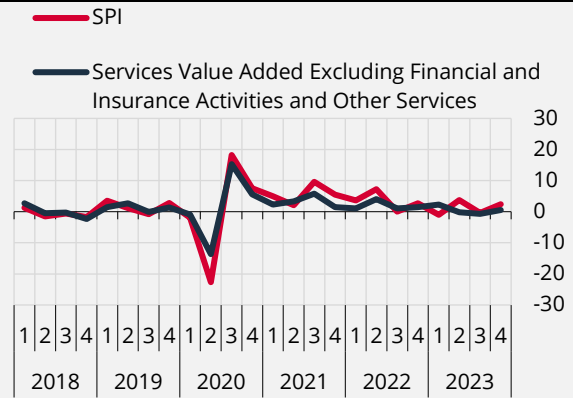
<sup>1</sup> 94.1% of the deflator is the Services Producer Price Index and 5.9% is other price indices (CPI, D-PPI, Non-Domestic PPPI, Agricultural Products PPI, Construction Cost Index).

**Chart 1: SPI and Real Value Added of Services Excluding Financial and Insurance Activities and Other Services (Annual Change, %)**



Source: CBRT, TURKSTAT.

**Chart 2: SPI and Real Value Added of Services Excluding Financial and Insurance Activities and Other Services (Seasonally and Calendar Adjusted, Quarterly Change, %)**



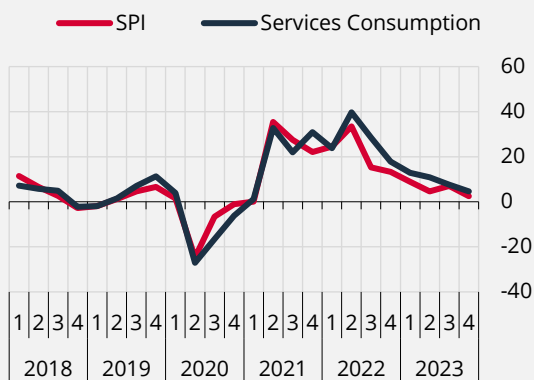
Source: CBRT, TURKSTAT.

**Services Production Index and Services Consumption**

Given that the SPI is calculated on the basis of turnover indicating total sales and that services cannot be stocked due to their nature, it is also considered as an indirect demand indicator in addition to production. Indeed, the coefficient of correlation between annual changes in real services consumption and the SPI is around 0.95, while the coefficient of correlation between quarterly changes is 0.92.

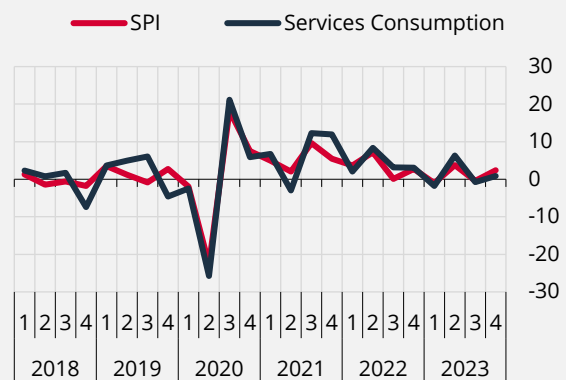
A comparison of annual and quarterly changes in services consumption, which is a component of final consumption expenditures of households, and SPI reveals that the two series closely track one another, although there are periodic divergences (Charts 3 and 4). As mentioned above, these divergences may be attributed to the aggregation of subcategories with value-added weights and the price adjustment largely based on producer prices. Moreover, the inability to decompose the financial and insurance activities and other services items in the private consumption of services also plays a role in this periodic divergence.

**Chart 3: SPI and Services Consumption (Annual Change, %)**



Source: CBRT, TURKSTAT.

**Chart 4: SPI and Services Consumption (Seasonally and Calendar Adjusted, Quarterly Change, %)**



Source: CBRT, TURKSTAT.

To summarize, the SPI published by TURKSTAT can be used as both a production/supply and a consumption/demand indicator due to the way it is calculated, its content and the fact that services are mostly non-stockable. In fact, despite periodic divergences, the annual and quarterly changes of the SPI are very similar to those of both services value added and services consumption. Hence, the SPI is considered to be an important leading indicator that will contribute to a more timely monitoring of supply and demand conditions for services in the monetary policy decision-making process.

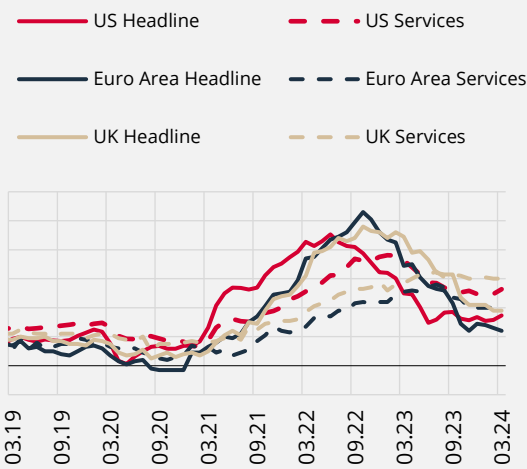
## Box 2.4

### Services Inflation Outlook

Goods and services groups, the two main components of core inflation, exhibit structural differences. Productivity, openness to foreign competition, sensitivity to credit and labor intensity are the main axes of these structural differences. On the other hand, the difference between the price-setting behavior of the sectors is also of great importance. Backward indexation is more widespread in the services sector, particularly in the rent subgroup. While time-dependent price setting is more prevalent in the services sector, some regulations reinforce this tendency. Prices are set once or twice a year for items such as education and health services and with the effect of regulations, especially in education services, prices are increased depending on past inflation. Setting wages with actual inflation to maintain the purchasing power of employees in periods when inflation is high is another factor that amplifies the importance of past inflation in services sector, which has higher labor intensity. Finally, administered price adjustments are also largely based on inflation realizations.

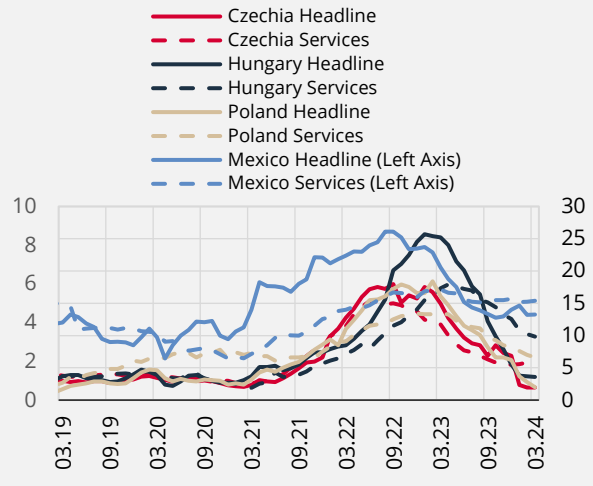
The effect of the price-setting behavior, which is dominant in the services sector, becomes more pronounced during disinflation periods, and sector dynamics stand out as the main factor slowing disinflation.<sup>1</sup> This is not unique to Türkiye, and it is observed in both advanced and emerging economies (Charts 1 and 2). The inertia in services sector inflation in recent months has hampered the disinflation process in some countries, particularly in the US, and led to a postponement of policy rate cut expectations.

**Chart 1: Headline and Services Inflation Rates in Selected Advanced Economies**  
(Annual, %)



Source: OECD.

**Chart 2: Headline and Services Inflation Rates in Selected Emerging Economies**  
(Annual, %)

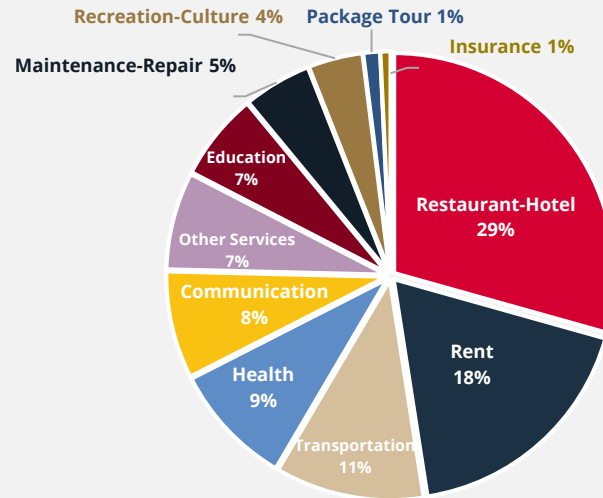


Source: OECD.

#### A Closer Look at Recent Developments

Not only does the services group have particular features that differentiate it from the other groups making up the consumer basket, but it also exhibits heterogeneity within itself. The first source of this heterogeneity is the weight structure. Within the services sector, certain subgroups have high weights. The restaurant-hotel subgroup, with a significant share of the catering services item, accounts for about one-third of the sector. The restaurants-hotels subgroup is followed by rent with 18% weight and transportation services with 11% weight. These three subgroups constitute more than half (58.5%) of the services sector (Chart 3).

<sup>1</sup> Amatyakul et al. (2024) argue that the relative price structure deteriorated with the increase in goods prices during the COVID pandemic, while services prices may be trying to catch up with the pre-pandemic relative price trend, implying that services inflation may therefore remain strong for a while.

**Chart 3: Weights of Service Sector Subgroups in 2024 (%)**

Source: TURKSTAT.

The second source of heterogeneity within the services sector is related to price-setting dynamics. While time-dependent price setting behavior is more prevalent in some subgroups, subgroups differ in terms of labor intensity, input use, indexation to past inflation and sensitivity to the exchange rate. When there is a sudden and significant rise in the price of an input that is key for a certain subgroup, the frequency with which firms review and change their prices may also increase. Restaurants-hotels and maintenance-repair stand out as the items that are most rapidly affected by wage developments, while food prices in restaurants-hotels and exchange rate developments in maintenance-repair play an important role. Although indexation to past inflation is common in rents, housing prices, minimum wage and inflation expectations also have an impact.<sup>2</sup> In education services, prices are set at a certain period of the year according to past inflation as required by regulations. In addition to fuel prices, wage developments may also play a role in transportation services prices. The fact that past inflation affects the services sector's price-setting behavior leads to inertia both directly and indirectly through wages. While this inertia restrains general price increases during periods of rising inflation, it has the opposite effect during disinflation periods and weakens the effectiveness of monetary policy.

As of April, while core goods inflation was 57.1%, services inflation stood at 97.0%, a difference of almost 40 percentage points. When subgroup developments are examined, traces of the heterogeneous structure within the sector can be observed. Rent (124.5%) and transportation services (100.8%) push the sector inflation upwards. While annual inflation in restaurants-hotels (95.8%) and other services (90.5%) is slightly below the services group inflation, annual inflation in communication services (66.3%) is well below the services group inflation. Within the other services subgroup, education services (103.9%), which is dominated by the private sector, come to the fore with high annual inflation.

In order to analyze the recent inflation dynamics of the service sector, the equation presented in Table 1 has been estimated. As explanatory variables, the lagged value of services inflation (inertia), basket exchange rate, output gap, food prices excluding fresh fruit and vegetables, fuel prices and net minimum wage as a proxy variable for wages were selected. Basket exchange rate, food prices excluding fresh fruits and vegetables, fuel prices and minimum wage variables were introduced into the model in quarterly percentage changes. In the first quarter of the year, to take into account the developments regarding services items with time-dependent price setting and high tendency for backward indexation as well as automatic tax adjustments and increases in administered prices, the "indexation" dummy variable was created corresponding to the annual consumer inflation values at

<sup>2</sup> Özmen and Yüksel Yücel (2017).

the end of each year (this variable is zero in the first, second and third quarters, corresponds to the year-end annual consumer inflation in the last quarters). The model has been estimated with ordinary least squares method at quarterly frequency for the period 2005Q4-2024Q1. Service sector prices are used after adjusting for VAT effects. The model also includes seasonal dummy variables and dummy variables for the third and fourth quarters of 2023.

Estimation results show that indexation behavior and minimum wage as well as inertia<sup>3</sup> are important determinants of services inflation (Table 1). Approximately 40% of past services inflation is carried forward to the next quarter. The coefficient estimate of the dummy variable, intended to capture the effect of indexation to headline inflation, indicates that approximately one-fifth of the annual headline inflation in the previous year was transferred to services inflation in the first quarter. On the other hand, model results confirm that services are also highly sensitive to wage arising from the labor-intensive structure of the sector. Considering the wage developments along with inertia and indexation behavior, a large part of the services group inflation in the first quarter of the year can be explained. Accordingly, the services sector is characterized by widespread inflation inertia due to the interaction of wages with actual inflation and strong backward-indexation mechanisms. In addition, food prices may affect catering services, and fuel prices may affect transportation services prices through the cost channel. Maintenance and repair services have a strong connection with exchange rate developments. Finally, services inflation is also affected by aggregate demand conditions, particularly domestic demand conditions.

**Table 1: Service Sector Price Dynamics**

**Dependent Variable: Quarterly Percentage Change of Consumer Services Prices** (Adjusted for VAT) (2005Q4 - 2024Q1)

	Constant Term	Services Prices	Indexation to Headline Inflation	Net Minimum Wage <sup>a</sup>	Food Prices Excluding Fresh Fruits and Vegetables	Output Gap	Basket	Fuel	Dummy 2023Q3	Dummy 2023Q4	R <sup>2</sup>
<b>Coefficient Estimation</b>		(t-1)	(t-1)		(t)	(t)	(t)	(t)			
	-0.3	<b>0.42***</b>	<b>0.21***</b>	<b>0.11***</b>	0.14***	0.05***	0.03***	0.02***	13.06***	-5.08***	0.98

\*\*\* corresponds to 1% significance levels.

a: average of lags between t and t-2.

In order to understand the change in the price dynamics of the service sector during the high inflation period, the model parameters were re-estimated recursively<sup>4</sup> (Charts 4-9).<sup>5</sup> The services inflation inertia, after remaining relatively flat from 2019 through 2021, increased in 2022Q1 and showed an upward trend afterwards (Chart 4).<sup>6</sup> There was a gradual increase in the headline inflation indexation coefficient. The indexation coefficient, which was not statistically significant at the beginning of the sample and displayed limited increases until the end of 2021, went up in line with the strengthening in annual headline inflation (Chart 5). These two factors cause the effects of demand and cost shocks to spread over a longer period of time in the service sector. In recent years, past inflation has played a greater role in wage adjustments and the minimum wage has been revised twice a year, bringing about an increase in the coefficient of the net minimum wage (Chart 6). While the cost-side effect of wage hikes is reflected to prices relatively more rapidly, the demand-side effect extends over time and harbors more uncertainties than cost-side effects. The output gap coefficient, which declined in line

<sup>3</sup> See CBRT (2023).

<sup>4</sup> In addition to recursive estimation, the rolling windows method was also tried for the change of the parameters over time, and the model coefficients were estimated using 48-quarter rolling windows. These estimates generally gave similar results to those of recursive estimations. The coefficients attained from the rolling window method revealed slightly higher estimates for basket exchange rate and food excluding fresh fruit and vegetables, and slightly lower estimates for minimum wage, output gap and fuel, compared to recursive estimates.

<sup>5</sup> Long-term values of time-varying coefficients are reported in the charts. For this purpose, inertia was taken into account, and the coefficient estimates were calculated by dividing by (1-inertia).

<sup>6</sup> Note that the indexing variable in the model reduces the inertia coefficient.



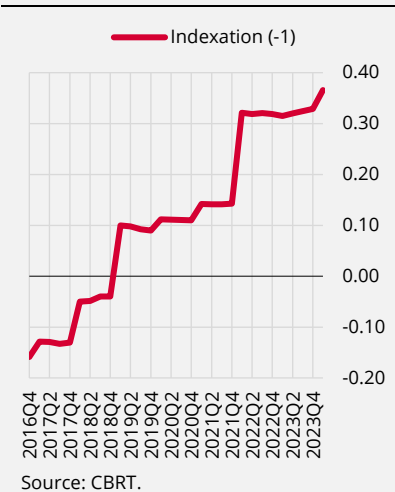
with the weakening in the demand for services during the COVID period, has been on a recovery trend with the exit from the pandemic (Chart 7). Although there are some items in the service sector whose prices are sensitive to exchange rates, such as transportation, maintenance and repair services and package tour, exchange rate pass-through is limited since the use of imported inputs is relatively low in the services sector (Chart 8).<sup>7</sup> However, the exchange rate effect tends to increase over time. The coefficient of food prices increased over time, reflecting the relative uptrend of food prices, and continued to make a high contribution by becoming flat after 2022 (Chart 9).

**Table 2: Recursive Model Coefficient Estimates (Long Term)**

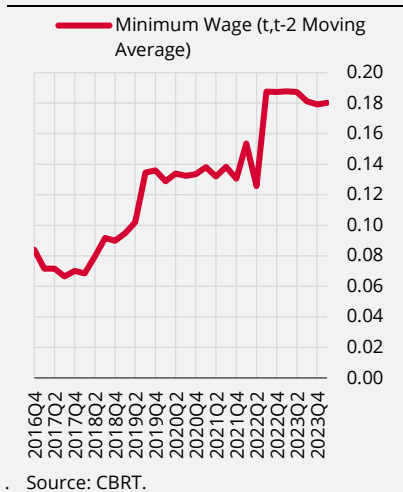
**Chart 4: Coefficient of Services Prices Inertia**



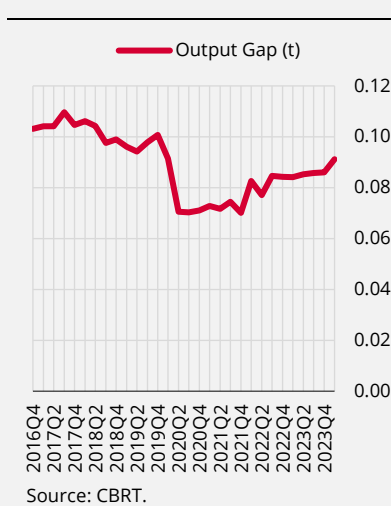
**Chart 5: Coefficient of Headline Inflation Indexation**



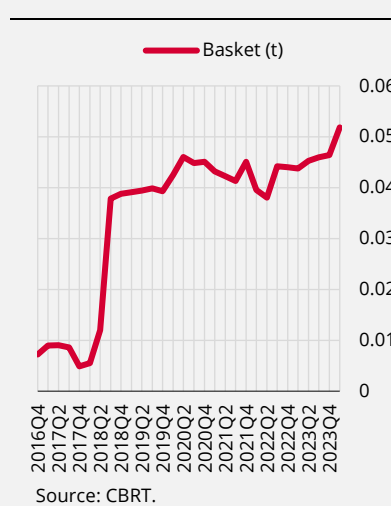
**Chart 6: Coefficient of Net Minimum Wage**



**Chart 7: Coefficient of Output Gap**



**Chart 8: Coefficient of Basket**



**Chart 9: Coefficient of Food Excluding Fresh Fruits and Vegetables**



In sum, while the quarterly inflation in the services group is approximately 23.5% in the first three months of 2024, the effect due to inertia and indexation to headline inflation is estimated as 18.2 percentage points. Therefore, a significant part of the quarterly services inflation in the first quarter of 2024 can be explained by the backward-indexation effect. When the wage effect is considered in addition to these two factors, the impact of past inflation becomes even greater. In this respect, the increase in the share given to inflation expectations in price-setting behavior, and the convergence of

<sup>7</sup> Since the model includes variables affected by the exchange rate, such as fuel, food and headline inflation, some of the exchange rate effect is already included in the model through these variables. In this regard, caution is warranted when interpreting the exchange rate coefficient as an absolute magnitude.

these expectations to inflation targets is of great importance. To this end, the coordination between monetary and economic policies will continue to strengthen.

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## 3. Medium-Term Projections

### 3.1 Current State, Short-Term Outlook and Assumptions

#### Changes in Key Forecast Variables

***In the last quarter of 2023, economic activity followed a stronger course than projected in the Inflation Report and demonstrated a resilience in domestic demand.*** On a quarterly basis, the contribution of private consumption to growth gained pace, while the positive contribution of net exports to growth declined in the last quarter. Domestic demand remained robust on the back of wage developments, firms' promotions and brought-forward demand in the first quarter of 2024. The change in the calculation of the retail sales volume index (Zoom-in 2.2) also pointed to an acceleration in retail sales in the first quarter, contrary to implied by the old index. Accordingly, output gap forecasts for the fourth quarter of 2023 and the first quarter of 2024 were revised upwards (Table 3.1.1).

***Consumer inflation was 69.8% in April 2024, hovering above the forecast range presented in the first Inflation Report of the year.*** Due to the robust course of domestic demand, sticky services inflation, soaring energy prices and developments in food prices, inflation followed a higher course than projected (Table 3.1.1). In the first quarter, services inflation recorded an upsurge due to time-dependent price setting and items with high tendency for backward indexation, and B inflation increased quarter-on-quarter. The rise in energy prices was fueled by rising global crude oil prices amid geopolitical developments as well as the cutback in production. Meanwhile, food prices maintained the uptrend, led by red meat. In April, annual inflation receded in food prices but increased in other groups. A quarter-on-quarter decline was seen in 12- and 24-month-ahead inflation expectations, yet the end-2024 inflation expectation exceeded the previous Inflation Report forecast. After a notable fall in the last quarter of 2023, the underlying trend of inflation was higher than projected in this period, led by services inflation.

**Table 3.1.1: Changes in Key Forecast Variables\***

	2023-IV	2024-I
Output Gap	2.3	2.8
(%)	(1.6)	(0.9)
Consumer Inflation**	64.9	69.8
(Annual % Change)	(64.9)	(66.0)
B-Index Inflation **	67.7	72.7
(Quarter-End, Annual % Change)	(67.7)	(68.8)

\* Figures in parentheses are from the previous Inflation Report.

\*\* Denotes inflation in January for 2023-IV and April for 2024-I.

#### Assumptions for Exogenous Variables

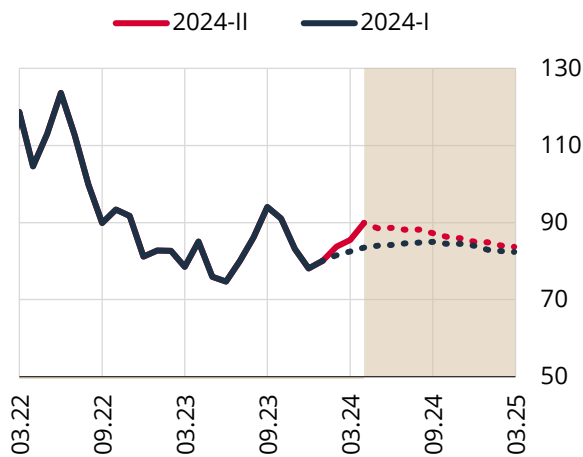
***Assumption for the global growth outlook were slightly revised upwards compared to the projections of the previous Inflation Report.*** Leading indicators for global growth point to a partial improvement in the growth outlook for 2024 compared to the previous reporting period, driven mostly by services. Among Türkiye's main trading partners, a mild growth outlook was maintained in the euro area, while growth forecasts for the US and Russia were revised upwards. Against this background, the assumption for the export-weighted global growth index, based on Türkiye's foreign trade partners, was revised slightly upwards to 2.1% for 2024 and was kept intact at 2.3% for 2025.

***Assumptions are based on tighter global financial conditions compared to the previous reporting period amid stronger expectations for a more cautious stance of major central banks in rate cuts coupled with aggravated geopolitical risks.*** The tightness in global labor markets and the resulting wage pressures lead to stickiness in services inflation in particular, while geopolitical developments have an adverse impact on the disinflation process in global economies through energy prices and supply conditions. While the strong economic activity in the US supports this, the UK and the euro area have seen a more favorable course in recent inflation realizations. Against this backdrop, major central banks are expected to adopt a more

cautious stance in rate cuts. Monetary policies of emerging economies are heterogenous, and rate cut processes accelerated in countries with inflation rates moving towards the target. When all these developments are evaluated together, it is likely that interest rate cuts will spread across advanced and emerging economies in the upcoming period in line with the decline in inflation. However, given the current levels of global inflation, rigidities and risks, rate cuts are expected to be more cautious than those in the previous reporting period and will be sustained in a way that will maintain monetary tightness.

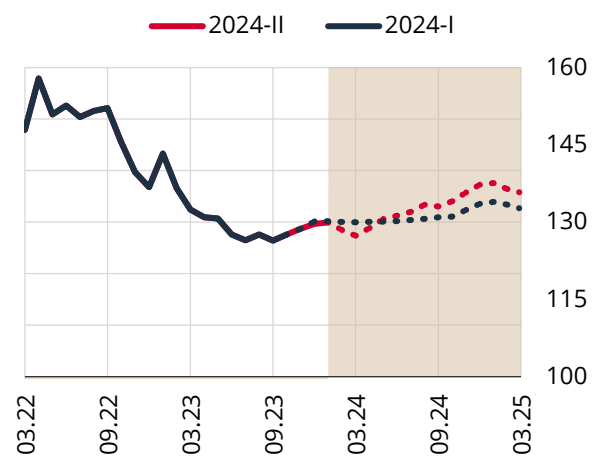
**Global growth and composition, geopolitical tension and supply-side factors continued to shape commodity prices.** Geopolitical turmoil in the Red Sea and the Middle East as well as production cutback by OPEC+ member countries keep supply-side risks in oil prices brisk and sustain upward pressures. The current global growth outlook, inventory levels and financial conditions cause oil prices to fluctuate. Accordingly, oil price assumptions for 2024 and 2025 have been revised upwards, and oil prices are assumed to be USD 86.4 and USD 82.3 on average, respectively (Chart 3.1.1). On the back of the improved growth outlook in China, industrial commodity prices posted notable increases compared to the previous reporting period. Agricultural commodity prices, on the other hand, did not exhibit a homogenous outlook, yet the headline index increased compared to the previous reporting period. Thus, import price assumptions were revised significantly upwards compared to the previous reporting period, for precious and industrial metals in particular. Import prices are projected to increase by 0.8% and 2.6% in 2024 and 2025, respectively (Chart 3.1.2).

**Chart 3.1.1: Revisions in Oil Price Assumptions\*** (USD/bbl)



Source: Bloomberg, CBRT.  
\* Shaded area denotes the forecast period.

**Chart 3.1.2: Revisions in Import Price Assumptions\*** (Index, 2015=100)



Source: CBRT, TURKSTAT.  
\* Shaded area denotes the forecast period.

**The assumption for food prices was slightly revised upwards for 2024.** Annual food inflation ended the first quarter of 2024 at 70.4%, exceeding the assumptions of the previous Report. In April, annual food price inflation fell to 68.5%. Given the recent outlook, the assumption for food price inflation was raised by 0.9 percentage points for 2024 and maintained at 15.0% for 2025 (Table 3.1.2).

**Table 3.1.2: Revisions in Assumptions\***

	2024	2025
Export-Weighted Global Production Index (Annual Average % Change)	2.1 (2.0)	2.3 (2.3)
Oil Prices (Average, USD)	86.4 (83.6)	82.3 (81.2)
Import Prices (USD, Annual Average % Change))	0.8 (-0.1)	2.6 (0.7)
Food Prices (Year-End % Change)	35.5 (34.6)	15.0 (15.0)

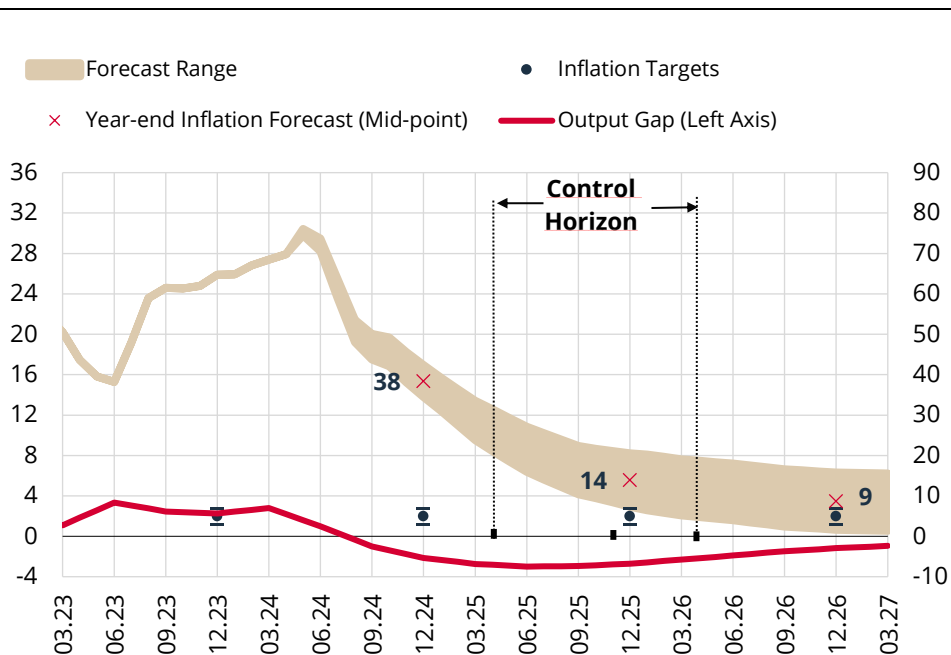
\* Figures in parentheses are from the previous Inflation Report.

**Forecasts are based on an outlook in which macroeconomic policies are determined in a coordinated manner by adopting a medium-term perspective and focusing on disinflation.** In this context, it is assumed that fiscal policy within the framework of the Medium-Term Program will continue to be formed so as to contribute to the rebalancing process in the economy and that administered prices, borrowing, tax and income policies and wage adjustments will be largely determined to support the disinflation process. The outlook underlying our forecasts also implies that earthquake-related expenditures will be balanced and spread over a long period of time so as not to adversely affect budgetary discipline and macro financial stability.

### 3.2 Medium-Term Outlook

**Year-end inflation forecasts were revised as 38% for 2024, while those for 2025 and 2026 were kept intact at 14% and 9%, respectively.** With 70% probability, inflation is projected to be between 34% and 42% (with a mid-point of 38%) at end-2024, between 7% and 21% (with a mid-point of 14%) at end-2025, and to fall to single-digit levels at 9%, before stabilizing at the 5% target in the medium term (Chart 3.2.1). Medium-term projections are based on an outlook in which the tight monetary policy stance will be maintained until the inflation outlook improves significantly, and the coordination among economic policies will be preserved.

**Chart 3.2.1: Inflation Forecasts\* (%)**



Source: CBRT, TURKSTAT.

\* Shaded area denotes the 70% confidence interval for the forecast.

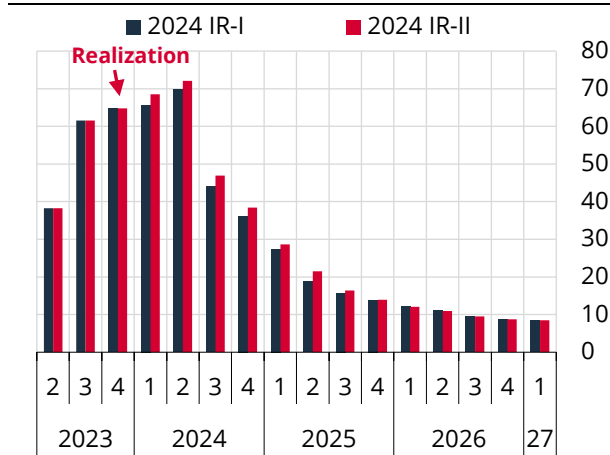
**The revision in the forecast path was driven by the impact of the upward revision in the output gap on initial conditions given the strong demand outlook coupled with inflation realizations that remained above the forecast range of the previous Inflation Report.** Assumptions for oil prices and import prices were revised upwards, while geopolitical developments have weighed on the uncertainty over commodity prices. Table 3.2.1 shows the sources of the upward revision in the inflation forecast for 2024.

**Table 3.2.1: Revisions in Year-End Inflation Forecasts for 2024 and Sources of Revisions**

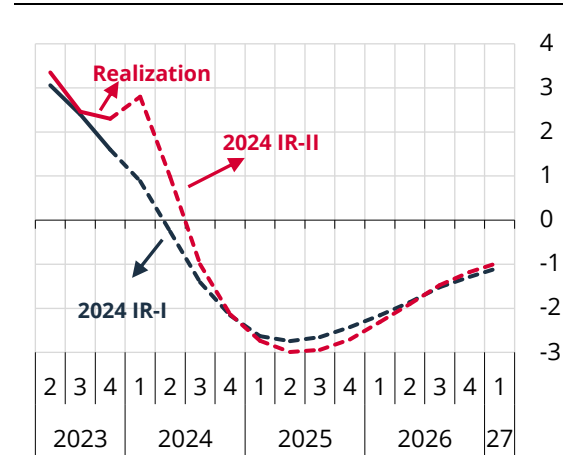
	<b>2024</b>
Inflation Report 2024-I Forecast (%)	36
Inflation Report 2024-II Forecast (%)	38
<b>Forecast Revision Compared to Inflation Report 2024-I</b>	<b>2.0</b>
<b>Sources of Forecast Revision (% Points)</b>	
Underlying Inflation	+1.8
Turkish Lira Import Prices	-0.2
Output Gap	+0.4
Food Prices	+0.2
Administered Prices	-0.2

Source: CBRT.

**The end-2024 inflation forecast was revised upwards to 38%** (Chart 3.2.2). Revised initial conditions were primarily accountable for the revision of forecasts for 2024. The temporary deterioration in exchange rate expectations in February and March affected inflation through the exchange rate, demand and expectations channels, causing the estimated slowdown in the underlying trend of inflation after January to remain limited. Demand conditions were stronger in the first quarter and are expected to converge to the projections laid down in the previous reporting period as of the last quarter of the year (Chart 3.2.3). The rebalancing process in domestic demand is projected to continue on the back of the coordination between tight monetary and fiscal policies. Accordingly, the revision in the output gap forecast pushed the 2024 inflation forecast up by 0.4 points. In addition, the revision in TL-denominated import prices pushed the forecast down by 0.2 points. The rise in food inflation, on the other hand, pushed the forecasts up by 0.2 points. In 2024, it is considered that the final impact of the factors such as automatic tax revisions on alcohol-tobacco and energy prices on year-end inflation will be downside. Thus, the assumption for a more limited increase in administered prices compared to the previous reporting period led year-end inflation forecasts to be revised downwards by 0.2 points (Table 3.2.1). Recently, the underlying trend of inflation has realized above our projections. As the tight monetary policy stance and policy coordination will offset this deterioration in initial conditions, the effect of the underlying trend on year-end inflation is expected to be limited to 1.8 points.

**Chart 3.2.2: Inflation Forecast (Quarter-End, Annual, %)**

Source: CBRT, TURKSTAT.

**Chart 3.2.3: Output Gap Forecast (%)**

Source: CBRT.

**Forecasts are based on an outlook involving tighter than projected global financial conditions in the previous reporting period and a global growth outlook that is largely consistent with past projections.**

Underlining sticky services inflation and tight labor markets, major central banks have given forward guidance stating that they will be more cautious in rate cut cycles contrary to their market pricings in the first months of the year. Global financial markets will experience higher data sensitivity and related higher volatilities in the upcoming period. In this context, monetary policy will remain tight in Türkiye until permanent price stability is achieved, which will help contain the possible adverse impacts of volatile global financial markets on the sovereign risk premium.

**Forecasts rely on a monetary policy that will remain tight until a significant and sustained decline in the underlying trend of monthly inflation is observed, and inflation expectations converge to the projected forecast range.** With the contribution of the financial policies that will support and strengthen monetary transmission and monetary policy forward guidance emphasizing the decisive tight stance, the convergence of inflation expectations to the Inflation Report forecasts in the short term and to the inflation target in the medium term is critical for ensuring a permanent decline in inflation. It is considered that macroprudential policies will remain in effect to support monetary transmission, and financial conditions will be tightened. Medium-term forecasts rely on an outlook involving an uptick in loan rates which will result in a slowdown in loan growth and balancing in domestic demand. Moreover, it is assumed that the fiscal discipline will be preserved and fiscal policies will support the disinflation process in coordination with the monetary policy.

**After hitting the peak in May, inflation is projected to decline steadily in the remainder of the year.**

Indicators for the underlying trend of inflation, albeit with some deceleration, display a more unfavorable outlook compared to the forecasts of the previous Inflation Report. The expiration of the arrangement offering 25 m<sup>3</sup> of the natural gas free of charge will push monthly inflation up by 0.66 points in May. Moreover, inflation will peak in May due to the unfavorable base effect. Thanks to the strong increase in the policy rate in March, additional macroprudential measures and the tightening in financial conditions, the rebalancing in domestic demand is considered to become more evident as of the second quarter of the year (Chart 3.2.3). The decisive monetary policy stance is expected to ensure moderation in domestic demand, real appreciation in the Turkish lira and improvement in inflation expectations. All these factors are expected to lower the underlying trend of monthly inflation and establish disinflation in the second half of 2024. Meanwhile, seasonally adjusted average monthly inflation is projected to fall to around 2.5% in the third quarter and slightly below 1.5% in the last quarter. As the stickiness in services inflation weakens during this process and the monetary stance is maintained in line with the targets, the underlying trend of inflation will further recede to historical averages in 2025.

**Analyses of the impact of the monetary tightening suggest that the banking sector will remain robust.**

Approximately half of the banks' TL-denominated loans and securities portfolios are at floating rates. Turkish lira fixed-rate securities are mainly accounted for at amortized cost, which is not sensitive to interest rate changes. In addition, the maturity of banks' borrowing is extended with the backing of reserve

requirement practices, and the declining risk premium reduces the sector's vulnerability to interest rate changes. The capital adequacy ratio of the banking sector, which is well above the legal limits, is considered to be sufficient to absorb losses that may stem from interest rate changes. Banks' asset quality and profitability indicators remain strong, which supports financial stability during the monetary tightening period.

### 3.3. Key Risks to Inflation Forecasts and Possible Impact Channels

***Geopolitical developments and volatilities in commodity prices pose upside risks to inflation forecasts.***

The volatility in oil prices caused by geopolitical risks and continued production cuts by OPEC+ countries is expected to persist. Effects of the developments in the Red Sea on transportation costs are also monitored. Geopolitical developments may also affect the risk perceptions about Türkiye through external demand and export revenues.

***Although the fall in core inflation continues in advanced economies, the downward course in headline inflation has been replaced by a rather flat course in the current reporting period.***

The stickiness in services inflation emerges as one of the most significant factors slowing the convergence of headline inflation to the targets in advanced economies. Expectations that central banks of advanced economies will be more cautious in their rate cuts have strengthened given the level of headline inflation, stickiness in inflation, and upside risks. This exerts pressure on global financial conditions and keeps downside risks to the global growth outlook alive. These two factors, in turn, may play a role in inflation dynamics by affecting domestic exchange rates, aggregate demand conditions, and import prices through capital flows, external demand, and commodity prices.

***Persistent domestic demand poses upside risks to inflation forecasts.*** The disinflation process may be weakened if the decelerating effects of monetary tightening on domestic demand are not seen quickly enough. Recent indicators suggest that domestic demand has remained strong in the first quarter of 2024. However, domestic demand is expected to rebalance on the back of the impact of the current tight monetary policy on financial conditions. This rebalancing in domestic demand is projected to contribute to the current account balance by weakening imports, and to the fall in inflation through the demand channel by moderating excessive consumption. On the other hand, likely upside risks that the elevated levels of inflation expectations may pose to the consumption tendency and loan demand may cause domestic demand to gain persistence and hamper the rebalancing process.

***Inflation expectations remain elevated.*** Inflation expectations of economic units (professionals, firms and consumers) play a key role in pricing behavior, wage decisions, portfolio preferences and consumption/credit demand (Box 3.1). Alignment of inflation expectations with the CBRT's inflation forecasts in the short term and with inflation targets in the medium term is critical for the disinflation process. According to the Survey of Market Participants, medium-term inflation expectations continue to come down despite still hovering above targeted levels. Continuation of this downward movement will contribute to the disinflation process through the price-setting behavior. On the other hand, inflation expectations of firms and consumers remain both elevated and persistent. This indicates that a patient and decisive stance in monetary policy will be important.

***The continued stickiness of services prices and a slower-than-anticipated deceleration in the underlying trend of inflation may keep inflationary pressures alive.***

Despite the recent slowdown, the underlying trend is somewhat above the level projected in the previous Inflation Report. Another risk factor for inflation forecasts is the interruption of the deceleration in the underlying trend due to the possible brisk course of domestic demand and the elevated course of food prices (meat in particular) and services prices (rents in particular).

***Adjustments likely to be made in indirect taxes to finance earthquake-related public expenditures may pose upside risks to inflation.***

The amount and timing of earthquake-related public expenditures will be important for maintaining fiscal discipline. The success of the fight against inflation requires an effective coordination between monetary and fiscal policies. Therefore, supporting the tight monetary policy stance with fiscal discipline is essential for anchoring price-setting behavior, rebalancing domestic demand and improving the sovereign risk premium. In addition, a rise in the weight of indirect taxes in the tax revenues policy may not only directly increase consumer prices but also may have secondary effects by distorting



inflation expectations. In this respect, steps towards enhancing the efficiency of tax collection or increasing the weight of direct taxes may support the disinflation process.

**Coordination of monetary and fiscal policies is crucial in the disinflation process.** The incomes policy may affect inflation and expectations through the demand and production cost channels. Tax and administered price adjustments that are not in line with the projected disinflation path may also put pressure on inflation. Therefore, the frequency of wage adjustments, the conduct of administered price, wage and tax adjustments in view of the inflation forecasts presented in the MTP, and the underpinning of the tight monetary policy stance with prudent fiscal policy are critical to establish the projected disinflation path.

**Table 3.2.2: Key Risks to Inflation Forecasts and Possible Impact Channels\***

Risk	Evaluation of Risks Compared to the Baseline Scenario and Possible Effects on Inflation (↑   ↔   ↓)	Tracked Indicators
Risks to the course of energy prices	<ul style="list-style-type: none"> <li>• Continued production cuts by OPEC+ countries and the strong global demand outlook pose upside risks to oil prices from both supply and demand channels.</li> <li>• The geopolitical risks-driven volatility in oil and commodity prices may continue.</li> </ul>	<ul style="list-style-type: none"> <li>• Crude oil prices and demand-supply balance</li> <li>• OPEC+ decisions</li> <li>• Indicators for domestic energy market</li> <li>• Administered prices</li> </ul>
Risks to global financial markets and macroeconomic outlook	<ul style="list-style-type: none"> <li>• Strengthened expectations that the central banks of advanced economies will be more cautious in their rate cuts given the stickiness in inflation and upside risks put pressure on global financial conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• Global inflation rates</li> <li>• Monetary policy response in advanced and emerging economies</li> <li>• Global risk appetite indicators</li> <li>• Export-weighted global economic activity index</li> <li>• Global trade volume and inflation developments</li> <li>• Import and commodity prices</li> </ul>
Demand conditions	<ul style="list-style-type: none"> <li>• The persistent domestic demand continues to exert demand-side pressure on inflation. Domestic demand is expected to moderate on the back of the tight monetary policy.</li> </ul>	<ul style="list-style-type: none"> <li>• Domestic demand indicators</li> <li>• Retail sales volume index</li> <li>• Credit card spending</li> <li>• White goods and automobile sales</li> </ul>



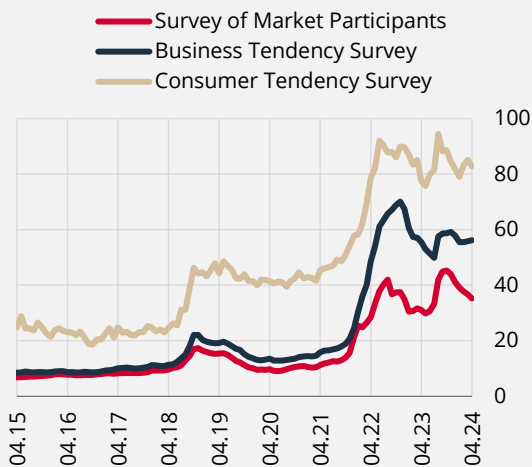
## Box 3.1

### Inflation Expectations of Firms

Inflation expectations of firms play an important role in understanding pricing behavior due to their price-determining role in the economy. In addition, firms take into consideration the future inflation rates when determining employee wages and forming inventory and investment strategies. Bunn et al. (2022) showed that the margin of error in firms' inflation expectations is related to low profitability and total factor productivity. The expectations of firms that hold the power to determine prices also have important consequences for monetary policy. For example, if firms expect permanent and high inflation, they may increase prices more aggressively, seeking to protect their profit margins, and if this is reflected in wage levels in the economy, it may create a self-reinforcing inflationary spiral. This may also negatively affect the effectiveness of the monetary policy transmission mechanism. Therefore, central banks closely monitor firms' inflation expectations as an important indicator of the future course of inflation. The inability to anchor expectations or any significant deviation of the central bank from its target makes it difficult to achieve the price stability goal. Therefore, from the point of view of policy makers, survey data on inflation expectations of firms have an important information value.

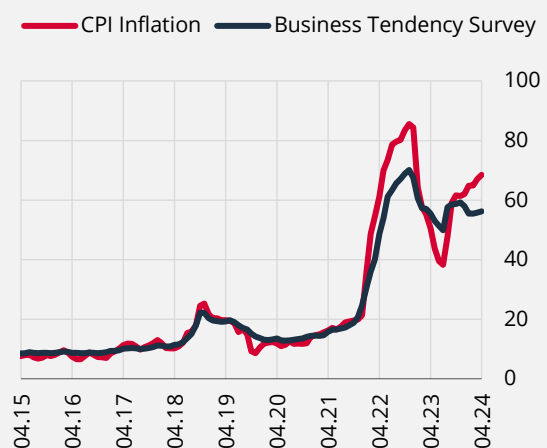
In this box, firms' CPI inflation expectations are analyzed using the micro data of the Business Tendency Survey applied by the CBRT to firms operating in the manufacturing industry in Türkiye. In this context, first of all, the average firm-based expectations are compared with the inflation expectations of market participants and consumers, and then inflation uncertainty is examined through the rounding behavior of firms to certain numbers when expressing inflation expectations. In the Business Tendency Survey, firms are asked about their "annual consumer price inflation expectations as of the end of the next twelve months".<sup>1</sup> In Chart 1, the sectoral weighted average values of the firms' inflation expectations calculated using the answers given to this question are compared with the appropriate averages of the inflation expectations of the Survey of Market Participants and Consumer Tendency Survey.

**Chart 1: 12-Month-Ahead Inflation Expectations (%)**



Source: CBRT, TURKSTAT.

**Chart 2: CPI Inflation and 12-Month-Ahead Inflation Expectations of Firms (%)**



Source: CBRT, TURKSTAT.

<sup>1</sup> Data on firms' CPI inflation expectations are not disclosed to the public and are collected regularly by the CBRT. In the Business Tendency Survey, firms are also asked about their "annual producer price inflation expectations as of the end of the next twelve months". Since there is no expectations of other economic agents regarding producer prices, this study focuses on consumer inflation expectations.

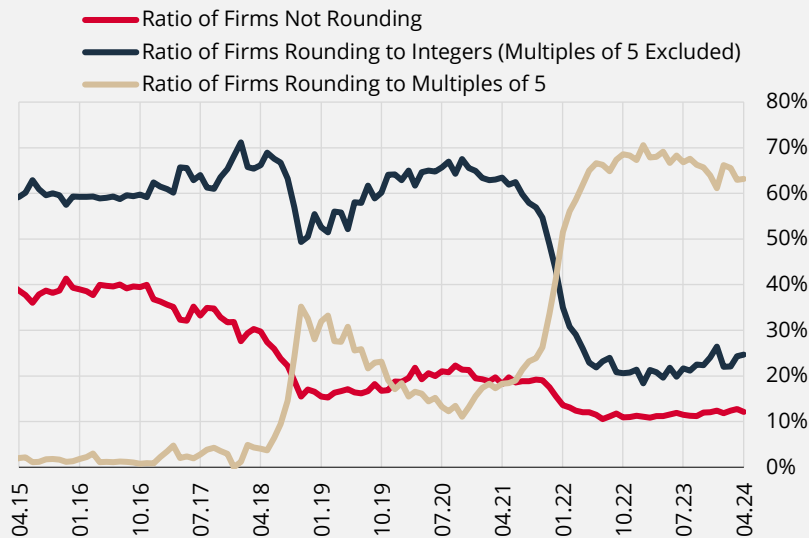
Compared to the consumer inflation expectations examined in CBRT (2024), it is seen that firms made inflation forecasts that were closer to those of market participants until the end of 2021. After the last quarter of 2021, when inflation and the exchange rate increased rapidly, the relation between the expectations of firms and market participants has weakened, and the deterioration in firm inflation expectations was more evident than the deterioration in the expectations of consumers and professionals. When the inflation expectations of the recent period are examined, while the exchange rate developments in June and July 2023 caused an increase in the expectations of all economic units, this increase remained relatively limited in firms. On the other hand, the improvement in firms' inflation expectations after the monetary tightening that started in the second half of 2023 is not as strong as that of consumers and market participants. When firms' inflation expectations and actual inflation rates are compared, it is seen that firms opt for backward-indexation when determining their consumer inflation forecasts and that the sensitivity to the previous month's annual CPI inflation is high (Chart 2). Although this close relationship weakens with the rise in inflation at the end of 2021, firms set their inflation expectations at levels closer to realized inflation rates compared to other economic agents. However, despite the recent increase in annual CPI inflation, the flat course of firms' expectations stands out as a positive development.

The rounding effect of consumer inflation expectations was analyzed in CBRT (2024). Similarly, this box investigates whether firms tend to give an approximate number that is imprecise and may include other numbers nearby to express their estimates in consumer inflation expectations shared in the Business Tendency Survey. Binder (2017) introduced a method that measures uncertainty at the micro level and time series dimension by associating the rounding effect in inflation expectations stated by consumers with inflation uncertainty. In that study, it is assumed that the inflation expectations of each consumer participating in the survey came from the subjective probability distribution and that consumers with uncertainty above a certain level round their inflation estimates to multiples of five. Thus, the uncertainty levels of survey participants can be calculated probabilistically, and the proportion of participants who round their estimates for each month can be estimated. The subjective probability mass distribution functions of consumers with low and high uncertainty groups can be written as follows:

$$\begin{aligned}\Phi_t^l &= P(\pi_{it}^e = j | i = \text{Low Uncertainty}) = \int_{f_{\min(j)}^l}^{f_{\max(j)}^l} p_d(\pi_{it}^e, \theta^l) dx, \quad j \in S_l \\ \Phi_t^h &= P(\pi_{it}^e = j | i = \text{High Uncertainty}) = \int_{f_{\min(j)}^h}^{f_{\max(j)}^h} p_h(\pi_{it}^e, \theta^h) dx, \quad j \in S_h\end{aligned}$$

For consumer  $i$  at any time  $t$ ,  $\Phi_t^l$  and  $\Phi_t^h$  denote the probability distribution mass function of low and high uncertainties, respectively, and  $\pi_{it}^e$  denote the inflation expectation of consumer  $i$ .  $S_l$  and  $S_h$  indicate the response set for the relevant uncertainty groups,  $S_d = \{1, 2, 3, 4, 5, \dots\}$  and  $S_y = \{5, 10, 15, \dots\}$ .  $f_{\min(j)}$  and  $f_{\max(j)}$  are used for the lowest and highest possible forecast values that can be given for the relevant uncertainty groups. Finally,  $p_l$  and  $p_h$  refer to the probability distribution function, and  $\theta = \{\theta^d, \theta^y\}$  refers to the parameter set of the distributions. Since each participant who gives an expectation of five and multiples of five does not necessarily round their estimate to multiples of five, the group of consumers cannot be directly observed. Accordingly, the participants' predictions come from mixture of two distributions  $\Phi_t = (1-\lambda)\Phi_t^l + \lambda\Phi_t^h$  in each month. In this equation, the parameter  $\lambda$  gives the proportion of consumers who round up to multiples of five, i.e. those with high inflation expectation uncertainty. Maximum likelihood estimates of the parameters of the mixture distribution,  $\lambda$  and  $\theta$ , are estimated by the expectation maximization method. Briefly, the share of firms who responded with rounding behavior among those who answered five and multiples of five is estimated.

The method of Binder (2017) is also applied to survey results containing inflation expectations of different agents instead of consumers (Clements, 2020). In this box, the rounding effect of firm expectations included in the Business Tendency Survey is estimated. Unlike Binder (2017), instead of two different uncertainty groups, firms are analyzed in three different groups: those who give decimal estimates (those who do not round), those who round to integers (except for multiples of five), and those who round to multiples of five. Thus, the proportion of firms with low, medium and high inflation uncertainty are estimated.

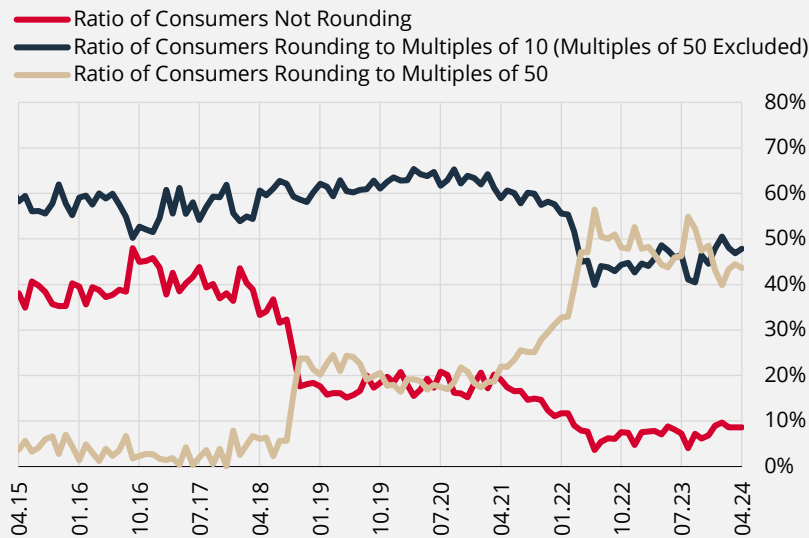
**Chart 3 : Rounding Behaviour of Firms (%)**

Source: CBRT.

When the uncertainty of firms' inflation expectations is analyzed through rounding behavior (Chart 3), the share of firms that do not round and those with low uncertainty (those who estimate decimal numbers) decreased in 2018 and 2021 amid sharp increase in inflation rates. On the other hand, the share of the group with high inflation uncertainty (those rounding to multiples of five) increased from 15% to 35% in the second half of 2018. With the effect of the disinflation process and the improvement in inflation expectations that followed the monetary tightening in 2018, the share of this group improved and decreased to 20% in 2019. As of the last quarter of 2021, the share of firms with high uncertainty continued to rise in line with the increase in inflation and reached 70% at the beginning of 2023. The share of this group, which reached 63% after the recent moderate decline, still remains high.

In order to compare the inflation expectations of different economic agents, the same methodology is applied to consumer inflation expectations obtained from the Consumer Tendency Survey. Consumers prefer round numbers, hence, rather than giving a precise inflation forecast value, they give the forecast, a round number, which can be called more 'categorical'. To examine these less sharp forecast values, the rounding effect in consumer expectations is calculated based on multiples of 10 (excluding multiples of 50) and multiples of 50, which are commonly observed in micro data.

Here, it is assumed that consumers with low, medium and high uncertainty round to integers (except multiples of 10), multiples of 10 (excluding multiples of 50), and multiples of 50, respectively. The course of the shares of these three groups is shown in Chart 4 and reveals that, similar to the outlook in firms' expectations, there has been an increase in the high uncertainty group after 2021. Even though uncertainty remained high in the last months of the past period, its share has decreased. However, unlike firms, consumers seem to round their forecasts to multiples of higher values. This shows that, regardless of the level of inflation, consumers express their inflation forecasts in a wider range, which is imprecise and based on products with high price increases in the consumption basket.

**Chart 4: Rounding Behaviour of Consumers (%)**

In this box, firms' inflation expectations are analyzed and uncertainties regarding inflation expectations are estimated by improving the method presented in Binder (2017). The rounding behavior that exists in consumer expectations is also observed in firms' expectations, albeit at lower multiples (multiples of five instead of multiples of 50). Moreover, neither the level nor the course of uncertainty of inflation expectations for both agents have reached the desired levels for the disinflation process. The CBRT will continue to closely monitor the inflation expectations of economic agents through micro data.

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