



# INFLATION REPORT

## 2022-III

July 28, 2022

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# 1. Overview

**Economic activity remained strong in the first quarter of 2022.** In the first quarter, Gross Domestic Product (GDP) increased by 7.3% year-on-year and 1.2% quarter-on-quarter. In terms of production, services and the industrial sector were the main drivers of annual growth in the first quarter. The construction sector continued to restrain growth. On the expenditures side, the main driver of annual growth was final domestic demand, led by private consumption. Meanwhile, final domestic demand made a negative contribution to quarterly growth. On the production side, all components except for agriculture and net tax revenues made a positive contribution to quarterly growth.

**The higher share of sustainable components in the composition of growth supports the rise in employment.** The annual increase in machinery-equipment investments, one of the drivers of potential growth, has continued for ten quarters since the last quarter of 2019. Moreover, the contribution of other components that support the current account balance positively, such as net exports, also increased. In the first quarter of 2022, machinery-equipment investments and net exports contributed to annual growth by 1.4 and 3.5 percentage points, respectively. Thus, the share of these components in GDP reached the highest level of the last decade. Stable growth with production, investment and export-oriented sustainable components also has positive implications for employment. The April-May average of the seasonally-adjusted total unemployment rate declined by 0.3 points quarter-on-quarter to 11.1%. While employment grew by 2.3% (approximately 696,000 people) quarter-on-quarter in the said period, the increase in the participation rate limited the decrease in the unemployment rate. Additionally, employment gains became widespread across sectors.

**The levels of capacity utilization, investment trends and other leading indicators indicate that the strong growth in the first quarter of 2022 continued in the second quarter with the support of external demand.** The industrial production of sectors with higher export shares posted a strong growth. Adjusted for seasonal and calendar effects, the April-May average of the Industrial Production Index (IPI) was up by 0.5 points compared to the previous quarter. Industrial turnover indices also show that external demand continued to support industrial production. Increasing by 18.5% year-on-year, the retail sales volume index grew significantly compared to the previous quarter.

**Despite the sustained strength in exports and the recovery in services revenues, the current account deficit increased amid rising energy and commodity prices.** The escalating geopolitical risks were adversely realized in the first half of the year and caused a weakening in the global economic activity. Leading indicators signal a higher risk of recession for the global economy. The exports of Türkiye, on the other hand, remained resilient to the weakening global economic activity, and maintained a strong course in the second quarter of 2022 thanks to the increases in both price and quantity. Dynamic capacities and market diversification flexibility of exporting companies played a significant role in compensating for regional losses in exports stemming from the Russia-Ukraine conflict. Hence, regional exports exceeded their pre-conflict level. Meanwhile, as economic activity remained buoyant and international energy prices increased, particularly in natural gas, imports also maintained their uptrend in the second quarter of 2022. The 12-month cumulative current account balance excluding gold and energy has continued to run a surplus, which is particularly important for the impact of the soaring energy prices on the current account balance. On the other hand, the positive contribution of the services balance to the current account balance continued to rise. Backed by travel and transportation revenues, services revenues have gained further momentum in the second quarter of the year.

**The rise in global inflation and increased concerns of a recession in advanced economies caused the global risk appetite to decline in the current reporting period.** Lingering geopolitical risks and fluctuating commodity prices have weakened the expectations of a recovery in the global risk appetite. The volatility in long-term bond rates in advanced economies and the course of global financial conditions keep the risks to portfolio flows to emerging market economies (EMEs) alive, and cause outflows from bond markets in particular.

**Targeted use of credits to enhance investments and production capacity will contribute positively to both sustainable growth and the current account balance.** Despite losing momentum, credit growth, and allocation of funds for real economic activity purposes are closely monitored. In the second quarter of the year, credit demand for TL-denominated loans in particular surged due to soaring input costs and the firms' perceptions of uncertainty led by geopolitical conditions. During this period, reinforced macroprudential measures led normalization to start in credit growth as of the end of the quarter.

**Consumer inflation was 78.62% annually in the second quarter of 2022, and annual inflation increased across all sub-categories, with energy and food groups in the lead.** Despite some weakening, adverse supply shocks led by the prospects for global energy, food and agricultural commodity prices amid geopolitical developments, pushed inflation further upwards in this period. The Russian-Ukrainian conflict imposed additional pressure on food prices chiefly through the cereal production-supply channel. The effect of aggregate demand conditions on inflation remained limited compared to other main determinants such as the exchange rate, global energy and commodity prices. Regarding core inflation indicators, monthly rates of increases lost pace, whereas annual increases continued.

**In the May- July period, the CBRT reinforced the macroprudential policy set by putting into practice the credit, collateral and liquidity policy actions, the review process of which was finalized.** In the Monetary Policy Committee (MPC) meetings held between May and July, the CBRT stated that the rise in inflation was driven by: the rise in energy costs caused by geopolitical developments, price formations detached from economic fundamentals, and supply-side factors such as increments in global energy, food and agricultural commodity prices. To support sustainable price and financial stability, the CBRT continues to take monetary policy measures decisively in line with the liraization strategy. In this framework, the policy rate was kept unchanged at 14% in the May-July period, the macro-prudential policy set was strengthened, and credit, collateral and liquidity policy steps, whose evaluation processes were completed, were put into practice.

## 1.1 Monetary Policy Decisions

**In May meeting, the CBRT drew attention to the temporary effects of price formations that are not supported by economic fundamentals and decided to keep the policy rate unchanged.** The summary of the MPC decision in May stated that the increase in inflation was driven by rising energy costs resulting from geopolitical developments, temporary effects of price formations that are not supported by economic fundamentals and strong negative supply shocks caused by the rise in global energy, food and agricultural commodity prices. The Committee stated that the disinflation process was expected to start once the ongoing regional conflict was resolved and base effects on inflation were eased. Moreover, it was announced that collateral and liquidity policy steps would be taken to encourage permanent liraization.

**In May, in the scope of the liraization strategy, the CBRT introduced an arrangement to increase the weight of TRY-denominated assets in the collateral system.** In this context, the CBRT decided that at least 30% of the collateral blockage applied in currency swap transactions would consist of GDDS assets, moreover, the scope of the GDDS basket to be accepted as collateral was limited. In addition, the discount rates for indexed securities, FX-denominated and gold-backed assets were increased from 5% to 15% (Table 1.1).

**In its June meeting, the CBRT decided to keep the policy rate unchanged, preserving its prediction that the disinflationary process would start once the ongoing regional conflict was resolved and base effects on inflation were eased.** The CBRT also stated that the collateral and liquidity policy actions, the review processes of which had been finalized, would continue to be implemented to strengthen the effectiveness of the monetary policy transmission mechanism. It was stated in the MPC decision that the CBRT closely monitored credit growth and allocation of funds for real economic activity purposes. The CBRT will continue to implement the strengthened macroprudential policy set decisively and take additional measures when needed. (Table 1.1).

**In June, in the scope of the liraization strategy, the share of TRY-denominated securities in the collateral pool was increased, and it was stipulated that banks would maintain securities for FX liabilities and required reserves for TRY commercial loans.** The minimum GDDS collateral blockage applied to all currency swap transactions with the CBRT and transactions at the Interbank Money Market was increased to 45%, while the discount rate applied to CPI-indexed securities accepted as collateral was increased to 30%. Moreover, to increase the effectiveness of the monetary policy, it was stipulated that banks will maintain additional Turkish lira long-term fixed-rate securities for FX deposits/participation funds. Meanwhile, the

reserve requirement ratio for Turkish lira-denominated commercial cash loans except for some selected areas, which was announced as 10%, was increased to 20% (Table 1).

**The CBRT rearranged the rediscount credit conditions and increased the commission rates applied to FX reserve requirements and FX accounts with notice.** The CBRT also rearranged maturities of rediscount credits. Accordingly, 40% of export proceeds, which were sold by exporters to the CBRT pursuant to the relevant legislation, started to be counted as Turkish lira rediscount credit commitment; moreover, it was stipulated that companies seeking to use TRY rediscount credits would be extended credits upon submission of a commitment to sell 30% of their export proceeds to commercial banks. Moreover, the commission rates applied to FX reserve requirements and FX notice deposit accounts were increased, and since the sector’s weighted average legal person conversion rate significantly exceeded the target value of 20% set for 2 September 2022, the deadline for the target value of 20% for legal person conversion rate was scheduled earlier for 8 July 2022 instead of 2 September 2022 (Table 1.1).

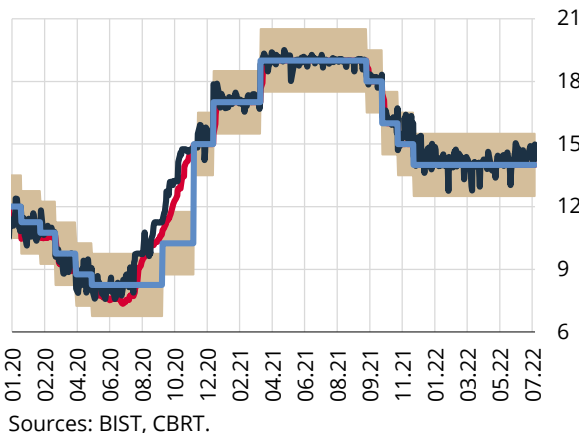
**In July, the CBRT drew attention to the weakening global economic activity and likely recession risks.** The MPC decision for July pointed to the divergence in monetary policy communication and decisions of central banks in advanced economies and increasing uncertainty in global financial markets. Moreover, the MPC decision stated that the slowing credit growth and allocation of funds for real economic activity purposes were closely monitored; the credit, collateral and liquidity policy actions, of which the review processes were finalized, would continue to be implemented to strengthen the effectiveness of the monetary policy transmission mechanism, and the policy rate was kept unchanged.

**In July, additional steps were taken regarding the collateral system, and the scope of the KKM was extended.** The GDDS collateral requirement in swap transactions with the CBRT and Interbank Money Market operations was raised, while the discount rates for CPI-indexed securities were increased to 50% from 30%. Additionally, resident legal entities were also allowed to convert their FX deposit accounts held at banks between 31 December 2021 and 30 June 2022 into the KKM.

**In the current reporting period, the CBRT continued to provide funding within a simple operational framework through Open Market Operations (OMO) and swap transactions, and the overnight interest rates hovered around the CBRT policy rate.** Owing to the CBRT’s predictable liquidity management framework, Borsa Istanbul (BIST) overnight repo rates continued to hover around the CBRT policy rate (Chart 1.1.1). The amount of swap transactions, which was TRY 607 billion as of 29 April 2022, increased to TRY 661 billion as of 22 July 2022. In the same period, the net OMO funding also rose to TRY 455 billion (Chart 1.1.2).

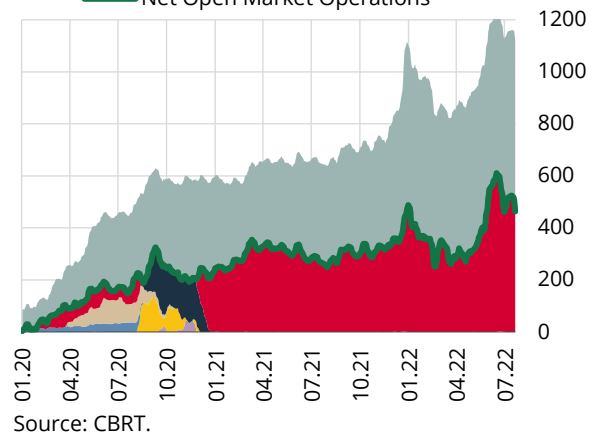
**Chart 1.1.1: CBRT Rates and Short-Term Interest Rates (%)**

- Interest Rate Corridor
- CBRT Average Funding Rate
- Average Interest Rate at BIST Excluding the CBRT
- 1 Week Repo Rate



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

- Swap Funding
- One Week Repo
- Traditional Repo
- 3-Month Repo (Targeted Liquidity)
- Primary Dealers Repo
- Overnight Lending
- Late Liquidity Window
- Net Open Market Operations



**Table 1.1: Monetary Policy Implementations**

Date	Policy Decision
11 May 2022	<ul style="list-style-type: none"> <li>▪ The reserve requirement ratio for Turkish lira liabilities of financing companies was set at 0% until the calculation date of 13.05.2022 (included), while the reserve requirement ratio for their FX liabilities was set at 0% until the calculation date of 13.05.2022 (included) and at 3% until the calculation date of 23.12.2022 (included).</li> </ul>
16 May 2022	<ul style="list-style-type: none"> <li>▪ As part of the steps to increase the weight of Turkish lira assets in the collateral system in the scope of the Monetary and Exchange Rate Policy for 2022 document and the Liraization Strategy, it was stipulated that effective from 27 May 2022, <ul style="list-style-type: none"> <li>• a minimum of 30% of the collateral blockage for all swap transactions with the CBRT should be composed of the GDDS basket,</li> <li>• the GDDS basket should be composed of only TRY-denominated, zero-coupon, fixed-coupon, floating-rate and TLREF-indexed GDDS or lease certificates issued domestically by the Ministry of Treasury and Finance Asset Leasing Company.</li> </ul> </li> <li>▪ With an amendment to the Implementation Instructions for Turkish Lira Operations and the Implementation Instructions for FX Markets, the collateral discount rates were increased from 5% to 15% for indexed securities as well as FX-denominated and gold-backed assets subject to collateral.</li> </ul>
6 June 2022	<ul style="list-style-type: none"> <li>▪ To increase the weight of Turkish lira assets in the collateral system in the scope of the Monetary and Exchange Rate Policy for 2022 document and the Liraization Strategy, effective from 24 June 2022, <ul style="list-style-type: none"> <li>• the minimum GDDS collateral blockage for all swap transactions with the CBRT and the GDDS collateral requirement for Interbank Money Market Operations were increased from 30% to 45%,</li> <li>• With an amendment to the Implementation Instructions for Turkish Lira Operations and the Implementation Instructions for FX Markets, the collateral discount rates were increased from 15% to 30% for indexed securities as well as FX-denominated and gold-backed assets subject to collateral.</li> </ul> </li> </ul>
10 June 2022	<ul style="list-style-type: none"> <li>▪ It was decided that banks should maintain additional Turkish lira long-term fixed-rate securities for foreign currency deposits/participation funds.</li> <li>▪ The reserve requirement ratio for Turkish lira-denominated commercial cash loans was increased from 10% to 20%.</li> <li>▪ Of the domestic loans of financing companies that were subjected to reserve requirement for the first time, those available as of 23 April 2022 were excluded from reserve requirement liabilities until their maturities.</li> </ul>

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**13 June 2022**

- The Implementation Instructions for Rediscount Credits for Export and Foreign Exchange Earning Services were revised.
- Accordingly:
  - The maximum maturity was set at 360 days for Turkish lira rediscount credits and 720 days for the defense industry,
  - Interest rates for Turkish lira rediscount credits were set to be 300 basis points, 200 basis points, and 100 basis points below the policy rate for maturities of 0-90 days, 91-180 days, and 181-720 days, respectively,
  - In addition to the existing condition for access to TRY rediscount credits (stipulating that 40% of export proceeds should be sold to the CBRT), firms should also make a commitment to sell at least 30% of their export proceeds to a bank,
  - Firms using TRY rediscount credits should pledge not to buy the sold amount of foreign currency again for a month from the date of the first sale of export proceeds.

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**30 June 2022**

- The commission rate applied to reserve requirements that banks maintain at required reserve and FX notice deposit accounts for their FX deposit/participation fund liabilities was increased from 1.5% to 5%.
- The conditions for commission exemption were changed, whereby the deadline for the target value of 20% for the conversion by legal persons was revised from 2 September 2022 to 8 July 2022. Moreover, the practice of charging double the commission rate to the banks that could not achieve a 10% conversion rate for real and legal persons (separately for each) was abolished.

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**4 July 2022**

- Steps were taken to increase the weight of Turkish lira assets in the collateral system in the scope of the Monetary and Exchange Rate Policy for 2022 document and the Liraization Strategy.
- Accordingly, effective from 22 July 2022,
  - the minimum GDDS collateral blockage for all swap transactions with the CBRT and the GDDS collateral requirement for Interbank Money Market Operations were increased from 45% to 50%.
  - With an amendment to the Implementation Instructions for Turkish Lira Operations and the Implementation Instructions for FX Markets, the collateral discount rates were increased from 30% to 50% for indexed securities as well as FX-denominated and gold-backed assets subject to collateral.

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**6 July 2022**

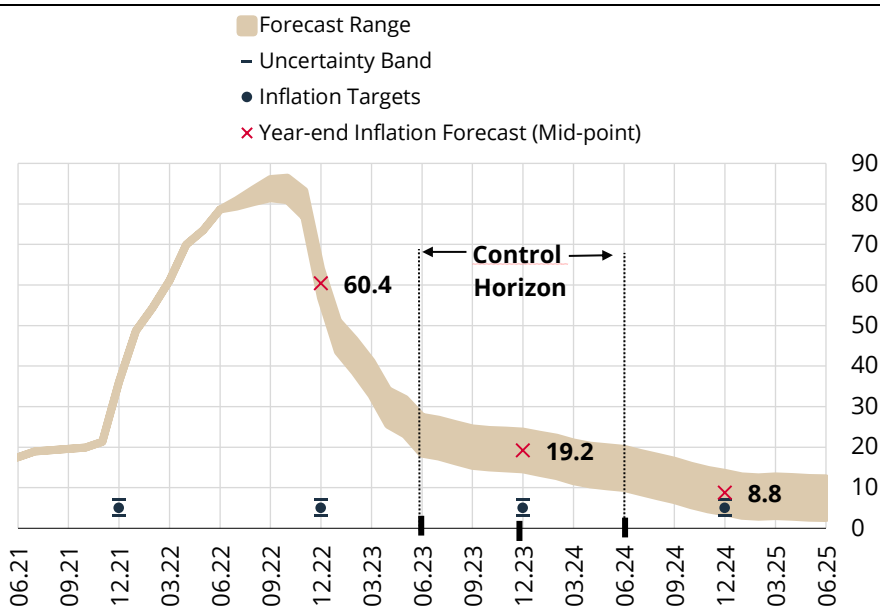
- With an amendment to the CBRT's communiqué on supporting the conversion to TRY deposits, resident legal persons were allowed to convert their FX deposit accounts, which were held at banks at any date between 31 December 2021 and 30 June 2022, into TRY deposits.
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## 1.2 Medium-Term Projections

**In the second quarter of 2022, consumer inflation and the B index reached 78.62% and 64.42%, respectively, exceeding the forecast range of the April Inflation Report.** The deviation in the B index inflation remained more limited. The deviation in forecasts was driven by strong negative supply shocks such as hikes in commodity prices led by geopolitical developments, persisting supply chain disruptions driven by the effects of pricing behaviors detached from economic fundamentals, and soaring domestic energy costs.

**The monetary policy stance will be determined with the focus on evaluating the sources of the risks to inflation, their permanence and to what extent they can be controlled by monetary policy, targeting sustainable price stability with a prudent approach.** The disinflationary process is expected to start with the steps taken and resolutely implemented to achieve sustainable price stability and stronger financial stability as well as the re-establishment of the global peace environment. Accordingly, inflation is projected to be 60.4% at the end of 2022; fall to 19.2% at the end of 2023; and sustain the downward trend by receding to 8.8% by the end of 2024. With a 70% probability, inflation is expected to be between 56.9% and 63.9% (with a mid-point of 60.4%) at end-2022, and between 14.5% and 23.9% (with a mid-point of 19.2%) at end-2023, and between 3.9% and 13.7% (with a mid-point of 8.8%) at end-2024 (Chart 1.2.1).

**Chart 1.2.1: Inflation Forecasts\* (%)**



Sources: CBRT, TURKSTAT.

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

**Forecasts are based on an outlook entailing weaker global economic activity, a sustained rise in global inflation, and tighter global financial conditions compared to the previous reporting period.** Mounting uncertainties regarding global food security amid trade bans, the elevated course of commodity prices accompanied by persisting supply constraints in specific sectors, with staple food and energy in the lead, push producer and consumer prices upwards at the international level. Inflation may remain on an upward track longer than expected due to higher energy prices and the supply-demand mismatch. The persisting acceleration in global inflation coupled with the escalated concerns over recession caused global risk appetite to decline in the current reporting period.

**Forecasts focus on an outlook where credits move in tandem with economic activity on the back of the reinforced macroprudential policy set, whose evaluation processes have been completed and have recently proved quite effective, and liquidity and collateral policy actions are based on liraization.** The measures taken against accelerating commercial and consumer loans in the second quarter of the year were gradually increased, and a normalization trend appeared in loans. As loans remain aligned with economic activity and the output gap gradually closes as its narrowing trend continues, growth will be in line with the potential throughout the year. Moreover, the efficient use of loans in real economic activity is expected to prevent loans from putting pressure on asset prices and exchange rates.



### 1.3 Key Risks to Forecasts

**The outlook underlying the medium-term projections presented in the Inflation Report is based on the Monetary Policy Committee's judgments and assumptions.** The major downside and upside macroeconomic risks that may lead to a change in baseline projections and the associated monetary policy stance are as follows.<sup>1</sup>

**In this current reporting period, the key risk factors on economic activity and inflation have been the supply shocks that started with the pandemic and grew amid the Russian-Ukrainian conflict.** Causing a pickup in commodity prices as well as transportation costs, a slowdown in global trade, and a tightening in global financial conditions, supply shocks keep risks brisk, which are both upside and downside to inflation and downside to economic activity.

**Downside risks to foreign demand have increased compared to the previous reporting period, and suggest that regional divergences may become more evident.** Uncertainties regarding global financial conditions weigh on the risk of stagflation. The Russian-Ukrainian conflict poses risks to travel and transportation revenues. Geopolitical risks, developments regarding the new variants, and new waves related to the pandemic, and the consequences of these developments on domestic and foreign demand are monitored closely.

**Upside risks to the current account balance are in place due to soaring energy prices amid the Russian-Ukrainian conflict.** Despite the ongoing robust performance of exports and the recovery in services revenues, risks persist from soaring energy prices. Accordingly, pricing differentiations are observed according to the types of energy.

**Global inflation continues to rise sharply, while monetary policy steps and communications of major central banks exhibit a wider divergence due to the varying economic prospects among countries.** Major central banks underline that inflation may remain on the rise for a longer-than-expected period due to higher energy prices and supply-demand mismatch. Central banks increased their efforts to develop new supportive measures and tools to cope with the increasing uncertainties in financial markets. The divergence and mounting uncertainties in financial markets lead to volatilities in exchange rates. The increased possibility of divergence in economic conditions and problems among advanced economies in the upcoming period pose additional risks to the global economic activity and uncertainties regarding financial conditions. This outlook results in downside risks to international prices and foreign demand.

**Credit growth and the allocation of financial funds for real economic activity purposes are essential for the CBRT.** The effects of the credit, collateral, and liquidity policy actions on the liraization of financial sector balance sheets and the reinforcement of the monetary transmission mechanism are monitored closely. The strengthened macroprudential policy toolkit is further expanded through additional measures when needed.

**Pressures on producer prices keep mounting.** The supply shock posed by the Russian-Ukrainian conflict weighs on existing supply constraints and causes international commodity prices to follow a high course that varies among different products.

**Deterioration in pricing behaviors persists.** Depending on the frequency of incoming shocks, the frequency of price updates is getting higher, and the average period for prices to remain unchanged is getting shorter. This outlook will be shaped depending on the effectiveness of the holistic policy mix to fight inflation, the frequency and the magnitude of the supply shocks, and their degree of diffusion to the economy. Despite the disinflationary content of implemented policies coupled with the increased coordination, ongoing effects of supply shocks on the economy increase upside risks.

<sup>1</sup> Evaluations of how and through which channel these risks may affect the inflation forecasts cited in the previous section are summarized in Table 3.3.1.

## Box 1.1

### Recent Credit, Collateral and Liquidity Policy Steps

As stated in the Monetary Policy Committee decisions, a comprehensive policy framework review process that encourages permanent and strengthened liraization in all CBRT policy instruments continues in order to institutionalize price stability in a sustainable manner. Credit, collateral and liquidity policy actions, whose evaluation processes have been completed, continue to be used to strengthen the effectiveness of the monetary policy transmission mechanism. This box introduces the recent credit, collateral and liquidity steps taken by the CBRT and other relevant institutions. In the Turkish economy, there is ample room for the development of the financial architecture that facilitates the liraization of the system and its optimization around price stability. As a matter of fact, the recent measures caused significant changes in liquidity conditions. It is evaluated that the positive effects of these measures on price stability and financial stability will be observed cumulatively in the coming months.

With the RR regulations made by the CBRT in the second quarter of 2022, TRY commercial loans were subjected to RR in order to align commercial loan disbursements with business activities. Also, to support the liraization strategy, the FX RR rates applied to FX deposit/participation funds were differentiated according to conversion rates to TL deposit/participation accounts and the commission rates applied for the FX RRs were raised for the banks that did not reach the conversion targets.

In May, within the scope of the “Liraization Strategy”, steps were taken to increase the share of TRY-denominated assets in the collateral pool for TRY funding from the CBRT. In this context, the collateral blockage and discount rates in the collateral types imposed on TRY funding were significantly changed, and additional collateral measures were taken by updating the discount rates in June and July. The weight of the TRY-denominated assets in the collateral pool will continue to be evaluated under the “Liraization Strategy”.

In June, it was announced that in order to increase the effectiveness of the monetary policy, banks will maintain long-term fixed-interest securities in TRY in addition to RRs for FX deposits/participation funds as of 29 July. The aforementioned implementation will be further strengthened to support the liraization targets.

On the other hand, a series of macroprudential regulations regarding loans have been implemented by the Banking Regulation and Supervision Agency (BRSA) in the recent period.

The risk weight in TRY commercial loans, which was in the 20% to 150% range according to credit quality, was increased to 200%, excluding some selected credit types such as SME, export, investment and agriculture loans. In addition, for the CAR calculation, the BRSA decided to use the CBRT's foreign exchange buying rate at 31 December 2021 instead of the simple arithmetic average of the CBRT's foreign exchange buying rates for the last 252 business days as of 31 December 2021.

On 9 June 2022, while the maturity limit of consumer loans was reduced from 24 months to 12 months for loans over TRY 100,000, the minimum payment rate was increased from 20% to 40% for personal credit cards with a limit of more than TRY 25,000.

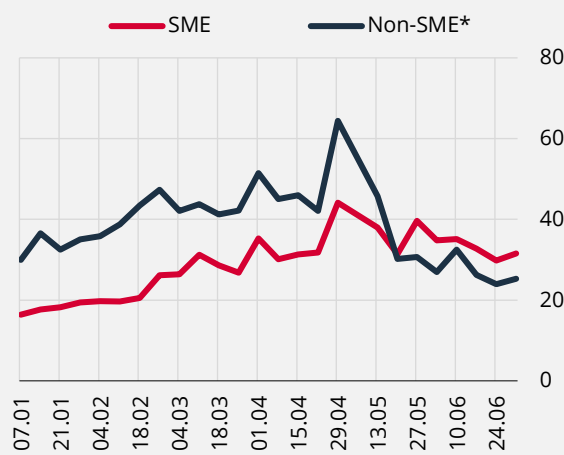
On 23 June 2022, the loan-to-value (LTV) ratio for housing loans was reduced by differentiating it according to the value of the house and whether the house is new-build or old-build, while loans were no longer offered for houses with a value over TRY 10 million. On the other hand, the risk weight to be applied by banks in CAR calculations for TRY and FX commercial loans borrowed by residents for derivative transactions with non-residents was set at 500%.

On 24 June 2022, the BRSA announced that no TRY commercial loans would be extended to firms that simultaneously meet the conditions of (i) being subject to independent audit, (ii) having FX (including gold) cash assets of more than TRY 15 million, and (iii) having FX cash assets exceeding 10% of total assets or net sales revenue of the past one year- whichever is greater.

## Reserve Requirement Regulations

With the upward trend in TRY commercial loans, a new reserve requirement policy was introduced to ensure these loans align with business operations. The regulation limits the use of the loans other than SME loans, tradesman loans, export loans, investment loans and agricultural loans to encourage the lending in activities that support production, investment and employment in line with intended purposes. The regulation has two dimensions: Newly issued loans and stock loan growth. It also imposes a reserve requirement of 10% during the maintenance period of four weeks on commercial loans extended in four-week periods since 1 April 2022. For banks with a loan growth rate above 20% by 31 May 2022 compared to 31 December 2021, the differences between their outstanding loan balances on 31 March 2022 and 31 December 2021 will be subject to reserve requirements of 20% of this difference, for a period of six months. As of 10 June 2022, the reserve requirement ratio for newly issued TRY commercial loans has been increased to 20% from 10%.

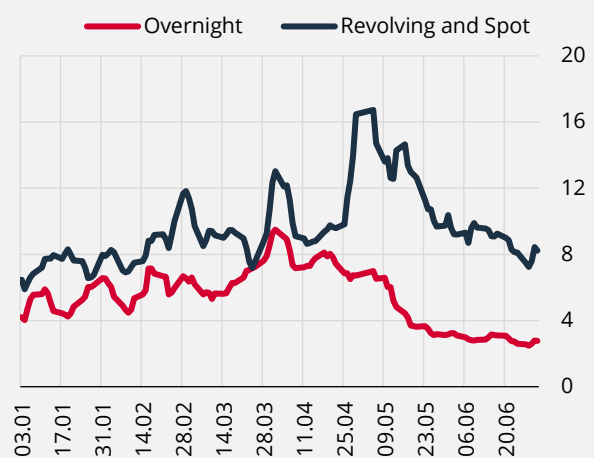
**Chart 1: Weekly TRY Commercial Loan Disbursement (TRY Billion)**



Source: CBRT.

\* Non-SME loans except for exports and investment. Holidays are excluded.

**Chart 2: Daily TRY Commercial Loan Disbursement (TRY Billion, 5-Day Average)**



Source: BRSA.

The total y-o-y TRY loan growth increased to 46.1% before the regulation, up 23.7% from the end of 2021. Non-SME loans also contributed greatly to the increase since the end of 2021. Since its introduction, the regulation has affected both loan costs and loan amounts. There has been a decrease in the use of loans other than SME loans, investment loans and export loans by companies. The level of loan disbursement decreased to half of the previous period in this group. (Chart 1). The use of overnight and short-term spot loans also demonstrated a noticeable downward trend (Chart 2).

With the regulation made in April, the RR ratios of financing companies, which were zero percent, were brought to the same level as those of banks, and it was decided to apply the RR ratios for foreign currency liabilities at the level of 3 percent until the end of the year.

In addition, in order to support the liraization strategy, FX RR ratios were differentiated according to the conversion rate of real persons from FX deposit/participation funds to Turkish lira deposit/participation accounts, and it was decided to apply additional 500 bps RR for banks with a conversion rate below 5 percent, and 300 bp for banks with 5-10 percent conversion rates.

With the regulation made in June, the rate of commission taken from RRs for FX deposits/participation funds of banks whose conversion rates of real and legal persons did not reach the determined target values was increased from 1.5 percent to 5 percent.

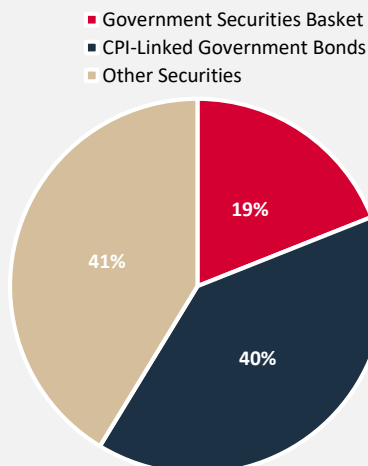
## Changes to Collateral Management

**Table 1: Changes to Collateral Management**

<b>16 May 2022</b>	<p>Effective from 27 May 2022, the government securities basket were decided to consist of TRY-denominated zero coupon, fixed coupon, floating rate and TLREF indexed Government Domestic Debt Securities and Lease Certificates (GDDS). For Interbank Money Market and swap transactions, banks are obliged to hold at least 30% of their collateral as government securities basket.</p>
	<p>The discount rate of CPI-indexed, gold-backed and FX-denominated GDDS, and FX-denominated and gold-backed assets was increased from 5% to 15%.</p>
<b>6 June 2022</b>	<p>Effective from 24 June 2022, the minimum government securities basket requirement ratio for Interbank Money Market and Swap transactions was increased from 30% to 45%.</p>
	<p>The discount rate of CPI-indexed, gold-backed and FX-denominated GDDS, and FX-denominated and gold-backed assets was increased from 15% to 30%.</p>
<b>4 July 2022</b>	<p>Effective from 22 July 2022, the minimum government securities basket requirement ratio for Interbank Money Market and Swap transactions was increased from 45% to 50%.</p>
	<p>The discount rate of CPI-indexed, gold-backed and FX-denominated GDDS, and FX-denominated and gold-backed assets was increased from 30% to 50%.</p>

The collateral pool of banks held at the CBRT is presented in Charts 3 and 4. Analyzing the changes in the collateral pool, the share of the government securities basket comprised of TRY-denominated zero coupon, fixed coupon, floating and TLREF indexed GDDS appears to have significantly increased, whereas CPI-indexed government bonds decreased remarkably.

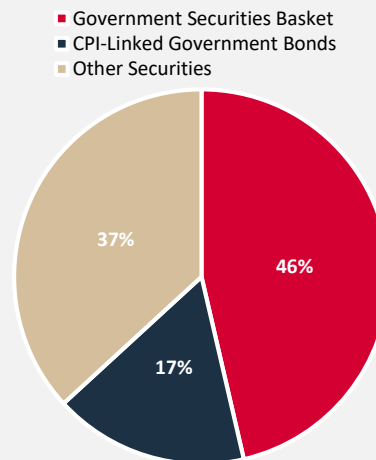
**Chart 3: Distribution of Banks' Collateral Held at the CBRT (% , 13 May 2022)**



Source: CBRT.

Note: The government securities basket is comprised of TRY-denominated zero coupon, fixed coupon, floating and TLREF indexed GDDS. Moreover, other securities include Eurobonds, FX deposits, FX banknotes, gold deposits, foreign bonds/notes, MBS/ABS, and gold-backed and FX-denominated GDDS.

**Chart 4: Distribution of Banks' Collateral Held at the CBRT (% , 14 July 2022)**

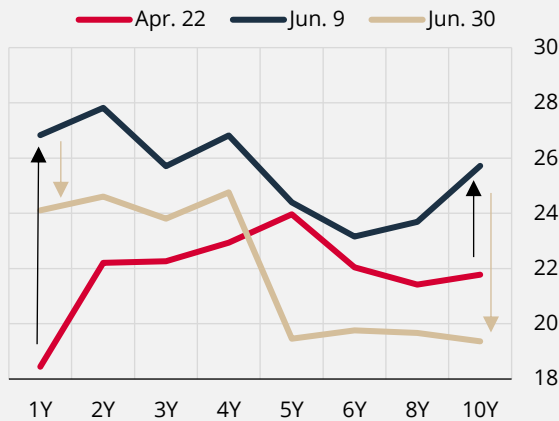


Source: CBRT.

On the other hand, with the announcement made on 10 June 2022, banks were obliged to maintain additional Turkish lira long-term fixed-rate securities for foreign currency deposits/participation funds and maintenance rates are differentiated according to the conversion rates of banks. The aim of this regulation is to increase the effectiveness of the monetary policy within the scope of the liraization strategy. There has been a tendency towards long-term fixed-interest bonds in the GDDS market since mandatory long-term TRY denominated fixed-interest securities were enforced and collateral management was changed. As a result, interest rates at the short-term and long-term ends of the yield curve shifted downwards. While there was an increase in both the short and long-term ends of the

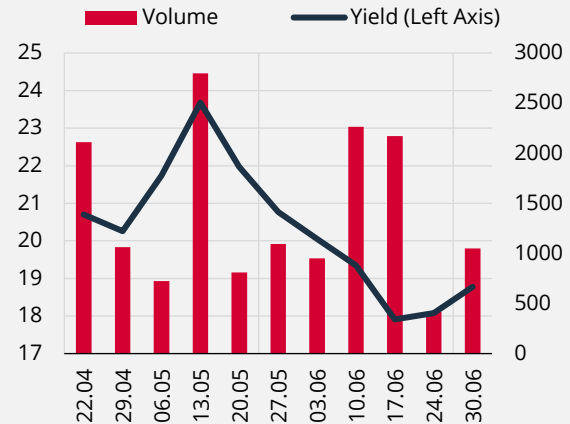
yield curve before the regulation, there was a decrease of around 300 bps in the short-term and more than 400 bps in the long-term after the regulation (Chart 5). Short-term interest rates, which serve as a benchmark for the market, remained above the April level. In addition, transaction volumes in long-term fixed-rate securities generally increased. While the transaction volume for bonds maturing in 2030 increased by approximately TRY 1 billion in the second and third weeks of June compared to the week before the regulation, their yield decreased by approximately 200 bps in the same period (Chart 6).

**Chart 5: GDGS Yield Curve (%)**



Source: Bloomberg.

**Chart 6: 2030 Fixed-Rate Security (% , TRY Billion, Days to Maturity: 3057)**



Source: Bloomberg.

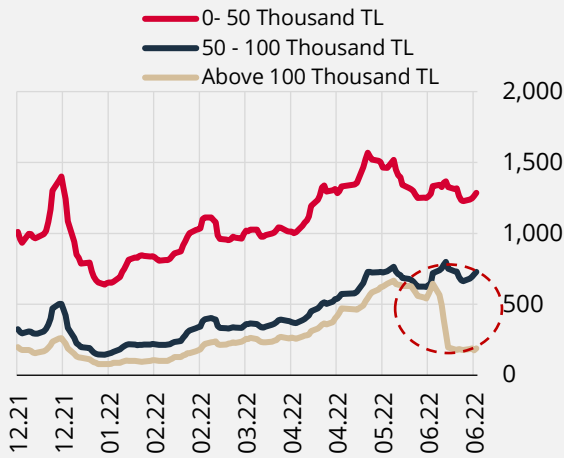
In addition, while the interest in long-term fixed-rate bonds has increased significantly in the borrowing auctions held by the Ministry of Treasury and Finance in the recent period, the bids for CPI-indexed bonds have lost momentum. After the announcement of the regulation, the first issue of 5-year fixed-rate government bonds on 14 June 2022 received a total of TRY 54.3 billion in bids, while the actual borrowing amounted to TRY 29.7 billion. As a result of the auction, the average annual compound interest rate formed at 19.45%.

For comparison purposes, an auction held prior to the regulation was examined. Accordingly, at the re-issue of fixed-rate government bonds on 23 May 2022 with a maturity of 4 years, a total of TRY 7.4 billion borrowing was made against a total of TRY 10.1 billion in bids, and the average annual compound interest rate formed at 27.31% as a result of the auction. The comparison of the two issue results despite the slight difference in maturities, reveals that the demand for fixed-rate government bonds increased rapidly on the back of the regulation, resulting in a decrease in the interest rate by approximately 700 bps. On the other hand, a total of TRY 18.9 billion was received in bids for the re-issue of the 10-year CPI-indexed government bonds on 24 May 2022, while the actual borrowing amounted to TRY 7.9 billion. The same bond was re-issued on 14 June, resulting in borrowing of a total of TRY 1.8 billion against bids totaling TRY 6.8 billion, which clearly demonstrates the loss of momentum in CPI-indexed bonds.

### Macprudential Policies for Consumer Loans

General purpose loans (GPLs) saw an uptrend after April, which was more evident in GPLs of high amounts. Daily GPL extensions, which averaged TRY 2.2 billion in the first three months of the year, rose to TRY 3.6 billion TL after April, marking a significant acceleration. Individuals tended to reduce their debt service payments by spreading their borrowings of high amounts over the long term within maturity limits. As of 16 September 2021, the BRSA reduced the general maturity of GPLs from 36 months to 24 months for loans over TRY 50,000. On 9 June 2022, the BRSA revised its decision and reduced the general maturity limit for loans over TRY 100,000 to 12 months. In June, loan utilizations of over TRY 100,000 receded to January levels (Chart 7). The average maturity of loans over TRY 100,000 declined (Chart 8).

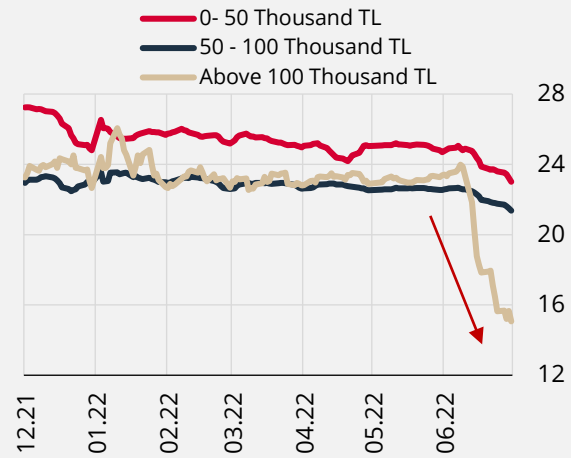
**Chart 7: Daily GPL Use (5-Day MA, TRY Million)**



Source: Risk Center.

Holidays and weekends are excluded.

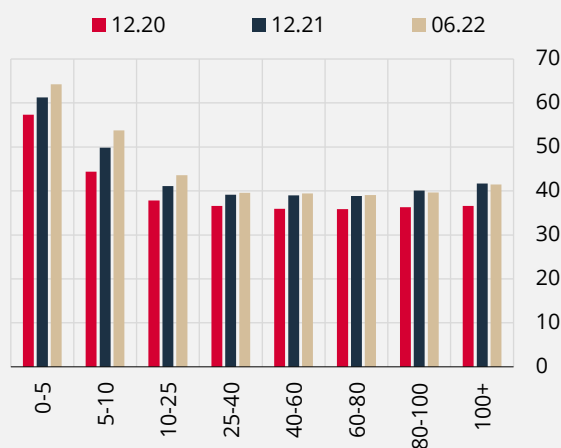
**Chart 8: Daily GPL Weighted-Average Maturity (Month)**



Source: CBRT.

In order to support the payment capacity of individuals, the minimum payment rate for credit cards was reduced from 20-40% to 20% for all cards in the beginning of the pandemic. On 9 June 2022, the minimum payment rate for credit cards with a limit of more than TRY 25,000 was set at 40%. In the recent period, the increase in the outstanding balance of personal credit cards has continued at a higher pace. Limit utilization rates showed an increase across all limit groups. An analysis in terms of personal credit card balances indicates that the increase in cards with a limit above TRY 25,000 was more pronounced compared to the end of the year (Charts 9 and 10). The balance pertaining to individuals with a credit card limit above TRY 25,000 constitutes 73% of the total personal credit card balance. The regulation is expected to be effective on those individuals who do not pay their debts in full and incur interest.

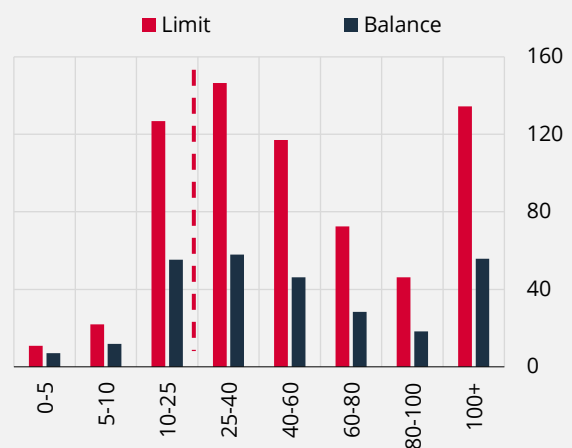
**Chart 9: Limit Utilization Rates by Card Limits (%)**



Source: CBRT.

Note: Card limits and balances are consolidated at the individual level. Limits for individuals who do not have a balance are excluded.

**Chart 10: Limits and Balances by Card Limits as of June 2022 (TRY Billion)**



Source: Risk Center.

While the LTV limitation for housing loans determines individuals' access to loans in residential purchases, it contributes to financial stability by supporting debt service capacity. The LTV ratio, which had been set at 75% for the first time for all residences as of 2011, was changed several times in the following years, and finally started to be applied at different ratios according to the energy class and value of the houses upon the implementation of the latest regulation (Table 2).

**Table 2: LTV Ratio Regulation for Housing Loans**

	House Value	Maximum LTV by Energy Class		
		A-Class	B-Class	Other
<b>New-Build Houses</b>	Value ≤ TRY 2 Million	90%	85%	80%
	TRY 2 Million < Value ≤ TRY 5 Million	70%	65%	60%
	TRY 5 Million < Value ≤ TRY 10 Million	A maximum of TRY 3.5 Million	A maximum of TRY 3.25 Million	A maximum of TRY 3 Million
	TRY 10 Million < Value	0%	0%	0%
<b>Old-Build Houses</b>	Value ≤ TRY 500,000	90%	90%	90%
	TRY 500,000 < Value ≤ TRY 2 Million	70%	65%	60%
	TRY 2 Million < Value ≤ TRY 5 Million	50%	45%	40%
	TRY 5 Million < Value ≤ TRY 10 Million	A maximum of TRY 2.5 Million	A maximum of TRY 2.25 Million	A maximum of TRY 2 Million
	TRY 10 Million < Value	0%	0%	0%

Source: BRSA.

Note: The last regulation date is 23.06.2022, and the maximum LTV represents the ratio of the loan amount to the value of the house received as collateral. The maximum LTV prior to the regulation: 90% for all residences with a value up to TRY 500,000; 90% for A-class residences, 85% for B-class residences, and 80% for other residences of TRY 500,000 and above.

Mortgaged house sales prior to the regulation (the January-May period) in 2022 suggest that approximately 80% of the sales were older homes, and 95% were valued below TRY 2 million (Table 3). On the other hand, the fact that the average LTV ratios of the loans extended were mostly below the threshold values indicates that banks acted prudently in lending for housing. Of loans utilized in the aforementioned period, approximately one quarter in terms of number, and 32% in terms of amount, were extended with an LTV ratio of above 70%. In case the loans extended in that period are restricted to the maximum LTV ratio laid down in the current regulation, the total loan utilization decreases by 5.3%.<sup>1</sup> The implied effect of the regulation appears to be greater for higher value residences for which the maximum LTV ratios are lower.

**Table 3: Impact Analysis of LTV Ratio Regulation**

January-May 2022 Period		Number of Credits Used	Average LTV (%)	LTV over 70 %		Credit Tightening Implied by Regulation (%)**
				Number of Credits	Share of Flow Loan Balance (%)*	
<b>All Houses</b>		127.585	52,5	32.155	31,7	5,3
<b>New-Build Houses</b>	Value ≤ TRY 2 Million	25.928	46,2	3.796	21,0	0,1
	TRY 2 Million < Value ≤ TRY 5 Million	1.084	30,6	43	10,7	1,1
	TRY 5 Million < Value ≤ TRY 10 Million	83	31,2	8	21,2	8,7
	TRY 10 Million < Value	11	40,3	1	35,4	100,0
	Total	27.106	45,5	3.848	20,0	1,1
<b>Old-Build Houses</b>	Value ≤ TRY 500,000	36.713	62,1	14.692	51,7	0,1
	TRY 500,000 < Value ≤ TRY 2 Million	58.498	50,8	13.075	31,8	3,1
	TRY 2 Million < Value ≤ TRY 5 Million	4.697	39,6	436	19,6	10,8
	TRY 5 Million < Value ≤ TRY 10 Million	450	42,8	85	35,9	33,5
	TRY 10 Million < Value	121	40,9	19	35,0	100,0
Total	100.479	54,4	28.307	34,4	6,2	

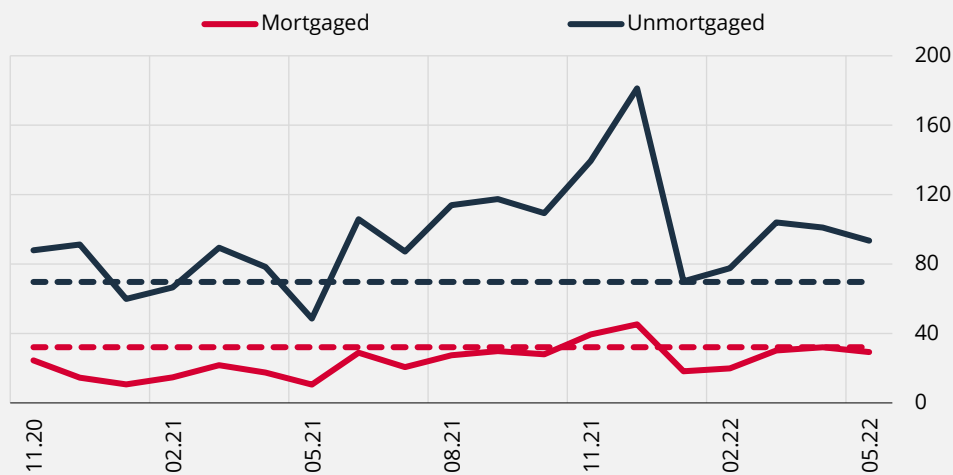
Source: CBRT, Authors' Calculations.

Note: The statistics in the table are from total sales in the January-May reporting periods of 2022. "\*" is the ratio of loan extensions in each sub-item to the total loan extensions in the relevant sub-item, and "\*\*" is the ratio of the portion of the extensions that remain above the current LTV ratio limits to the total loan extension in the relevant items. Since the energy classification data was not entered in full, the threshold values in A-class were taken as basis in the calculation of the "\*\*" column. Houses completed in 2021 and 2022, are considered new-build houses.

<sup>1</sup> When the threshold values in the "Other" class instead of the "A" energy class are considered, the credit utilization decreases by 9.2%.

Since mortgaged sales constitute a relatively low share in house sales, the LTV ratio arrangement is not expected to have a negative impact on housing supply/demand dynamics (Chart 11). It is envisaged that the regulation will limit mortgages for high amounts of housing investments and thus contribute to financial stability by strengthening the allocation of funds for real economic activity purposes.

**Chart 11: Mortgage and Unmortgaged Housing Sales (Thousand)**



Source: CBRT.

Note: Dashed lines show the 2012-2019 average of mortgaged and unmortgaged house sales.

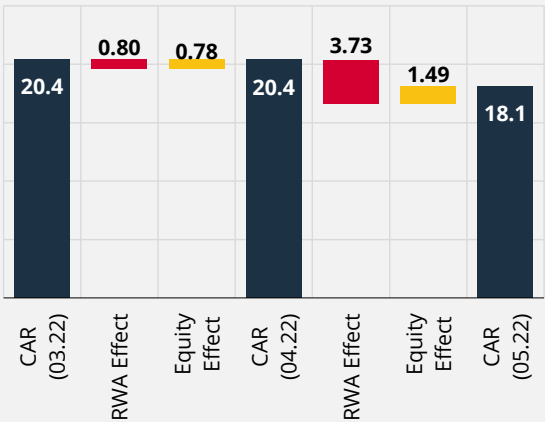
### Policy Measures Regarding Capital Adequacy

On 28 April 2022, the BRSA strengthened its macro prudential policy set and announced new decisions regarding the capital adequacy ratio (CAR) in order to ensure a healthy loan growth and composition. The first decision was to tighten the exchange rate flexibility provided in risk-weighted asset calculations for credit risk. As of 1 May 2022, the value at risk in the CAR calculation began to be calculated based on the 2021 year-end exchange rate value, instead of the 2021 average exchange rate. Accordingly, the USD/TRY exchange rate level used in obtaining the TRY equivalent of FX risk-weighted assets increased from 8.8910 to 13.3290. Risk-weighted assets increased due to the valuation effect and a downward effect emerged in the CAR. Additionally, the risk weight to be applied to TRY commercial loans excluding agricultural, SME, investment and export, public, financial sector loans and corporate credit cards extended as of 1 May 2022 was increased to 200%. This regulation also had a downward effect on the CAR by increasing risk-weighted assets. CAR is one of the fundamental indicators that affect banks' risk appetite and credit policies. In this respect, the decisions taken by the BRSA are considered to have an impact on the loan growth rate and use of loans for intended purposes.

In May, the CAR of the banking sector decreased by 223 basis points compared to the previous month and stood at 18.1%. The increase in risk-weighted assets, driven mainly by the change in the exchange rate flexibility, was effective in this decline. In May, risk-weighted assets had an effect of approximately -373 basis points on the the banking sector CAR (Chart 12). The effect of the higher risk weight on the CAR is observed gradually since the arrangement is applied to newly-extended loans (Chart 13). Meanwhile, when all the loans covered by the regulation are rolled-over in the upcoming period, other factors that affect capital adequacy being constant, an effect of up to 145 basis points may occur on the CAR.

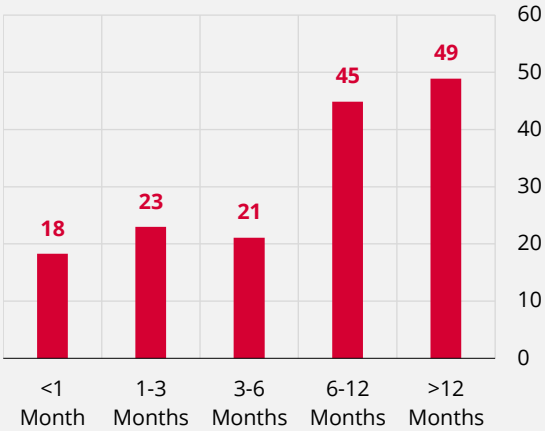


Chart 12: Components of CAR Change (%)



Sources: BRSA, CBRT.

Chart 13: Gradual Impact of the Higher Risk Weight on the Sector's CAR (bp)



Sources: BRSA, CBRT.

## 2. Economic Outlook

### 2.1 Global Economic Developments

**The escalating geopolitical risks have caused global economic activity to weaken. Leading indicators suggest that the global economic outlook continues to weaken.** In the first quarter of 2022, with the contribution of widespread vaccination, the Omicron variant had a limited impact on the global economy, and the majority of countries registered quarterly growth rates (Table 2.1.1). While the euro area grew by 0.5% quarter-on-quarter in this period, the United Kingdom and China posted stronger growth. Economic activity in Japan was almost flat in the first quarter compared to the previous quarter whereas the US economy contracted by 0.4%. In the second quarter of 2022, the growth outlook was adversely affected by (i) the impact of the conflict between Russia and Ukraine on the global economy, the Euro area in particular, through the channels of commodity prices, supply chains, and trade, (ii) the uncertainty about global demand and supply chains driven by the course of the pandemic in China, and (iii) the concerns over global financial conditions. In fact, leading indicators announced in June and July signal that the deceleration in economic activity continues (Chart 2.1.1). While the Purchasing Managers' Index (PMI) remains above the threshold for manufacturing and services sectors across advanced economies, it registered a significant decline in the USA, the Euro area, and the United Kingdom in June compared to the previous month. Moreover, the fall in consumer confidence indices in European countries continued, while the Michigan confidence index in the USA remained at its lowest historical levels in July. Nevertheless, the effects of the negative economic activity outlook on labor market and wage developments were limited. The number of job openings per unemployed person, a measure of labor market tightness, remained high in the USA while unemployment rates continued to be at a historical low level at 3.6% in June, and the Atlanta Fed's indicator for wage developments continued to increase significantly. Likewise, the unemployment rate in the Euro area was also on the decline, materializing at 6.6% in May. In emerging economies, the PMI exceeded the threshold in manufacturing and services sectors in June. In China, industrial production and exports recovered in May due to the easing of pandemic measures following the decline in the number of cases. In addition, although the PMI data for June indicate that the recovery continues, particularly at a faster pace in the services sector, the course of the pandemic remains a risk to the growth outlook in China.

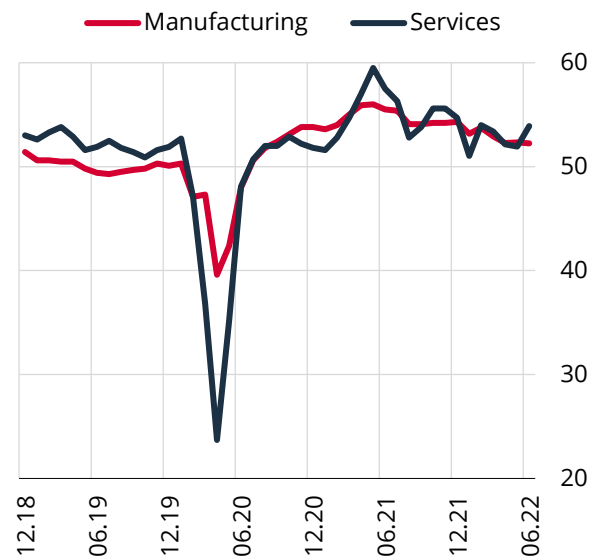
**Table 2.1.1: Growth Rates\*** (2022Q1, %)

	Annual	Quarterly
<b>Eurozone</b>	5.4	<b>0.5</b>
<b>Germany</b>	3.8	<b>0.2</b>
<b>USA</b>	3.5	<b>-0.4</b>
<b>UK</b>	8.7	<b>0.8</b>
<b>Italy</b>	6.2	<b>0.1</b>
<b>France</b>	4.5	<b>-0.2</b>
<b>China</b>	4.8	<b>1.4</b>
<b>Canada</b>	2.9	<b>0.8</b>
<b>India</b>	4.1	<b>0.8</b>
<b>South Korea</b>	3.0	<b>0.6</b>
<b>Japan</b>	0.7	<b>-0.1</b>

Source: OECD.

\* Countries with the highest GDP on a global basis are sorted according to their weight in Türkiye's exports in 2021.

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



Source: IHS Markit.

**Global growth expectations have been revised downwards due to the uncertainty fueled by geopolitical risks and financial conditions across the globe. However, the structure of exports and the market diversification flexibility of exporters in Türkiye limit the negative effects on growth.** Growth expectations for 2022 have been revised downwards due to geopolitical developments, the course of the pandemic, and the monetary policy steps of central banks in advanced economies (Table 2.1.2). Accordingly, Türkiye's external demand outlook for 2022 might see an update. Among subgroups, the Euro area seems to have made a reduced contribution to external demand. On the other hand, the fall in external demand remains limited as the historically elevated levels of energy prices, despite the recent decline, may potentially drive up the revenues of energy exporting countries, such as Iraq, the United Arab Emirates (UAE) and Egypt, which account for a significant share of Türkiye's exports (Chart 2.1.2). Therefore, external demand is expected to be affected to a lesser extent in 2022 than implied by global growth developments.

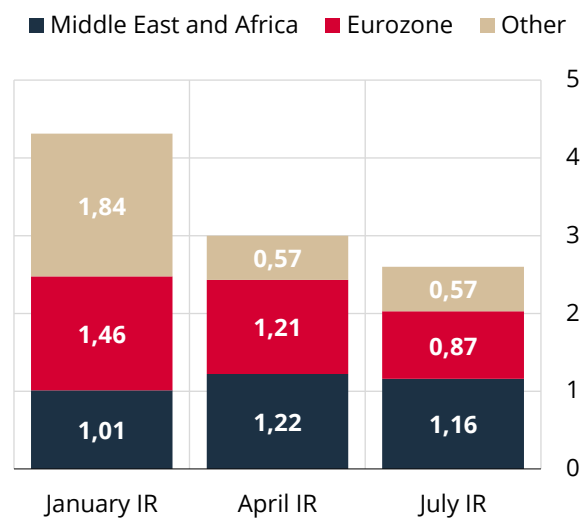
**Table 2.1.2: Growth Forecasts for Türkiye's Main Trading Partners\* (%)**

	Realization for	Forecast for 2022	
	2021	April 2022	July 2022
<b>Eurozone</b>	5.3	2.8	<b>2.7</b>
<b>Germany</b>	2.9	2.2	<b>1.6</b>
<b>US</b>	5.7	3.2	<b>2.1</b>
<b>UK</b>	7.4	3.9	<b>3.3</b>
<b>Italy</b>	6.6	2.7	<b>2.7</b>
<b>Iraq</b>	5.9	9.1	<b>9.5</b>
<b>Spain</b>	5.1	4.6	<b>4.2</b>
<b>France</b>	6.8	3.1	<b>2.3</b>
<b>Netherlands</b>	5	3.2	<b>2.9</b>
<b>Israel</b>	8.2	5.0	<b>4.7</b>
<b>Russia</b>	4.7	-10	<b>-7.7</b>
<b>UAE</b>	2.3	5.7	<b>5.6</b>
<b>Romania</b>	6	2.7	<b>4.5</b>
<b>Belgium</b>	7	2.8	<b>2.5</b>
<b>Poland</b>	5.9	3.9	<b>4.8</b>
<b>Egypt</b>	3.3	5.2	<b>5.3</b>
<b>Bulgaria</b>	4.2	2.7	<b>2.8</b>
<b>China</b>	8.1	4.9	<b>4.2</b>

Sources: Consensus Economics, IHS Markit.

\* Countries are sorted according to the size of their share in Türkiye's exports in 2021.

**Chart 2.1.2: Contributions to Export-Weighted Global Growth Index for 2022 (% Points)**



Sources: Consensus Economics, IHS Markit, CBRT.

**Consistent with the global demand outlook, commodity prices have decreased in general. In addition, supply chain disruptions have declined recently.** The rise in the dollar index driven by the changing outlook in global financial conditions, and demand concerns exert a downward pressure on commodity prices. In historical terms, industrial commodity prices, which move parallel to the global growth outlook and particularly China's growth, have substantially decreased recently. Aluminum, iron and copper prices fell by about 20% compared to the previous reporting period. Likewise, agricultural commodity prices also declined due to demand concerns, a positive harvest driven by favorable weather conditions, and the plans to open up a grain corridor for export from Ukraine. The fall in wheat prices compared to the period following the outbreak of conflict is notable. On the other hand, continued pledges to impose sanctions on Russia, developments in Libya and Ecuador as two important producers within OPEC, and maintenance and repair of some energy facilities cause the supply-side pressures on energy commodity prices to continue. In fact, supply-side problems in Brent oil prices continue, albeit in a weakening manner. However, the recently escalating concerns over global demand weigh on oil prices. The Brent oil price per barrel, which had exceeded USD 125 in June, traded below USD 105 as of 25 July. Meanwhile, natural gas prices have diverged recently, and prices of natural gas traded in US stock exchanges rose by approximately 27% compared to the previous reporting period while the Netherlands one-month natural gas price, a benchmark for the European natural gas market, jumped by more than 80% due to the sanction decisions on Russia and the maintenance and repair of important natural gas facilities (Table 2.1.3). The fall in demand, the easing of pandemic measures in China, and the increase in freight capacities have reduced the supply chain disruptions recently. Although they are still far from their historical averages, indicators for the state of supply chains, such as suppliers' delivery times in the manufacturing industry (Chart 2.1.3), suggest a more favorable outlook compared to previous periods.

**Table 2.1.3: Commodity Price Changes (%)**

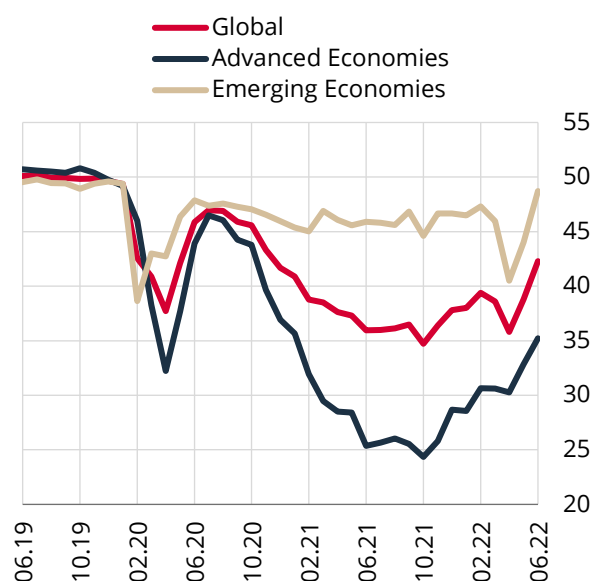
	Apr	May	Jun	July	12- Month Change	Since the 2022 April IR*	Since the Conflict**
<b>Commodity Headline Index</b>	-0.7	3.2	1.0	-12.2	27.7	-11.1	0.8
<b>Energy</b>	-1.0	7.2	4.8	-12.6	46.4	-6.1	11.9
<b>Agricultural Com.</b>	2.0	2.0	-8.5	-15.3	10.7	-25.0	-15.8
<b>Industrial Metals</b>	-3.5	-10.8	-6.0	-13.2	-10.3	-22.9	-24.0
<b>Precious Metals</b>	-1.0	-5.2	-0.8	-5.8	-6.0	-9.4	-11.4
<b>Non-Energy</b>	-0.2	-3.1	-5.8	-11.5	2.5	-19.5	-15.5
<b>Brent Oil</b>	-8.5	6.2	6.9	-8.7	47.3	-3.0	4.7
<b>Natural Gas (USA)</b>	35.2	21.6	-7.6	-10.3	78.2	26.7	91.0
<b>Natural Gas (Europe)</b>	-23.0	-6.2	15.3	53.6	359.3	80.5	54.1
<b>Coal</b>	-11.2	27.3	1.2	3.2	179.4	25.5	71.3
<b>Aluminium</b>	-7.3	-12.4	-9.3	-7.0	-4.2	-20.0	-29.3
<b>Copper</b>	-0.9	-8.5	-3.2	-17.5	-22.0	-24.1	-24.8
<b>Iron</b>	-0.9	-12.5	0.3	-20.2	-49.7	-30.3	-26.1
<b>Wheat</b>	-3.6	7.3	-11.4	-20.1	21.7	-28.3	-16.8
<b>Soy Beans</b>	0.5	-1.2	0.7	-8.6	8.4	-13.7	-11.3
<b>Rice</b>	1.0	6.2	-3.1	-0.3	25.4	0.9	12.0
<b>Corn</b>	5.3	-0.3	-3.7	-10.3	11.9	-28.9	-16.5
<b>Cotton</b>	12.1	3.2	-9.1	-25.3	11.7	-36.3	-20.5
<b>Sugar</b>	3.1	-2.1	-2.5	-1.4	4.5	-10.0	-4.6

Source: Bloomberg.

\* Percentage changes on 25 July and 28 April.

\*\* Percentage changes on 25 July and 24 February.

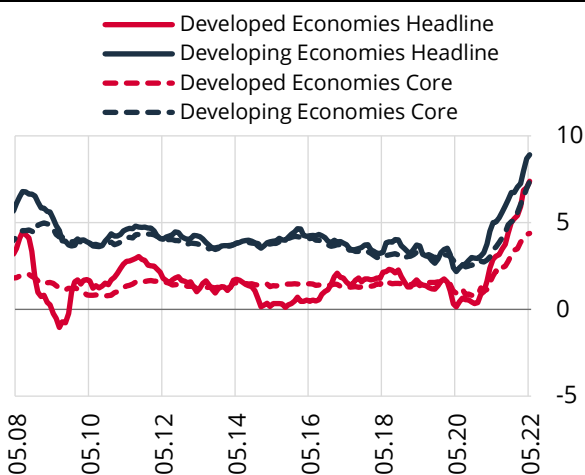
**Chart 2.1.3: PMI Manufacturing Industry Suppliers' Delivery Times (Level)**



Source: IHS Markit.

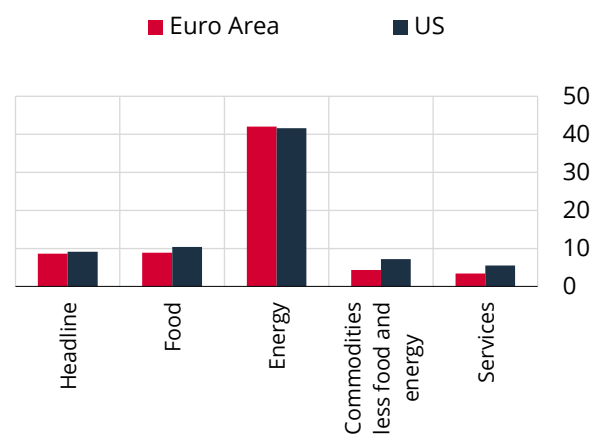
**Global inflation continues to rise at an accelerated pace.** Increased uncertainties about global food security driven by trade restrictions, the high course of commodity prices, the persistence of supply constraints in some sectors, particularly in food and energy, and elevated levels of transportation costs have caused producer and consumer prices to surge around the world. Inflation gained momentum in both headline and core indicators globally, hitting historical highs for advanced economies in particular (Chart 2.1.4). Moreover, central banks in advanced economies emphasize that the rise in inflation may last longer than previously anticipated due to rising energy prices, and imbalances between supply and demand.

**Chart 2.1.4: Global Inflation<sup>1</sup> (Annual, %)**



Source: Bloomberg.

**Chart 2.1.5: Inflation Rates (June 2022, %)**

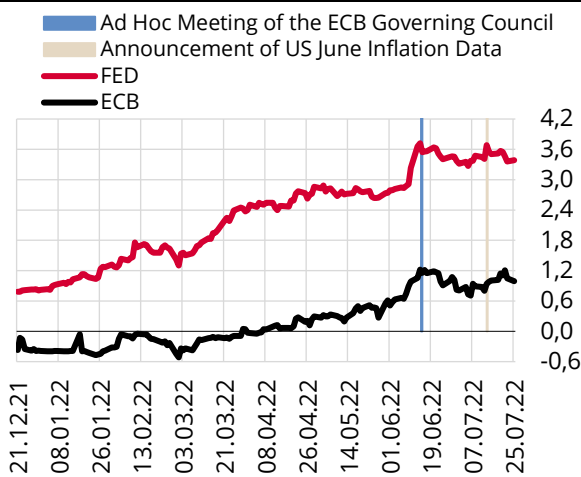


Sources: Eurostat, the U.S. Bureau Labor Statistics.

<sup>1</sup> **Headline and Core Inflation:** Advanced Economies: The US, the Euro area, Japan, the UK, Canada, S. Korea, Switzerland, Sweden, Norway, and Israel. Emerging Economies: Brazil, Mexico, Poland, Indonesia, S. Africa, Thailand, Czechia, Colombia, Hungary, Romania, and the Philippines.

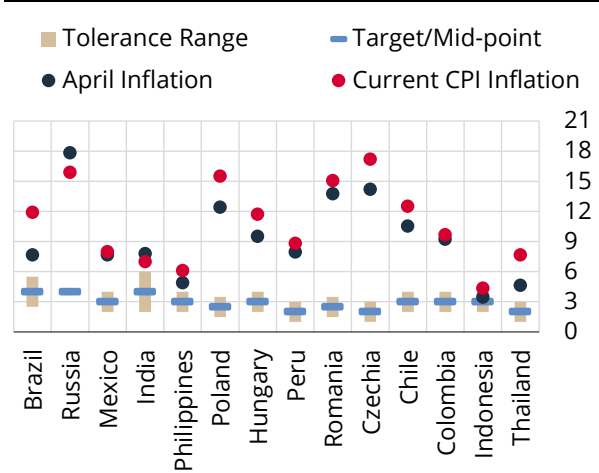
**The divergence in monetary policy steps and communications of central banks in advanced economies continues due to their diverse economic outlooks. Central banks have increased their efforts to develop new supportive measures and tools to cope with the increasing uncertainties in financial markets.** At its June and July meetings, the US Federal Reserve (Fed) hiked the policy rate by 75 basis points and announced that it would continue reducing the size of its balance sheet as planned. In addition, at the June meeting, FOMC members revised their projections for the US economy to lower growth and higher inflation. On the other hand, the European Central Bank (ECB) raised the interest rate by 50 basis points in July. Besides, the ECB announced at its July meeting that it approved the previously announced mechanism for bond markets devised to prevent differentiation of Euro-denominated bond yields across advanced economies and ensure sounder and more effective functioning of the monetary transmission mechanism. It was stated that this new tool, called the Transmission Protection Instrument, would allow the ECB to deliver on its price stability mandate. While inflation rates in the USA and the Euro area remain close (Chart 2.1.5), the Fed has increased the interest rates by 225 basis points in total and the ECB by 50 basis points since March 2022. Interest rates implied by options also indicate that this divergence is expected to be maintained (Chart 2.1.6). The Bank of Japan, on the other hand, still pursues an expansionary policy stance, keeping its policy rate unchanged and continuing with its bond purchase programs. The Bank of Japan's share in Japanese bond markets continues to grow. Against this background, central banks put emphasis on uncertainty in their communications and say that they want to maintain policy flexibility against changing conditions. Across many emerging economies, consumer inflation has further increased since the previous reporting period when it was already outside the tolerance range around the target (Chart 2.1.7). Therefore, some emerging market central banks hiked their policy rates. However, policy rates seem to hover below inflation in many emerging economies. On the other hand, having shown clear signs of an economic slowdown in the last quarter of 2021, China announced an economic program for 2022 that follows a monetary policy that supports stable and reasonable growth. In line with this policy, lending rates and reserve requirements have been reduced, and it has been announced that measures would be stepped up to support economic activity that has been adversely affected by pandemic restrictions recently.

**Chart 2.1.6: Policy Rate Implied by Options for End-2022 (Effective, %)**



Source: Bloomberg.

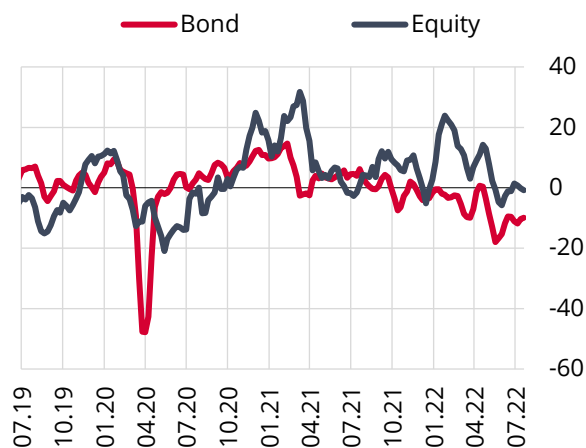
**Chart 2.1.7: Consumer Inflation in Emerging Economies (Target, Tolerance Range and Current Inflation, %)**



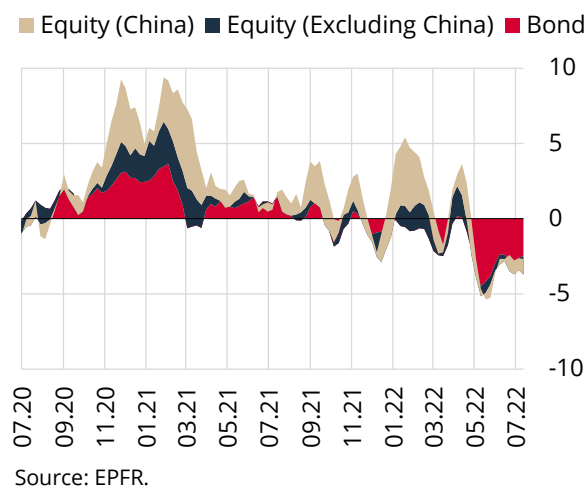
Source: Bloomberg.

**Due to the outlook of global financial conditions, emerging economies see outflows of funds from their equity and debt securities markets.** The volatility in the long-term bond rates of advanced economies and the course of global financial conditions keep the risks to portfolio flows to emerging economies alive, leading to outflows of funds from debt securities markets in particular (Chart 2.1.8). Equity market funds (excluding China's) have worsened while the course of the pandemic poses a risk to portfolio flows to China (Chart 2.1.9). The course of the pandemic and geopolitical developments, and the expectations regarding the monetary policies of central banks in advanced economies will continue to affect the global risk appetite and portfolio movements in the upcoming period.

**Chart 2.1.8: Portfolio Flows to Emerging Economies (4-Week Cumulative, USD Billion)**



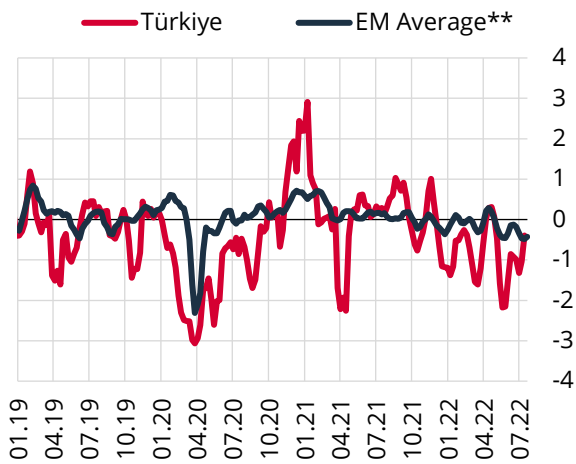
**Chart 2.1.9: Portfolio Flows to Emerging Economies (4-Week Moving Average, USD Billion)**



## 2.2 Financial Conditions

**Due to the rise in global inflation and increased concerns of a recession in advanced economies, the global risk appetite declined in May and June but partially recovered in July.** The lingering conflict in Ukraine and fluctuating commodity prices have weakened the expectations of a recovery in the global risk appetite. The tightening of monetary policies in advanced economies, with the Fed taking the lead, and the increased likelihood of a recession created a significant wave of selling of risky assets in the stock markets of advanced economies and also led to marked portfolio outflows from the stock markets and debt securities of EMEs. Meanwhile, capital flows to Türkiye displayed a similar movement, and Türkiye's risk premium increased (Chart 2.2.1 and Chart 2.2.2). In the current reporting period, net foreign outflows from Turkish GDDS and equity markets were USD 1.1 billion and USD 2.4 billion, respectively. In this period, portfolio outflows through the swap channel contributed negatively to the total portfolio movements.

**Chart 2.2.1: Portfolio Flows to Türkiye and EMs\* (4-Week Cumulative, USD Billion)**

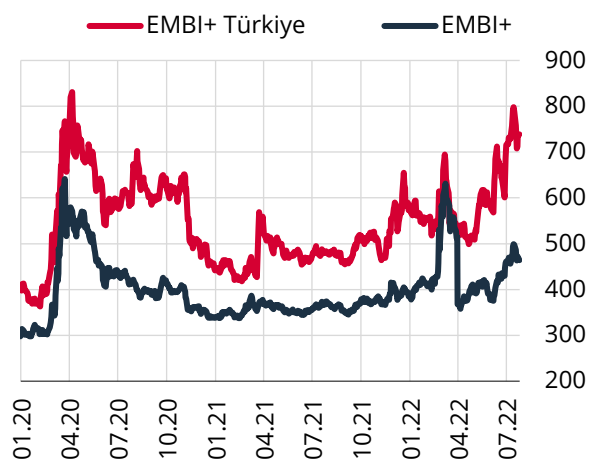


Sources: EPFR, CBRT.

\* Türkiye data includes portfolio flows to equity and GDDS markets. Repo is included in the GDDS data.

\*\* EME Average data is taken from the EPFR database and has been calculated as the average of all the database-covered funds' weekly net investments in equity and bond markets in Brazil, Chile, Colombia, Mexico, Poland, the Philippines, Malaysia, South Africa, Indonesia, Romania, Russia, and Hungary.

**Chart 2.2.2: Risk Premiums of Türkiye and EMs\* (EMBI+ Indices, Basis Point)**

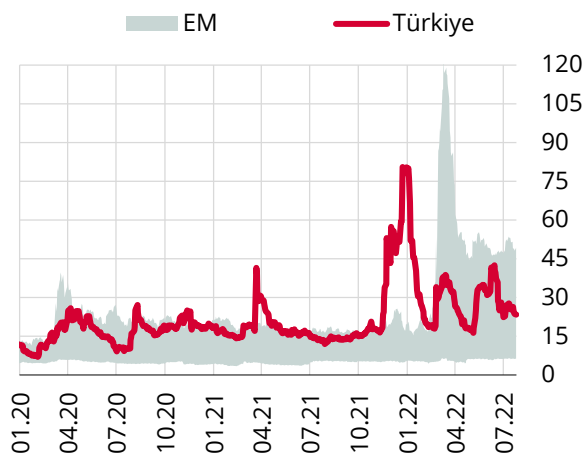


Source: Bloomberg.

\* JP Morgan Emerging Market Bond Index+ (EMBI+) is calculated as the difference between the average yield of USD-denominated bonds of emerging economies and the US Treasury bond yield. EMBI+ Türkiye is calculated using Turkish Eurobonds instead of all EME bonds.

**The exchange rate volatility implied by options in emerging economies increased.** While the exchange rate volatility in emerging economies was on the rise due to the decline in the risk appetite and the tightening in the monetary policies of advanced economies, the 12-month exchange rate volatility of the Turkish lira also increased. On the other hand, the one-month exchange rate volatility of the Turkish lira rose in May but posted a marked decline as of June (Chart 2.2.3 and Chart 2.2.4).

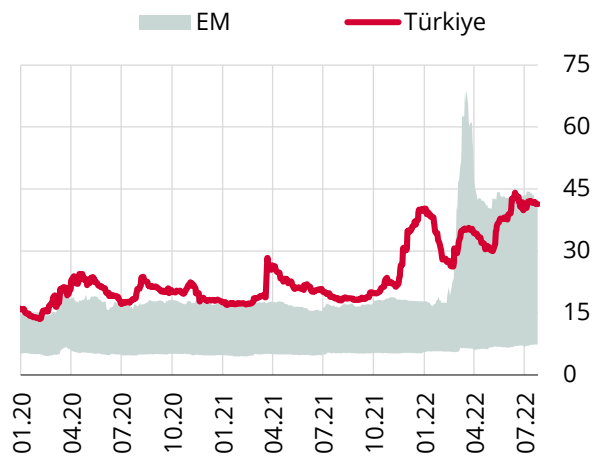
**Chart 2.2.3: Exchange Rate Volatilities Implied by Options\* (against USD, 1-Month Forward, %)**



Source: Bloomberg.

\* EMs: Brazil, Chile, Colombia, Mexico, Poland, the Philippines, Malaysia, S. Africa, Indonesia, Romania, Russia, and Hungary.

**Chart 2.2.4: Exchange Rate Volatilities Implied by Options\* (against USD, 12-Month Forward, %)**

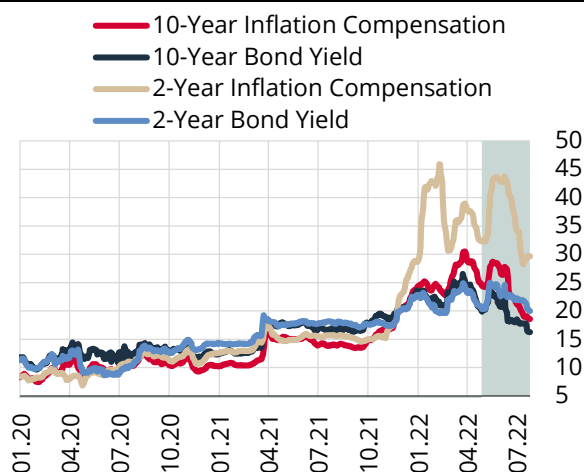


Source: Bloomberg.

\* EMs: Brazil, Chile, Colombia, Mexico, Poland, the Philippines, Malaysia, S. Africa, Indonesia, Romania, Russia, and Hungary.

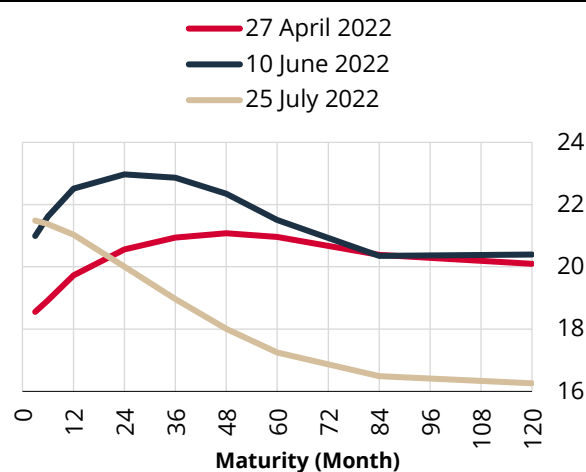
**While long-term GDDS yields declined, inflation compensation decreased across all terms.** Despite the continued rise in actual inflation, inflation compensation, which is a market-based indicator of inflation expectations, declined in both medium and long terms as of June. Although the increases in risk premium partially drove up the short-term GDDS yields, the long end of the GDDS yield curve shifted significantly downwards due to the decline in inflation expectations. Recently, both the two-year and 10-year inflation compensation have exceeded GDDS yields and thus, real GDDS yields have traded in negative territory (Chart 2.2.5 and Chart 2.2.6).

**Chart 2.2.5: Long-Term GDDS Yields and Inflation Compensation (%)**



Source: Bloomberg.

**Chart 2.2.6: GDDS Yield Curve (%)**



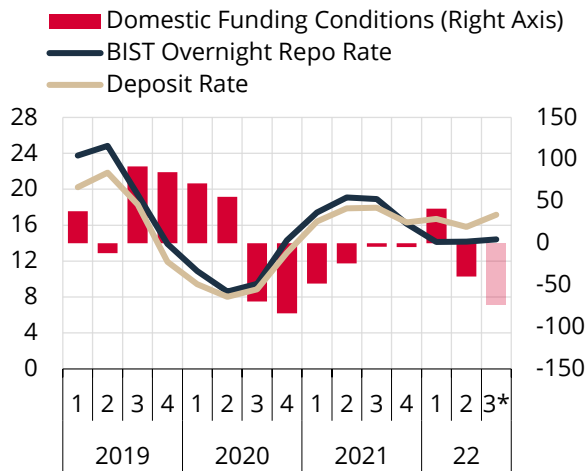
Source: Bloomberg.

**Throughout the second quarter of 2022, domestic funding costs of banks did not change significantly.**

Although domestic funding conditions tightened following the macroprudential measures taken in the second half of the quarter and the changes in collateral management, loan growth was strong throughout the quarter. In this period, banks' domestic funding costs remained low as the policy rate was kept constant at 14% (Chart 2.2.7). Deposit rates, which had decreased following the rise after the introduction of the FX-protected Deposit scheme, were largely flat in the second quarter but have registered an increase in the recent weeks. On the other hand, second quarter results of the Bank Loans Tendency Survey (BLTS) indicate that domestic funding conditions tightened compared to the previous quarter. In the relevant period, macroprudential measures were introduced, which are believed to have had a tightening effect on domestic funding conditions. With an announcement on 23 April 2022, the CBRT set the reserve requirement ratio for Turkish lira commercial cash loans, excluding SME, agricultural, export and investment loans, at 10%. This ratio was revised to 20% on 10 June 2022. In addition to these measures, with the BRSA decision no. 10188, the risk weight for commercial loans under aforementioned classification that would be extended as of 1 May 2022 was increased to 200%. Moreover, implementations introduced as of April to increase the weight of Turkish lira fixed-income securities in the collateral pool used in money market operations had a downward effect on the liquidity facilities of banks. According to survey results, banks expect the tightening in domestic funding conditions to continue into the third quarter of the year (Chart 2.2.7).



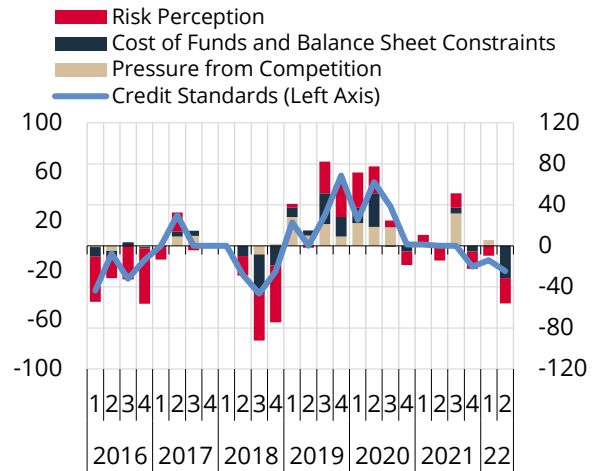
**Chart 2.2.7: Indicators of Banks' Funding Costs and Conditions (%)**



Sources: Bloomberg, CBRT BLTS.

\* Domestic funding conditions indicate banks' expectations, other data show average values as of 15 July. Note: The indicator for domestic funding conditions shows the ratio of net percentage change. This ratio is calculated by subtracting the ratio of banks that indicated tightening in funding conditions from the ratio of banks that indicated easing compared to the previous quarter.

**Chart 2.2.8: Factors Affecting Credit Standards for Businesses**

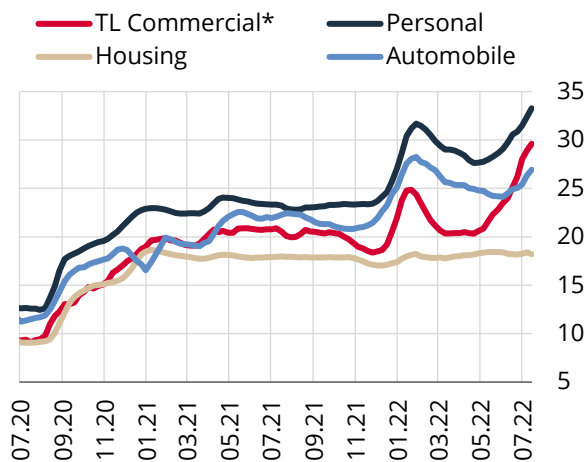


Source: CBRT BLTS.

Note: See the note under Chart 2.2.14.

**Although banks, in line with the developments in funding conditions, tightened the loan standards for corporates compared to the previous quarter, companies continued to access loans.** Survey results suggest that banks' funding costs and balance sheet constraints, as well as their risk perceptions, had a tightening effect on loan standards in the said period (Chart 2.2.8). In line with the survey results, high loan demand, increased risk perception and the macroprudential measures taken led to a rise in TRY commercial loan and personal loan rates (Chart 2.2.9). In this period, while housing loan rates remained almost unchanged, automobile loan rates posted a slight increase. The increase in deposit rates was limited, the loan-deposit rate spread, a proxy for banks' lending tendency, rose for TRY commercial and consumer loans, and stood considerably above its long-term averages (Chart 2.2.10). The rise in the consumer loan rate spread is attributable to personal loans.

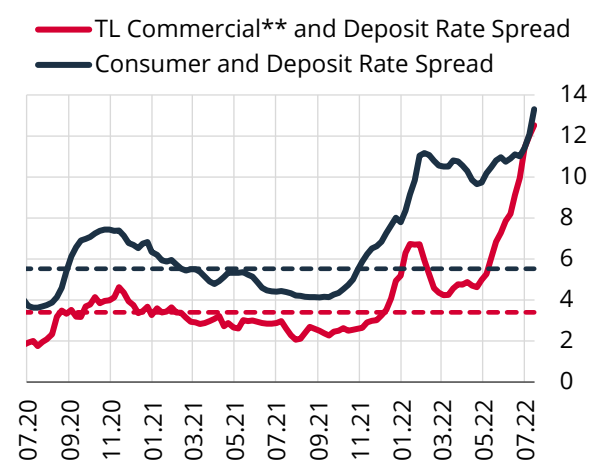
**Chart 2.2.9: Interest Rates by Types of Loans**  
(Flow Data, Annual Rates, 4-Week Moving Average, %)



Source: CBRT.

\* Overdraft accounts and credit cards excluded.

**Chart 2.2.10: Loan-Deposit Rate Spread \* (Flow Data, Annual Rates, 4-Week Moving Average, %)**



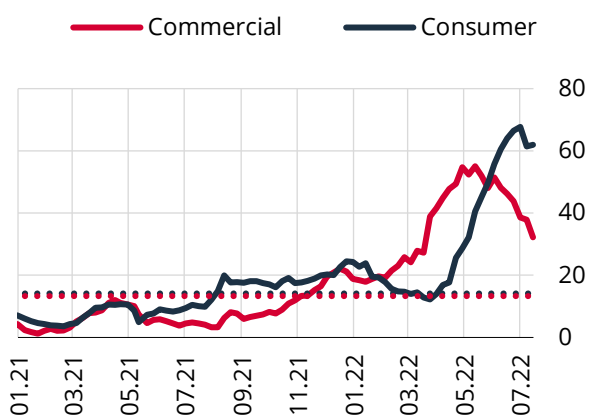
Source: CBRT.

\* Dashed lines indicate the 2012-2019 average of the respective series.

\*\* Overdraft accounts and credit cards excluded.

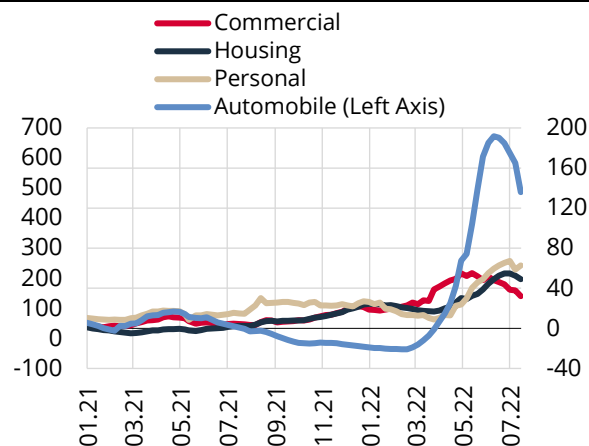
**The surge in loans in the second quarter of 2022 slowed by the end of the quarter due to shrinking loan supply.** The increase in producer and consumer prices compared to the previous reporting period and the level of real interest rates are among the factors that support the commercial and consumer loan growth from the demand side (Chart 2.2.11). The automobile loan growth that accelerated following the BRSA's arrangements on limits and maturities for such loans at the end of February continued at an increased pace in the second quarter of the year (Chart 2.2.12). Survey results indicate that banks' increased risk perceptions and macroprudential measures in place since April had an effect on the deceleration of the commercial loan growth. The regulation introduced for commercial loans promotes selective credit policy by increasing banks' costs in lending to non-farm private sector companies that fall outside the scope of SME definition in areas other than investment and exports. Inflation adjusted change in loans in particular shows that the four-week average change in corporate loans at the end of the quarter decreased above +0.4 standard deviations from the long-term average (Chart 2.2.13). Inflation adjusted change in retail loans, on the other hand, is hovering above +1.7 standard deviations from the long-term trend. Macroprudential measures have also been announced recently to curb the consumer loan demand. Accordingly, the BRSA decision No. 10222 in early June increased credit card minimum payment rates and reduced the maturity limit for consumer loans. Additionally, the BRSA decision No. 10249 in late June differentiated the loan value ratios for housing loans according to the value of residents and limited them on average.

**Chart 2.2.11: Loan Growth\*** (13-Week Annualized Growth, Adjusted for Exchange Rate, %)



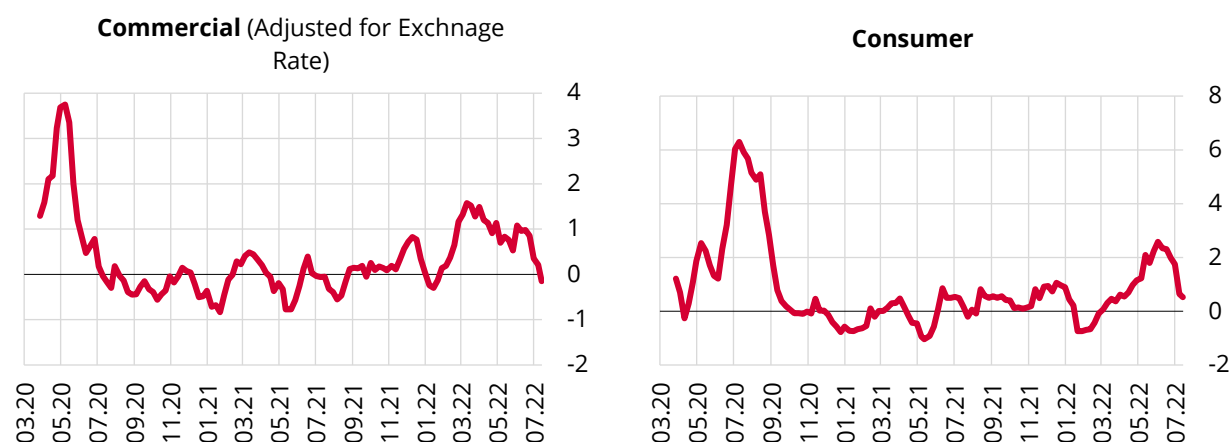
Source: CBRT.  
\* Dashed lines indicate the 2012 - 2019 average of the respective series.

**Chart 2.2.12: Loan Growth Rates by Types of Loans** (13-Week Annualized Growth, Adjusted for Exchange Rate, %)



Source: CBRT.

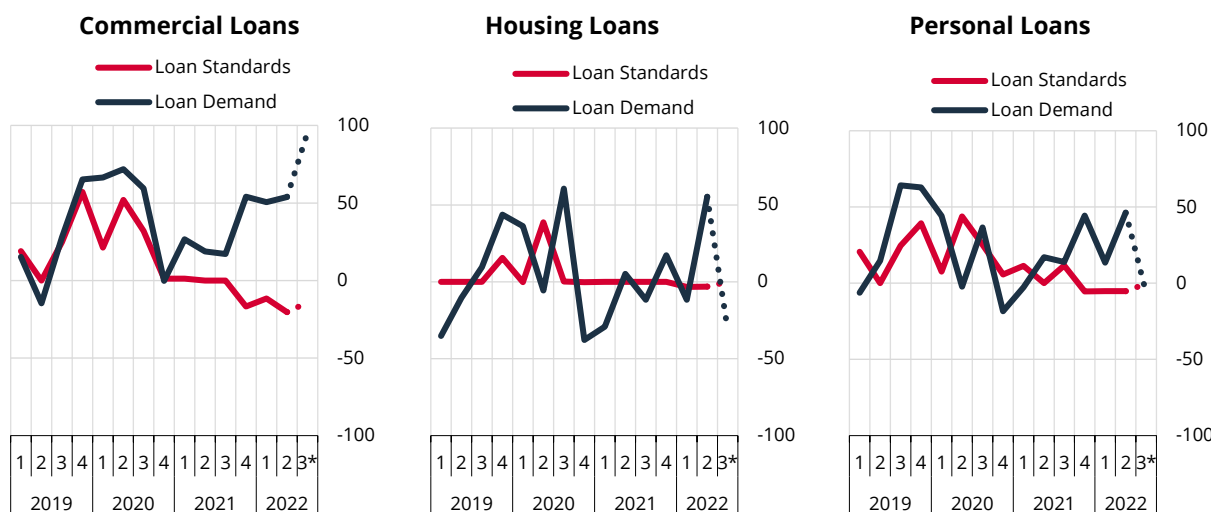
**Chart 2.2.13: Credit Change** (4-Week Average, Real, Standard Value)



Source: CBRT.  
Note: Seasonally-adjusted weekly credit changes are deflated by D-PPI for commercial loans and by CPI for consumer loans. The four-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.

**Bank Loans Tendency Survey results suggest that the acceleration in loans was driven by demand in the second quarter.** According to the survey results, loan demand grew across all loan types in the second quarter (Chart 2.2.14). In the third quarter, it is expected that consumer loan demand will weaken while commercial loan demand will increase further. In the same period, loan standards are expected to remain largely unchanged for housing and personal loans, while maintaining their previous quarter trend for commercial loans.

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



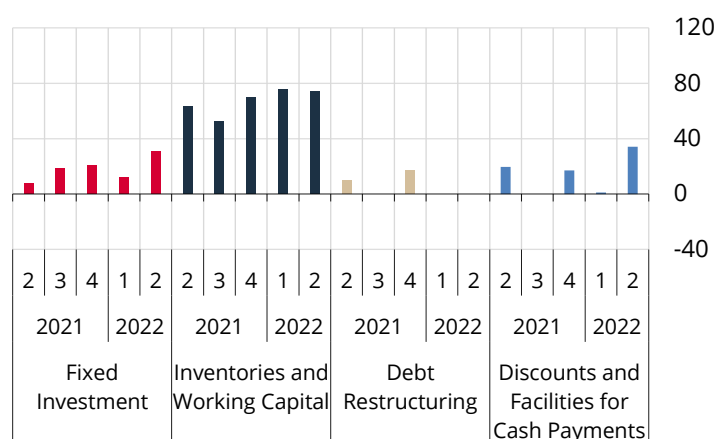
Source: CBRT BLTS.

\* Expectations of banks.

Note: To calculate Loan Standards and Loan Demand indices, banks are asked how their loan standards (loan demand) have changed over the past three months. Net tendencies calculated based on response percentages indicate the direction of the change in loan supply (demand). Index values above 0 indicate easing in loan standards (increase in loan demand).

**In the second quarter, inventories and working capital needs remained major drivers for commercial loan demand.** In that period, inventories and working capital needs were the major contributors to the commercial loan demand (Chart 2.2.15). Meanwhile, fixed investments and cash purchase facilities were the other factors that affected loan demand.

**Chart 2.2.15: Leading Factors Affecting Firms' Loan Demand (%)**



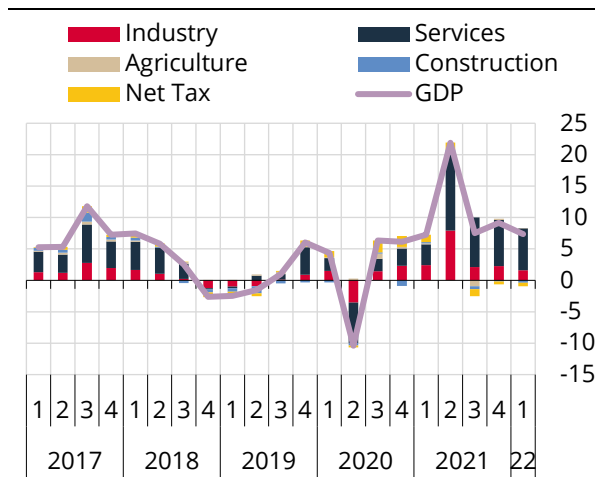
Source: CBRT BLTS.

Note: Net percentage changes in factors are the difference between the percentage ratio of the banks reporting that this factor increased the loan demand and those reporting that it decreased the loan demand.

## 2.3 Economic Activity

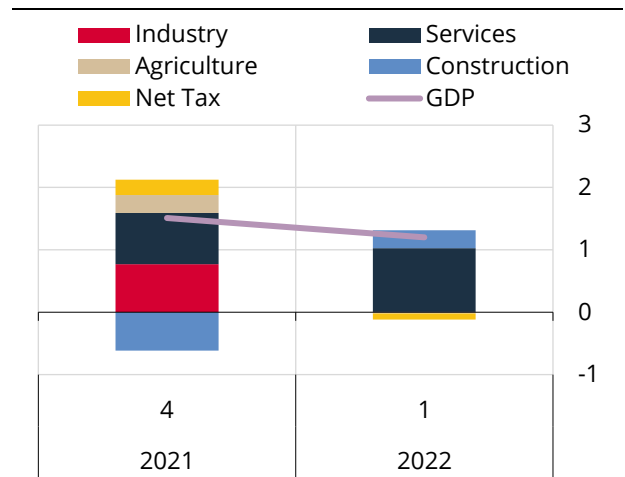
**Economic activity remained strong in the first quarter of 2022.** In this quarter, GDP increased by 7.3% year-on-year and by 1.2% quarter-on-quarter in seasonal and calendar adjusted terms (Chart 2.3.1). On the production side, services and industrial sectors were the main drivers of annual growth in the first quarter, while the construction sector limited growth. On a quarterly basis, all components except agriculture and net tax made a positive contribution to growth (Chart 2.3.2). In this quarter, amid the post-pandemic normalization process, the services sector made a strong contribution to the quarterly growth. On the expenditure side, final domestic demand led by private consumption was the main driver of annual growth, while net exports' contribution to annual growth was 3.5 percentage points (Chart 2.3.3). Machinery-equipment investments, one of the sub-items of investments, which increased by 10.5% on an annual basis, showed an uptrend on an annual basis for ten quarters in a row. Furthermore, in the first quarter of the year, the share of machinery-equipment investments and net exports in GDP reached the highest level in the last ten years. In seasonally adjusted terms, final domestic demand made a negative contribution to quarterly growth by 1.4 points, while the contribution of net exports was 0.4 points. Change in stocks made a positive contribution to quarterly growth by 2.3 points (Chart 2.3.4).

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



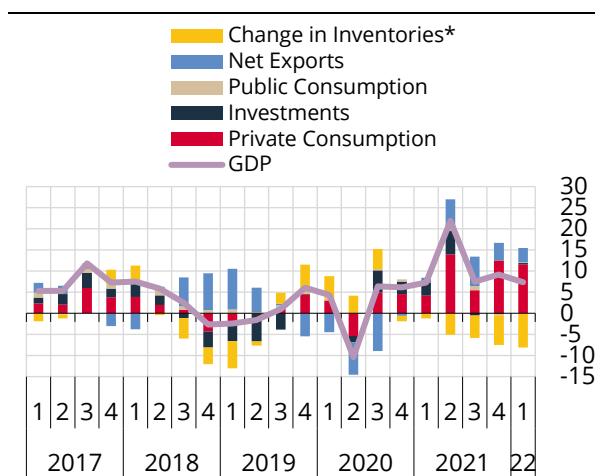
Source: CBRT, TURKSTAT.

**Chart 2.3.2: Quarterly GDP Growth and Contributions from Production Side (% Points)**



Source: CBRT, TURKSTAT.

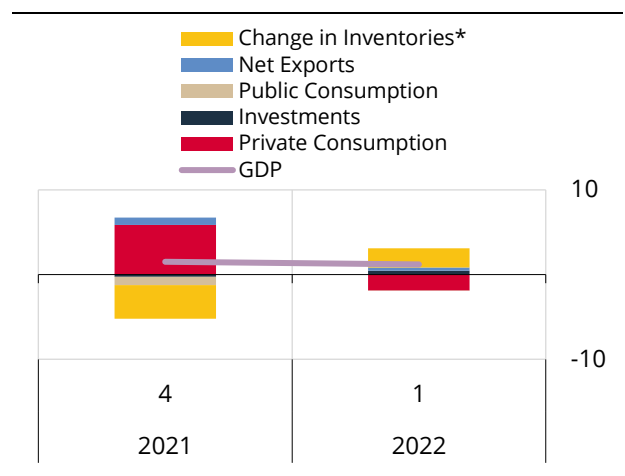
**Chart 2.3.3: Annual GDP Growth and Contributions from Expenditures Side (% Points)**



Source: CBRT, TURKSTAT.

\* Includes change in stocks and statistical discrepancy due to chain-linking.

**Chart 2.3.4: Quarterly GDP Growth and Contributions from Expenditures Side (% Points)**

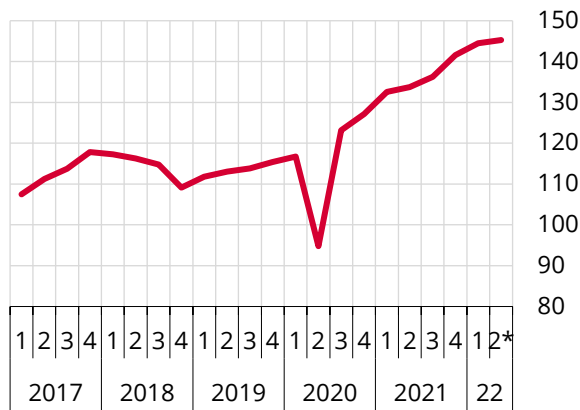


Source: CBRT, TURKSTAT.

\* Includes change in stocks and statistical discrepancy due to chain-linking.

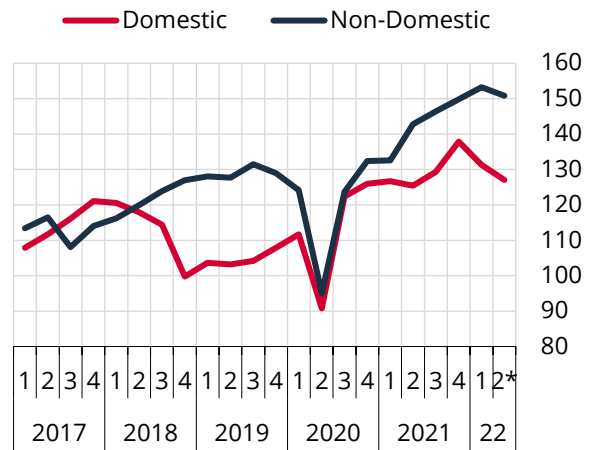
**Indicators for the second quarter of 2022 suggest that economic activity has remained strong despite some loss of momentum compared to 2021.** The April-May average of industrial production, adjusted for seasonal and calendar effects, increased by 0.5% quarter-on-quarter (Chart 2.3.5). An analysis by export share reveals that the quarterly rise in industrial production in sectors with high export intensity was stronger than in other sectors (Box 2.1). Industry turnover indices suggest that foreign demand continues to support industrial production, while the contribution of domestic demand has decreased (Chart 2.3.6). While the April and May average of the retail sales volume index recorded a strong quarter-on-quarter increase of 4% (Chart 2.3.7), there was a slowdown in spending with credit cards towards the end of the quarter (Chart 2.3.8).

**Chart 2.3.5: Industrial Production Index**  
(Seasonally and Calendar Adjusted, 2015=100)



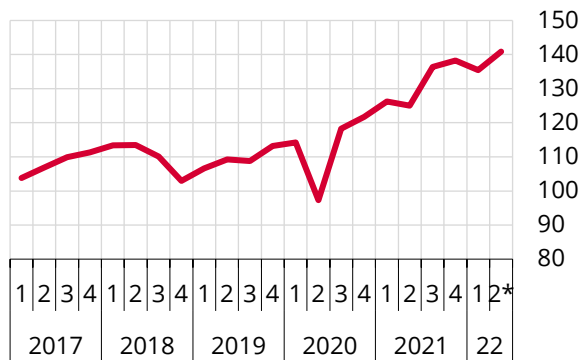
Source: TURKSTAT.  
\* Average of April-May.

**Chart 2.3.6: Industrial Turnover Indices**  
(Seasonally and Calendar Adjusted, Real, 2015=100)



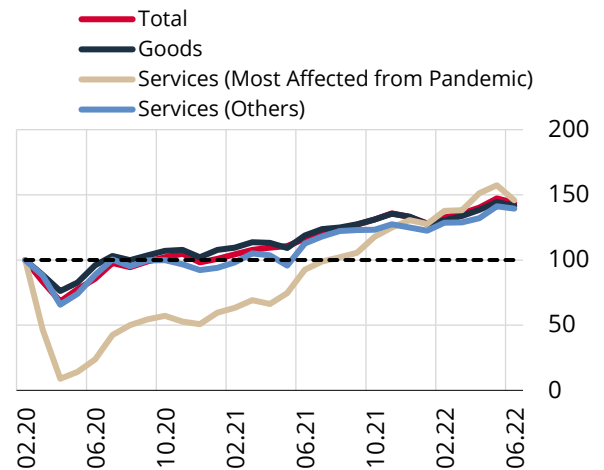
Source: CBRT, TURKSTAT.  
\* Average of April-May.

**Chart 2.3.7: Retail Sales Volume Indices**  
(Seasonally and Calendar Adjusted, 2015=100)



Source: CBRT.  
\* Average of April-May.

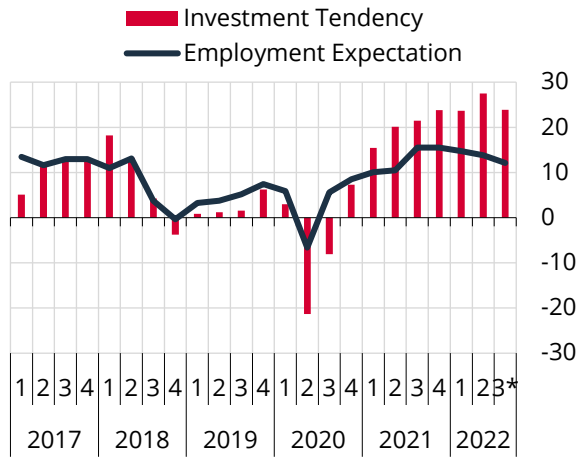
**Chart 2.3.8: Expenditures on Domestic Credit Cards**  
(Seasonally and Adjusted, Real, February 2020=100)



Source: CBRT.

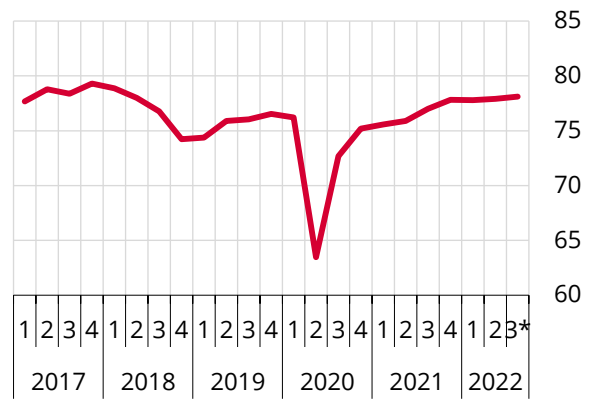
**The investment tendency of manufacturing industry firms for the next twelve months has remained high** (Chart 2.3.9). An analysis of investment tendency by company size suggests that investment tendency was stronger in large-scale firms. In line with developments in investment tendency, the seasonally adjusted capacity utilization rate remained strong (Chart 2.3.10). A breakdown of IPI by main industrial groups reveals that capital goods production significantly increased by 4.3% quarter-on-quarter, illustrating that capital goods were the key driver of the rise in industrial production. An analysis of import quantity indices reveals that imports of capital goods excluding transportation recorded a strong quarter-on-quarter increase of 8.4% in this quarter (Box 2.2).

**Chart 2.3.9: BTS Expectations for Fixed Capital Investment Spending and Employment** (Up-Down, Seasonally Adjusted, %)



Source: BTS, CBRT.  
\* As of July.

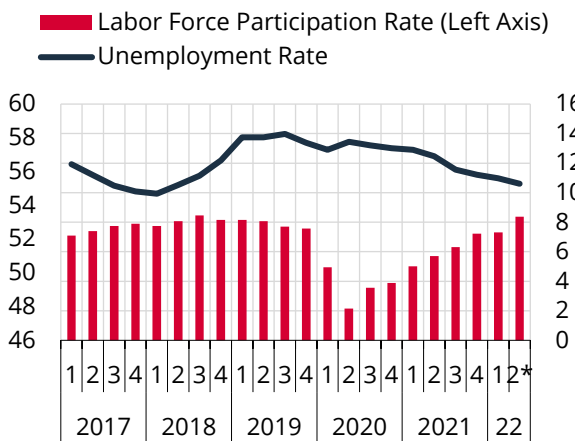
**Chart 2.3.10: Capacity Utilization Rate** (Seasonally Adjusted, %)



Source: CBRT.  
\* As of July.

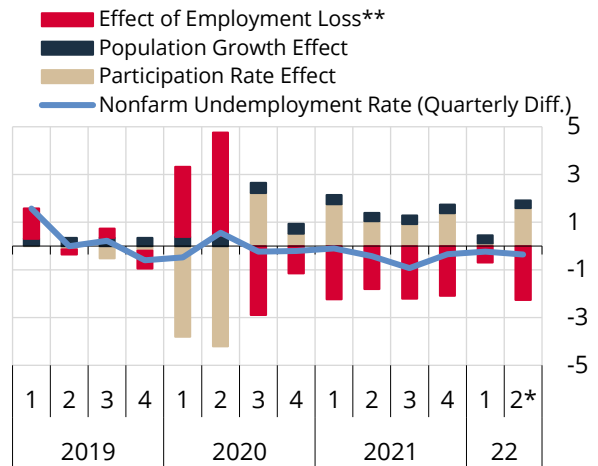
**Developments in the labor market moved in tandem with economic activity and indicate a better outlook compared to peer economies** (Box 2.3). In the April-May 2022 period, the seasonally adjusted average total unemployment rate decreased by 0.3 percentage points to 11.1% compared to the previous quarter (Chart 2.3.11). In this quarter, employment increased by 2.3% (approximately 696,000 people), meanwhile the rise in the participation rate limited any further decline in the unemployment rate (Chart 2.3.12 and Chart 2.3.13).

**Chart 2.3.11: Unemployment Rates and Labor Force Participation Rate** (Seasonally Adjusted, %)



Source: TURKSTAT.  
\* Average of April-May.

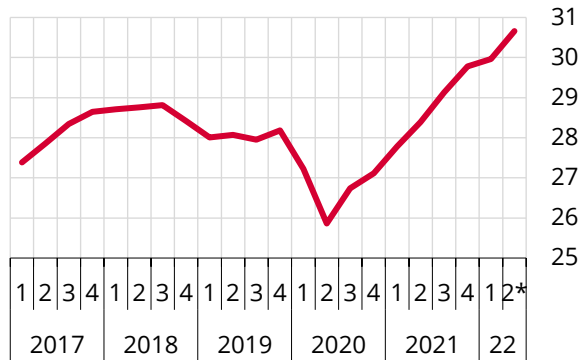
**Chart 2.3.12: Contributions to Change in Total Unemployment Rate** (Seasonally Adjusted, % Points)



Source: CBRT, TURKSTAT.  
\* Average of April-May.  
\*\* Negative value indicates an increase in employment.

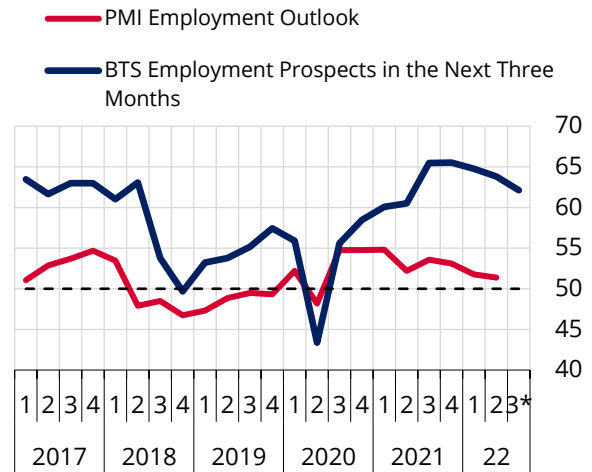
**Leading indicators and high-frequency data indicate that employment expectations have been moderate** (Chart 2.3.14). Accordingly, it is anticipated that the rise in employment will continue in the upcoming period. Nevertheless, the rise in labor participation rates may limit the impact of the rise in employment on unemployment ratios.

**Chart 2.3.13: Total Employment (Seasonally Adjusted, Million People)** (Seasonally Adjusted, Million People)



Source: TURKSTAT.  
\* Average of April-May.

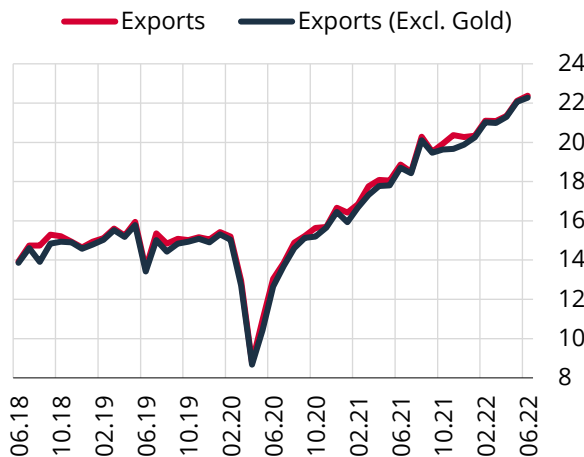
**Chart 2.3.14: Employment Outlook and Expectation in the Industrial Sector\*\*** (Seasonally Adjusted, Up-Down)



Sources: IHS Markit, CBRT.  
\* As of July.  
\*\* BTS indicator is adjusted so that its neutral level will be 50-in line with the PMI.

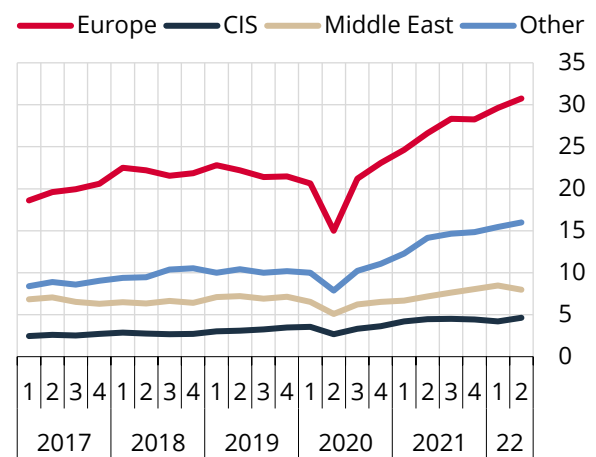
**In the second quarter of 2022, exports remained strong despite the effects of the Russian-Ukrainian conflict.** In this quarter, underpinned by the ongoing post-pandemic recovery trend and rising export prices, exports remained high despite some regional discrepancies (Chart 2.3.15). Exports to Europe continued to accelerate in the second quarter as well, supporting the overall export growth (Chart 2.3.16). High-frequency data for July indicate that exports to Europe maintain their high levels. It is observed that regional losses in exports resulting from the Russia-Ukraine conflict are compensated by exporting firms' dynamic capacity and flexibility in market diversification (Zoom-In 2.1 and Box 2.4). However, geopolitical risks and the downtrend started in manufacturing industry PMI indicators in the euro area increased downside risks to foreign demand compared to the previous Report period.

**Chart 2.3.15: Exports\*** (Adjusted for Seasonal and Calendar Effects, Billion USD)



Sources: CBRT, Ministry of Treasury, TURKSTAT.  
\* Provisional data for June.

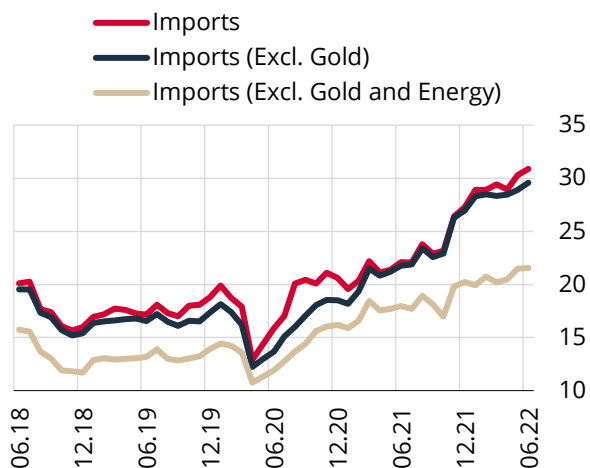
**Chart 2.3.16: Exports by Regions** (Excl. Gold, Adjusted for Seasonal and Calendar Effects, Billion USD)



Source: TAE.

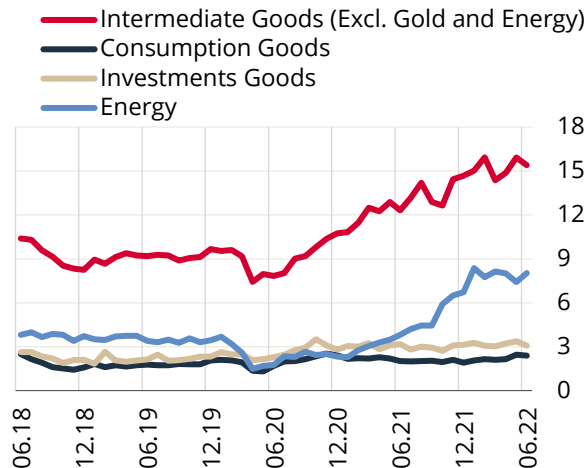
**The strong economic activity and the rise in international energy prices, mainly natural gas, continue to fuel imports.** Imports continued to increase in the second quarter, albeit with some slowdown in the rate of increase, on the back of strong economic activity and elevated levels of energy and raw material prices (Chart 2.3.17). Excluding gold and energy, imports of intermediate goods remained strong, while imports of consumption and investment goods followed a relatively flat course (Chart 2.3.18). While the foreign trade deficit slightly decreased compared to the first quarter of the year, the ratio of exports to imports was 73%.

**Chart 2.3.17: Imports\*** (Adjusted for Seasonal and Calendar Effects, Billion USD)



Sources: CBRT, Ministry of Treasury, TURKSTAT.  
\* Provisional data for June.

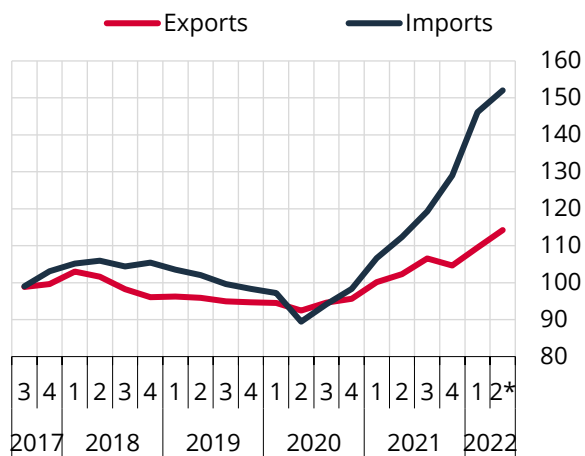
**Chart 2.3.18: Imports by Goods Groups\*** (Adjusted for Seasonal and Calendar Effects, Billion USD)



Sources: CBRT, Ministry of Treasury, TURKSTAT.  
\* Provisional data for June.

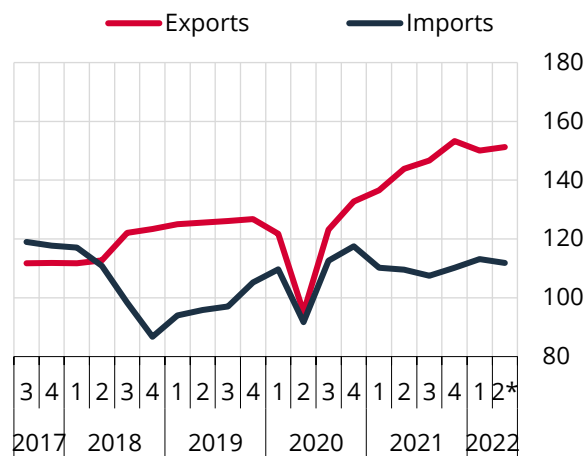
**In the second quarter, the divergence between export and import prices continued due to the high levels of energy and commodity prices, while the amount of imports decreased** (Chart 2.3.19 and Chart 2.3.20). Thus, while the decline in terms of trade continued, the decline in imports limited further increase in the foreign trade deficit. The slowdown in the export quantity index, which was observed in the first half of the year, is attributed to geopolitical developments as well as the deceleration in economic activities of main trade partners. The limited decrease in the import volume index, on the other hand, may be a result of earlier import demand particularly for intermediate goods in the last quarter of 2021 and the first quarter of 2022.

**Chart 2.3.19: Foreign Trade Unit Value Indices** (2015=100)



Source: TURKSTAT.  
\* Average of April and May.

**Chart 2.3.20: Foreign Trade Volume Indices** (Excl. Gold, Seasonally Adjusted, 2015=100)



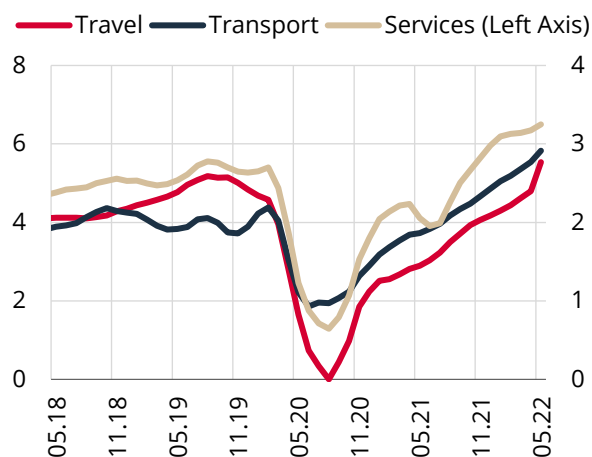
Source: TURKSTAT.  
\* Average of April and May.



**The contribution of the services balance to the current account balance has been increasing.**

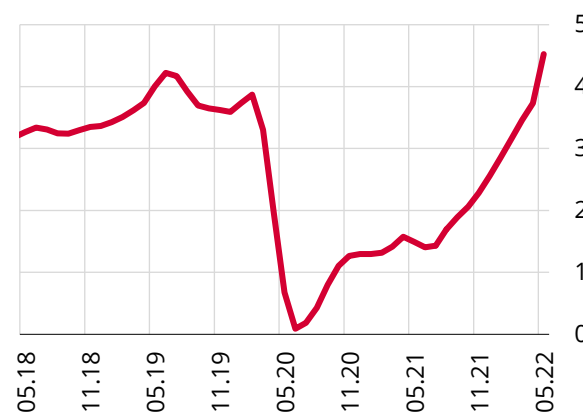
Services revenues continued to accelerate in the second quarter, supported by travel and transportation revenues (Chart 2.3.21). The number of foreign visitors, which started to increase owing to the spread of vaccination and the easing of travel restrictions in the second half of 2021, increased rapidly in April and May despite geopolitical developments (Chart 2.3.22 and Box 2.5). If this uptrend continues during summer, travel revenues may exceed pre-pandemic levels throughout the year.

**Chart 2.3.21: Services Revenues** (Adjusted for Seasonal and Calendar Effects, Billion USD)



Source: CBRT.

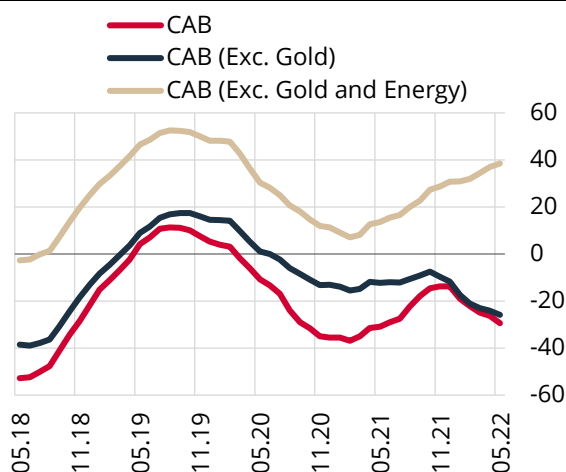
**Chart 2.3.22: Number of Tourists** (Adjusted for Seasonal and Calendar Effects, Million People)



Source: CBRT.

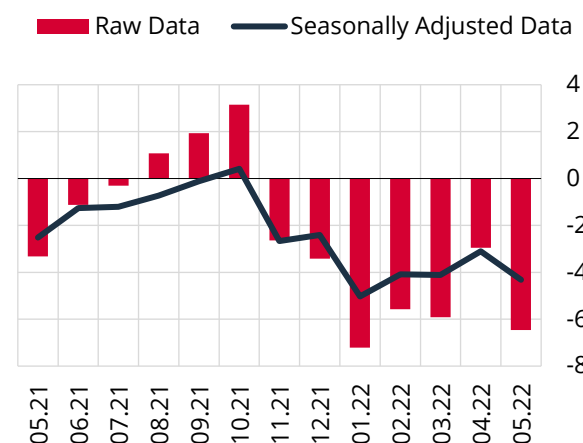
**Despite the continued strong course in exports and the recovery in services revenues, the annualized current account deficit continued to widen due to high energy and commodity prices.** In this context, the current account deficit, which declined to USD 13.7 billion at the end of 2021, rose to USD 29.4 billion in May in 12-month cumulative terms (Chart 2.3.23). Excluding gold and energy, the ongoing rise in the 12-month cumulative current account surplus is noteworthy as it shows the effect of rapid increases in energy prices on the current account balance. Actually, when adjusted for the effects of business cycles as well as price cycles, which are caused by the deviations of prices from their long-term trends, it is estimated that the annualized current account balance has posted a surplus in the first quarter of the year. Meanwhile, even if the seasonally adjusted current account deficit displays a flat trend, it is still high (Chart 2.3.24).

**Chart 2.3.23: Current Account Balance** (12-Month Cumulative, Billion USD)



Source: CBRT.

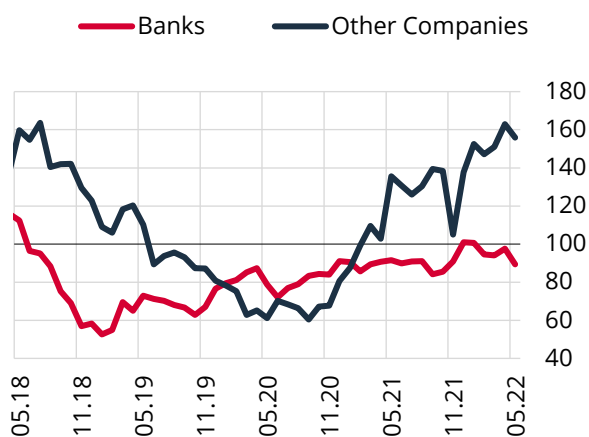
**Chart 2.3.24: Current Account Balance** (12-Month Cumulative, Billion USD)



Source: CBRT.

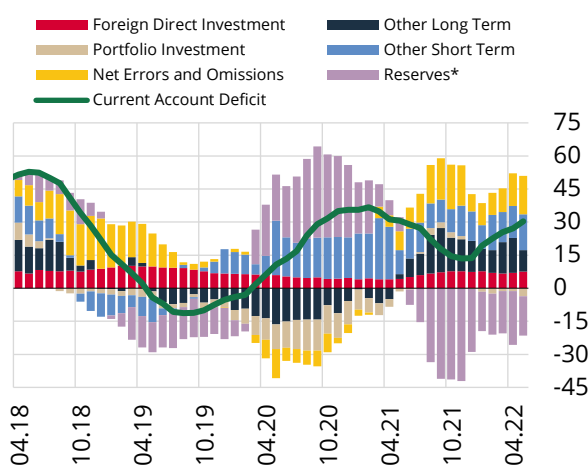
**The rise in the current account deficit increases the need for financing.** In the first five months of the year, capital inflows were mainly driven by direct investments and non-residents' deposits at banks, while capital outflows were driven by residents' portfolio investments and sales of non-residents' stocks and government debt securities. While capital inflows under the direct investments item increased in April and May quarter-on-quarter mainly due to real estate purchases, capital outflows in the portfolio investments item continued. The debt rollover ratios for long-term loans obtained from abroad by the private sector and banks remained high in this quarter. As for the trend, the long-term debt rollover ratio of the private sector increased to approximately 150%, while it was close to 90% for the banking sector (Chart 2.3.25). The rising financing need due to the increase in the current account deficit in April and May also caused a pause in the uptrend in international reserve assets (Chart 2.3.26).

**Chart 2.3.25: Debt Rollover Ratios (Long-Term Loans, 6-Month Moving Average, %)**



Source: CBRT.

**Chart 2.3.26: Financing of the Current Account Deficit (12-Month Cumulative, Billion USD)**



Source: CBRT.

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

**In the first half of 2022, the budget balance posted a surplus as budget revenues were higher than expenditures.** In the January-June period, total expenditures and primary expenditures increased by 76.7% and 81.2%, respectively, compared to the same period of the previous year, while total revenues increased by 100.6%. Thus, the central government budget ran a surplus of TRY 93.6 billion, while the primary surplus was TRY 228.2 billion. The annualized budget deficit and primary surplus to GDP ratios for June are estimated to be 0.7% and 1.6%, respectively. The high level of expenditures as well as revenues in the first half of the year necessitated an update in the initial appropriations and targets set for 2022. Actually, with the supplementary budget law published in the Official Gazette in early July, the initial appropriations and income estimates have been updated upwards (Box 2.6).

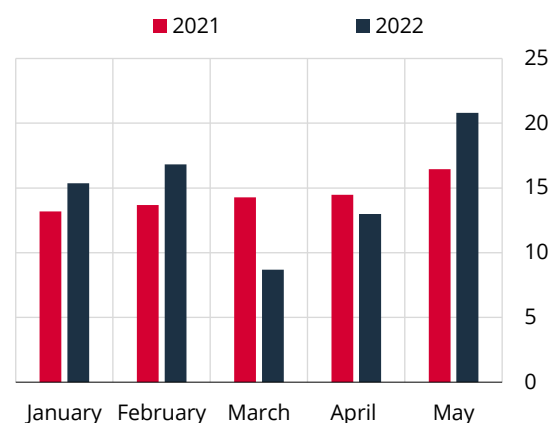
## Zoom-In 2.1

### Course of Regional Exports after the Conflict between Russia and Ukraine

**Despite rising regional risks in the first five months of 2022, exports maintained the uptrend achieved during the pandemic.**

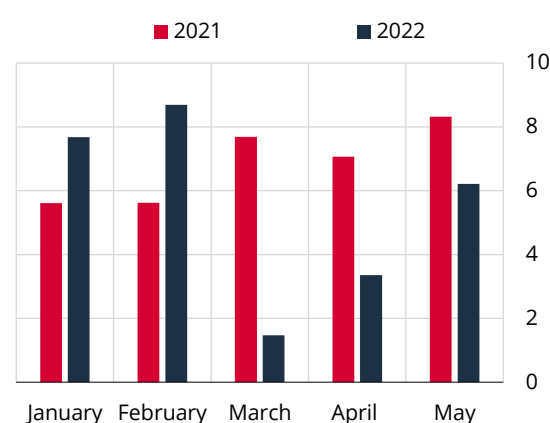
In May, 12-month cumulative exports rose to USD 243 billion. Due to the effects of the conflict between Russia and Ukraine that started in February 2022, exports to these countries contracted by 39.3% and 80.9% in March, on an annual basis, respectively (Chart 1 and Chart 2). While exports to both countries continued to decline on an annual basis in April, it is noteworthy that exports to Russia showed some recovery in May and exceeded the pre-conflict level. Meanwhile, exports to Ukraine continued to decline year-on-year in May, but reached 71% of the pre-war level (Table 1).

**Chart 1: Exports to Russia (Per Working Day, Excl. Gold, Million USD)**



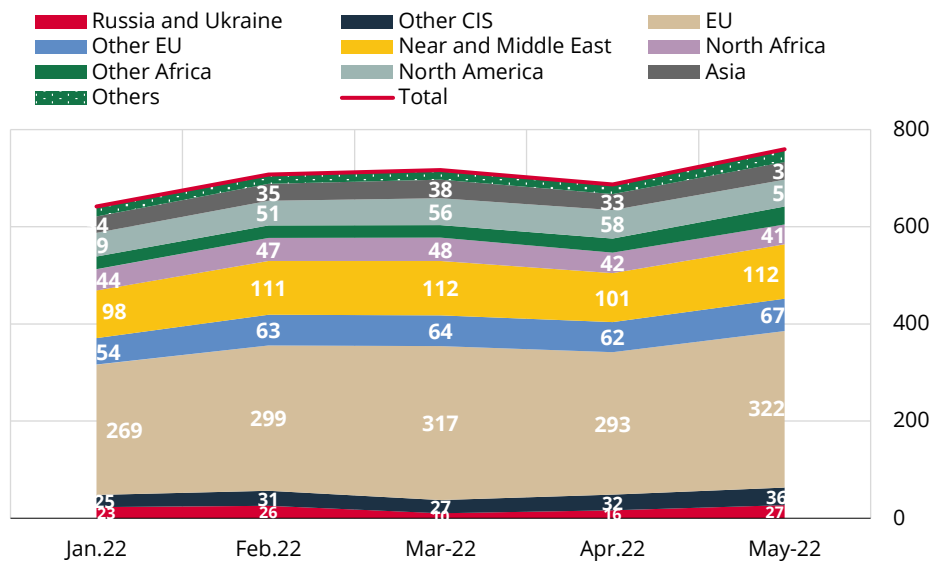
Source: TURKSTAT.

**Chart 2: Exports to Ukraine (Per Working Day, Excl. Gold, Million USD)**



Source: TURKSTAT.

**Regional export losses stemming from the conflict are compensated by the increase in exports to other countries thanks to the market diversification flexibility of exporting companies.** After the conflict, exports to the EU displayed a rapid rise, offsetting conflict-led regional export losses in a very short time (Chart 3). In May, exports to all country groups except North African countries were higher than the pre-conflict level (Table 1). High-frequency data also indicate that in June, the recovery trend in exports continued, and exporting companies compensated their war-led regional losses in exports thanks to their market diversification flexibility.

**Chart 3: Breakdown of Exports by Country Groups (Per Working Day, Excl. Gold, Million USD)**


Source: TURKSTAT.

**Table 1: Rates of Change in Turkey's Regional Exports (Per Working Day, Excl. Gold, %)**

Country Groups	Annual Percentage Change					May.22/Feb.22 Percentage Change
	Jan.22	Feb.22	March.22	April.22	May.22	
<b>Total</b>	<b>18.3</b>	<b>25.4</b>	<b>20.8</b>	<b>20.4</b>	<b>25.1</b>	<b>7</b>
<b>EU countries</b>	11.5	22.2	25.9	23.8	26.2	8
<b>Other European</b>	20.2	26.9	15.3	20.8	26.0	6
<b>CIS</b>	9.1	21.5	-23.3	-3.1	20.6	11
<i>Russia</i>	<b>16.5</b>	<b>22.9</b>	<b>-39.3</b>	<b>-10.3</b>	<b>26.4</b>	<b>24</b>
<i>Ukraine</i>	<b>36.8</b>	<b>54.7</b>	<b>-80.9</b>	<b>-52.6</b>	<b>-25.4</b>	<b>-29</b>
<b>Near and Middle East</b>	24.6	32.1	28.4	18.8	39.1	1
<b>North Africa</b>	48.5	24.5	24.9	18.5	16.8	-13
<b>Other Africa</b>	36.2	41.9	32.7	60.6	59.7	44
<b>North America</b>	29.7	45.7	32.5	43.5	17.3	9
<b>Asia</b>	11.6	10.3	22.6	-4.6	-3.2	4

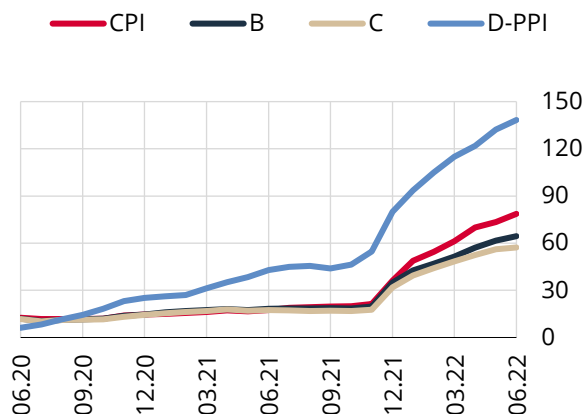
## 2.4 Inflation

***In the second quarter of 2022, consumer inflation and B inflation climbed to 78.62% and 64.42%, respectively, exceeding the forecast range presented in the April Inflation Report.*** The lingering impact of geopolitical developments coupled with energy costs and supply constraints continued to put pressures on inflation in the second quarter as they did at a global scale. Energy commodity prices remained on the increase across the second quarter, while non-energy commodity prices maintained high levels, albeit some deceleration in the last two months. Negative supply shocks led by the outlook of global energy, food and agricultural commodity prices weakened compared to the first quarter, yet pushed inflation upwards in this period again. Amid the surge in TRY-denominated international energy prices, domestic energy prices, chiefly natural gas and fuel, recorded increases in the second quarter. The conflict between Russia and Ukraine, one of the leading cereal producers in the world, continued to put pressure on food prices through the production-supply chain channel. Data regarding the second quarter of 2022 suggest that domestic demand lost some pace, yet the robust growth at the beginning of the year continued in this period on the back of the favorable contributions of external demand. Against this background, output gap indicators remained in the positive territory. In this period, despite the VAT reductions in main hygiene products<sup>2</sup>, effects of the price adjustments in the energy group (electricity, natural gas, and municipal water), the re-arrangement of specific and minimum specific taxes on alcoholic beverages and tobacco products and the rise in Turkish Radio and Television Corporation TRT banderole tax imposed on electronic appliances<sup>3</sup> were apparent on consumer inflation. Compared to the previous quarter, the aggregate impact of administered prices and tax adjustments on headline inflation was up led by energy price developments. In the second quarter, annual inflation increased across all sub-categories, chiefly in the energy group, and inflation expectations rose further and the diffusion index pointed to widespread price hikes. Against this background, the seasonally-adjusted quarterly increase in consumer prices remained high, albeit with a slight decline compared to the previous quarter (Table 2.4.1). While the increase in producer prices was still driven by international commodity prices, chiefly energy, exchange rate developments, disruptions in the supply chain as well as high transportation costs, and producer price adjustments in electricity and natural gas stood out as other sources of pressure (Chart 2.4.1).

***Energy and food were the main drivers of the rise in consumer inflation from 61.14% in the first quarter to 78.62% in the second quarter, which were followed by core goods and services groups.*** In this period, the contribution from energy to annual inflation rose by 5.72 points quarter-on-quarter to 18.14 points, while the contribution from food increased by 5.42 points to 23.41 points. In the first quarter, the contribution from services increased by 3.44 points to 13.68 points, which was followed by core goods from 2.11 points to 19.30 points. Meanwhile, contributions from alcohol-tobacco and gold increased at a relatively slower rate (Chart 2.4.2).

<sup>2</sup> With the Presidential Decision No. 5359 published in the Official Gazette No. 31793 dated 29.03.2022, the VAT on hygiene products was reduced to 8% as of April 1.

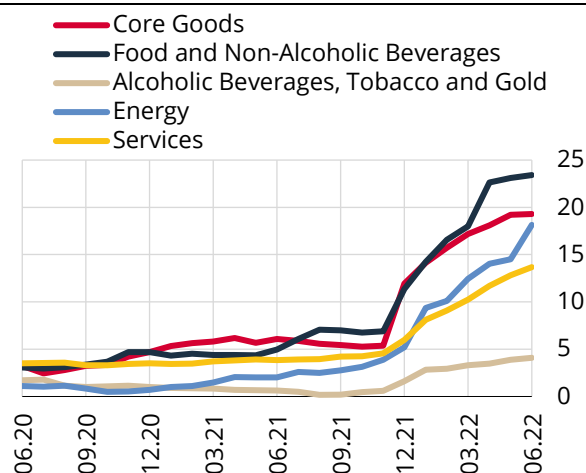
<sup>3</sup> With the Presidential Decision No. 5610 published in the Official Gazette No. 31847 dated 26.05.202, in accordance with the TRT Institution Revenues Law No. 3093, banderole fees (TRT banderole) received from radio, television, video and composite devices and any device that can receive visual and/or audio broadcasts were raised.

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

Source: TURKSTAT.

\* CPI excluding unprocessed food, energy, alcohol-tobacco and gold.

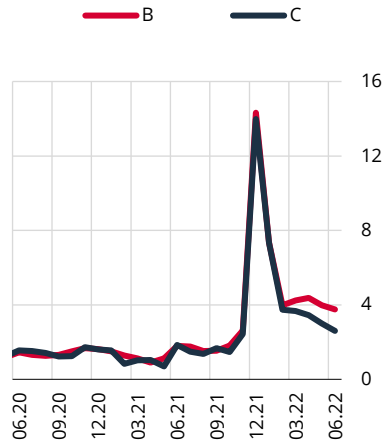
\*\* CPI excluding food and non-alcoholic beverages, energy, alcohol-tobacco and gold.

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

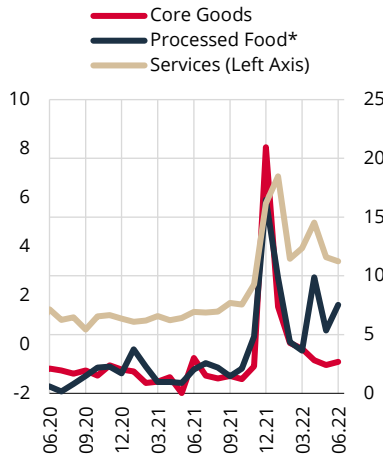
Sources: CBRT, TURKSTAT.

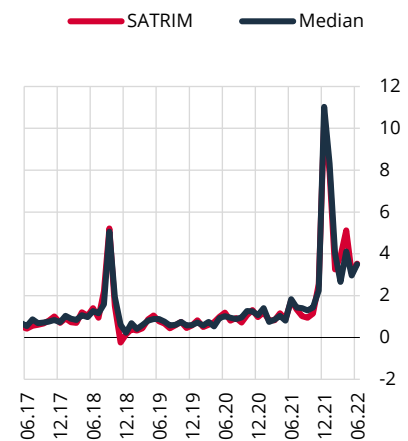
**While the monthly rates of increase in core indicators decelerated, their annual inflation rose compared to the previous quarter** (Chart 2.4.3). Seasonally-adjusted data indicate that the monthly increases in the B and C indices tended to decelerate. Sub-categories of the B index revealed higher monthly price increases in processed food, but some deceleration in core goods and services (Chart 2.4.4). In this period, SATRIM, one of the alternative inflation indicators, also lost momentum to a limited extent compared to the previous quarter, while median inflation followed a volatile course (Chart 2.4.5). In the core goods group, price increases remained elevated despite losing momentum compared to the previous quarter in tandem with the slowdown in the clothing and footwear group (Table 2.4.1). This was mostly driven by durable consumption goods, which are affected by the exchange rate, import prices and the acceleration in consumer loans. Price hikes in durable goods were driven by furniture prices in particular (24.02%). Prices of other core goods lost pace quarter-on-quarter and rose by 9.21%, and the effects of maintenance and repair of dwellings coupled with personal care products stood out in this group. The VAT reduction in main hygiene products from 18% to 8% limited inflation in the other core goods group. Monthly price increases in the clothing and footwear group lost further pace in the second quarter after the first quarter. On the other hand, processed food prices registered widespread hikes in this period (24.49%). This was driven by international agricultural commodity and food prices shaped by ongoing geopolitical developments, exchange rate developments, increases in input costs with energy in the lead accompanied by raw milk and meat affected by feed prices as well as sugar price developments. International commodity prices kept shaping the track of services inflation mostly through fuel and food prices channels. With annual inflation rates nearing 80%, transport and restaurants-hotels groups were the main drivers of the uptick in services inflation. In tandem with the outlook for food inflation, catering services inflation remained on the rise too in this quarter, and developments in fuel prices had an adverse effect on transport services, chiefly air and road passenger transport. Regarding other services group inflation, package tours, maintenance and repair of personal transport vehicles and insurance items stood out. In tandem with consumer inflation, the upward trend in rents accelerated somewhat in the second quarter. It is considered that the limitation of annual rent increases in renewed rental contracts by 1 July 2023<sup>4</sup> to 25% may avert a worse outlook in the upcoming period (Table 2.4.1).

<sup>4</sup> With the Official Gazette No. 31863 dated 11.06.2022, a provisional article was added to the Turkish Code of Obligations that limited residential rent increase rates to 25% by July 2023.

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


Sources: CBRT, TURKSTAT.

**Chart 2.4.4: Subgroups of Index B**  
 (Seasonally Adjusted, Monthly % Change)

 Sources: CBRT, TURKSTAT.  
 \* No seasonality detected for processed food.

**Chart 2.4.5: Core Inflation Indicators**  
**SATRIM\* and Median\*\*** (Monthly % Change)

 Sources: CBRT, TURKSTAT.  
 \* SATRIM: Seasonally adjusted, trimmed mean inflation.  
 \*\* Median: Median monthly inflation of seasonally adjusted 5-digit indices.

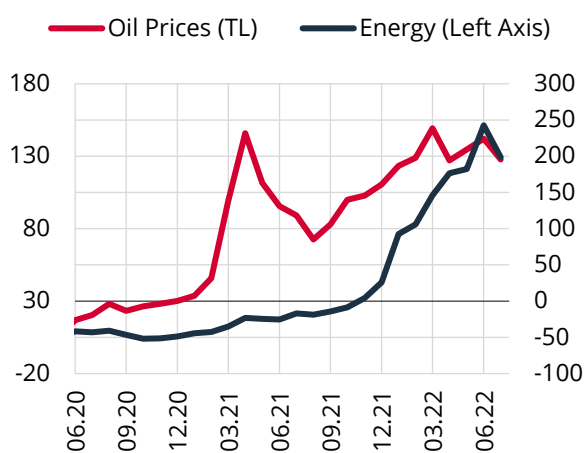
**Table 2.4.1: Consumer Prices**

	Quarterly % Change (Seasonally Adjusted)				Annual % Change			
	2021		2022		2021		2022	
	III	IV	I	II	III	IV	I	II
<b>CPI</b>	<b>5.70</b>	<b>19.86</b>	<b>21.39</b>	<b>15.86</b>	<b>19.58</b>	<b>36.08</b>	<b>61.14</b>	<b>78.62</b>
<b>1. Goods</b>	<b>5.84</b>	<b>22.95</b>	<b>24.26</b>	<b>17.43</b>	<b>21.55</b>	<b>41.10</b>	<b>70.38</b>	<b>89.94</b>
<b>Energy*</b>	<b>9.22</b>	<b>21.61</b>	<b>47.10</b>	<b>28.65</b>	<b>22.77</b>	<b>42.93</b>	<b>102.94</b>	<b>151.33</b>
<b>Food and Alcoholic Beverages</b>	<b>9.03</b>	<b>21.02</b>	<b>19.90</b>	<b>22.53</b>	<b>28.79</b>	<b>43.80</b>	<b>70.33</b>	<b>93.93</b>
Unprocessed Food	13.72	14.87	21.94	20.22	32.06	39.83	77.52	91.65
Processed Food*	6.35	24.67	18.77	24.49	25.79	47.57	63.64	96.04
<b>Core Goods</b>	<b>4.31</b>	<b>25.23</b>	<b>16.22</b>	<b>8.10</b>	<b>19.38</b>	<b>40.55</b>	<b>59.19</b>	<b>64.86</b>
Clothing and Footwear	4.90	10.44	5.93	3.00	7.11	19.92	26.54	26.35
Durable Goods (Excl. Gold)	2.72	35.12	15.45	10.76	22.12	48.93	68.54	77.90
Furniture	4.78	23.80	25.15	24.02	28.68	46.35	70.29	101.79
Automobile	-0.11	47.18	10.68	7.72	22.88	57.04	69.13	75.43
Electrical and Non-electrical Appliances*	3.87	26.55	20.72	6.44	16.16	38.00	66.64	68.91
Other Durable Goods*	3.56	23.74	16.70	10.13	25.54	41.50	57.50	64.71
Other Core Goods*	5.14	19.99	23.85	9.21	23.26	40.26	65.85	70.64
<b>Alcoholic Bev. Tobacco Prod. and Gold*</b>	<b>-0.38</b>	<b>24.58</b>	<b>24.39</b>	<b>12.94</b>	<b>2.92</b>	<b>27.90</b>	<b>59.40</b>	<b>74.36</b>
<b>2. Services</b>	<b>4.39</b>	<b>10.11</b>	<b>14.95</b>	<b>12.41</b>	<b>15.06</b>	<b>22.33</b>	<b>36.72</b>	<b>48.69</b>
Rent	3.23	3.78	6.29	7.73	10.85	12.20	16.70	22.80
Restaurants and Hotels	8.20	17.80	18.67	18.17	23.27	40.85	60.40	79.55
Transport	3.06	9.46	37.13	17.15	15.21	21.99	60.35	81.83
Communication	2.22	2.56	4.73	5.78	6.68	6.32	9.77	17.64
Other Services	4.31	10.69	14.27	7.89	15.47	22.61	35.65	42.84

 Sources: CBRT, TURKSTAT.  
 \* No seasonality detected.

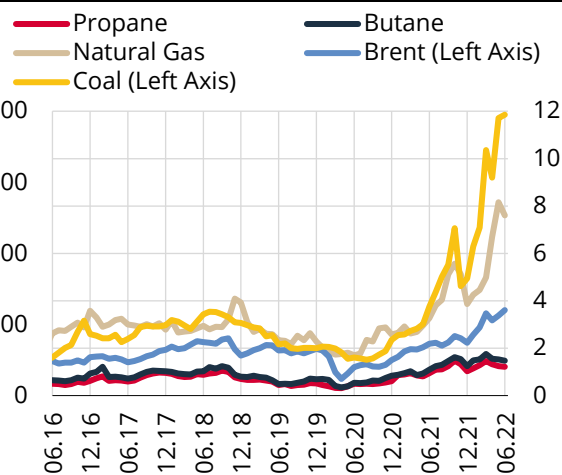
**Annual energy inflation accelerated due to the developments in TL-denominated international energy prices in the second quarter** (Chart 2.4.6). Energy prices rose by 28.65% in the second quarter (Table 2.4.1). International Brent oil prices, which were around USD 116 at the end of the first quarter, receded somewhat in April, recorded increases in the following months and were at USD 120 on average in June. In tandem with the developments in TL-denominated international Brent oil prices, fuel prices soared by 32.01% in this quarter, and annual inflation hit 251.98% in this subcategory. In the second quarter, the rise in international energy prices was mostly driven by the USD-based spike of around 52% in natural gas, which was followed by the price hike in coal. Meanwhile, international propane and butane prices, which are important to LPG and bottled gas, lost some pace (Chart 2.4.7). On the residential front, as tariffs were re-arranged in April and June, administered prices such as those of natural gas and electricity recorded increases. For tap water, the price of which is set by municipalities, the backward inflation indexation trend gained strength in this period. Against this background, annual energy inflation soared by 48.39 points to 151.33% (Chart 2.4.6).

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



Sources: Bloomberg, CBRT, TURKSTAT.

**Chart 2.4.7: Energy Commodity Prices\* (US Dollars)**



Source: Bloomberg.

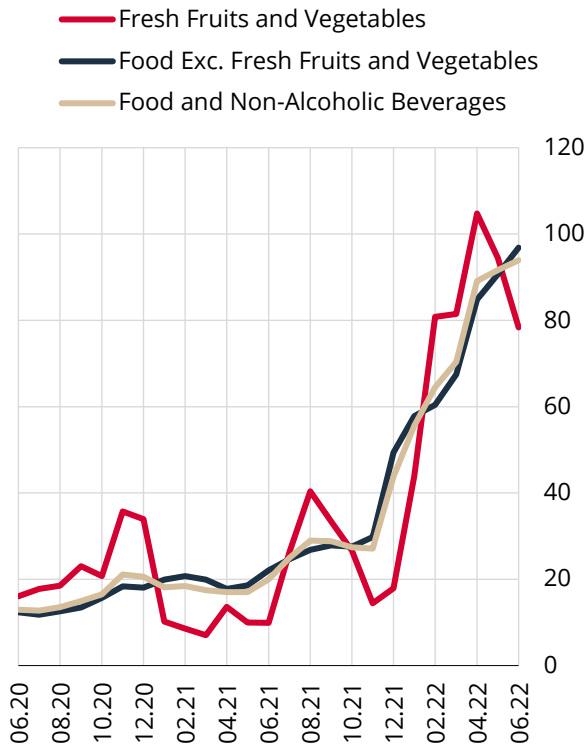
\* Brent per barrel of oil, coal per ton, natural gas per MMBtu, and butane and propane per gallon.

**Due to unfavorable outlook for international agricultural commodity and food prices as well as exchange rate developments, rising input costs and ongoing setbacks in the supply chain, food inflation remained above headline inflation.** The inflation increase in the food and non-alcoholic beverages group has continued from the second half of 2021 through this period and annual inflation in this group went up by 23.60 points to 93.93% (Chart 2.4.8). Annual food inflation increased due both to unprocessed and processed food groups, although the contribution of the latter was more evident (Table 2.4.1). While seasonally adjusted data point to a deceleration in the rise in prices of fresh fruits and vegetables in the unprocessed food group compared to the first quarter as the cropland season has come, the uptrend in the other unprocessed food group continued in this period. Vegetable prices in particular exhibited a significant correction. Having recorded substantial increases upon the geopolitical developments that turned into a military conflict at the end of February, international agricultural commodity and food prices remained high in the ensuing period, albeit with some decline. In the second quarter, effects of geopolitical developments on consumer food prices through external price pressures remained visible. Prices continued to increase in agricultural inputs such as fertilizers and feed and had implications on the food group, on red meat, white meat and milk prices, in particular. Raises in the raw milk reference price by around 21.3% and 31.6%, respectively on 1 April and 15 May had a widespread effect on food inflation. In the second quarter, the rise in processed food prices accelerated and increases were seen across subitems. The acceleration in domestic wheat and flour prices amid surging energy costs coupled with international wheat prices and exchange rate developments exerted an upward pressure on bread-cereals group inflation (Chart 2.4.9). Against this background, it was deemed appropriate for the TGB to resume regulatory practices as of June. Having gained momentum in the external market amid the Russian-Ukrainian conflict, raw sunflower prices recorded a decline in June. In sum, in the second quarter, annual inflation in the fresh fruits and vegetables group edged down on a quarterly basis to 78.32%, while the upward trend remained in place in food



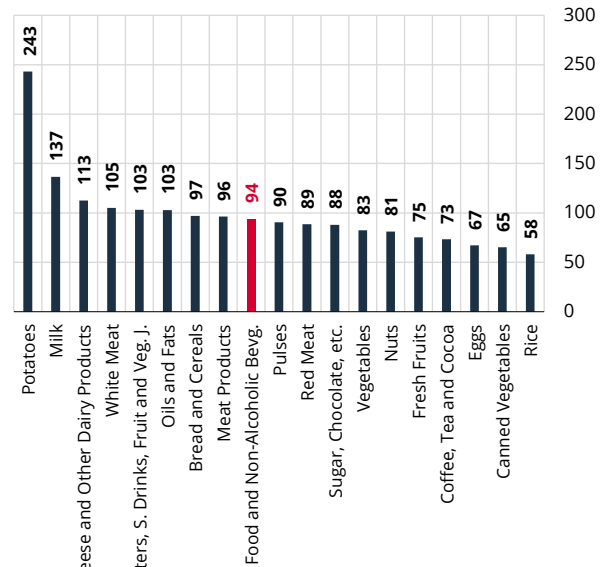
excluding fresh fruits and vegetables, and annual inflation reached 96.84% (Chart 2.4.8). Food supply security measures remained in effect, while new actions stepped in through the change introduced to the Inward Processing Regime in June (Zoom-in 2.2).

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



Sources: CBRT, TURKSTAT.

**Chart 2.4.9: Prices of the Food Group and Sub-items (2022 June, Annual % Change)**



Sources: CBRT, TURKSTAT.

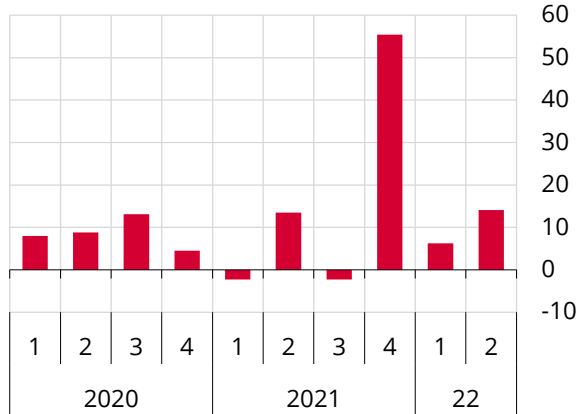
**In the second quarter of the year, prices of alcoholic beverages and tobacco products rose by 13.71%.** In April and May, tobacco products exhibited raised prices by producer firms. At the end of May, the specific and minimum specific taxes on the alcoholic beverages and tobacco group were re-arranged as per the Presidential Decision<sup>5</sup>, and in July it was decided not to reflect the six-month PPI increase in the specific and minimum specific taxes on this group. Thus, prices of alcoholic beverages surged by 29.35%, while tobacco products recorded price hikes by 12.55% due to producer firms in the second quarter. The rise in prices of alcohol and tobacco products added 0.80 points to the rise in annual consumer inflation in the second quarter.

### Drivers of Inflation

**Although the Turkish lira had followed a milder course in the first quarter of 2022 on the back of new financial instruments, geopolitical developments and global liquidity conditions led to a nominal depreciation in this period** (Chart 2.4.10). Recent exchange rate developments weighed on the cost pressures led by high commodity prices and continued their effects on consumer inflation both in the goods and services sectors.

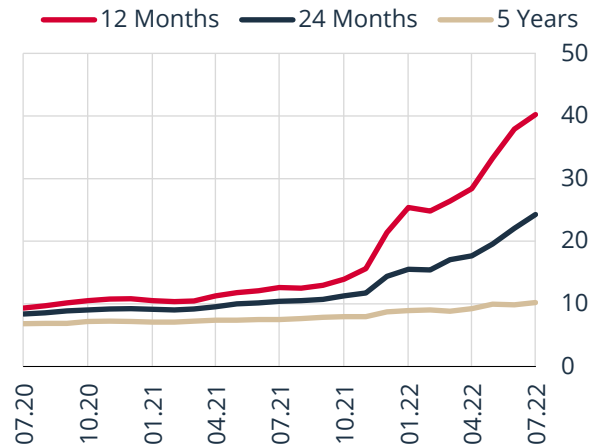
<sup>5</sup> With the Presidential Decision No. 5614 published in the Official Gazette No. 31848 dated 27.05.2022, the specific and minimum specific taxes on the alcoholic beverages and tobacco products were rearranged and it was decided not to reflect the rate of change in producer price index in the last six months for the July-December period of 2022 in the taxes.

**Chart 2.4.10: Currency Basket\* (Quarterly % Change)**



Source: CBRT.  
\* US dollars and Euro have equal weights

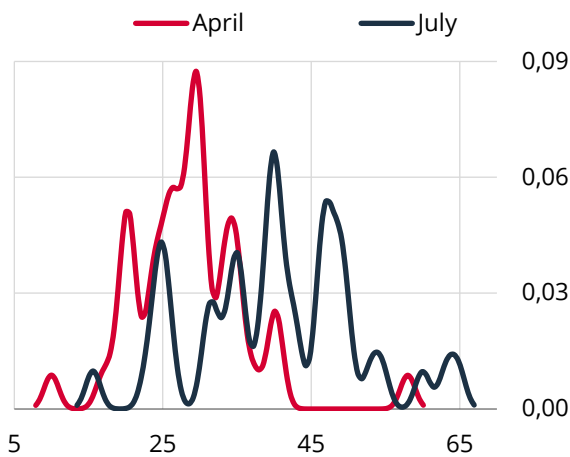
**Chart 2.4.11: Expectations for CPI\* (%)**



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

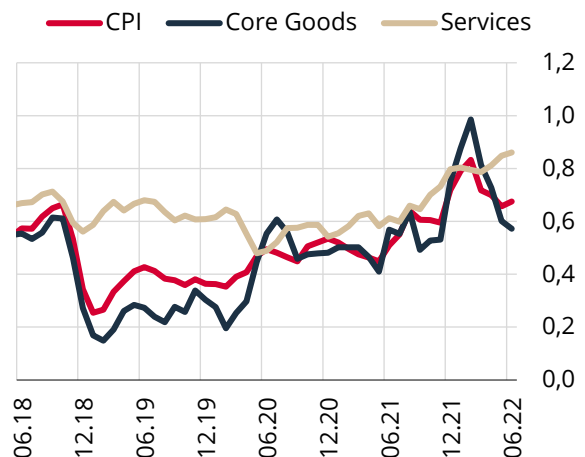
**While the increase in inflation expectations continued, the distribution of expectations pointed to inflation uncertainty.** The increase in inflation expectations continued in the last three-month period, more evidently for shorter terms. According to the July results of the Market Participants Survey, inflation expectations for the next 12 and 24 months hit 40.23% and 24.27%, while those for the next 5 years edged up to 10.21% (Chart 2.4.11). While the distribution of 12-month CPI inflation expectations shifted upwards, multiple local peaks were maintained, implying a sustained high level of uncertainty in inflation forecasts (Chart 2.4.12). In the second quarter, as shocks to the economy lost strength relatively, the diffusion index for core goods receded, but that for the service sector remained on the rise (Chart 2.4.13).

**Chart 2.4.12: Distribution of Survey of Market Participants (12-Month-Ahead CPI Expectation)**



Source: CBRT.

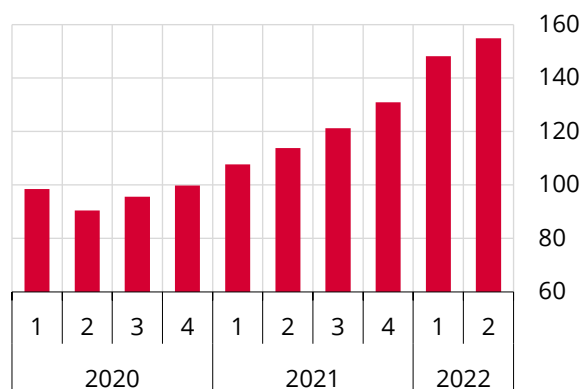
**Chart 2.4.13: Diffusion Indices of CPI and Main Expenditure Groups (Seasonally-Adjusted, 3-Month Average)**



Sources: CBRT, TURKSTAT.

**The rise in international energy prices due to the Russia-Ukraine conflict and ongoing supply constraints, continued to determine domestic inflation developments.** Despite the decline in non-energy commodity prices resulting from the global economic outlook, the continued rise in energy commodity prices due to geopolitical developments and supply constraints had further adverse effects on import prices. Against this background, the import unit value index increased by 4.52% quarter-on-quarter in April and May (Chart 2.4.14). Due to the ongoing conflict between Russia and Ukraine, as well as supply problems in energy producing countries, international energy prices increased by 11.43% in this quarter and continued to be determinant on domestic prices. Higher imported input costs weighed significantly on recent inflation developments through items with high import content (Box 2.7). On the other hand, the outlook for global liquidity conditions and tighter pandemic measures in China adversely affected global economic activity and led to a decline in non-energy commodity prices. In this quarter, the industrial metals sub-index decreased by 19.02% and the agriculture sub-index by 4.89%, preventing a more negative outlook (Chart 2.4.15).

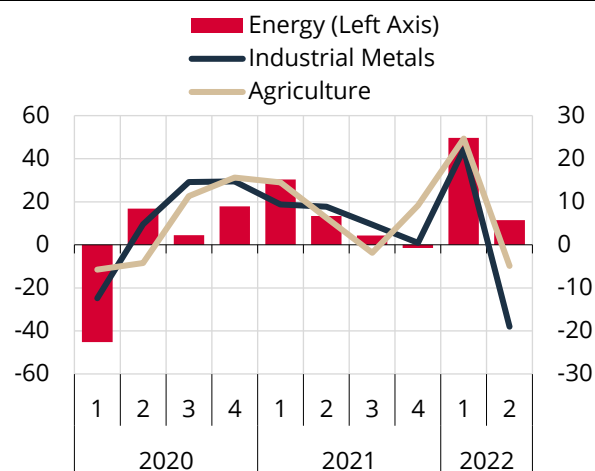
**Chart 2.4.14: Import Unit Value Index\***  
(2019Q4=100, USD)



Source: TURKSTAT.

\* The second quarter data is the average of April and May.

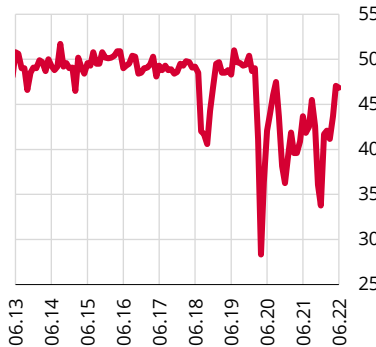
**Chart 2.4.15: Commodity Price Indices**  
(Quarterly % Change)



Source: Goldman Sachs.

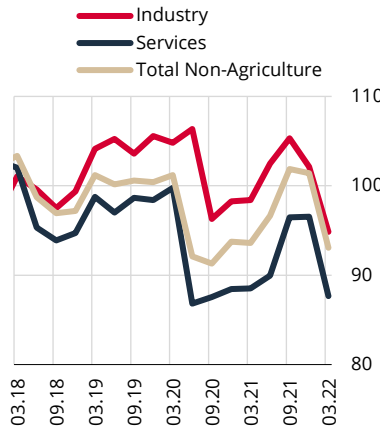
**Supply-side problems in addition to the outlook for import prices continued to affect domestic producer prices adversely.** Over the last three-month period, as a result of the disruptions in the global supply chain, lingering geopolitical problems and transportation costs that exceed historical averages, the negative outlook for domestic delivery times has persisted, albeit at a lower magnitude (Chart 2.4.16). Despite the minimum wage increase in the first quarter of the year, real unit labor costs remained more moderate. A closer look suggests that both hours worked and value added increased slightly, and partial productivity per hour worked posted a modest decrease. On the other hand, the decrease in real wages was more than that of productivity. An analysis by sectors indicates that real unit wages per hour in non-agricultural and industrial sectors continued to decline, and services also assumed a downtrend (Chart 2.4.17). Real unit wages are expected to recover in the second half of the year, thanks to the minimum wage increase made in July and implications of this increase for other wages. Against this background, annual domestic producer inflation remained on the rise in the second quarter (Chart 2.4.18).

**Chart 2.4.16: PMI Suppliers' Delivery Times\*** (Manufacturing, Seasonally Adjusted)



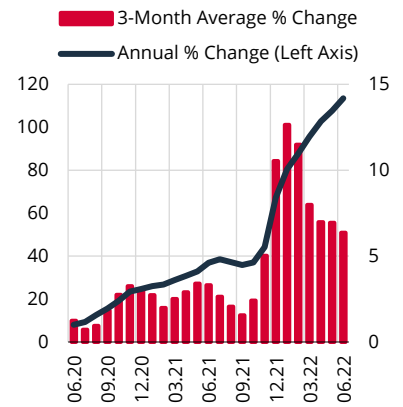
Source: IHS Markit.  
\* Lower values denote longer delivery times.

**Chart 2.4.17: Real Unit Wage per Hours Worked\*** (Value Added, 2015=100, Seasonally Adjusted)



Sources: CBRT, TURKSTAT.  
\* Deflated by the CPI. Real Wage per Hour/Productivity.

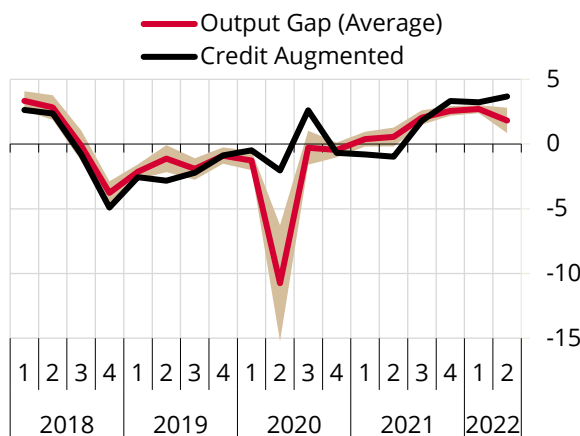
**Chart 2.4.18: Manufacturing Prices excl. Petroleum and Base Metals**



Sources: CBRT, TURKSTAT.

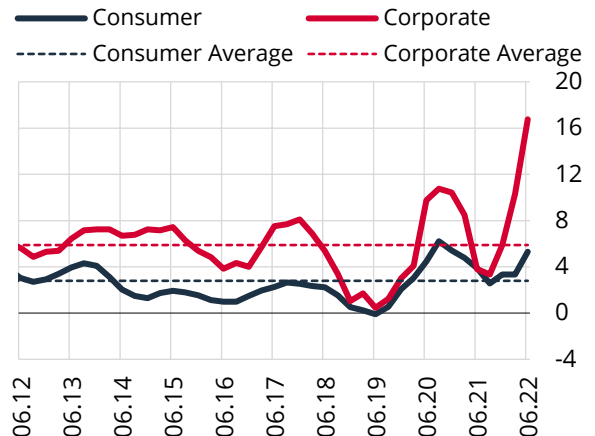
**Although aggregate demand conditions slowed compared to the first quarter, output gap indicators remained in positive territory.** Leading indicators suggest that despite slight deceleration, domestic demand conditions remained relatively strong in the second quarter of 2022. Although rising inflation constrains consumption, the recovery in the labor market, the purchases that were brought forward and the post-pandemic normalization support this outlook. Notwithstanding geopolitical problems and risks regarding the global growth outlook, external demand remained positive in this period. Parallel to these developments, the output gap indicators tracked by the CBRT continued to remain in the positive territory, despite a slight decline compared to the first quarter of the year (Chart 2.4.19). Meanwhile, output gap indicators showed divergence in this period. While production-based output gap indicators slowed down in the second quarter, survey-based, sectoral outlook-based ones and the indicator with credit effect maintained their strength in the first quarter. Similarly, the capacity utilization rate in the manufacturing industry did not show a significant change compared to the previous quarter (Chart 2.3.10). The slowdown in borrowing reversed in the last quarter of 2021, and credit utilization grew significantly led by Turkish lira-denominated corporate loans, becoming a factor supporting economic activity (Chart 2.4.20). In sum, output gap indicators remained in positive territory, despite a slight decline compared to the previous quarter, but the impact of aggregate demand conditions on the increase of inflation remained limited compared to other main determinants such as exchange rates and global commodity prices.

**Chart 2.4.19: Output Gap Indicators\* (%)**



Source: CBRT.  
\* The average of the output gap indicators calculated by six different methods is shown with the 95% confidence interval.

**Chart 2.4.20: Net Credit Utilization\* (%)**



Source: CBRT.  
\* Net credit utilization is calculated as the ratio of the annual change in the nominal loan stock to the annual GDP of four quarters before. The historical average covers the period 2006Q1 to 2022Q2. Credit cards are included in utilization of personal loans. Corporate loan utilization is adjusted for exchange rate effects.

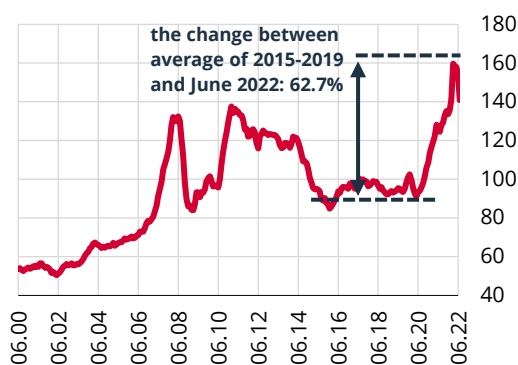
***Due to energy prices, administered prices increased slightly more than headline inflation.*** The rise in international energy prices in terms of Turkish lira persisted in the second quarter of the year, and weighed on domestic energy prices. Accordingly, residential natural gas prices increased by 27.92% and 25.11% in April and June, respectively, while consumer electricity prices were up by 15% in June. Despite these price hikes, state subsidies for residential natural gas prices continued to increase in this period, preventing a more negative outlook for consumer inflation. In this quarter, the prices of electronic devices such as mobile phones and tablets were also affected by the increase in the TRT tax. While the carry-over effects of the producer prices-driven increase in tobacco products in March were influential on April inflation, another increase of approximately TRY 2 was delivered in May due to producer firms. On the other hand, the automatic tax hike to come in July for alcohol and tobacco products, which would be indexed to D-PPI inflation, was suspended, and a more limited tax increase was implemented in June instead for such products. The prices in the alcoholic beverages group surged by 24.55% in June as a result of both the tax adjustments and producer price increases. The effect of tax adjustment in tobacco products remained limited and prices increased by around TRY 2 in July, mainly due to producer firms. This quarter also saw state regulations to inhibit inflation for groups other than administered price groups. In late March, the VAT rate was cut to 8% from 18% for basic needs, led by hygiene products, and this arrangement had positive effects on prices. Additionally, the introduction of a cap of 25% on the increase of residential rents came to the fore as another regulation that would positively affect consumer inflation. Moreover, state subsidies for some food and agricultural products, and foreign trade measures implemented for critical products have had a restrictive impact on the short-term inflation outlook.

## Zoom-In 2.2

### Food Supply Security Measures

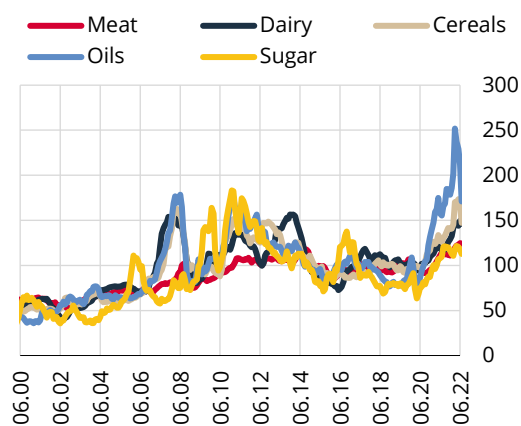
**The Covid-19 pandemic has put the food supply problem onto the agenda and compelled countries to reshape their food policies.** Additionally, rising food prices due to the Russia-Ukraine conflict significantly increased global food supply concerns, international food prices hit their historical highs, and all sub-groups saw noticeable increases (Chart 1 and Chart 2). As a result, the record levels seen in agricultural commodity and food prices have urged more countries to implement protectionist food policies and to tighten the existing measures. Among these measures are the provisional lifting of import tariffs, exemption from import duties, and temporary export restrictions. For example, while the Eurasian Economic Union (EEU), formed by the Russian Federation, Kazakhstan, Armenia, Belarus and Kyrgyzstan, banned for a certain duration the exports of many agricultural products as part of the of Covid-19 measures in 2020; Argentina, Russia, Kazakhstan and India decided to restrict the exports of some products of particular importance for food safety in 2022. Additionally, countries, led by China, took steps to boost their food stocks. In Türkiye, measures have also been taken recently for security of food supply, customs duties have been cut on some agricultural products, and regulations have been introduced in exports of some agricultural products. In addition to the current practices, a new measure was introduced regarding food supply security by amending the Inward Processing Regime (IPO) in June.

**Chart 1: FAO Food Prices Index**  
(2014-2016=100, USD, Monthly)



Source: FAO.

**Chart 2: FAO Sub-item Prices Index**  
(2014-2016=100, USD, Monthly)



Source: FAO.

**The Inward Processing Regime is a customs procedure that enables exporting companies to compete in international markets through supply of raw materials at international prices.** Within the scope of the IPO, companies can export products made of imported raw materials. Moreover, as market conditions and the current legislation allows, companies, after exporting the products made of domestically-supplied goods, can also import in equivalent volume and use the imported goods freely.

***In exports carried out within the scope of this regime to ensure the protection of food supply security, products made of wheat (in 2018), and sunflower seed, safflower and rapeseed oil (in 2021) were subjected to imports first.*** However, a legislative amendment made on 17 June 2022 obliged companies to export in an amount corresponding to that of imported goods for a number of products, following the actual import, thereby protecting the domestic supply of these products (Table 1). This regulation helps prevent the use of domestic production in the manufacturing of products to be exported, and ensures that domestic supply is channeled towards production for domestic consumption. Thus, domestic food supply, and hence price stability of related products are supported. Besides IPO practices, for the sake of food security, customs duties have been zeroed for some strategic agricultural products, and a tariff quota has been set for sugar imports.

***What is more, the agricultural commodity prices have recently seen positive effects of the Grain Corridor Agreement (Secure Shipment of Grain and Foodstuffs from Ukrainian Ports Initiative Document) signed as a result of the negotiations held under the mediation of Türkiye, enabling the safe transportation of grain products in Ukraine to world markets.*** Shipments will be made under the supervision of the Istanbul-based Joint Coordination Center, consisting of representatives of Türkiye, Russia, Ukraine and the United Nations. The Center is assigned with safe distribution of the grain exported from Ukraine, while the tracking and transit passage of commercial ships will be carried out in coordination with the UN and the party countries.

**Table 1: Agricultural Products Required to be Imported First as Part of IPO Exports**

<b>Imported Inputs</b>	<b>Processed Products to be Exported</b>
Wheat	Wheat flour, wheat semolina, pasta, vermicelli, bulgur, peeled wheat and instant noodle
Corn	Starch, starch-based sugar, farming products (poultry meat, eggs, etc.) and fish
Lentil	Shelled, processed and packaged lentils
Sunflower seed or crude sunflower seed oil	Crude sunflower seed oil or refined sunflower seed oil
Oilseed safflower, crude safflower oil, oilseed rape (canola) or raw rapeseed (canola) oil	Crude or refined safflower/rapeseed oil
Oilseed or vegetable oil	Margarine and/or mixed oil
Oilseed soybean, crude soybean oil, crude cottonseed oil, palm/palm kernel oil or derivatives	Crude or refined vegetable oil
Crystal sugar	Sugary products
Haricot beans	Canned beans
Chickpeas and peas	Canned chickpeas and processed peas

## Box 2.1

### Findings Obtained from Interviews with Businesses

Within the Central Bank of the Republic of Türkiye (CBRT), studies are carried out under the name of “Economic Lens to the Real Sector” (ELRS), which is based on face-to-face meetings with businesses.<sup>1</sup> This box summarizes the findings from the interviews conducted in the April-June 2022 period.

Information from the interviews indicated a similar outlook for economic activity in the second quarter of the year compared to the previous quarter. While the driving role of export-oriented companies in economic activity continued, domestic sales were also more positive, albeit slightly, than the previous period.

***It was observed that consumer demand for basic needs, especially for non-durable and semi-durable goods, was relatively buoyant while the demand for non-essential and deferrable durable goods slowed.***

The removal of pandemic measures, the support of financing conditions, sales campaigns and brisk tourism activities were the main factors supporting domestic sales. On the other hand, it was reported that the general level of prices and supply issues continued to put pressure on domestic demand. Meanwhile, the demand brought forward in the previous periods and the regulatory changes made in June for credit card spending were highlighted as other factors that slowed sales.

It was highlighted that due to supply concerns in food and fast-moving consumer goods, stock purchases in some products suppressed sales in the current quarter to some extent. Apparel sales were reported to remain buoyant in the regions where tourism activities are strong. While it was stated that companies in white goods and furniture sectors were trying to keep demand alive with campaigns, the effect of the regulation on credit cards, which restricts sales, has mostly been felt in the furniture sector. The strong demand outlook for the automotive sector continued, but the demand was not fully reflected in sales due to the ongoing supply problems. Home sales to foreigners remained strong. Firms expect that favorable tourism and wage adjustments to be made in July would limit the decline in sales in the third quarter.

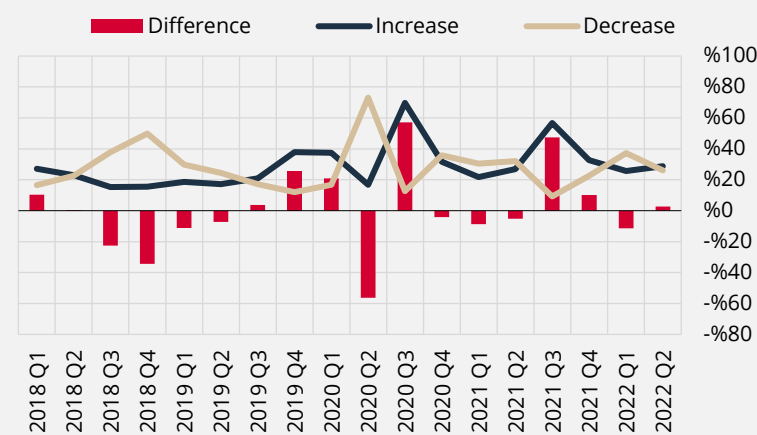
***It was stated that exports, which gained strength during the pandemic period, maintained their buoyant outlook.***

Due to the pandemic and the Russia-Ukraine War, the demand has shifted towards Türkiye and continued to support Turkish exports. Moreover, companies' appetite to access new markets and customers continues. However, anecdotes were shared that the increase in global inflation has started to suppress foreign demand, especially in the EU.

Exports continue to be stronger in sectors such as apparel, furniture, and the automotive parts industry, whereas they slowed down in basic metals, the automotive industry and white goods sectors compared to the previous period. Concerning the exports of apparels, it was reported that, the positive effect of the demand shifting to Türkiye became more noticeable with the lifting of pandemic restrictions and Russia's orientation towards Türkiye to meet its demand provided additional support to the sales. After seeing a strong demand during the pandemic, exports of white goods started to somewhat normalize. The export orientation and market diversification push in furniture maintains its strength. While supply problems continue to be effective in automotive exports, the positive effect of the shifting demand from the Far East continues in the automotive parts industry. Respondents in the tourism sector stated that the demand for city hotels was above expectations and the demand from the Europe was strong.

<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 businesses 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 businesses 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 graphics are produced by scoring the anecdotal information obtained from the company interviews. This study includes evaluations and inferences based on interviews with businesses 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.



**Chart 1: Demand Perception of Companies\* (QoQ)**

Source: CBRT ELRS.

\* Demand Perception shows the evaluation made by considering the current sales realizations, orders and expectations of the companies. The series, stated as the difference, 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.

***Optimistic expectations remained in place while production activities maintained their pace in the second quarter.***

While the positive trend in domestic sales compared to the previous quarter played a supportive role in production, the trend in exports was largely preserved and continued to affect production positively. The firms interviewed stated that supply shortages continued, albeit at a reduced rate compared to the first quarter, and commodity prices and energy expenditures continued to suppress production activities. In this context, companies attached more importance to stock management than they did in previous periods, especially in raw materials and intermediate goods. On the other hand, companies shared their predictions that the current pace of production might improve in the next quarter in line with their domestic and international sales expectations.

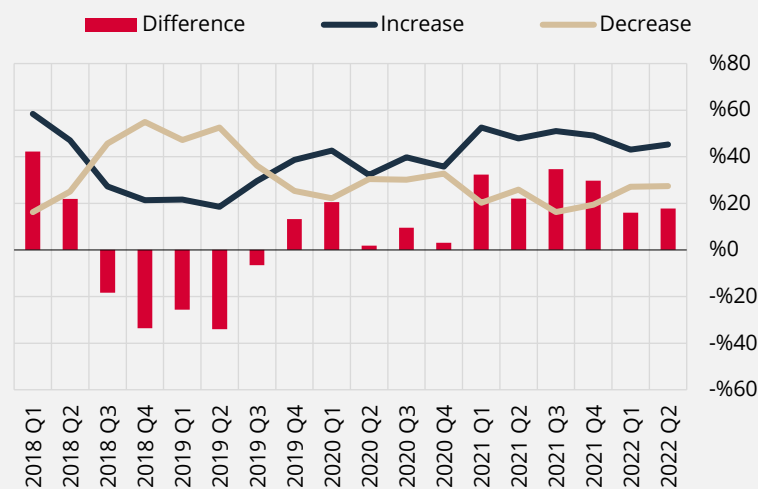
***It was observed that the investment stance of exporting or export-related companies is more positive than that of the companies operating in the domestic market.***

It is noteworthy that companies remain prudent in investments mainly due to the rise in production costs triggered by soaring commodity prices and the uncertainty in demand conditions. On the other hand, those exporters that reported higher demand differed positively in terms of investments.

Machinery, equipment and energy investments are prioritized in company investment plans. There is significant appetite for machinery and equipment investments in sectors such as food, food-related packaging, machinery, textile, apparel, chemistry, rubber and plastic, construction-related and fabrication metal manufacturing. Interview findings revealed that investment plans regarding the production transformation in line with the Green Deal were prioritized in some manufacturing industry companies producing especially for the European market, and the solar energy systems investment appetite remained stronger due to the increase in energy costs.

The interviews held in this quarter indicated that unfavorable long-term financing conditions, in particular, played a determining role in the increase of firms' tendency to use their own funds to finance investments. Meanwhile, the "Advance Loans Against Investment Commitment" may be effective in initiating some investments that were postponed due to financing problems or in bringing forward some investments that are in the intention stage.

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



Source: CBRT ELRS.

\* Investment Stance shows the evaluation made by considering the investment appetite of the companies for the next 12 months. The series stated as difference 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.

In line with their investment stances, companies aim to maintain their current employment levels in the upcoming periods. Positive expectations regarding demand conditions and skilled worker shortages are expected to influence employment plans.

***Firms' financing needs continued to rise due to the increase in their working capital needs.***

Rising working capital needs are associated with rising costs led by the increase in raw metal prices and energy expenses. While cash flow mismatches and stock management were also mentioned for the rise in the working capital needs, the demands of long-term financing of investments were also emphasized.

The credit conditions and standards that eased at the end of the first quarter displayed a similar course throughout the second quarter. Although access to credit continued throughout the quarter, anecdotes were told that credit conditions and standards were tightened as of June due to macroprudential measures. While public loans limited this tightening, the CBRT-sourced export and investment-committed advance loans played a supporting role.

***It was emphasized that the increase in energy and global commodity prices exerts pressure on companies.***

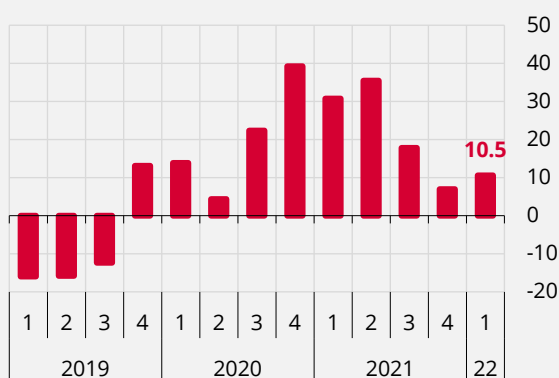
Rising energy and raw material prices were the most emphasized cost factors throughout the quarter. In June, some companies started to draw attention to exchange rate developments as a cost factor. Firms reported that the recent decreases in industrial commodity prices had not yet been reflected in their input costs due to the length of the supply chain and the duration of the contracts, with the exception of natural gas and coal costs that were reflected in product prices in sectors with intensive energy use.

## Box 2.2

### Recent Trends in Machinery-Equipment Investments

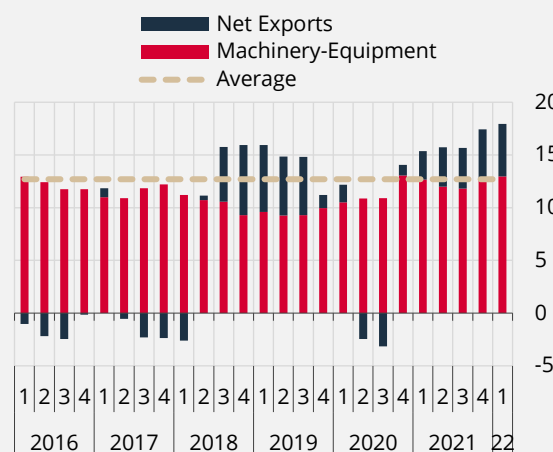
To strengthen the economy structurally, gain competitive advantage and achieve a sustainable growth path through high value-added production, components that increase potential growth, such as investments, are important in the growth composition. An analysis of recent trends of machinery-equipment investments, a sub-item of investments, reveals that, they made a significant contribution of 2.3 points to the overall growth recorded in 2021 of 11%, and made a positive contribution of 1.4 points to the growth in the first quarter of 2022 of 7.3%. Thus, annual growth in machinery-equipment investments continued for the 10th quarter in a row (Chart 1). The share of machinery and equipment investments and net exports, another component of sustainable growth, in national income has hit record levels in the recent years (Chart 2).

**Chart 1: Machinery-Equipment Investments (Annual % Change)**



Source: TURKSTAT.

**Chart 2: Share of Machinery-Equipment Investments and Net Exports in GDP\* (%)**

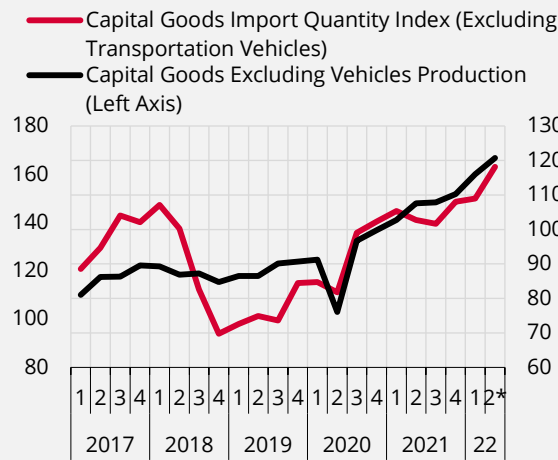


Source: CBRT, TURKSTAT.

\* The dashed line shows the average for the period 2016Q1-2022Q1.

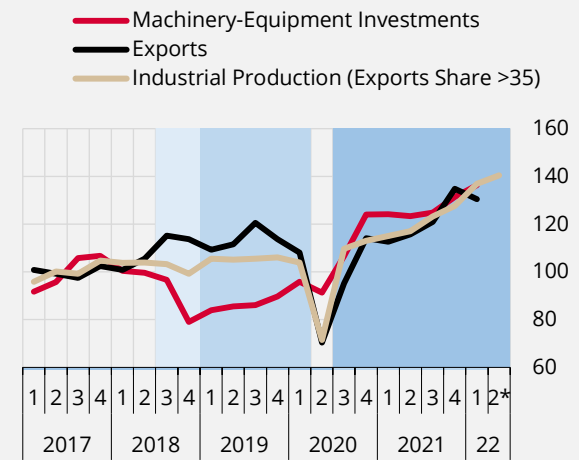
In the second quarter of the year, the course of the industrial production index and import quantity indices suggest the positive trend in investments continues. When the motor vehicles sector, where supply problems have been limiting production after the pandemic, is excluded, the production and imports of capital goods continued to increase and reached historically high levels (Chart 3). Along with the uptrend in exports, the strong course of industrial production, particularly in exporting sectors, underpins a significant recovery in machinery-equipment investments (Chart 4). It is evaluated that the strong trend in investments will continue as the manufacturing industry's capacity utilization rates have been hovering above past averages, encouraging companies to expand their capacities. Furthermore, the investment appetite of companies with high capacity utilization rates is higher (Chart 5).

**Chart 3: Capital Goods Production and Import Volume Index (Seasonally Adjusted)**



Source: CBRT, TURKSTAT.  
\* April-May averages.

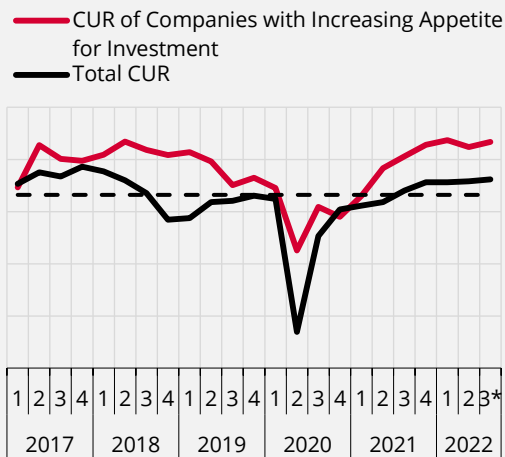
**Chart 4: Machinery-Equipment Investments, Exports and Industrial Production (Seasonally Adjusted, 2017=100)**



Source: CBRT, TURKSTAT.  
\* April-May averages.

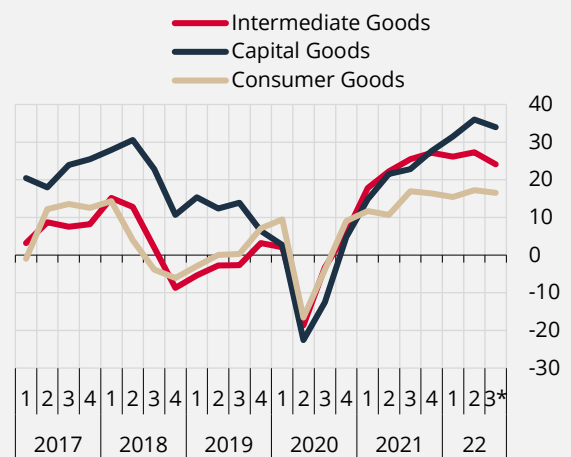
The answers to the investment tendency question in the Business Tendency Survey (BTS) suggest that firms' investment tendency remains strong. Moreover, even if this trend is observed across sectors, the recent increase in the capital goods group is remarkable (Chart 6). In this framework, it is expected that machinery-equipment investments will continue to contribute to growth in the coming period.

**Chart 5: Manufacturing Industry Capacity Utilization Rate\*\* (Seasonally Adjusted, %)**



Source: CBRT.  
\* As of July.  
\*\* The dashed line shows the average for 2011-2019.

**Grafik 6: BTS Investment Tendency (Seasonally Adjusted, Increase-Decrease, %)**



Source: CBRT.  
\* As of July.

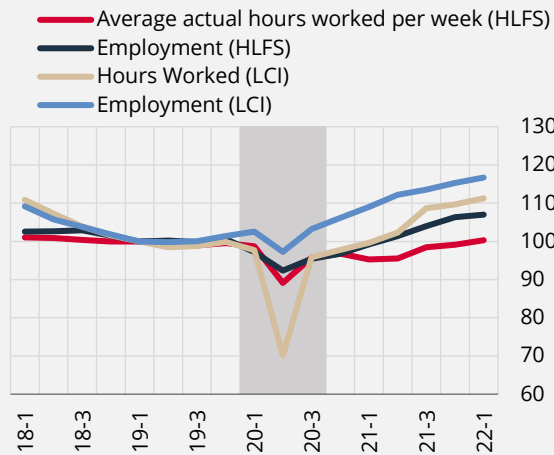
To sum up, the uptrend in machinery-equipment investments, which is one of the main drivers of potential growth, continues. The recent course of investments is important with respect to achieving a stable and sustainable growth.

## Box 2.3

### Recovery in Employment in the Post-Pandemic Period

This box deals with the substantial post-pandemic recovery in employment in Türkiye. With the deterioration in labor market conditions in the first months of 2020, the unemployment rate increased despite exits from the labor market during the pandemic. In this period, there was a strong decline in economic activity due to the restrictions imposed against the pandemic and decreased mobility. Pandemic restrictions also led to a decline in labor demand, resulting in a significant decline in total labor input, or in other words, total hours worked (Chart 1). On the other hand, the Turkish economy quickly recovered from the effects of the pandemic and was among the rare countries that completed 2020 with a positive growth rate. This growth performance continued in 2021 when the growth rate reached 11%. In this context, the strong growth performance was accompanied by significant employment increases. As of May 2022, Türkiye increased its seasonally adjusted employment by 3.2 million people in total compared to the pre-pandemic period (February 2020) and reached 30.8 million people (Chart 2). Similarly, as suggested by employment developments for the pre and post pandemic period per sub-sector, the recovery in the sectors most affected by the pandemic (services sub-sectors of hotels-restaurants and administrative and support services) continues, and the rate of increase in employment in the industrial sector, especially in the last months, is positively differentiated. As of the first quarter of 2022, industrial employment increased by 1.2 million, construction employment increased by 312 thousand, and services sector employment increased by 2.5 million compared to the second quarter of 2020, when the pandemic started. Thus, the increase in non-farm employment reached approximately 4 million people.

**Chart 1: Employment and Hours Worked**  
(Seasonally Adjusted, 2019Q1=100)

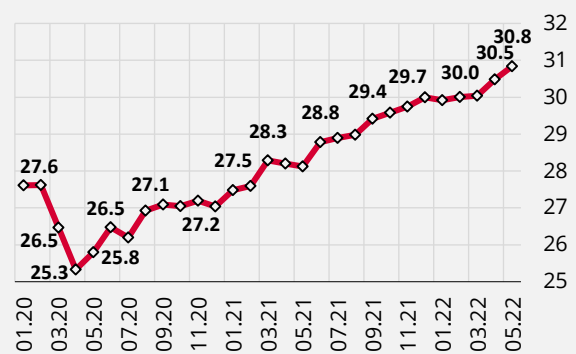


Source: TURKSTAT.  
HLFS: Household Labor Force Survey.  
LCI: Labor Cost Indices.

The labor force participation rate, on the other hand, dropped significantly during the pandemic, curbing the rise of the unemployment rate. The number of people available to work but not seeking work increased sharply during the pandemic. Although this rate decreased significantly after the pandemic, it has yet to return to its pre-pandemic levels (Chart 3). Data for May 2022 confirm that the increase in the labor force tracks the rise in employment. It is predicted that the labor force participation rate will increase gradually in line with economic activity, and this situation is expected to curb the decline in unemployment rates despite strong employment increases.

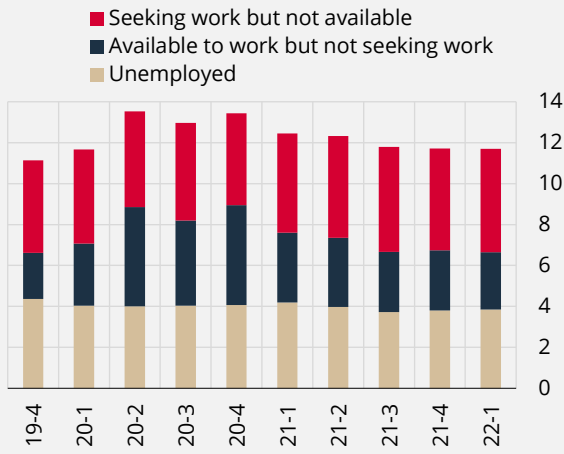
In line with the above developments, the unemployment rate increased from 12.6% before the pandemic (February 2020) to 13.2% on average during the pandemic (March 2020-February 2021), and as of May 2022, it declined to 10.9% (Chart 4).

**Chart 2: Total Employment** (Seasonally Adjusted, Million People)



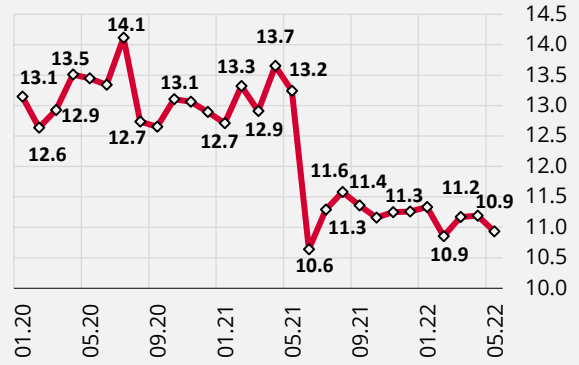
Source: TURKSTAT.

**Chart 3: Labor Force Dynamics** (Seasonally Adjusted, Million People)



Source: TURKSTAT.

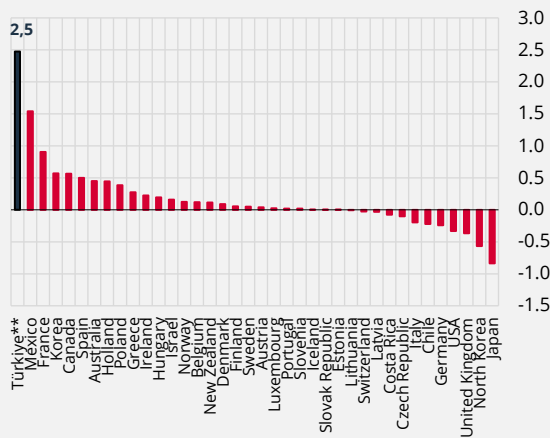
**Chart 4: Unemployment Rate** (Seasonally Adjusted, %)



Source: TURKSTAT.

As of the first quarter of 2022, Türkiye outperforms all other OECD countries in terms of employment increase (Chart 5). Between 2022Q2\* and 2019Q4, seasonally adjusted employment growth was near 2.5 million people. Among its peers<sup>1</sup>, the Turkish performance for employment recovery after the pandemic was also quite strong, particularly in industrial and services sectors. When the relative improvement in the employment ratio is compared with the pre-pandemic period by taking into account population dynamics, Türkiye's position is still well-above the OECD average (Chart 6). This is despite Türkiye being one of the OECD countries with the fastest growing working age population (Charts 7 and 8). Thus, Türkiye performed better than a number of countries with similar population dynamics (such as Colombia, Mexico, Israel, Iceland) considering the increase in employment ratio.

**Chart 5: Change in Employment\*** (Calendar and Seasonally Adjusted, 2019Q4-2022Q1, Million People)

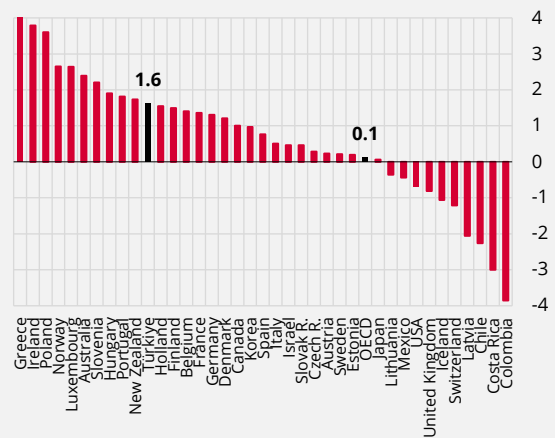


Source: OECD.

\* 2022Q2-2019Q4 calculated for countries with 2022Q2 data.

\*\* The change in April-May 2022 data compared to 2019Q4.

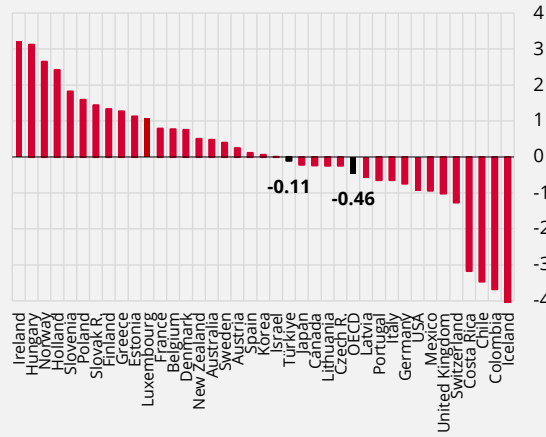
**Chart 6: Change in Employment Rate** (2019Q4-2022Q1, Employment/Population, Points)



Source: OECD.

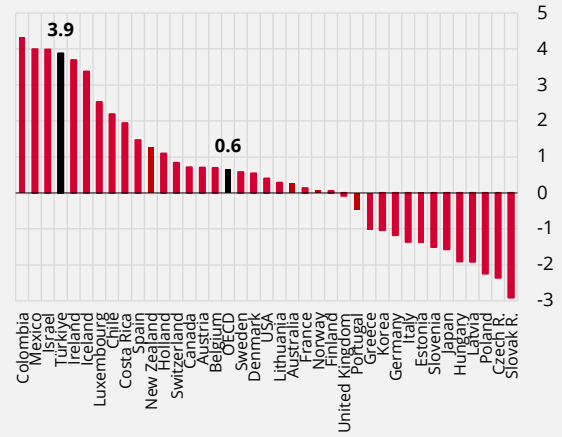
<sup>1</sup> Mexico, Poland, Peru, Chile, Hungary, Brazil, Romania, South Africa, Thailand, Philippines.

**Chart 7: Change in Labor Force Participation Rate (2019Q4-2022Q1, Labor Force / Working Age Population, Points)**



Source: OECD.

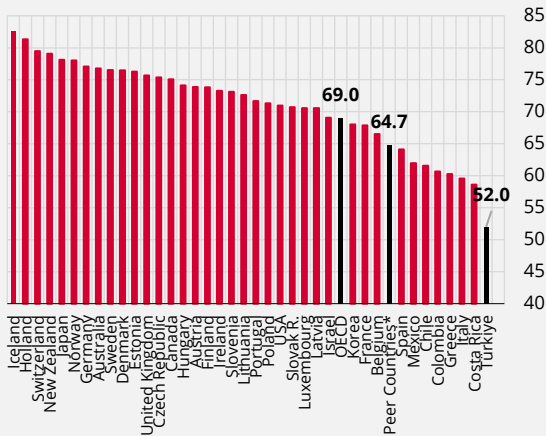
**Chart 8: 15-64 Working Age Population Change (2019Q4-2022Q1, %)**



Source: OECD.

Although the post-pandemic recovery in employment has been stronger compared to its peers, Türkiye's absolute rates of employment and labor force participation are still below the OECD average (Charts 9 and 10). Besides the demographic factors, when the economic growth performance and structural issues are taken into account, the improved economic growth is expected to back employment growth, and a faster employment growth is projected to support participation rates. Consequently, the rise in the potential labor force will increase production capacity.

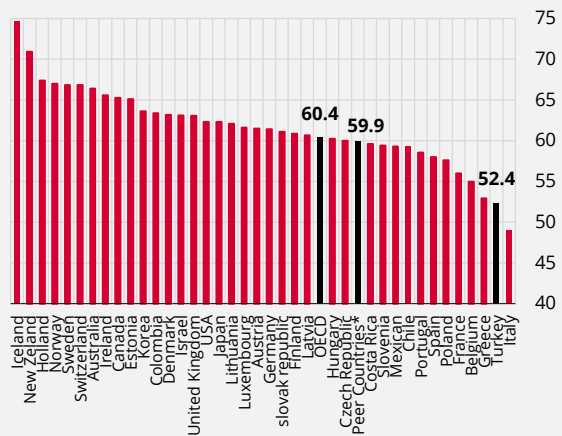
**Chart 9: Employment Rate (2022Q1, Employment/Population, %)**



Source: OECD.

\* Peer Countries: Mexico, Poland, Chile, Hungary, Romania, Colombia, Costa Rica.

**Chart 10: Labor Force Participation Rate (2022Q1, Labor Force / Working Age Population, %)**



Source: OECD.

\* Peer Countries: Mexico, Poland, Chile, Hungary, Romania, Colombia, Costa Rica.

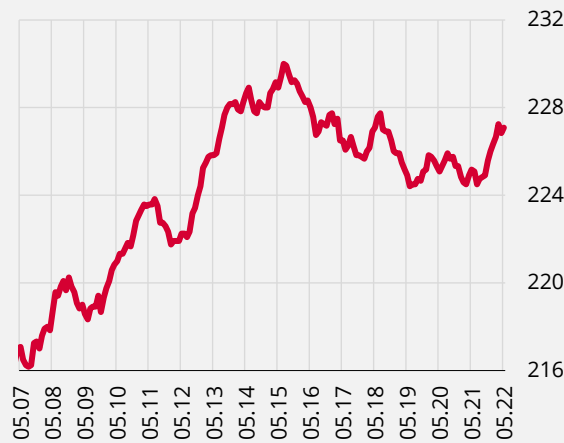
In sum, Türkiye's labor market performed strongly among OECD countries as well as peers in recovering from the pandemic. However, in order to bring unemployment rates down further and attain more improvement in the labor market, this trend has to continue to keep up with population growth and increases in participation rates.

## Box 2.4

### Development of Türkiye’s Export Diversity

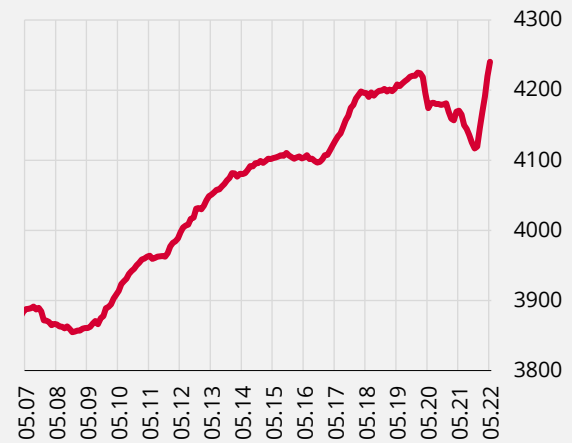
Before the pre-global financial crisis, Türkiye had 215 export destinations on average in 2006, which reached 230 in 2014 with increased destination diversification and 227 in 2022 (Chart 1).<sup>1</sup> Regarding product diversity, Türkiye exported an average of 3841 products (Harmonized System-6 classification) in 2006, which reached 4240 in 2022 (Chart 2). This increase in the total number of exported products is considered to be an increase in Türkiye’s production and competition power.

**Chart 1: Number of Turkish Export Destinations** (12-Month Moving Average)



Source: CBRT, Ministry of Trade.

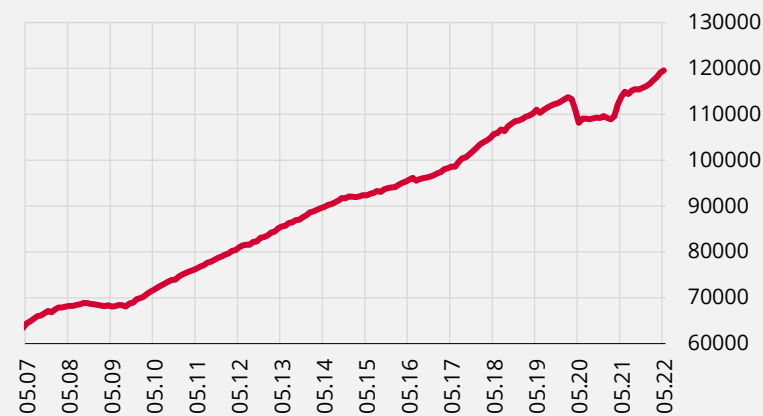
**Chart 2: Number of Turkish Export Products** (12-Month Moving Average)



Source: CBRT, Ministry of Trade.

Exports in terms of products sold to countries suggest that the "country x product" which was 60,183 on average in 2006, hit 119,574 in 2022 (Chart 3). Accordingly, Türkiye has made progress in product diversity exported to different countries as well as the product diversification of its exports. Market and product diversification reduce countries' dependence on specific products and markets, lowering the exposure of their foreign trade to various risks (pandemic, regional conflicts, demand shocks caused by commodity prices, etc.). In this way, since 2006, Türkiye has not only increased the markets it accesses, but also expanded the product diversity of Türkiye have increased it offers, and fostered the resilience of exports against foreign trade shocks.

**Chart 3: Number of Countries-Products for Turkish Exports** (12-Month Moving Average)



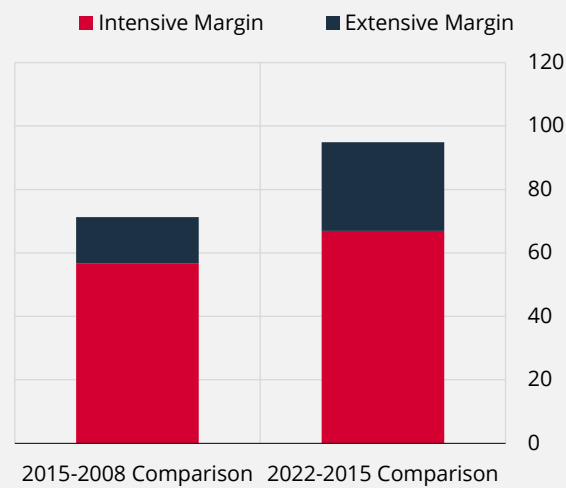
Sources: CBRT, Ministry of Trade.

<sup>1</sup> Includes UN member countries and zones with autonomous/private status.



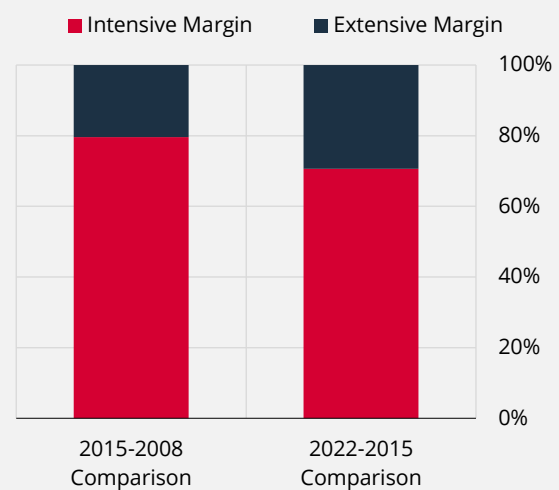
Sources of the rise in Türkiye's exports can be classified as changes in existing markets (intensive margin) and entry to new markets (extensive margin). The comparison was made by the aggregation of two-year periods defined as the end, middle and beginning of the time interval (2006-2022); period III (2020 June – 2022 May) period II (June 2013-May 2015) and period I (June 2006- May 2008). The second period was compared with the first period, and the third period was compared with the second period. As a result, Türkiye's exports increased by USD 71.3 billion compared to the first period, USD 56.8 billion of which is due to the intensive margin, while USD 14.5 billion stems from the extensive margin. In the third period, exports increased by USD 94.9 billion dollars compared to the 2013-2015 period, USD 67 billion of which comes from the intensive margin and USD 27.9 billion is due to extensive margin (Chart 4). In this study, the sources of the change in Türkiye's exports in the last 15 years are analyzed through biennial aggregations. It is observed that most of the rise in exports stems from the intensive margin, while the weight of the extensive margin in total has increased (Chart 5).

**Chart 4: The Sources of Change in Türkiye's Exports** (Product-Country, Comparison between Periods, Billion Dollar)<sup>2,3</sup>



Source: CBRT, Ministry of Trade.

**Chart 5: The Sources of Change in Türkiye's Exports** (Product-Country, Comparison between Periods, %)



Source: CBRT, Ministry of Trade.

In summary, it is seen that Türkiye's exports have gained a more competitive structure in the process mentioned above and diversity of products and countries have also increased. It is considered that these gains will enhance a steady improvement in exports' resilience against external shock, and that the contribution of exports to sustainable growth will increase in the upcoming period.

<sup>2</sup> Export can be increased by raising the value and quantity of existing products (HS-6 level) in the export destinations, called intensive margin, and by exporting new products (HS-6 level) in the export destination, called extensive margin.

<sup>3</sup> In this study, confidential data and energy data were excluded.

## Box 2.5

### Determinants of the Recovery in the Tourism Sector in the Post-Pandemic Period

The tourism sector, which came to a standstill with the restrictions applied globally during the pandemic period, recovered rapidly with the spread of vaccination and the gradual removal of restrictions. While the number of visitors and travel revenues have been showing an improvement beyond expectations, the outbreak in February 2022 of conflict between Russia and Ukraine, two of Türkiye's most important tourism markets, has posed a downside risk for the recovery in the tourism sector. Nevertheless, currently available data indicate that the positive trend in the tourism sector continued uninterrupted as of the first half of 2022. This box discusses the determinants of the recovery observed in the tourism sector in the post-pandemic period.

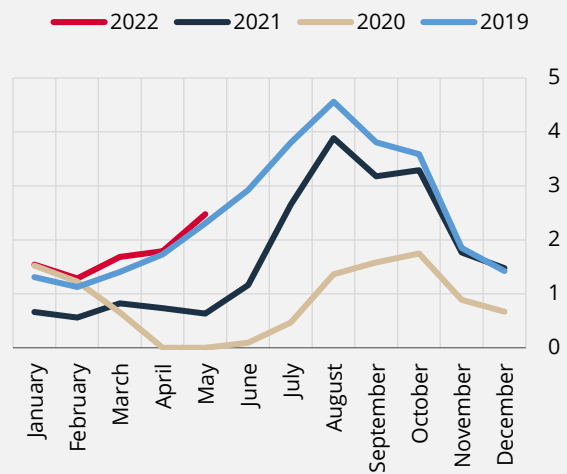
With the spread of vaccination on a global scale and the gradual removal of travel restrictions, the pace of recovery in the tourism sector proved to be quite rapid in the second half of 2021, and travel revenues reached 2019 levels by the end of 2021 (Charts 1 and 2). In addition to the recovery in the number of visitors, the change in visitor composition, increased savings during the pandemic, and increases in the average spending and stay of visitors all played a decisive role in the recovery.

**Chart 1: Change of Tourism Indicators Compared to 2019 (%)**



Sources: CBRT, GDSA, TURKSTAT.

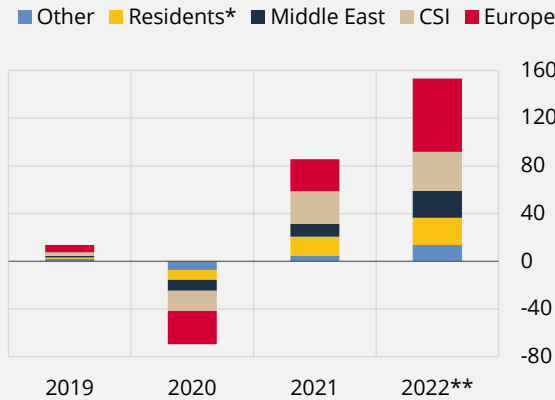
**Chart 2: Travel Revenues (Billion USD)**



Source: CBRT.

Looking at the distribution of visitors by nationality, we see that the highest contribution to the recovery in 2021 came from European countries in particular, the Commonwealth of Independent States (CIS) countries including Russia and Ukraine, and citizens residing abroad (Chart 3). Although the contribution of the CIS region in the first five months of 2022 remains relatively high due to the cumulative effects, its share in the total has decreased. In this period, the increase in the contribution of the number of German tourists to the recovery stands out on the European front, while the contribution of the increase in the number of tourists from the Middle East region has been consistently growing. Seasonally adjusted data indicate that as of May, the number of tourists from European, Middle Eastern and CIS countries exceeded the pre-pandemic level, while the number of tourists from other countries reached the pre-pandemic level (Chart 4).

**Chart 3: Contributions to the Change in the Number of Visitors (%)**

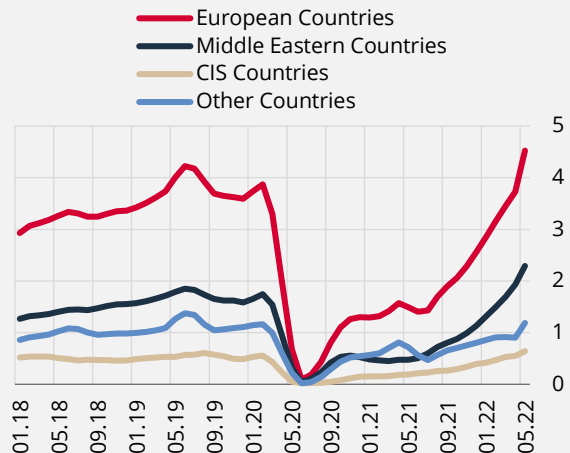


Source: TURKSTAT.

\* Residents abroad.

\*\* 12-month cumulative values as of May.

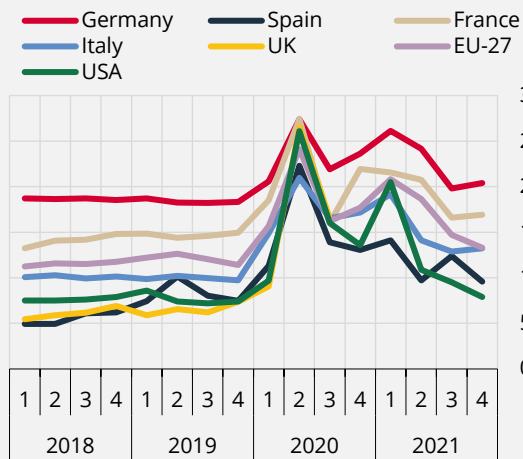
**Chart 4: Number of Visitors (Seasonally Adjusted, 3-Month Moving Average, Million People)**



Sources: CBRT, TURKSTAT.

The increase in savings rates compared to the pre-pandemic period as a result of the supportive fiscal policies implemented especially in the developed countries during the pandemic period was another important factor supporting the strong demand that had been delayed due to travel restrictions (Chart 5). In addition, the increase in the number of overnight stays per person during the pandemic period and the fact that the average expenditures in the post-pandemic period exceeded spending before the pandemic had a positive impact on travel revenues (Chart 6).

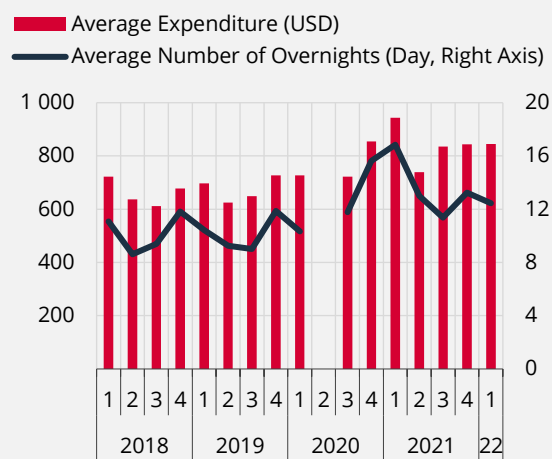
**Chart 5: Savings Rates in Developed Countries\* (%)**



Sources: EuroStat, U.S. Bureau of Economic Analysis.

\* Ratio of household savings to disposable income.

**Chart 6: Average Expenditure and the Number of Overnights**



Source: TURKSTAT.

As of May, the total number of visitors to Türkiye increased to 37.9 million and the travel revenues rose to 26.2 billion dollars on a 12-month cumulative basis. Seasonally adjusted data imply that the number of visitors has remained stable since the beginning of the year, despite the conflict between Russia and Ukraine. Although the number of Russian and Ukrainian tourists, which had played an important role in the post-pandemic recovery in the tourism sector and significantly increased their share in the total in 2021, decreased after the conflict began, those regional losses have been compensated for by the increase in the number of visitors from European and Middle Eastern countries. Currently available data indicate that the positive trend in the tourism sector continued unabated as of the first half of 2022, and that the ongoing recovery trend will also continue in the third quarter.

## Box 2.6

### Fiscal Outlook as a Strong Anchor

While fiscal policy has macroeconomic effects, changes in macro indicators such as growth, inflation and exchange rate also have effects on budget aggregates. In 2022, additional appropriation need has arisen in order to meet the budget expenditures which occurred as a result of the increase in public spending especially on civil service salaries and pensions due to inflation, the increase in transfers to public energy enterprises to avoid reflection of rising natural gas and electricity costs due to the exchange rate and imported product prices on consumers and the faster growth of social aid expenditures. On the other hand, changes in macro indicators also affect budget revenues especially tax revenues and necessitate revision of revenue forecasts.

In the first five months of the year, 54.8% of budget expenditure appropriations and 55.5% of primary expenditure appropriations were used. In the same period, the ratio of tax revenue realization to tax revenue targets was 70.0%. Including non-tax revenues, this ratio becomes 73.6%. All these indicators show that initial 2022 budget targets will be significantly exceeded both on expenditure and income sides and there is a need for an upward revision in budget items (Table 1).

The legislative proposal on the amendment to the 2022 Central Government Budget Law was submitted to the Presidency of the Grand National Assembly of Türkiye on 20 June 2022 and published in the Official Gazette on 7 July 2022. The proposal includes an increase in both revenue and expenditure appropriations. Accordingly, an additional appropriation of TRY 1.08 trillion is proposed for expenditures. It is projected that the financing requirement arising from additional budget appropriations will be entirely met by the increase in the budget revenues. In this context, revenues are also projected to increase by TRY 1.08 trillion. It is assumed that the budget deficit will remain as originally targeted (TRY 278.4 billion), as a result of the increase in revenues and expenditures by the same amount. On the other hand, while the 2022 budget deficit target remains unchanged, the primary budget balance which was initially targeted to post a deficit of TRY 38 billion is expected to run a surplus of TRY 51.4 billion as a result of the upward revision of the appropriation for interest expenditures in the supplementary budget (Table 1).

A scrutiny of budget expenditure items reveals that the expenditure item with the highest increase is current transfers (TRY 421 billion), followed by personnel expenditures (including social security contributions), which is a rigid expenditure item, with an increase of TRY 216.9 billion and by lending with an increase of TRY 140 billion. The increase in interest expenditures is expected to be TRY 89.4 billion. While the purchase of goods and services is expected to increase by TRY 86.7 billion, an increase of TRY 74.1 billion and TRY 13.6 billion is planned for capital expenditures and capital transfers which are considered flexible expenditure items. With this legal regulation, an appropriation of TRY 40 billion has been provided specifically for the foreign currency-protected deposits and participation account. An additional appropriation of TRY 120.5 billion was provided for the Petroleum Pipeline Corporation (BOTAS) and Turkish Hard Coal Enterprises (TTK) in the context of public enterprises capital transfer. Together with the additional appropriation, the total expenditure appropriation allocated for 2022 increased to TRY 2.83 trillion (Table 1).

The public revenues to be used in the financing of public expenditures were revised upwards mainly due to tax revenues. In this framework, it is expected that 85.9% and 14.1% of the TRY 1.08 trillion-increase in budget revenues will be composed of tax revenues and non-tax revenues, respectively. With the additional budget revenues, the total budget revenue target for 2022 has increased to TRY 2.55 trillion. The tax revenue items that are subject to major revisions are corporate tax, VAT on imports and SCT (Table 1). Although the revision in domestic VAT, another important tax item, totals TRY 163.3 billion when tax rebates are included this increase remains limited to TRY 13.2 billion when tax rebates are deducted.

The main reason for the good performance in financial indicators and the high primary surplus in the budget balance and primary budget balances in the first half of the year stemmed from the higher-than-expected budget revenues. This constitutes an important reference at the point of ensuring fiscal discipline. Consequently, the supplementary budget has served to design a public financial outlook in which fiscal discipline in public finance will be sustained and increased public spending will be financed by public revenues. In this framework, it is considered that public finance will continue to support the disinflationary process under an outlook in which fiscal discipline will be preserved on the back of the supplementary budget.

**Table 1: 2022 Central Government Initial and Supplementary Budget**

(TRY Billion)	Initial Budget	Supplementary Budget	Revised Budget (Initial + Supplementary)
<b>Expenditures</b>	<b>1751.0</b>	<b>1080.5</b>	<b>2831.5</b>
<b>Primary Expenditures</b>	<b>1510.6</b>	<b>991.1</b>	<b>2501.7</b>
Compensation of Employees	424.8	188.9	613.6
Social Security Contributions	69.1	28.0	97.2
Good and Service Purchases	128.2	86.7	214.8
Current Transfers	657.3	421.0	1078.3
Capital Expenditures	132.3	74.1	206.3
Capital Transfers	10.0	13.6	23.6
Lending	61.6	140.0	201.6
Reserve Appropriations	27.3	38.9	66.2
<b>Interest</b>	<b>240.4</b>	<b>89.4</b>	<b>329.8</b>
<b>Revenues</b>	<b>1472.6</b>	<b>1080.5</b>	<b>2553.1</b>
<b>Tax Revenues</b>	<b>1258.3</b>	<b>927.7</b>	<b>2186.0</b>
Income Tax	257.2	51.3	308.5
Corporation Tax	172.4	315.3	487.8
Special Consumption Tax	219.4	156.4	375.9
Domestic VAT	124.9	13.2	138.1
VAT on imports	290.8	284.0	574.9
Other Taxes	193.6	107.4	300.9
<b>Non-Tax Revenues</b>	<b>214.3</b>	<b>152.8</b>	<b>367.1</b>
<b>Budget Balance</b>	<b>-278.4</b>	<b>0.0</b>	<b>-278.4</b>
<b>Primary Balance</b>	<b>-38.0</b>	<b>89.4</b>	<b>51.4</b>

Source: Ministry of Treasury and Finance.

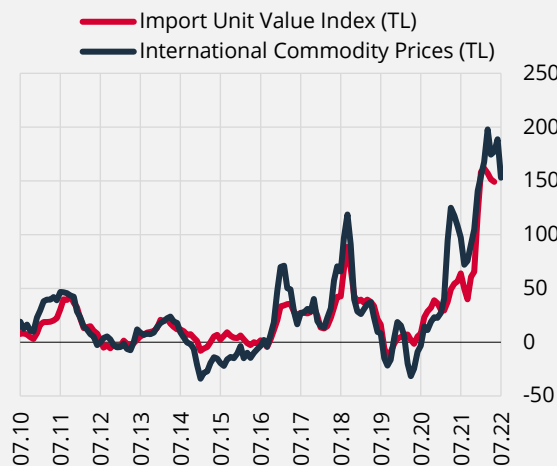
## Box 2.7

### Import Intensity and Inflation

Imported inputs used in production and directly imported products for consumption play an important role in domestic inflation developments through the cost channel. The import unit value index and TL-denominated international commodity prices, which are indicative of the costs of imported products, have recently recorded significant increases due to the recovery in demand after the pandemic, supply constraints and rising geopolitical risks (Chart 1). These increases in the costs of imported products shape the inflation outlook of consumption groups with a high import content. As of June 2022, there is a divergence of 41 points between the annual inflation rates of the goods group, which has a high import content, and the services group. In this box, the effects of increases in imported input costs on the inflation outlook are analyzed by using the decomposition between items with low import intensity and high import intensity.

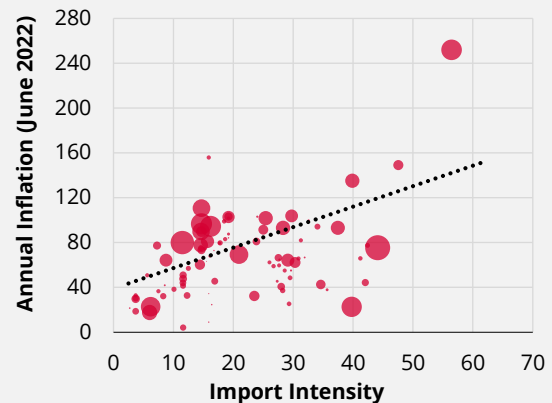
In order to reach the imported input intensities of the items that make up the consumer basket, sectoral import intensities are calculated using the input-output tables as in the work of Fröhling et al. (2022), and the values reached are matched with the CPI sub-items. The work of Özcan-Tok and Sevinç (2019) was used for the sectoral import densities used in this analysis.<sup>1</sup> Total imported input densities for 91 CPI items in 4D detail are obtained using the calculated sectoral figures and CPA-CPI matching key.<sup>2</sup> The results show that annual inflation reached high levels in items with high imported input intensities as of June 2022 (Chart 2). In order to look at the discriminatory effect of import costs collectively, the items with imported input intensity below a certain value and the remainder are indexed separately, and the results are reported for threshold values of 10% and 15% (Charts 3 and 4).

**Chart 1: Import Unit Value Index and International Commodity Prices** (Annual % Change)



Source: Bloomberg, CBRT, TURKSTAT.

**Chart 2: CPI Sub-items (4D) Import Intensity (%) and Inflation** (Annual % Change)\*



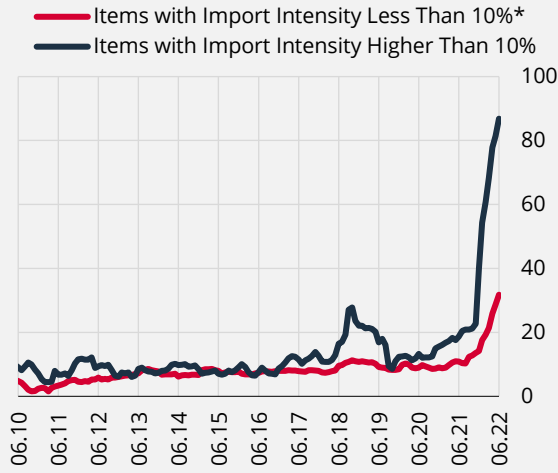
Source: CBRT, TURKSTAT.

\* The sizes of the dots show the weights of the CPI items in the basket. The trendline was obtained using the weighted least squares (WLS) method.

<sup>1</sup> In their work, the import content of total production was calculated by taking into account the direct and indirect imported input contents for the sectors in 2008 CPA classification, using 2012 input-output tables.

<sup>2</sup> Imported input intensity of CPI items matching multiple CPAs was obtained by weighting imported input intensities of matching sectors by sectoral production amount.

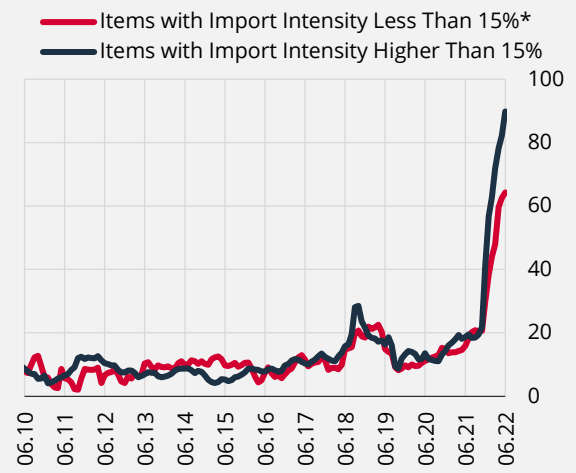
**Chart 3: Price Indices for Items with Import Intensity Less than and Higher than 10% (Annual % Change)**



Source: CBRT, TURKSTAT.

\* Its weight in the CPI basket is 12.8%.

**Chart 4: Price Indices for Items with Import Intensity Less than and Higher than 15% (Annual % Change)**



Source: CBRT, TURKSTAT.

\* Its weight in the CPI basket is 41.6%.

A closer look at the results reveals that service items such as education, rent, communication and accommodation are dominant in groups with low imported input intensity. With the recent increases in imported product costs, there is a significant divergence between the inflation rates of items with imported input intensity less than 10% and the remaining items (Chart 3). When we take the threshold value of imported input intensity as 15%, the difference between group inflation rates, especially with the addition of food sub-items, becomes smaller although it is still around 25% (Chart 4). An analysis of the products and services in the CPI basket according to their imported input intensities shows that negative supply shocks, which persisted after the pandemic and grew amid escalating geopolitical risks, largely shaped the current inflation figures and will in turn shape the disinflationary process.

## References

Fröhling, A., O'Brien, D. and Schaefer, S. (2022). "A New Indicator of Domestic Inflation for the Euro Area", ECB Economic Bulletin, Issue: 4/2022.

Özcan-Tok, E. and Sevinç, O. (2019). "Üretimin İthal Girdi Yoğunluğu: Girdi-Çıktı Analizi". CBRT Research Notes in Economics, No: 2019-06.

## 3. Medium-Term Projections

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

#### Changes in Key Forecast Variables

**Economic activity remained strong.** In this period, aggregate demand conditions were higher than expected in the forecasts of the April Inflation Report, mainly due to the increase in external demand. The strong course of economic activity was also reflected in the labor market, and employment rose while unemployment rates decreased. In this context, output gap forecasts for the first half of 2022 have been revised upwards (Table 3.1.1).

**In the second quarter of 2022, consumer inflation and the B index reached 78.62% and 64.42%, respectively, exceeding the forecast range of the April Inflation Report.** The major drivers of the rise in inflation were supply shock waves, international energy and food prices, transportation costs and production bottlenecks that have been effective since last year due to supply-demand mismatches caused by re-opening, geopolitical developments, and trade restrictions. In addition to cost-related effects, pricing detached from economic fundamentals, the increased backward pricing in inflation and the shortened average period for prices to remain unchanged were effective in the rise in inflation.

**Table 3.1.1: Development of Main Forecast Variables\***

	2022-I	2022-II
Output Gap (%)	1.8 (1.5)	0.5 (-0.2)
Consumer Inflation (Quarter-End, Annual % Change)	61.1 (61.1)	78.6 (68.4)
B** Index Inflation (Quarter-End, Annual % Change)	51.3 (51.3)	64.4 (60.3)

\* Numbers in parentheses are from the April Inflation Report.

\*\* B index is the CPI excluding unprocessed food, alcohol, tobacco, energy and gold.

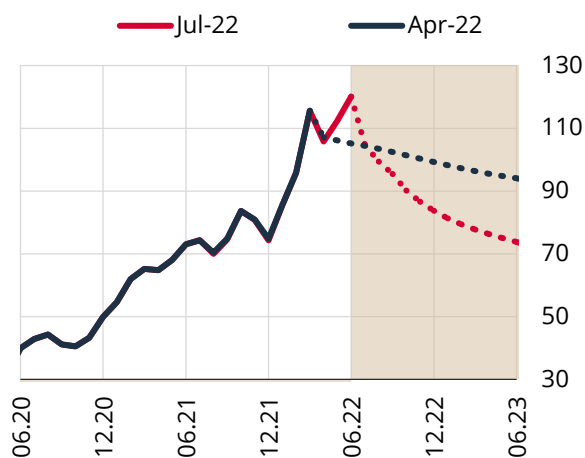
#### Assumptions of Exogenous Variables

**Escalating geopolitical risks caused a weakening in the global economic activity.** Global growth rates remained strong in the first quarter of 2022 thanks to the post-pandemic reopening. As of the second quarter, global economic activity started to show signs of weakening compared to the projections of the April Inflation Report. Supply shocks caused by the conflict between Ukraine and Russia affected commodity prices, supply chains and trade volume. Other important factors shaping the environment were concerns about the course of the pandemic in China, and the tightening of global financial conditions. Thus, the Export Weighted Global Growth Index, which reflects the external demand outlook of the Turkish economy, was revised downwards. On the other hand, it is considered that higher energy prices supporting the growth outlook of energy exporting countries and Turkey's dynamic export structure with market flexibility will limit the risks to external demand.

**Major central banks underline that inflation may remain on the rise for a longer-than-expected period due to higher energy prices and supply-demand mismatch.** Considering increased bond yields and market pricing for the upcoming period, global financial conditions are assumed to be tighter compared to the April Inflation Report.

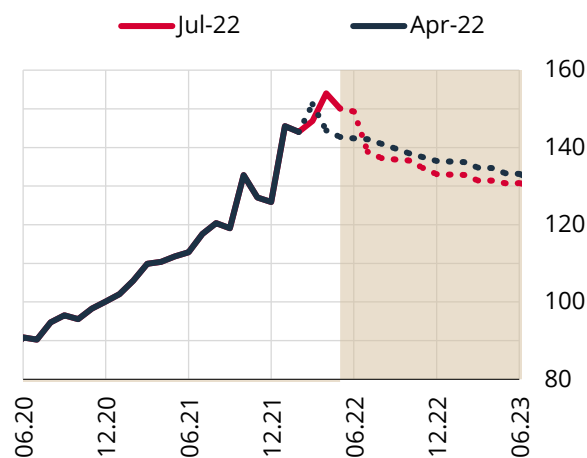
**Due to the tightening financial conditions and expectations of a slowdown in global demand, international commodity prices declined from record levels.** Commodity prices, which reached historic highs as the tension between Ukraine and Russia turned into a war, have dropped recently. In addition, the easing of pandemic measures in China and the increase in freight capacities also supported the decline in commodity prices. Thus, the upward deviation of the estimations at the beginning of the current reporting period was partially offset by the recent positive developments. In this context, assumptions regarding the general level of oil prices and import prices have been largely preserved for 2022 but have been revised downwards for 2023 (Table 3.1.2).



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

Sources: Bloomberg, CBRT.

\* Shaded area denotes the forecast period.

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

Sources: CBRT, TURKSTAT.

\* Shaded area denotes the forecast period.

**Food prices assumptions have been revised upwards for 2022 and 2023.** Annual inflation in food and non-alcoholic beverages rose to 93.93% in the second quarter of 2022. This rise was caused by high agricultural commodity and energy prices, exchange rate developments, trade restrictions and supply constraints. It is assumed that food price inflation will remain high for a while in the upcoming period and will decline towards the end of the year, ending 2022 at 71.3% and 2023 at 25.7% (Table 3.1.2).

**Table 3.1.2: Revisions to Assumptions\***

	2022	2023
Export-Weighted Global Production Index (Annual Average % Change)	2.6 (3.0)	2.5 (3.3)
Oil Prices (Average, USD)	99.6 (102.2)	73.7 (93.9)
Import Prices (USD, Annual Average % Change)	23.3 (22.2)	-8.4 (-7.0)
Food Prices (Year-End % Change)	71.3 (49.0)	25.7 (15.0)

\* Numbers in parentheses are from the April Inflation Report.

**The effect of administered prices and tax adjustments on prices increased compared to the previous quarter, mainly due to changes in energy prices.** Administered prices increased due to higher electricity and natural gas prices, label fees for electronic devices and tax regulations for alcohol-tobacco. On the other hand, the suspension of the D-PPI-indexed tax increase for tobacco, the VAT cut in household staples and the fixed rent increase of 25% throughout the year prevented a more negative outlook in inflation. Meanwhile, government incentives for some food and agricultural products and external trade measures for critical products are also considered to have a limiting effect on the short-term inflation outlook.

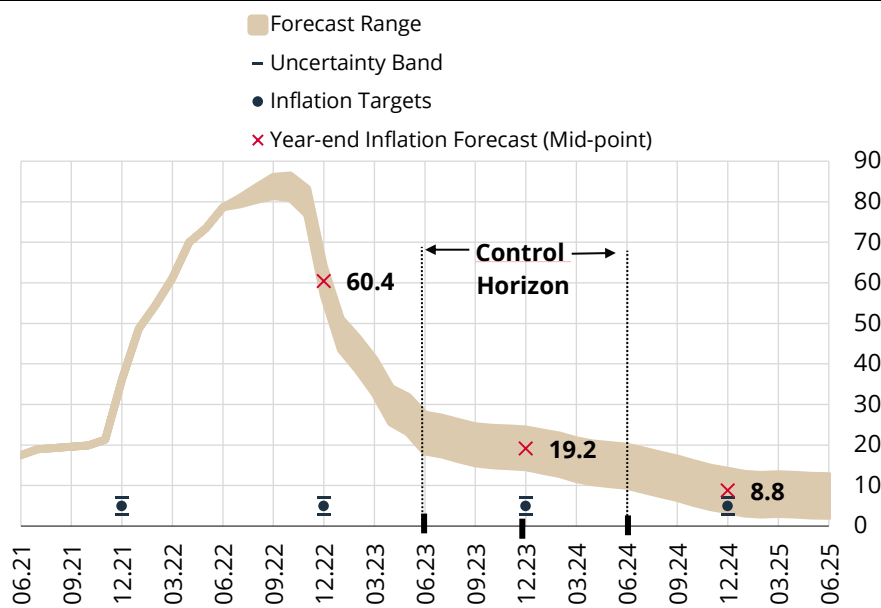
**Medium-term projections are based on an outlook in which macroeconomic policies are determined with a medium-term perspective and in a coordinated manner with a focus on bringing inflation down.** In this context, it is assumed that adjustments to administered prices will be determined to support disinflation in the medium term. A strong policy coordination prioritizing disinflation is critical to maintaining improvements in macroeconomic stability, the risk premium and perceptions of uncertainty.

## 3.2 Medium-Term Projections

The CBRT formulates monetary policy decisions with a medium-term perspective based on all factors affecting inflation and their interaction, focusing on the achievement of price stability on a lasting basis.

**The monetary policy stance will be determined with the focus on evaluating the sources of the risks to inflation, their permanence and to what extent they can be controlled by monetary policy, targeting sustainable price stability with a prudent approach.** The disinflationary process is expected to start with the steps taken and resolutely implemented to achieve sustainable price stability and stronger financial stability as well as the re-establishment of the global peace environment. Accordingly, inflation is projected to be 60.4% at the end of 2022; fall to 19.2% at the end of 2023; and sustain the downward trend by receding to 8.8% by the end of 2024. With a 70% probability, inflation is expected to be between 56.9% and 63.9% (with a mid-point of 60.4%) at end-2022, and between 14.5% and 23.9% (with a mid-point of 19.2%) at end-2023, and between 3.9% and 13.7% (with a mid-point of 8.8%) at end-2024 (Chart 3.2.1).

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



Sources: CBRT, TURKSTAT.

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

**Year-end inflation forecasts for 2022 and 2023 have been revised upwards compared to the previous reporting period** (Chart 3.2.2). The recent rise in inflation was due to energy cost increases caused by geopolitical developments, temporary effects of pricing detached from economic fundamentals, and strong negative supply shocks led by rising global energy, food, and agricultural commodity prices. Moreover, heightened inflation expectations continue to pose risks to pricing behavior and the inflation outlook. Inflation forecasts were revised upwards due to the impact of these developments on inflation, especially in the second quarter.

**In the first half of 2022, the policy rate was kept constant at 14% in light of the analyses made of the decomposition of supply and demand shocks.** In order to institutionalize price stability in a sustainable manner, a comprehensive policy framework review process is ongoing to promote permanent and strengthened liraization in all policy instruments of the CBRT. In addition, credit, collateral, and liquidity policy steps, whose evaluation processes have been completed, are put into action in a way that strengthens the effectiveness of the monetary policy transmission mechanism.

**Table 3.2.1: Revisions to Year-End Inflation Forecasts for 2022 and 2023 and Sources of Revisions**

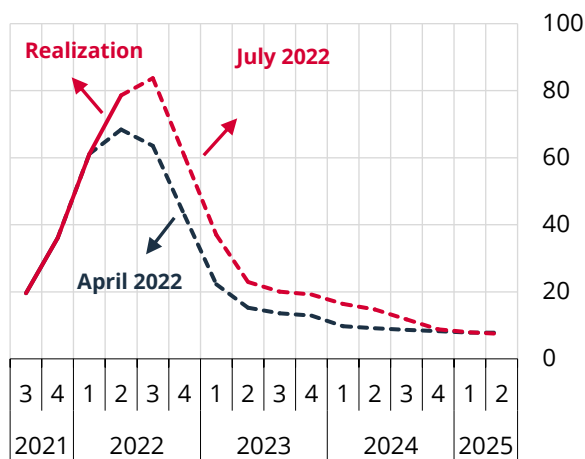
	2022	2023
2022-II (April 2022) Forecast (%)	42.8	12.9
2022-III (July 2022) Forecast (%)	60.4	19.2
<b>Forecast Revision as Compared to the 2022-II Period</b>	+17.6	+6.3
<b>Sources of Forecast Revisions (% Points)</b>		
Turkish Lira-Denominated Import Prices (Including the Exchange Rate, Oil and Import Prices)	+7.4	+0.1
Food Prices	+3.0	+1.0
Administered Prices	+0.4	+0.3
Output Gap	+0.3	-0.1
Unit Labor Cost	+2.4	+0.6
Deviation from the Inflation Forecast / the Underlying Trend of Inflation	+4.1	+4.4

Source: CBRT.

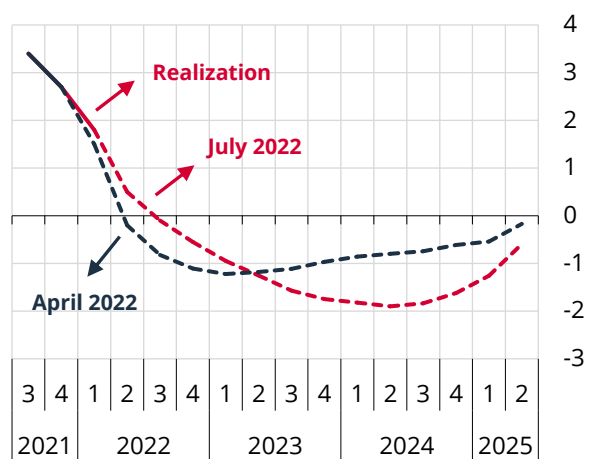
**The year-end inflation forecast for 2022 was raised from 42.8% to 60.4%, up 17.6 percentage points.**

Compared to the previous reporting period, the update based on Turkish lira import prices increased the inflation forecast by 7.4 points, while the increase in the assumption for food prices contributed an additional 3.0 points. Furthermore, administered prices pushed the year-end inflation forecast up by 0.4 points, mainly due to the increase in electricity and natural gas prices, while the contribution of the revised initial conditions to the underlying inflation trend caused forecasts to rise by 4.1 points. Increased unit labor costs also brought the forecasts upward by 2.4 points. In addition, the revised output gap drove the inflation forecast up by 0.3 points (Table 3.2.1).

**The year-end inflation forecast for 2023 was updated from 12.9% to 19.2%.** The effects of the revision to the initial conditions on the underlying trend of inflation push the end-2023 inflation forecast up by 4.4 points. The update in the food prices assumption contributed 1.0 point. Moreover, Turkish lira-denominated import prices added 0.1 point to the forecast, while unit labor costs brought inflation forecasts up by 0.6 points. On the other hand, the revised output gap forecasts pulled the forecasts down by 0.1 point. Lastly, the revision to administered prices increased the estimates by 0.3 points (Table 3.2.1).

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


Sources: CBRT, TURKSTAT.

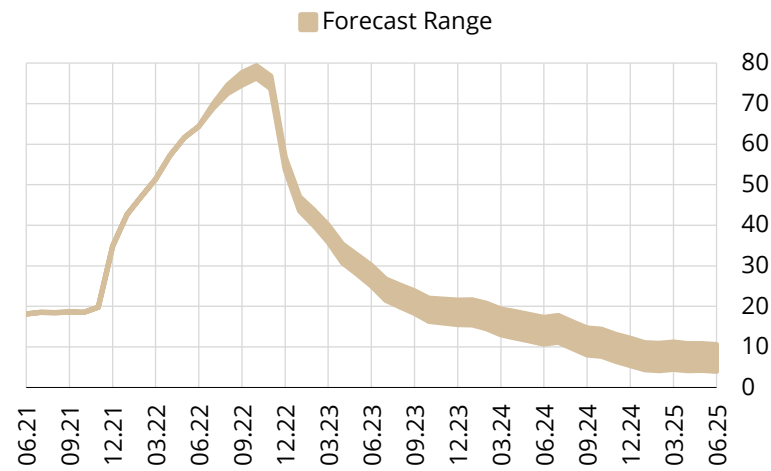
**Chart 3.2.3: Output Gap Forecast (%)**


Source: CBRT.

**Forecasts are based on an outlook in which global economic activity has weakened, global inflation continues to rise, and global financial conditions have tightened compared to the previous reporting period.** Leading indicators point to an increased likelihood of a global recession. Global growth forecasts have been revised downwards due to escalating geopolitical risks and concerns about global financial conditions. Confidence indices continue to decline, falling to historic lows in July. Mounting uncertainties amid trade bans, high commodity prices, and continued supply constraints in some sectors, particularly in basic food and energy, lead to an increase in producer and consumer prices on an international scale. The effects of high global inflation on inflation expectations and international financial markets are closely monitored. Monetary policy actions and communications of major central banks diverge more markedly due to varying economic outlooks across countries. In this period, central banks increased their efforts to find solutions with new supportive actions and instruments due to heightened uncertainties over financial markets. These developments cause the global risk appetite to decline in the current reporting period. The volatility in long-term bond yields across advanced economies and the course of global financial conditions add to the risks to portfolio flows to emerging economies.

**Aggregate demand conditions are expected to follow a course close to their potential in the upcoming period thanks to a macroprudential policy set strengthened by credit, collateral, and liquidity policy steps, whose evaluation processes have been completed.** Data for the second quarter of 2022 indicate that economic activity remains strong. Despite the deepening of the negative outlook for global economic activity, the Turkish economy displays a resilient outlook due to the strong course of exports. In this period, the dynamic capacity of exporting companies and their flexibility in market diversification helped compensate for regional losses in exports stemming from the Russia-Ukraine conflict. Offering companies access to Turkish lira finance at affordable costs and requiring loans to be used in targeted areas, so they transform into investments that increase production capacity and support exports, have become an important part of the monetary policy strategy. Targeted loan utilization is expected to contribute positively to both sustainable growth and the current account balance. Therefore, while on the one hand, targeted loans support exports, the current account balance, and the investment and employment environment, on the other hand, whether the growth rate and composition of loans coincide with economic activity in line with their intended purpose is closely monitored. Macroprudential measures have been gradually increased recently to limit the demand for consumer loans and to counter the acceleration observed in commercial loans in the second quarter of the year. As a result of these developments, the loan-deposit interest rate gap, which reflects the tendency of banks to issue loans, increased for TRY commercial and consumer loans, surpassing long-term averages. With the increasing slowing effects of macroprudential measures on loans, it will be possible for aggregate demand conditions to contribute more to the disinflation process as envisaged. On the other hand, higher administered prices pose an upside risk to the short-term inflation outlook. A more stable general level of prices will positively affect macroeconomic stability and financial stability through a decrease in country risk premiums, continued reverse currency substitution, an ongoing upward trend in foreign exchange reserves, and a permanent decline in financing costs.

**Recent unpredictable volatilities in items beyond the control of monetary policy, such as unprocessed food and energy cause inflation forecasts to deviate.** Core inflation indicators obtained by excluding these items contain more information about the underlying trend of inflation. In this context, inflation (B index) forecasts excluding unprocessed food products, energy, alcoholic beverages, tobacco and gold are also shared with the public. Accordingly, annual B index inflation is expected to start a downward trend by the last quarter of 2022 (Chart 3.2.4).

**Chart 3.2.4: Annual Inflation Forecast for the B Index\* (%)**

Sources: CBRT, TURKSTAT.

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

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

Macroeconomic risks may change the outlook on which the inflation forecasts are based, and the monetary stance is shared in detail in Section 1.3. Evaluations of the channels through which these risks may influence inflation forecasts presented in Section 1.2 and the direction in which they may change the forecasts are summarized in Table 1.3.1.

**Table 3.3.1: Key Risks**

#### Cost Pressures

- The supply shock caused by the Russia-Ukraine conflict aggravated the current supply constraints, causing international commodity prices to remain high. Historically high international food prices, soaring energy prices, and supply chain disruptions add to the pressures on producer prices. On the other hand, risks looming over global growth led to a decline in commodity prices, particularly for metals. The key role Türkiye plays in resuming grain shipments from war-hit Black Sea ports to global markets may affect the course of food prices. There remain both upside and downside risks to inflation and downside risks to economic activity due to supply shocks that cause commodity prices to surge, transportation costs to rise, global trade to slow and global financial conditions to tighten.

**Tracked Indicators:** Geopolitical developments and the course of the Russia-Ukraine war, the course of global growth expectations, crude oil prices and supply-demand balance, OPEC+ decisions, industrial metal prices, agricultural commodity prices, supply-demand balance in agricultural products, indicators pertaining to the divergence between producer and consumer prices, global supply indicators, transport and freight costs, climate change, drought indicators, indicators for international food prices, indicators for the domestic energy market, administered prices.

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### Uncertainties Regarding Financial Markets and the Global Macroeconomic Outlook

- Global inflation continues to rise sharply, while monetary policy actions and communications of major central banks diverge more markedly due to varying economic outlooks across countries. In this environment, uncertainties regarding global financial conditions raise the risk of stagflation. This poses an upside risk through financial conditions and a downside risk through international prices.
- Domestically, the growth rate of loans and the targeted use of accessed funds for real economic activity are important regarding the current account balance, asset prices, domestic/external demand balance, and healthier pricing in foreign exchange markets.

**Tracked Indicators:** The course of demand and growth components, developments in loan and deposit rates, credit conditions (Bank Loans Tendency Surveys), financing of the balance of payments, portfolio flows to stock and bond markets, bond yields and monetary policy stances of advanced economies, risk premium indicators, foreign exchange markets, dollarization indicators, global inflation indicators and expectations, the course of global monetary policies, demand and supply indicators for FX-protected deposits.

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### Geopolitical Risks, the Pandemic and Economic Activity

- Geopolitical tensions and rising commodity prices, especially for energy, add to the downside risks to global and regional economic activity expectations for 2022. There are more downside risks to external demand than in the previous reporting period, indicating regional divergences may become more evident. Moreover, the Russia-Ukraine war poses risks to travel and transportation revenues. Meanwhile, geopolitical risks, new COVID variants and waves, and their effects on domestic and international demand conditions are closely monitored.
- There remain upside risks to the current account balance due to soaring energy prices amid the Russia-Ukraine conflict. Despite the ongoing robust performance of exports and the recovery in services revenues, risks persist to soaring energy prices. Accordingly, pricing differentiations are observed according to the types of energy.

**Tracked Indicators:** Geopolitical developments, the course of the pandemic and vaccination in Türkiye and abroad, exports, imports and the current account balance, developments in tourism and transport, demand and inflation indicators by sectors and subsectors, wage and labor cost indices.

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### Pricing Behavior and High Inflation Expectations

- The deterioration in pricing continues. The frequency of price updates is getting higher, and the average period for prices to remain unchanged is getting shorter. This outlook will be shaped depending on the effectiveness of the holistic policy mix to fight inflation as well as the frequency and magnitude of the supply shocks and their visibility on the economy. The disinflationary content of implemented policies coupled with the increased coordination increase the downside risks on inflation while ongoing effects of supply shocks on the economy increase upside risks.

**Tracked Indicators:** Survey and market-based expectations for inflation and exchange rates, indicators for backward indexation, indicators for inflation uncertainty, financial volatility indicators.

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### Monetary, Fiscal and Financial Coordination

- The disinflation process may be delayed or accelerated depending on whether administered price and tax adjustments exceed or fall below the path envisaged in this Report.

**Tracked Indicators:** Adjustments to administered prices and taxes, developments in tax revenues and public spending, government wage policies, indicators for government budget and public debt stock, fiscal stance (structural budget balance).

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CENTRAL BANK OF THE REPUBLIC OF TÜRKİYE  
Head Office  
Hacı Bayram Mah., İstiklal Cd. 10 Ulus, 06050  
Ankara, Turkey  
[www.tcmb.gov.tr](http://www.tcmb.gov.tr)  
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