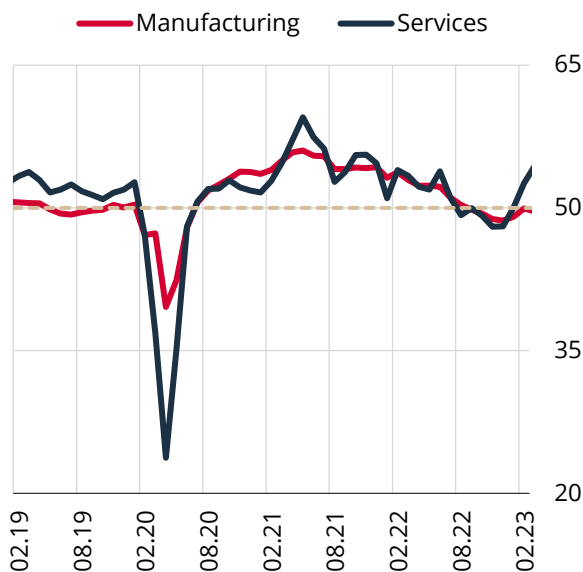


2. Economic Outlook

2.1 Global Economy

Improved global supply conditions, reduced risks to energy supply and prices in Europe and eased pandemic-related measures in China led global growth expectations and Türkiye's foreign demand outlook to recover compared to the previous reporting period. In advanced economies, economic activity was better than expected in the last quarter of 2022, while the weakening of war-related risks caused consumption expenditures and net exports in particular to make a higher-than-expected contribution to growth. Although the sluggish growth trend continued, concerns of a deep recession have largely disappeared, and leading indicators and growth forecasts were revised upwards in the first quarter of 2023. The Purchasing Managers' Index (PMI) displayed a strong recovery due mainly to the services sector (Chart 2.1.1), while growth forecasts for Türkiye's main trading partners for 2023 also point to a higher level of economic growth compared to the previous reporting period (Table 2.1.1). Accordingly, across subcategories, the contribution of the euro area to external demand increased significantly (Chart 2.1.2). Stimulated by improved global supply conditions, reduced uncertainties regarding energy costs and eased pandemic policies in China, economic activity is expected to spur growth in the euro area. Persisting rigidity in services inflation in advanced economies despite the fall in headline inflation caused further policy rate increases. Meanwhile, recently emerging risks to financial stability deepened market doubts about the sustainability of tight monetary policy. As a result, expectations for global economic activity indicate that the global economy will continue to grow in 2023, albeit at a slower pace than 2022. Concerns over financial stability pose downside risks, while a probable rebound in China beyond projections poses upside risks.

Chart 2.1.1: Global PMI Indices (Level)



Source: S&P Global.

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

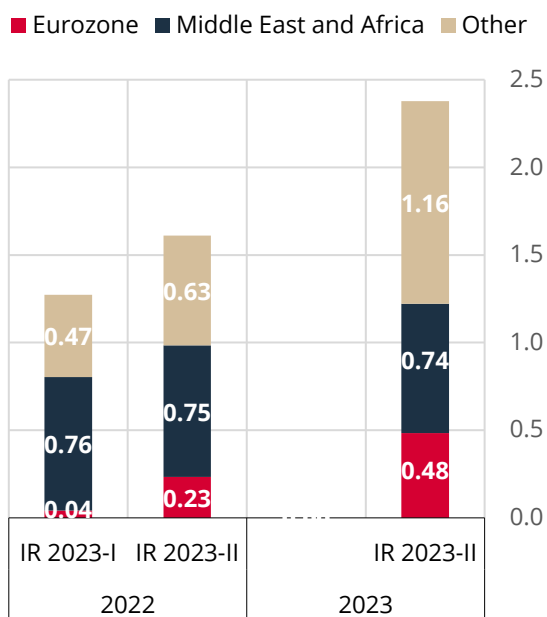
	2022	Forecast for 2023	
	Realization	IR 2023-I	IR 2023-II
Euro area	3.5	0.0	0.7
Germany	1.8	-0.5	0.1
USA	2.1	0.3	1.1
UK	4	-1.0	-0.2
Italy	3.8	0.0	0.6
Iraq	8.8	4.5	4.5
Spain	5.5	0.9	1.4
France	2.6	0.2	0.5
Netherlands	4.5	0.2	1.3
Israel	6.4	3.1	3.0
Russia	-2.1	-2.6	-0.9
UAE	7.2	2.7	4.3
Romania	4.8	2.5	2.6
Belgium	3.1	0.0	0.5
Poland	4.9	0.8	0.6
Egypt	6.6	3.7	3.7
Bulgaria	3.4	1.1	1.4
China	3.0	4.6	5.5

Source: Consensus Economics, S&P Global.

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

The recent fragilities in financial markets of advanced economies have caused divergences in commodity prices. Compared to the previous reporting period, the headline commodity index declined due to the fall in energy prices, with natural gas in the lead. However, the Organization of the Petroleum Exporting Countries (OPEC+) members' decision to cut production at the last meeting, accompanied by their spare capacity production leads to sustained supply-side pressures on oil prices. Having followed a course historically consistent with the global growth outlook and China's growth in particular, industrial commodity prices have recently declined due to fragilities in financial markets (Table 2.1.2).

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



Source: Bloomberg.

Table 2.1.2: Commodity Price Changes (%)

	January	February	March	April	Annual	Compared to the previous Inflation Report*
Commodity Headline Index	0.7	-2.4	-3.4	3.2	-21.3	-9.6
Energy	-0.3	-4.1	-4.2	4.4	-25.7	-12.7
Agricultural Commodity	0.6	1.5	-4.2	1.4	-19.7	-7.6
Industrial Metal	4.6	-2.7	-3.7	-0.2	-22.2	-11.8
Precious Metal	5.3	-3.0	3.2	5.3	3.7	2.9
Non-Energy	2.2	0.0	-2.3	1.6	-14.4	-5.1
Brent Oil	2.7	-0.5	-5.1	7.3	-20.3	-9.5
Natural Gas (USA)	-39.5	-30.0	-0.9	-9.6	-67.7	-20.0
Natural Gas (Europe)	-44.6	-17.4	-15.8	-4.4	-57.7	-27.7
Coal	-9.1	-39.0	-19.3	7.1	-37.4	-46.6
Aluminum	4.1	-3.0	-4.8	1.4	-28.0	-11.3
Copper	7.9	-0.9	-0.7	-1.1	-13.8	-9.4
Iron	10.1	3.6	2.1	-6.8	-23.1	-5.5
Wheat	-0.4	0.8	-8.6	-2.5	-37.3	-18.3
Soy Beans	2.5	1.0	-2.5	0.1	-11.4	-6.4
Rice	3.3	-2.2	-2.5	-0.5	5.1	-7.9
Corn	3.0	0.1	-5.1	2.8	-16.7	-8.1
Cotton	1.2	-0.8	-3.6	0.5	-42.1	-10.1
Sugar	-0.6	7.3	-2.1	16.7	24.1	30.5

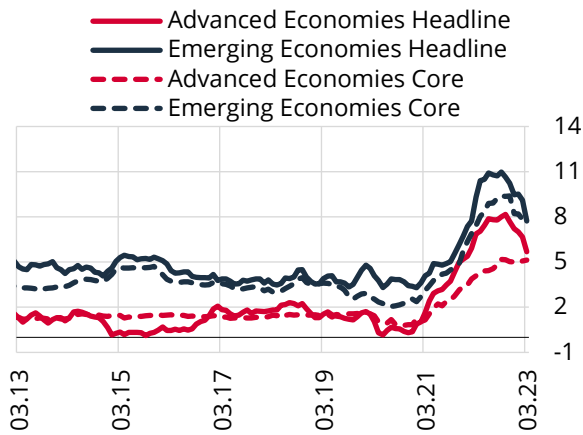
Source: Bloomberg.

* Denotes the percentage changes between 27 April and 26 January 2023.

Global inflation remains high, albeit at a slightly slower pace. In advanced economies, headline inflation declined further in this quarter, due mainly to falling energy and food prices, while core inflation remained almost flat (Chart 2.1.3). This course of core inflation is attributed to the rigidity in services inflation and high costs stemming from the tight labor market. In emerging economies, both headline and core inflation dropped, yet remained high (Charts 2.1.3 and 2.1.4).

Although major central banks raised policy rates, they opted for a milder discourse in their policy statements and implemented supportive policies to safeguard financial stability due to the fragilities in the banking sector (Zoom-In 2.1). In March, the collapse of two banks in the US and the global repercussions of these bankruptcies led major central banks to adopt a policy mix that fosters price stability and financial stability simultaneously. The US Federal Reserve raised its policy rate by 25 basis points in March, lower than expectations in the previous reporting period, and picked a milder tone in its forward guidance for future interest rate decisions. The European Central Bank raised the policy rate by 50 basis points at its March meeting, but removed the sentence containing the future interest rate decision guidance from the decision text and reiterated that the asset purchase program will be reduced at a measured and predictable pace as of March 2023. On the other hand, the Bank of Japan kept its policy rate unchanged to achieve its inflation target in the medium term, while continuing with bond purchase programs. The People's Bank of China kept its policy rate intact and continued to implement targeted policies to support the real economy and financial stability. In the majority of emerging economies, although consumer inflation remains outside the target tolerance range, the pace of interest rate hikes slowed considerably in this quarter (Chart 2.1.4).

Chart 2.1.3: Global Inflation*
(Annual % Change)

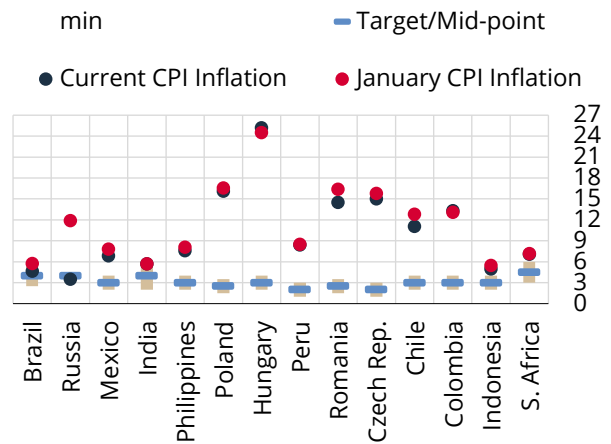


Source: Bloomberg.

* Advanced Economies: The US, the euro area, Japan, the UK, Canada, South Korea, Switzerland, Sweden, Norway and Israel.

Emerging Economies: Brazil, Mexico, Poland, Indonesia, South Africa, Thailand, Czechia, Colombia, Hungary, Romania and the Philippines.

Chart 2.1.4: Consumer Inflation in Advanced Economies (%)



Source: Bloomberg.

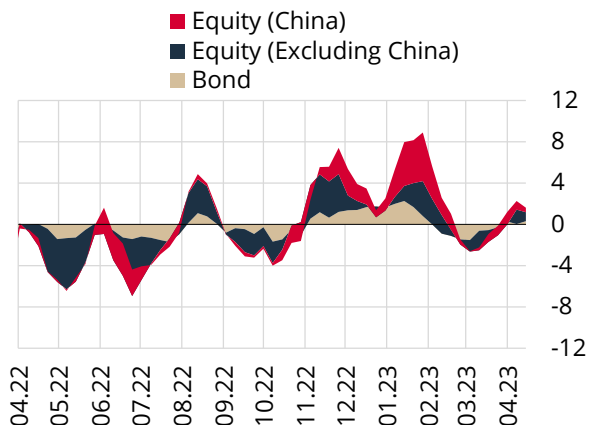
Emerging economies saw portfolio outflows due to elevated financial risks in advanced economies, but they witnessed portfolio inflows again in April amid improved risk appetite. In January and February, inflows continued to both equity and debt securities funds of emerging economies on the back of improved expectations regarding financial conditions (Chart 2.1.6). On the other hand, elevated financial risks in advanced economies led to mounting volatility in financial markets and portfolio outflows from emerging economies in March (Charts 2.1.5 and 2.1.6). In April, however, as the financial turmoil subsided, the risk appetite increased, and portfolio inflows were seen. In the upcoming period, the course of geopolitics, developments in global financial markets and expectations regarding the monetary policies of major central banks will continue to shape the global risk appetite and portfolio movements.

Chart 2.1.5: Risk Appetite Indicator



Source: Bloomberg.

Chart 2.1.6: Portfolio Flows to Emerging Economies (4-Week Moving Average, Billion USD)



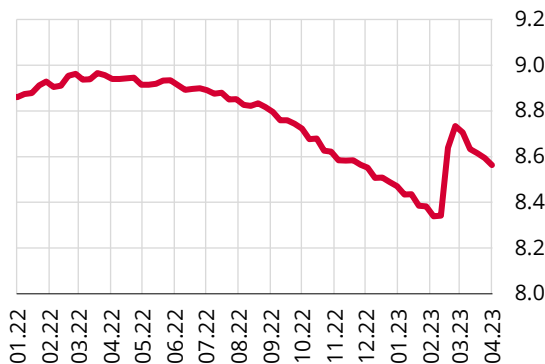
Source: IIF.

Zoom-in 2.1

Supportive Policies of Major Central Banks to Safeguard Financial Stability

The recent fragilities in the banking sector have raised concerns over a possible deterioration in financial stability on a global scale due to the tight monetary policy implemented by major central banks. In 2022, in response to the risks posed by the volatility in the bond market, the Bank of England purchased a significant amount of bonds to support financial stability, in contrast to the outright bond selling program. Following the collapse of two banks in the US in March this year, the US Deposit Insurance Fund (FDIC) seized the management of the banks, while the Fed, the Treasury Department and the FDIC announced that all deposits in the two banks were guaranteed, and depositors could get them back in full. In addition, to prevent a liquidity crisis, the Fed introduced a new funding facility (the Bank Term Funding Program) under which the collateralized bond portfolio would be accepted as collateral based on its nominal value rather than its market value. Despite the Fed's quantitative tightening policy, the liquidity support provided during this period led to a significant increase in the size of the balance sheet (Chart 1 and Table 1). Against this background, compared to the previous reporting period, expectations in financial markets that the Fed would soon end the rate hike cycle have strengthened significantly (Chart 2).

Chart 1: FED Balance Sheet Size (Trillion USD)



Source: FRED.

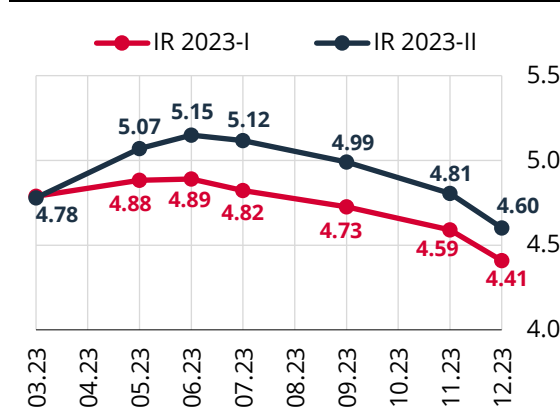
Table 1: Fed's Funding Facility to Banks by Sub-Items (Weekly Change, Billion USD)

	15 March	22 March	29 March	5 April	12 April	19 April	26 April
Bank Term Funding Program	11.9	41.7	10.7	14.6	-7.2	2.1	7.3
Primary Credit	148.3	-42.6	-22.1	-18.5	-2.1	2.3	3.9
Other Credit Facility (for FDIC)	142.8	37	0.3	-5.5	-2.0	0.0	-2.2
Total	303	36.1	-11.1	-9.3	-11.3	4.4	9.0

Source: FRED.

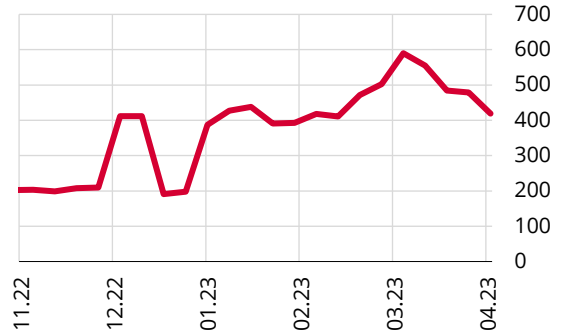
The turmoil in the US had global repercussions, and the Swiss National Bank (SNB) acted as an intermediary in the takeover of a bank whose shares were experiencing significant volatility, to hedge the financial risk posed by the bank. The SNB also committed to provide a liquidity facility of USD 110 billion to ensure the operational continuity of the acquired bank. The Swiss government, on the other hand, announced that it would provide the acquiring bank with a guarantee of approximately USD 10 billion for any losses it might incur. In addition, the framework of the existing USD-denominated currency swap agreements of the Fed, Swiss, European, Canadian, Canadian, UK and Japanese central banks was expanded to increase liquidity (Chart 3). At their meeting on 12 April 2023, G7 Finance Ministers and Central Bank Governors reiterated their determination to safeguard macroeconomic and financial stability and stated that all necessary steps would be taken to this end.

Chart 2: Implied Fed Funds Rate
(Effective, %)



Source: Bloomberg.

Chart 3: Total Size of Currency Swap Agreements between FED and Other Banks
(Billion USD)

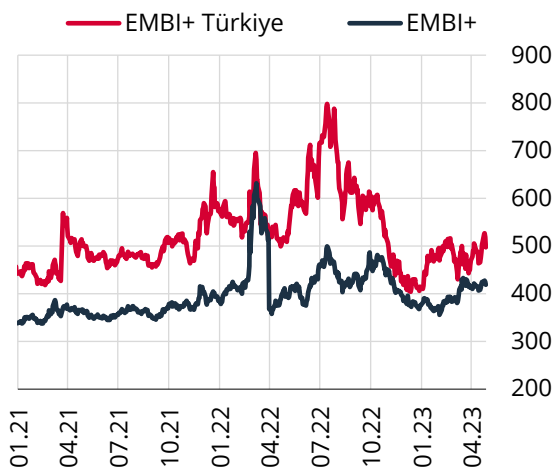


Source: FRED.

2.2 Financial Conditions

Despite concerns over the global financial system and the banking sectors of advanced economies, the supportive steps taken to safeguard financial stability have increased the risk appetite to a limited extent. Global risk appetite declined because of bank failures in the US due to tighter monetary conditions and increased risks to banks that are regional, small or focused on particular sectors. However, strengthened expectations for an earlier termination of the Fed's monetary policy tightening process as of late March reversed the deterioration in risk appetite. Despite the recovery in risk appetite, risk premium indicators in emerging economies rose significantly, while Türkiye was affected to a more limited extent (Chart 2.2.1). In the current reporting period, the Turkish GDDS market recorded a net foreign inflow of USD 0.1 billion, while the equity market saw a net foreign outflow of USD 0.2 billion (Chart 2.2.2).

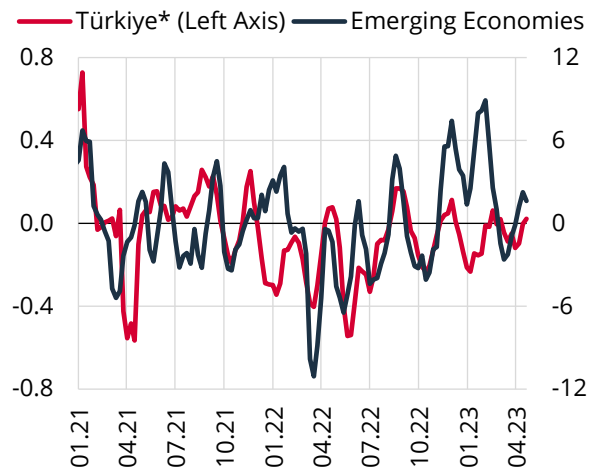
Chart 2.2.1: Risk Premium of Türkiye and Emerging Economies *



Source: Bloomberg.

* The 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 by using Turkish Eurobonds instead of all emerging market bonds. Indices are shown in basis points.

Chart 2.2.2: Portfolio Flows to Türkiye and Emerging Economies (4-Week Cumulative, USD Billion)

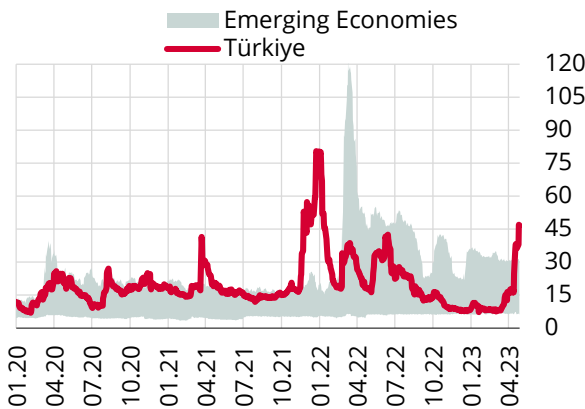


Source: CBRT, IIF.

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

The exchange rate volatility of the Turkish lira implied by short-term options, which remained low compared to peers in the first quarter of the year, has increased as of April, yet the exchange rate remained stable. As the US dollar index registered a decline, the exchange rate volatility implied by options in emerging economies remained stable. In the first quarter of the year, the exchange rate volatility of the Turkish lira performed better compared to peer countries and remained quite low. On the other hand, the exchange rate volatility implied by short-term options increased, yet the exchange rate remained stable in April (Chart 2.2.3). GDDS yields, which have declined significantly across all maturities since the second half of 2022 due to the structural demand created by the CBRT's securities facility, liquidity and collateral management practices, edged up after February, yet remained low (Chart 2.2.4).

Chart 2.2.3: Implied FX Volatility by Options* (against USD, 1-Month Maturity, %)



Source: Bloomberg.

* Emerging Economies: Brazil, Chile, Colombia, Mexico, Poland, the Philippines, Malaysia, South Africa, Indonesia, Romania, Russia, and Hungary.

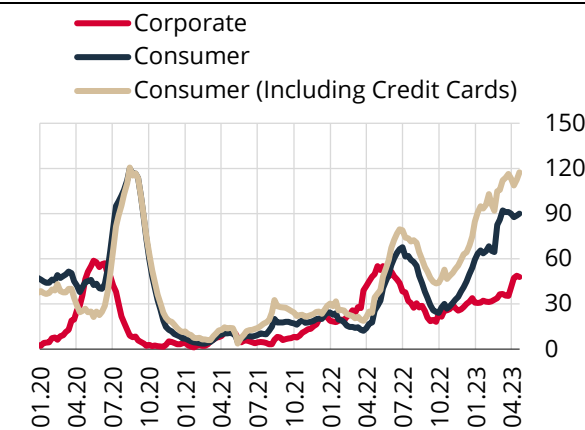
Chart 2.2.4: GDDS Yield Curve (%)



Source: Bloomberg.

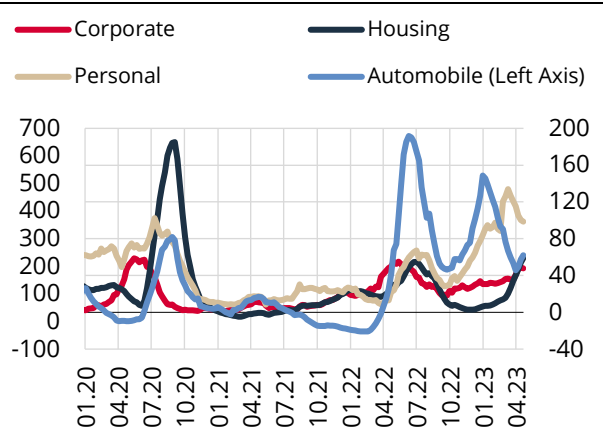
In the first quarter of the year, the increase in loans accelerated, led by retail loans. Commercial loan growth accelerated sharply in the second quarter of 2022, lost pace in the third quarter due to macroprudential measures, and followed a mild course in the last quarter. In the current reporting period, the downtrend in FX loans continued, while growth in TL commercial loans gained momentum. With personal loans and personal credit cards in the lead, the robust uptrend in retail loans continued (Charts 2.2.5 and 2.2.6). An analysis of inflation-adjusted loan changes reveals that corporate and retail loans still hover above their long-term averages (Chart 2.2.7). According to the Bank Loans Tendency Survey (BLTS), credit standards are expected to remain broadly unchanged, and commercial loan demand is expected to strengthen in the second quarter of 2023 (Chart 2.2.8).

Chart 2.2.5: Loan Growth (13-Week Annualized Growth, Adjusted for Exchange Rates, %)



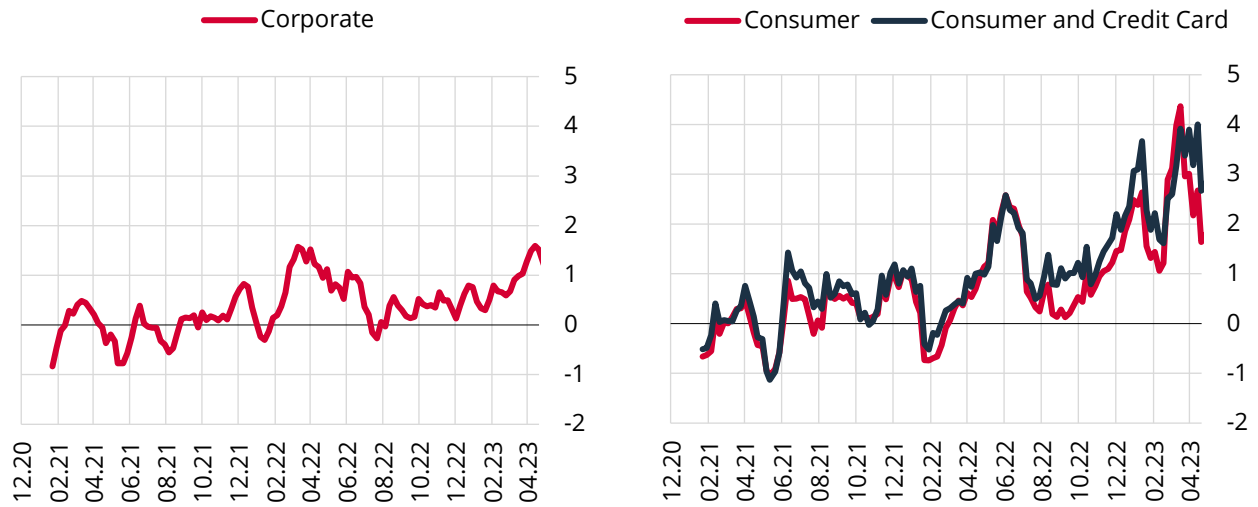
Source: CBRT.

Chart 2.2.6: Loan Growth by Types of Loans (13-Week Annualized Growth, Adjusted for Exchange Rates)



Source: CBRT.

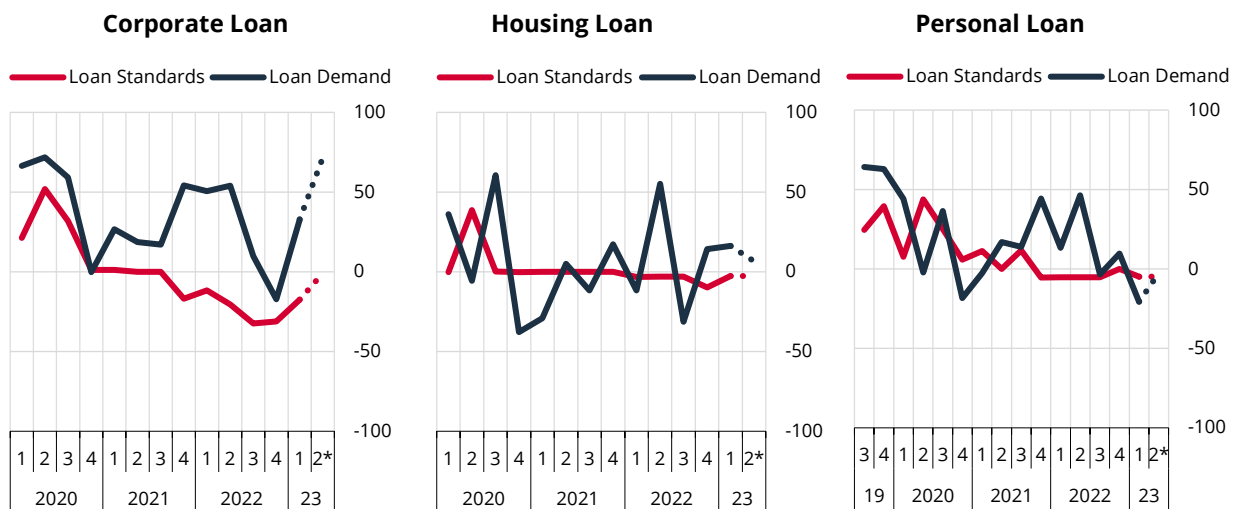
Chart 2.2.7: Credit Change* (4-Week Average, Adjusted for Exchange Rates, Real, Standard Value)



Source: CBRT.

* Weekly credit changes adjusted for exchange rates are deflated by D-PPI for commercial loans and by CPI for consumer loans. The 4-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.

Chart 2.2.8: Loan Standards and Loan Demand



Source: CBRT BLTS.

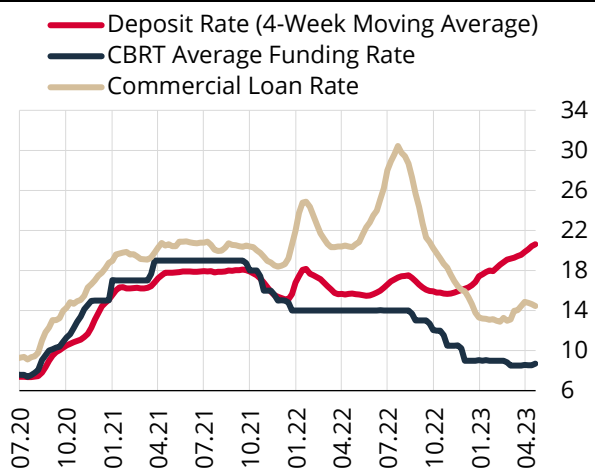
* Denotes banks' expectations. The calculation for loan standards and loan demand is as follows: Banks are asked how their loan standards (loan demand) have changed in the past three months. Net trends, which are calculated using percentages, show the direction of change in loan standards (loan demand).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

With the targeted loan policy actions, the share of export and investment loans as well as SME loans within TL commercial loans remained high.

The CBRT funding rate declined further, while deposit rates increased (Chart 2.2.9). Having converged significantly to the policy rate with the steps taken to support the effectiveness of the monetary transmission mechanism upon the divergence of loan rates from the policy rate in the second quarter of 2022, commercial rates remained moderate (Charts 2.2.10 and 2.2.11).

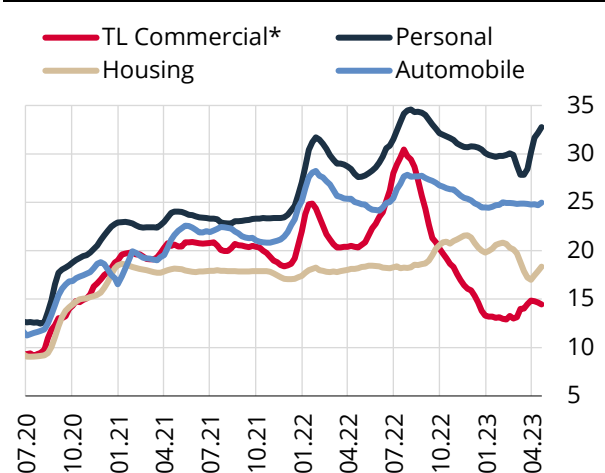
Automobile loan rates remained flat, while personal loan rates increased, and housing loan rates edged down (Chart 2.2.10). On the other hand, the share of investment and export credits and SME loans within total TL commercial loans, which increased significantly in 2022 as a result of the targeted loan policy steps taken to support potential growth and the current account balance under the Liraization Strategy, remained high.

Chart 2.2.9: Banks' Domestic Funding Cost and Commercial Loan Rate (%)



Source: CBRT.

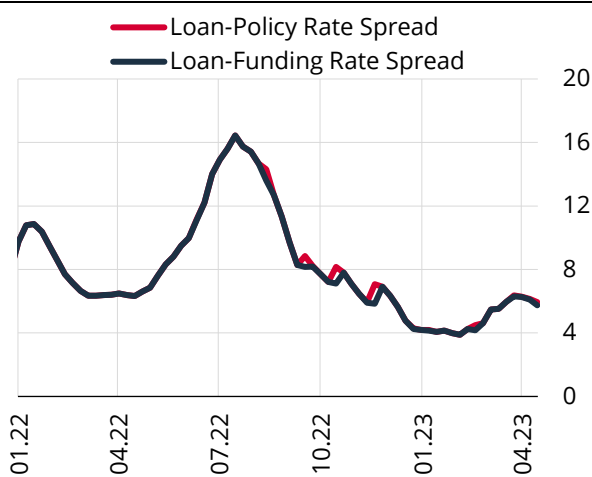
Chart 2.2.10: Loan Rates (Flow, Annual, 4-Week Moving Average, %)



Source: CBRT.

* Excluding overdraft accounts and credit cards.

Chart 2.2.11: Loan-Policy Rate Spread (%)



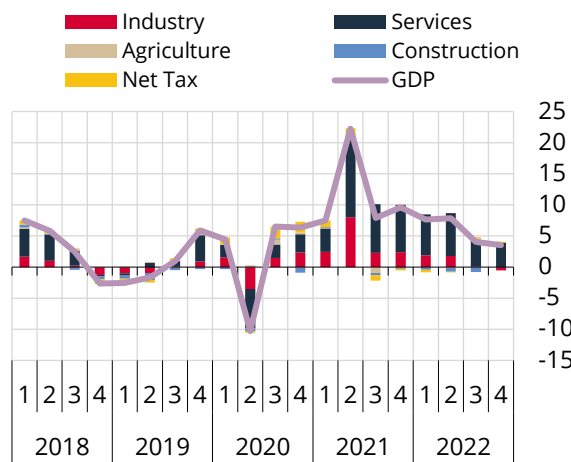
Source: CBRT.

2.3 Economic Activity

Supply and Demand Developments

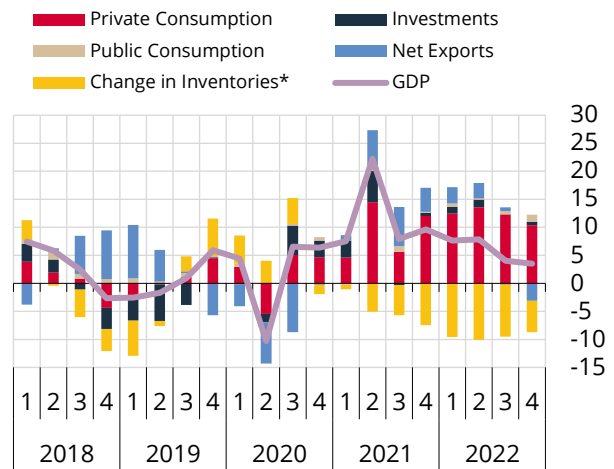
Gross Domestic Product (GDP) readings for the last quarter of 2022 suggested a quarterly recovery in economic activity despite a limited decline in the annual growth rate compared to the third quarter. In the last quarter, GDP increased by 3.5% year-on-year, while, in seasonally and calendar adjusted terms, it rose by 0.9% quarter-on-quarter. On the production side, the services sector was the main determinant of annual growth in the period, while the industrial sector's contribution to growth was negative due to weak foreign demand (Chart 2.3.1). On the expenditures side, the largest contribution to growth came from domestic demand (Chart 2.3.2).

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



Source: CBRT, TURKSTAT.

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

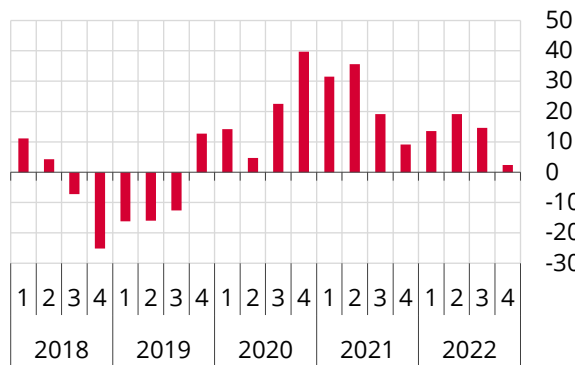


Source: CBRT, TURKSTAT.

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

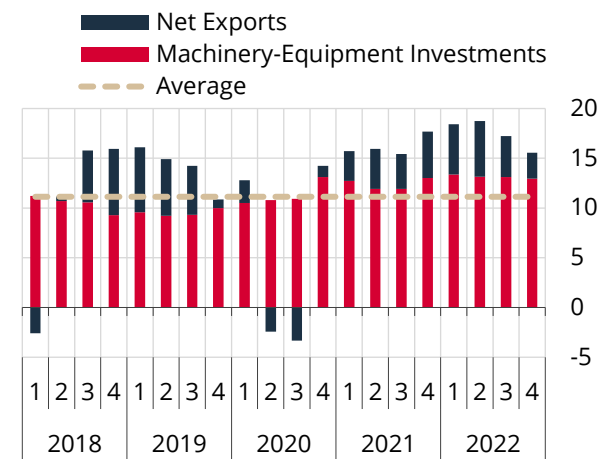
The share of sustainable components in the composition of growth remains high. Machinery-equipment investments, a sub-item of investments, carried their annual increase over into the thirteenth quarter and contributed 1.4 points to growth in 2022 (Chart 2.3.3). Thus, the share of machinery-equipment investments in GDP rose to 13.1%. The share of investments along with net exports hovered above historical averages throughout the year (Chart 2.3.4).

Chart 2.3.3: Machinery-Equipment Investments (Annual % Change)



Source: TURKSTAT.

Chart 2.3.4: Share of Machinery-Equipment Investments and Net Exports in GDP* (%)



Source: CBRT, TURKSTAT.

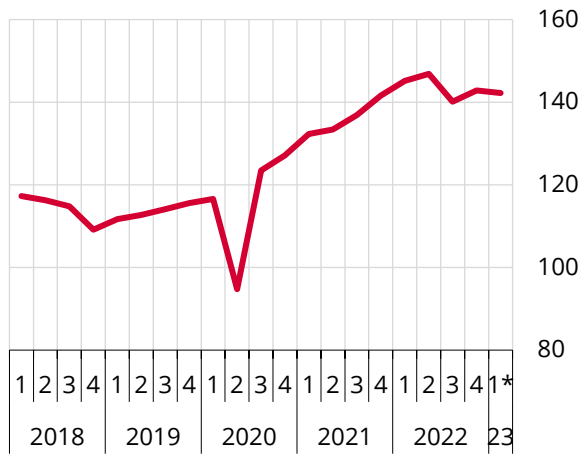
* Dashed lines indicate the average share of machinery-equipment investments and net exports in GDP from 2009Q1 to 2022Q4.

Although the Kahramanmaraş-centered earthquakes of 6 February inevitably weighed on industrial production, leading indicators point to a rapid recovery in production. Aggregate demand strengthened compared to the previous reporting period, on the back of milder foreign demand and brisk domestic demand. In January, the seasonally and calendar adjusted industrial production increased by 2% month-on-month, pointing to a stronger growth trend. On the other hand, due to earthquake-driven effects, industrial production decreased by 6% month-on-month and by 0.4% quarter-on-quarter in February. (Chart 2.3.5). Leading indicators and high-frequency data for March indicate a rapid recovery and a more positive outlook in quarterly terms, as earthquake-driven effects ease.

Domestic demand remains stronger than external demand in the first quarter of the year. In fact, despite the earthquake-related slowdown, the Retail Sales Volume Index went up by 5.1% on a quarterly basis as of February (Chart 2.3.6). Likewise, despite having contracted in February due to the earthquake, inflation-adjusted domestic card spending posted a quarterly increase. In addition to the increase in registered domestic market orders, the flat quarterly course of the registered export orders of manufacturing industry firms also confirm that domestic demand has been more buoyant than external demand.

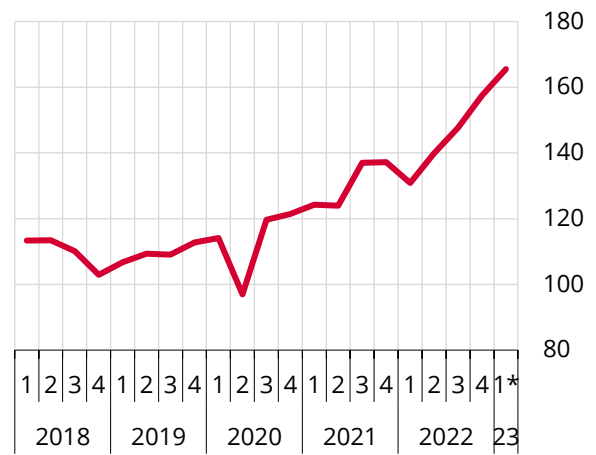
The earthquake caused uncertainty over the outlook for domestic economic activity, yet high-frequency data point to a strong recovery. The earthquake has inevitable direct effects on the production capacity, the human and physical capital stock and the labor market. On the other hand, its indirect effects through reconstruction activities and supportive policies are also likely to become more discernible over time. The short-run effects of the earthquake were partly reflected in the future production and order expectations of manufacturing industry firms in February and March. Meanwhile, high-frequency indicators for external trade, labor market and consumption, as well as detailed information from field interviews indicate continuation of the strong recovery in the disaster zone (Box 2.1 and 2.2).

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



Source: TURKSTAT.
* Average of January-February.

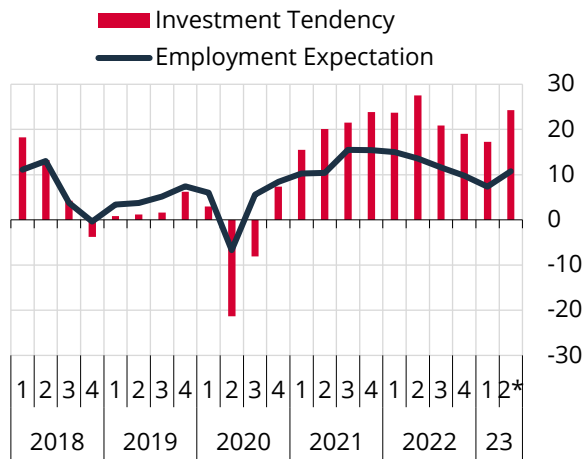
Chart 2.3.6: Retail Sales Volume Indices
(Seasonally and Calendar Adjusted, 2015=100)



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

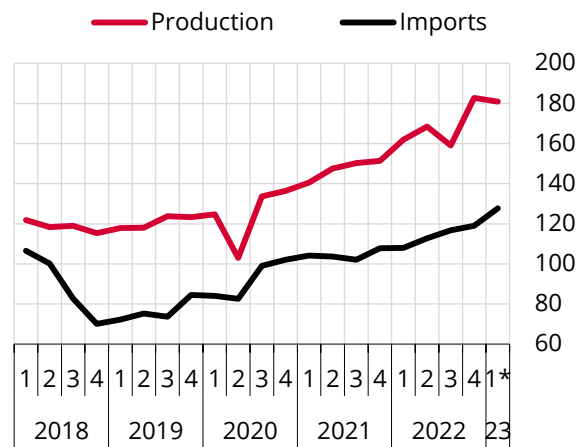
According to the Business Tendency Survey (BTS), although the investment tendencies of manufacturing industry firms were above historical averages in the first quarter of the year, it receded somewhat due to the earthquake (Chart 2.3.7). April data, on the other hand, signal a significant post-quake recovery in investment expectations for the upcoming period. Indicators for the production and foreign trade of capital goods suggest that the current outlook for investments is also favorable. As of February, production of capital goods excluding vehicles was almost flat on a quarterly basis in the first quarter, while the imports thereof registered a quarterly increase of 7.3% (Chart 2.3.8).

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



Source: CBRT.
* As of April.

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

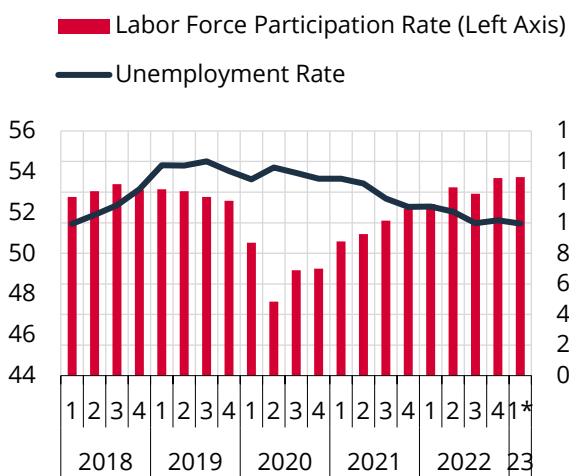


Source: CBRT, TURKSTAT.
* Average of January-February.

Labor Market Developments

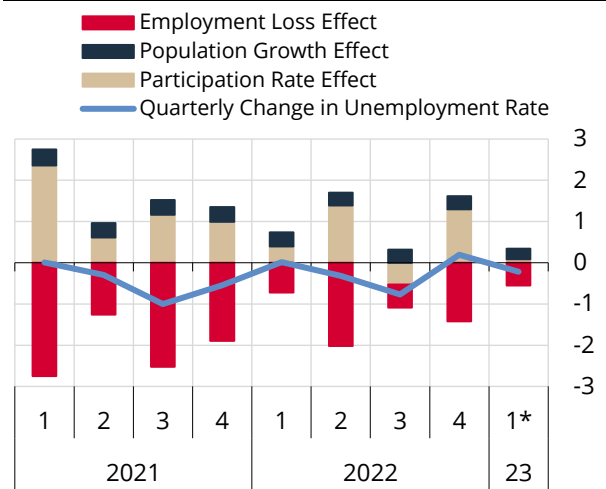
Even though February readings partially reflect the inevitable impact of the earthquakes, employment has remained robust throughout the first quarter of 2023. In January, seasonally adjusted employment increased by 1.1%, while the unemployment rate was down by 0.5 points to 9.8%. In February, partly due to the earthquake-related effects, employment and the participation rate dropped by 1.1% and 0.5 points, respectively, ending up in an unemployment rate of 10%. In quarterly terms, as of February employment increased by 0.8% (260,000 people) compared to the previous quarter. The seasonally adjusted labor force participation rate rose by 0.2 points to 53.9% over the previous quarter (Chart 2.3.9). Thus, in the first quarter of the year, the unemployment rate declined by 0.3 points quarter-on-quarter to 9.9%. In this period, employment developments pulled the unemployment rate down, while the increase in participation rate slightly limited this decline (Charts 2.3.10 and 2.3.11).

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



Source: TURKSTAT.
* Average of January-February.

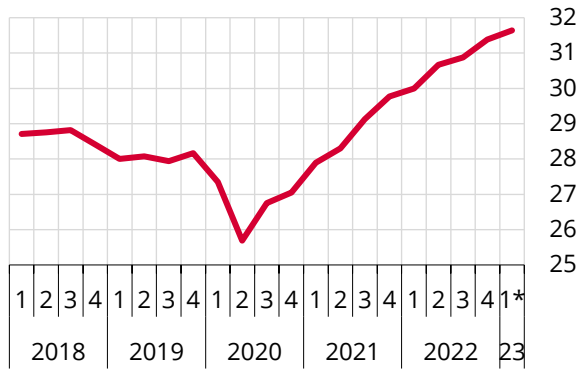
Chart 2.3.10: Contributions to Change in Total Unemployment Rate (Seasonally Adjusted, % Points)



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

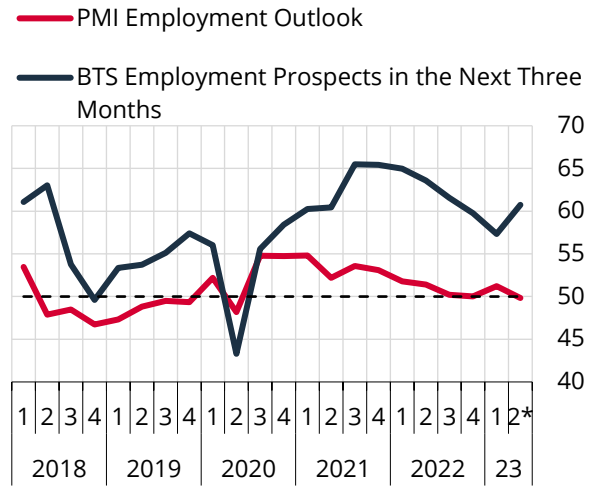
Leading indicators and high-frequency data suggest that despite a slight deceleration after the earthquake, the uptrend in employment has continued (Chart 2.3.12). High-frequency data for the labor market imply that despite a slight deceleration after the earthquake, the number of new job postings and job applications across the country recovered in the following weeks. Against this background, it is expected that the effects of the disaster on the labor market will remain relatively limited across the country. However, the implications of the domestic pension regulations for the labor market are closely monitored.

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



Source: TURKSTAT.
* Average of January-February.

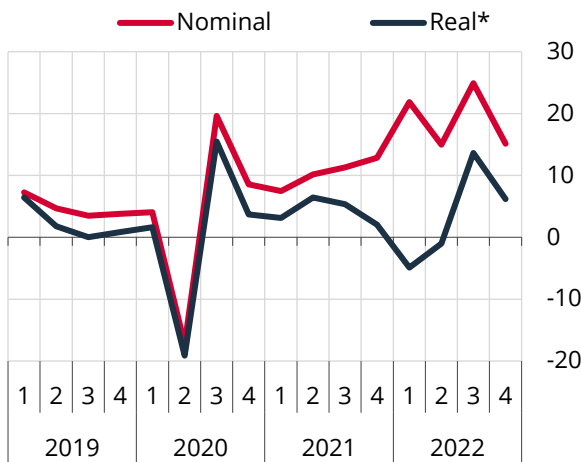
Chart 2.3.12: Employment Outlook and Expectation in the Industrial Sector (Seasonally Adjusted, Up-Down)



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

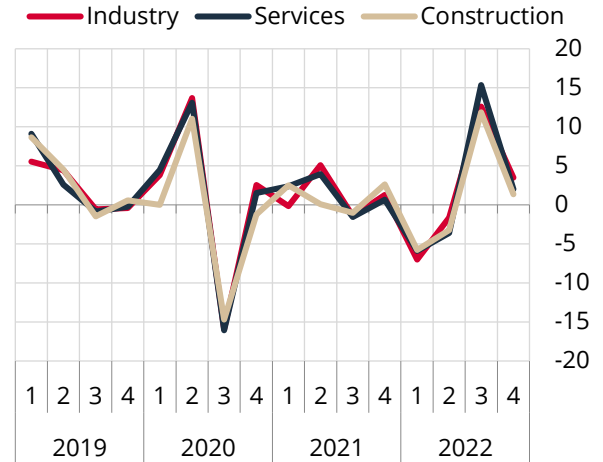
The non-farm gross wage and payroll index continued to increase in the last quarter of 2022. Having risen significantly in the third quarter of the year, the index lost pace in the last quarter yet still increased in both real and nominal terms (Chart 2.3.13). Similarly, the seasonally adjusted real earnings index maintained its quarterly increase across sectors (Chart 2.3.14). In the first quarter of 2023, the net minimum wage was raised by 54.7% to TRY 8,506.8, showing a year-on-year increase of 100%.

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



Source: TURKSTAT.
* Deflated by CPI.

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

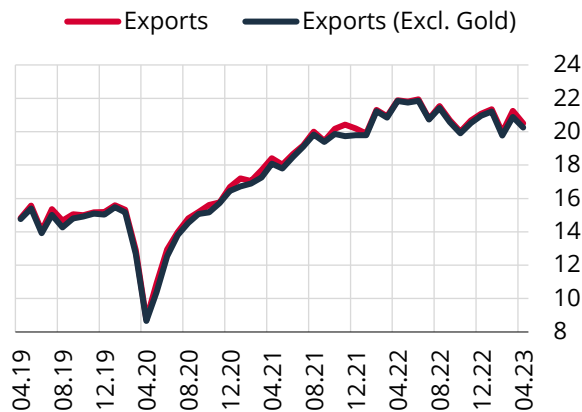


Source: TURKSTAT.
* Deflated by CPI.

Foreign Trade and Balance of Payments Outlook

In the first quarter of the year, exports increased despite the effects of the disaster. Similar to the aftermath of the war and the decline in global demand in 2022, exports remained robust in the first quarter of 2023 despite the earthquakes. This was mostly driven by the broadening in exports base, as well as product and market diversification (Box 2.3). The loss of momentum in exports in the last quarter of 2022 was replaced by a recovery in January on the back of milder foreign demand (Chart 2.3.15). The disaster in February had a limited impact on exports, while export losses were largely compensated for in March, thereby seasonally and calendar adjusted exports approached January levels. The toll of the disaster on exports was limited to the disaster zone only, which is attributed both to the relatively low share of that region in total exports and to the flexibility provided in redirecting export orders to non-disaster regions. Thus, exports posted a quarter-on-quarter increase in the first quarter of the year, and the largest contribution to the recovery came from the increase in exports to Europe and the Commonwealth of Independent States. The recovery in March became widespread across main exporting sectors. On the other hand, provisional data released by the Ministry of Trade suggested that the level of exports remained unchanged in April. In this period, despite a recovery compared to the previous reporting period, the persistently weak outlook for the economic activity in Türkiye's key export markets caused by geopolitical risks along with the policies of major central banks continued to restrain foreign demand.

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



Source: CBRT, Ministry of Trade, TURKSTAT.

* Provisional data for April.

Table 2.3.1: Imports* (USD Billion)

	2022 January- April	2023 January- April	Change	Change (%)
Total Imports	116.1	124.4	8.3	7.2
Gold	2.6	11.8	9.3	362.5
Energy	32.8	26.4	-6.4	-19.5
Intermediate Goods**	60.4	56.4	-4.1	-6.8
Investment Goods	11.9	15.9	4.0	33.2
Consumption Goods	8.3	13.8	5.5	66.6

Source: CBRT, Ministry of Trade, TURKSTAT.

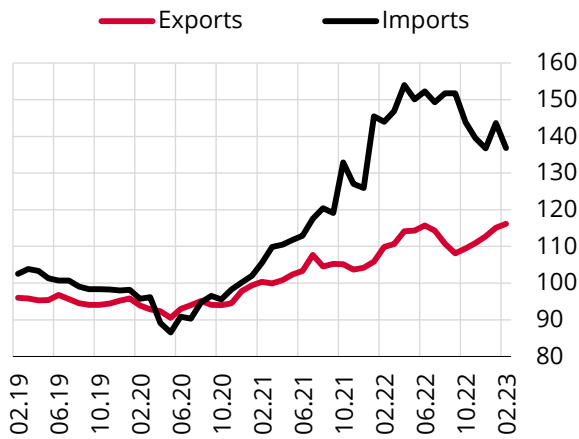
* Provisional data for April.

** Intermediate goods excluding gold and energy.

The downtrend in energy prices started to weigh on energy imports in the first quarter, gold imports continued to rise, and imports of investment and consumption goods increased. Despite the decline in energy imports in the first quarter, imports posted an annual increase (Table 2.3.1). Gold imports increased in this period, but showed a decline March. In the first quarter, imports of intermediate goods excluding gold and energy continued to fall on an annual basis, while annual increases in imports of investment goods and consumption goods accelerated amid buoyant domestic demand. Accordingly, in the first quarter, the foreign trade deficit widened on a quarterly basis, but trended down month-on-month in line with the decline in imports. In seasonally adjusted terms, the export/import coverage ratio dropped by 3.1 points quarter-on-quarter to 64.3%. In April, although the import outlook remained stable, the downtrend in gold imports became more visible.

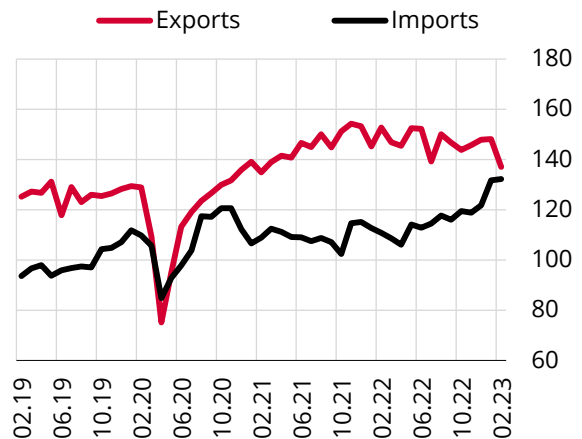
The increase in export prices that started in the last quarter of 2022 continued, while the decline in import prices lost momentum in the first quarter of 2023. As of February, import prices continued to ease quarter-on-quarter, albeit at a slower pace compared to the previous quarter, while export prices increased on the back of the recovery in parity (Chart 2.3.16). Thus, the terms of trade recorded an increase. In the meantime, the exports volume, which maintained its previous quarter level in January in seasonally adjusted terms, declined in February due to the disaster. The annual increase in the imports volume accelerated in this period, led particularly by the consumption and investment goods. Meanwhile, the imports of intermediate goods excluding gold and energy, which reflect the imported input demand for domestic production, declined (Chart 2.3.17).

Chart 2.3.16: Foreign Trade Unit Value Indices (2015=100)



Source: TURKSTAT.

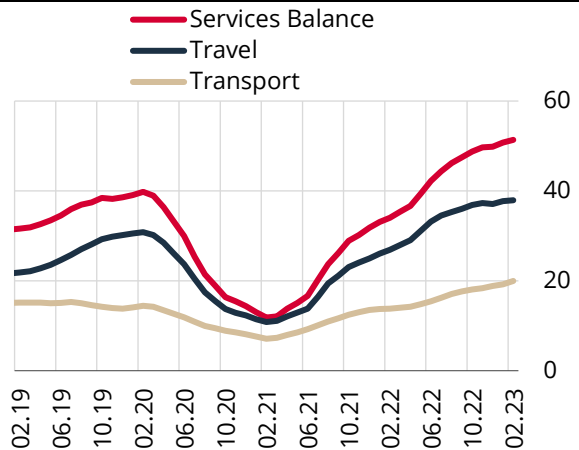
Chart 2.3.17: Foreign Trade Volume Indices (Excl. Gold, Seasonally Adjusted, 2015=100)



Source: TURKSTAT.

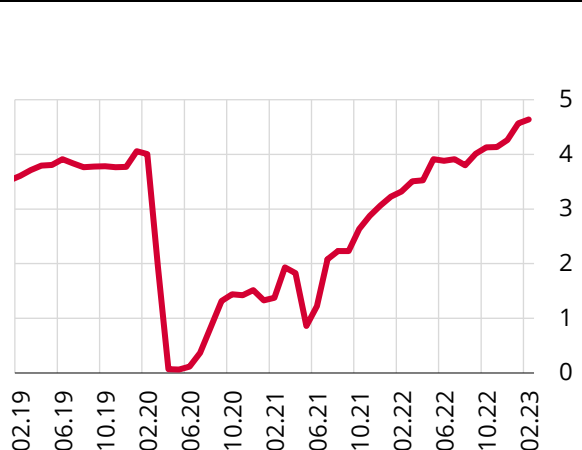
The positive contribution of the services balance to the current account balance throughout the year continued into the first quarter of 2023. Backed by net travel revenues, which maintain the high levels they reached in the last quarter 2022, and moderately rising net transport revenues, the uptrend in the annualized services balance continued to strengthen in the first months of 2023 (Chart 2.3.18). The seasonally and calendar adjusted number of foreign visitors, which significantly exceeded its pre-pandemic level, continued to increase and to be the driver of the rise in travel revenues (Chart 2.3.19). Leading data suggest that the number of visitors will remain high in the first quarter of the year, thereby continuing to contribute positively to travel and transport revenues, hence to the current account balance.

Chart 2.3.18: Services Balance (12-Month Cumulative, USD Billion)



Source: CBRT.

Chart 2.3.19: Number of Tourists (Seasonally and Calendar Adjusted, Million People)



Source: CBRT.

Despite a stronger support from the services balance and the decline in energy imports, the current account deficit widened further due to the increase in gold imports and the widening in the foreign trade deficit excluding gold and energy. In February, the annualized services balance broke records at USD 51.4 billion, while the current account surplus excluding gold and energy stood at USD 50.7 billion, and the headline current account deficit increased further to USD 55.4 billion (Chart 2.3.20). The fall in energy prices started to be mirrored positively in the current account balance. The main drivers of the widening in the current account deficit were imports of consumption goods that performed strongly amid vigorous domestic demand, and the acceleration in gold imports in the first quarter, albeit at a slower pace in March. The gradual normalization in commodity prices, the recent slowdown in gold imports, the strong contribution of tourism revenues, and the partial recovery in global growth signal a more positive outlook for the current account balance in the period ahead.

The recent structure of the financing of the current account deficit was maintained in the first quarter. As of February, financing of the 12-month cumulative current account deficit continued to be provided mainly through short-term channels such as non-residents' deposits in Türkiye and commercial loans (Chart 2.3.21). Net inflows in foreign direct investments remained on a steady track, while net outflows were seen in portfolio investments. There was a net capital inflow through loans, and in 12-month cumulative terms, banks continued to deleverage with a long-term debt rollover ratio of 82%, while the long-term debt rollover ratio of companies stood at 162%. As of February, annualized net errors and omissions inflows receded to USD 24.5 billion, while CBRT reserves increased by USD 1.5 billion and total reserves decreased by USD 1.1 billion.

Chart 2.3.20: Current Account Balance
(12-Month Cumulative, USD Billion)

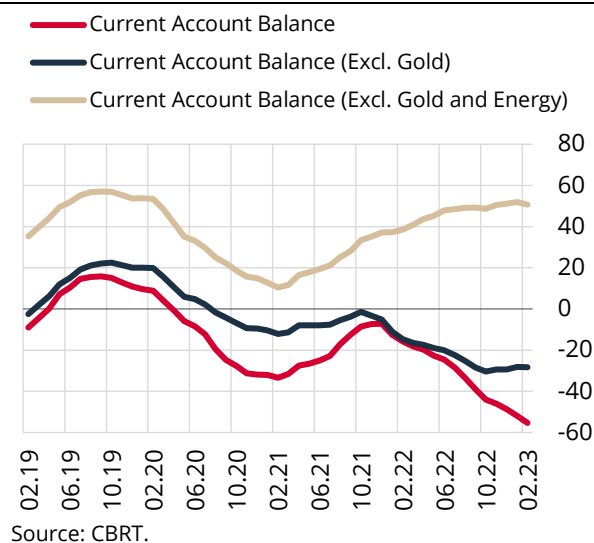
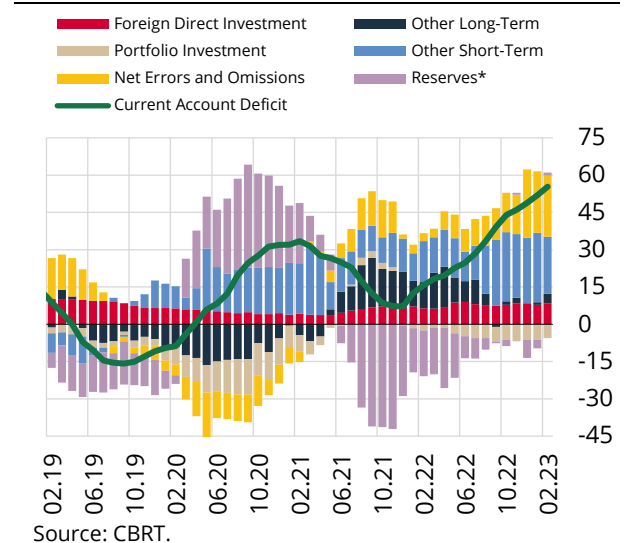


Chart 2.3.21: Financing of the Current Account Deficit
(12-Month Cumulative, USD Billion)



Public Finance Developments

In the first quarter of the year, budget expenditures rose due to the disaster, while the quarterly rate of increase in budget revenues remained low as the collection of temporary corporate tax was shifted from February to May. The annualized budget deficit and primary deficit to GDP ratios for March are estimated to have been 2.5% and 0.5%, respectively. The central government budget had run a surplus in the first quarter of 2022 and posted a deficit of TRY 250 billion in the first quarter of this year. In the first three months, total expenditures and primary expenditures increased by 82.7% and 93.9%, respectively, compared to the first quarter of 2022. The increase in expenditures arose from the post-quake search and rescue operations, actions taken to remove adverse conditions affecting general life in the region, as well as in-kind and in-cash assistance to earthquake-stricken citizens. The most significant contribution to the annual growth of primary expenditures came from current transfers and personnel expenditures, which were up by 107.5% and 110.5%, respectively, compared to the first quarter of 2022.

Central government budget revenues increased by 31.9% year-on-year in the January-March period. Tax revenues were up by 38.6% and non-tax revenues by 1.3%. The increase in non-tax revenues was limited as the CBRT's profit and reserve transfer, which was TRY 49.3 billion in 2022, materialized at TRY 40 billion this year. The relatively low rise in tax revenues, on the other hand, was attributed to the postponement of the temporary corporate tax collection in February due to the abolition of the fourth-quarter corporate provisional tax return.

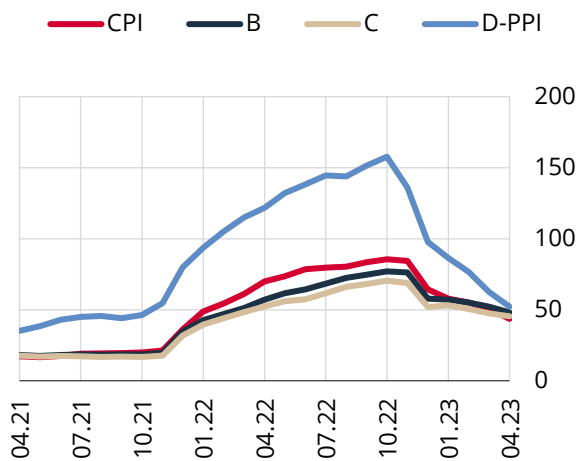
There are many interlinked factors that need to be taken into account when assessing the effects of the earthquake on the fiscal stance in 2023. Taken together, these factors imply that the budget deficit will remain at manageable levels, and fiscal discipline will be maintained in 2023. Operational expenditures increased in the wake of the earthquake due to search and rescue operations, provision of temporary

shelter and vital needs, damage assessment, and rent and relocation assistance. Public expenditures are expected to increase further as construction activities will gain pace in the following period. However, the fact that reconstruction costs will be spread over years is limiting the burden of the earthquake on the budget balance for 2023. Additionally, the savings achieved by keeping the central government budget deficit well below projections in 2022, the fiscal space enabled by reduced transfers from the budget to energy SEEs in 2023 thanks to the lower-than-expected course of energy prices, the support to economic growth from public investments through the multiplier effect, the revenue to be generated through channels such as additional tax measures and tax amnesty, and resources such as donations, aid, loans, and Disaster Reconstruction Fund resources will be other factors that will balance upside risks from earthquake-related expenditures.

2.4 Inflation

In the first quarter of 2023, annual consumer inflation decreased by 13.8 points to 50.5%, and maintained its downward course in April by declining further to 43.7%. Despite the mild course of energy prices, the quarterly increase in consumer prices accelerated compared to the previous period due to developments in the services and food groups (Table 2.4.1). On the other hand, the slowdown in annual consumer inflation continued (Chart 2.4.1). In the current reporting period, international commodity prices, energy in particular, supply conditions and the stable course of the Turkish lira supported the slowdown in annual inflation. Cost effects on domestic prices weakened significantly after February. Meanwhile, inflation expectations remained flat. The substantial rise in prices of meat and dairy products despite the ongoing decline in global food and agricultural commodity prices, the minimum wage hike, and demand conditions exerted pressure on prices, particularly those of services. Driven by items with time-dependent pricing behavior and a strong backward-indexation tendency as well as by administered prices, services prices posted a marked increase in this period, while the contribution of services prices to consumer inflation remained relatively flat, unlike other groups (Chart 2.4.2).

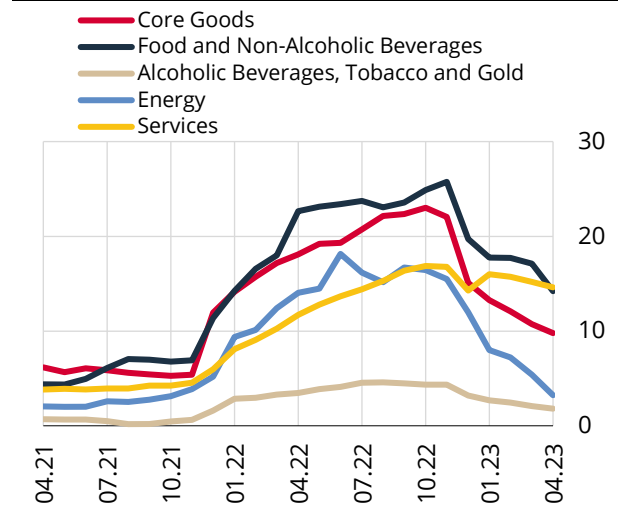
Chart 2.4.1: CPI, D-PPI, B Index and C Index*
(Annual % Change)



Source: TURKSTAT.

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

Chart 2.4.2: Contributions to Annual CPI
(% Points)

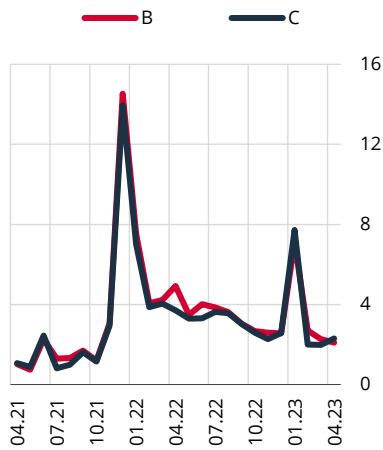


Source: CBRT, TURKSTAT.

Monthly rates of increase in core indicators decelerated following the high level recorded in January, and their annual inflation rates declined. Seasonally adjusted data indicate that the monthly increases of B and C indices were more pronounced in January but decelerated in the following months and resumed their previous trajectory (Chart 2.4.3). In this period, seasonally adjusted monthly increases in core indicators declined to the lowest levels recorded since October 2021. Alternative indicators also displayed a similar tendency, confirming this outlook (Chart 2.4.4). An analysis of B index subgroups suggests that the services sector was the main driver of the strong increase in January inflation (Chart 2.4.5). Price increases in

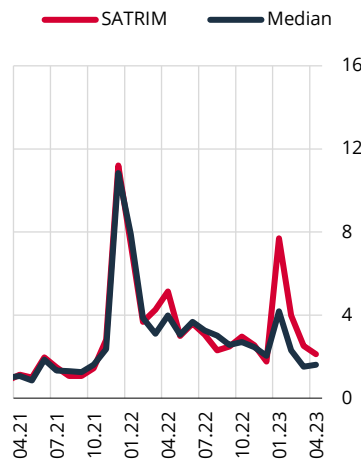
services accelerated significantly across subgroups compared to the previous quarter. The highest quarterly rate of increase in prices was registered in the restaurants-hotels group (Table 2.4.1). This was driven by catering services that are highly sensitive to food prices, red meat in particular, and to minimum wage developments. The inflation of the other services, another subgroup that stood out in this period, was affected by maintenance-repair that also covers costs of materials and labor, education and health services in which the indexation behavior is prevalent, as well as revaluation-related items and recreation-culture services. In rents, which were also affected by the Kahramanmaraş-centered earthquakes of 6 February, the quarterly inflation strengthened compared to the previous period. While transportation prices increased largely led by administered services in January, the rise in prices of communication services was mainly driven by Internet and mobile phone call charges. The price increase in core goods was milder compared to other sub-items constituting the B index (Chart 2.4.5). With the decrease in commodity prices and the stable course of the Turkish lira, external prices supported the fall in inflation in this period. Against this background, the role of exchange rate and commodity prices weakened in durable consumption goods, whereas domestic demand-driven effects strengthened. The price increase in this group was primarily led by the labor-intensive furniture sector and the automobile sector with brisk sales. On the other hand, price increases in the clothing and footwear group continued to decelerate in this quarter (Table 2.4.1). Meanwhile, processed food, another sub-item making up the B index, maintained its tendency to post large increases in the first quarter while prices in this subgroup were markedly affected by processed meat products due to red meat prices, and milk and dairy products as well as by bread-cereals.

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



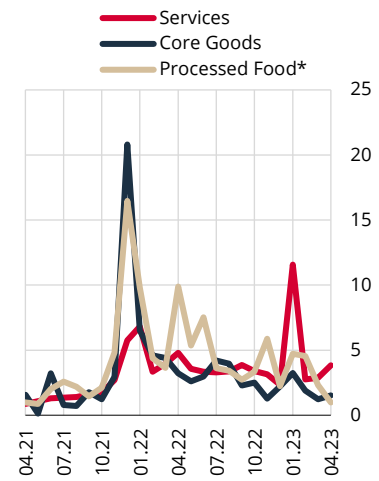
Source: CBRT, TURKSTAT.

Chart 2.4.4: Main Inflation Indicators SATRIM* and Median**
(Monthly % Change)



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

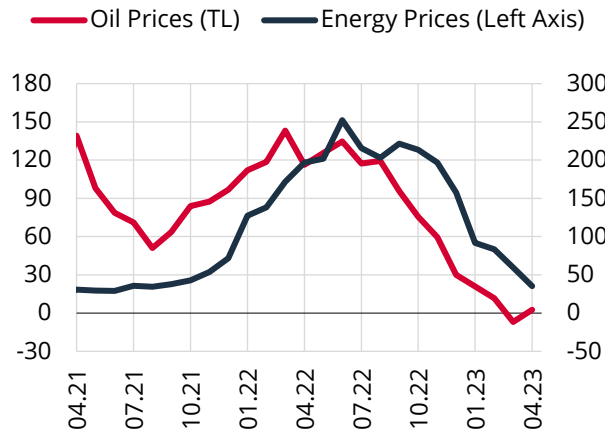
Chart 2.4.5: Subgroups of B Index
(Seasonally Adjusted, Monthly % Change)



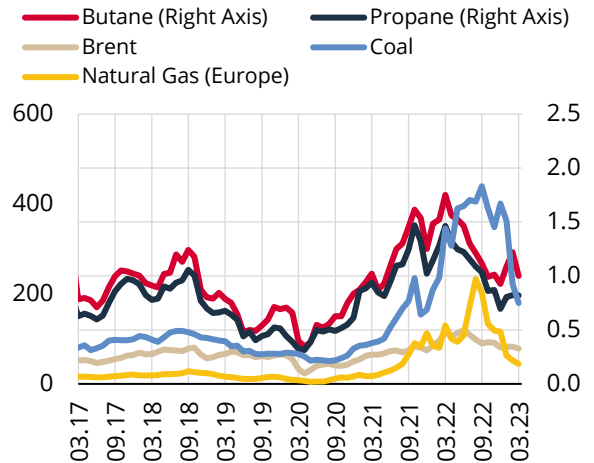
Source: CBRT, TURKSTAT.
* No seasonality detected for processed food.

Annual energy inflation continued to slow following the decline in international energy prices

(Charts 2.4.6 and 2.4.7). Having decelerated considerably in the second half of 2022, the rise in domestic energy prices also remained moderate in the first quarter of 2023 (Table 2.4.1). The average international Brent crude oil prices, which were around USD 81 in December 2022, ended March at around USD 79. The Turkish lira was also on a steady course against the US dollar in this period. Following these developments, the increase in fuel prices was relatively mild. International energy prices, which had returned to their levels before the Russia-Ukraine War in the last quarter of 2022, maintained their downward course in the first quarter of the year. The main driver of this decline was the slump in natural gas prices, especially in Europe which was caused by the course of stocks and mild weather conditions, as well as the significantly receding international coal prices (Chart 2.4.7). Accordingly, domestic consumer prices of natural gas and coal decreased. After remaining flat in the first quarter, electricity prices were reduced in April. On the other hand, the rise in municipal water prices limited a more favorable outlook in energy prices. Against this background, annual energy inflation dropped to 21.19% as of April, recording the largest decline in annual inflation across main groups (Chart 2.4.6).

Chart 2.4.6: Energy Prices (Annual % Change)


Source: Bloomberg, CBRT, TURKSTAT.

Chart 2.4.7: Energy Commodity Prices* (USD, Euro)


Source: Bloomberg.

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

Table 2.4.1: Consumer Prices

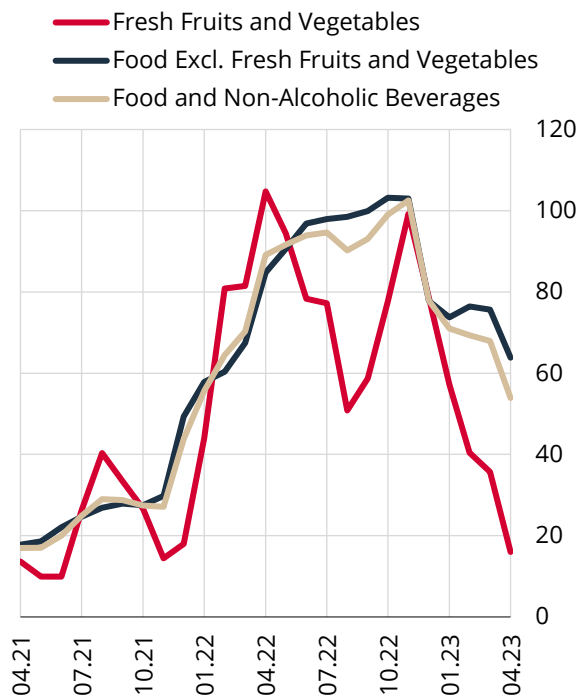
	Quarterly % Change (Seasonally Adjusted)				Annual % Change			
	2022			2023	2022			2023
	II	III	IV	I	II	III	IV	I
CPI	15.11	8.84	7.74	11.53	78.62	83.45	64.27	50.51
B	12.71	10.95	8.08	12.53	64.42	74.63	57.68	52.11
C	10.79	10.43	7.06	12.56	57.26	68.09	51.93	47.36
1. Goods	16.22	8.50	7.40	8.61	89.94	93.07	67.31	47.10
Energy*	28.65	1.24	1.48	2.63	151.33	132.98	94.43	35.66
Food and Non-Alcoholic Beverages	22.54	9.19	11.45	12.53	93.93	93.05	77.87	67.89
Unprocessed Food	21.55	7.25	9.66	15.95	91.65	82.39	73.25	65.94
Fresh Fruits and Vegetables	6.36	7.61	5.18	2.90	78.32	58.72	78.54	35.72
Processed Food*	24.49	10.07	11.83	12.04	96.04	102.90	82.00	71.68
Core Goods	9.02	10.83	6.12	6.49	64.86	77.49	48.96	36.58
Clothing and Footwear	4.33	7.35	2.90	1.85	26.35	39.62	25.01	16.26
Durable Goods (Excl. Gold)	11.27	7.65	7.06	9.33	77.90	89.96	48.13	40.21
Furniture	20.58	6.60	11.32	14.13	101.79	100.53	75.44	63.26
Automobile	7.92	7.33	4.12	7.23	75.43	93.07	31.17	31.93
Electrical and Non-Electrical Appliances*	6.44	10.32	13.57	5.75	68.91	79.40	61.01	41.05
Other Durable Goods*	10.13	9.39	7.71	8.63	64.71	73.98	51.43	40.96
Other Core Goods*	9.21	12.60	8.94	7.85	70.64	82.74	65.91	44.48
Alcoholic Beverages, Tobacco Products and Gold*	12.94	5.81	6.90	10.37	74.36	85.19	58.90	41.00
2. Services	12.08	10.78	9.77	17.46	48.69	57.76	55.49	59.93
Rent	8.36	13.97	11.64	17.96	22.80	36.18	47.07	62.76
Restaurants and Hotels	17.20	9.78	10.71	20.04	79.55	81.34	68.48	70.73
Transport	19.15	11.55	5.68	11.99	81.83	97.98	88.70	57.12
Communication	8.03	6.41	6.60	10.86	17.64	23.44	30.13	35.87
Other Services	9.07	10.76	8.51	19.85	42.84	52.85	48.05	57.08

Source: CBRT, TURKSTAT.

* No seasonality detected.

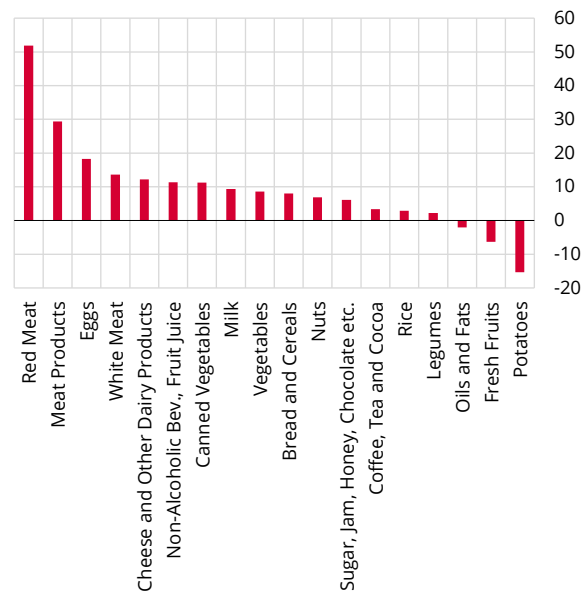
Despite the ongoing decline in global prices, the upward course in food prices continued due to inadequacies in supply, distribution and market structure. Annual inflation in food and non-alcoholic beverages decreased on the back of the inflation in fresh fruits and vegetables whereas annual inflation in food items excluding fruits and vegetables remained relatively elevated (Chart 2.4.8). While seasonally adjusted data point to a rate of increase in food prices similar to the previous quarter, a breakdown by subgroups reveals a divergence reflecting a slowdown in fresh fruits and vegetables and an acceleration in the other food group (Table 2.4.1). In this period, fruit prices posted an increase below their historical average whereas vegetable prices increased above the historical average (Chart 2.4.9). Food prices excluding fruits and vegetables were significantly affected by price developments in meat, red meat in particular, as well as egg, milk, and related products (Chart 2.4.9). In 2022, the number of cattle decreased by 5.6% over the previous year to 17 million 24 thousand. The number of sheep and goats also dropped, albeit to a more limited extent. Increases in red meat prices seen in the previous quarter due to supply-side developments strengthened as of the first quarter of the year. The rise in meat prices also simultaneously affects charcuterie processed meat prices. In addition, there has been significant poultry culling in recent months due to bird flu cases in some provinces of Türkiye. As this development unfavorably affected laying hens, egg prices increased contrary to their seasonal downtrend. Driven by the rise in raw milk prices, prices of milk and dairy products increased. Meanwhile, parallel to the developments in international prices, prices of fats and oils hovered below their historical trend. The price-fixing campaign for staple goods launched by domestic retail chain markets in January had a dampening, albeit limited, effect on food price increases. While areal precipitation in Türkiye remained below seasonal norms and the previous year’s precipitation in the October-February period, there has been a significant recovery after February. Due to factors such as the increase in cultivation areas, the precipitation level is not considered to pose a risk to plant production.

Chart 2.4.8: Food Prices (Annual % Change)



Source: CBRT, TURKSTAT.

Chart 2.4.9: Food Prices by Sub-Items*



Source: CBRT, TURKSTAT.

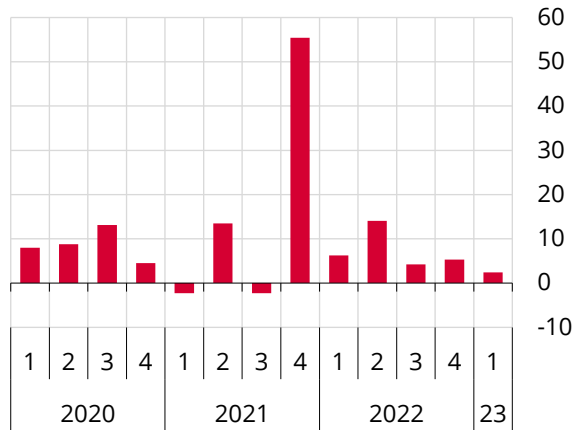
* Denotes the difference between the 2023Q1 quarterly percentage change and the historical average (first-quarter average of the 2012-2021 period).

Prices of alcoholic beverages and tobacco products rose by 10.77% in the first quarter of the year while they remained flat in April. The six-month increase in the producer prices index in the second half of 2022 was reflected on specific and minimum specific taxes in January. Factoring in the change in their costs, producer companies raised prices by slightly higher than implied by the tax hike. Following the revocation of a portion of price increases in some tobacco products in mid-January, the impact of this group on headline inflation was rather limited compared to initial adjustments.

Determinants of Inflation

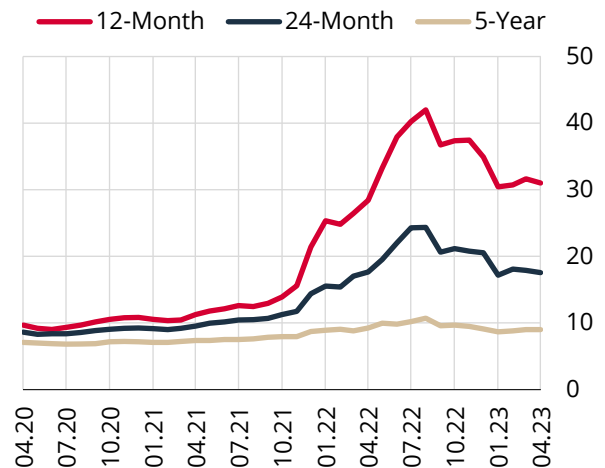
The Turkish lira continued its stable course. The nominal currency basket increased slightly by 2.4% against the Turkish lira in the first quarter of 2023 (Chart 2.4.10). As the mild course of exchange rates continued throughout this period, the quarterly volatility decreased. The prevalent outlook of the Turkish lira was coupled with the decline in global commodity prices, alleviating the cost-side pressures. Accordingly, price increases in highly exchange rate-sensitive groups were more limited, which affected the general inflation outlook positively.

Chart 2.4.10: Currency Basket*
(Quarterly % Change)



Source: CBRT.
* US dollar and euro have equal weights.

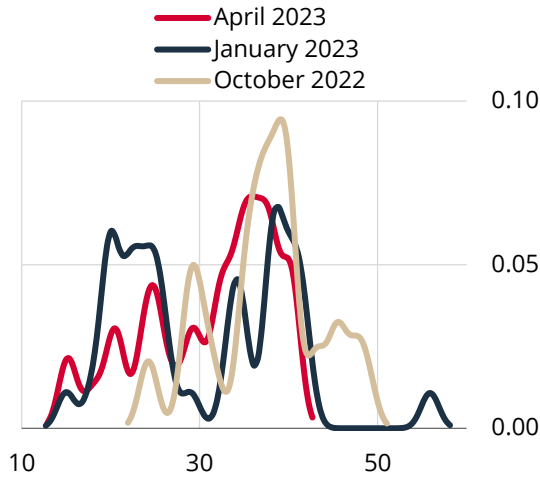
Chart 2.4.11: Consumer Inflation Expectations* (%)



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

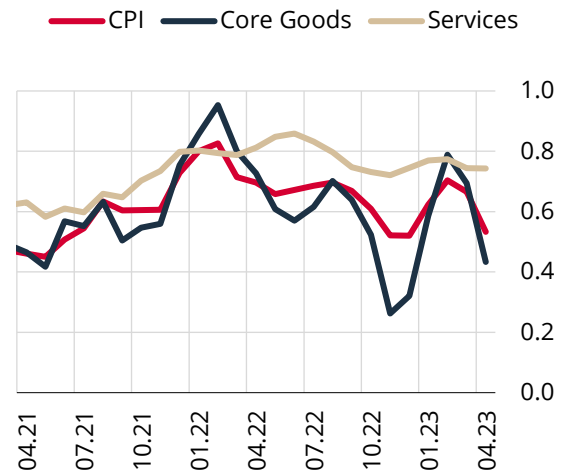
The downward trend in inflation expectations, which started in September, was replaced by a flat course as of January. According to the April Survey of Market Participants, the 12-month-ahead inflation expectation was revised up by 0.58 points to 31.02% compared to the previous reporting period. The 24-month-ahead inflation expectation edged up by 0.36 points to 17.54%, while the 5-year-ahead inflation expectation increased by 0.36 points to 9.03% (Chart 2.4.11). The distribution of responses to the 12-month-ahead CPI inflation expectation indicates a wide range between 20% and 40% and can change very rapidly depending on developments (Chart 2.4.12). In the current reporting period, amid the mild course of international commodity prices, natural gas in particular, and the stable exchange rate, the core goods diffusion index decreased following the rise in January whereas the diffusion index for services remained high (Chart 2.4.13). The minimum wage regulation, reflection of food price increases on catering services, and time-dependent backward price adjustments stood out as the main factors that limited a more favorable outlook in the price adjustment frequency in the services sector.

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)

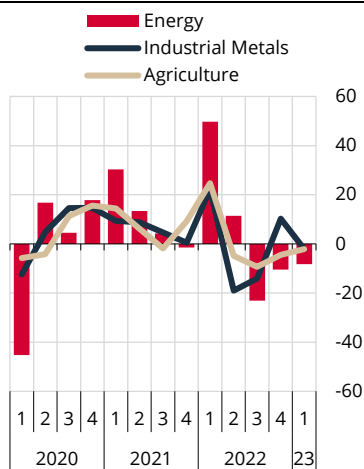


Source: CBRT, TURKSTAT.

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

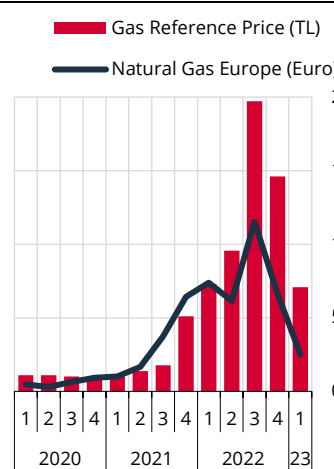
The positive outlook in international commodity markets was maintained, and the decline in prices became pronounced in March. While the downward trend in the energy sub-index continued throughout the quarter, the modest increases in industrial metal and agriculture sub-indices were replaced by a fall in March due to re-heightening growth concerns following the financial turbulence (Chart 2.4.14). In quarterly terms, the fall in the energy sub-index was more visible. In fact, having increased significantly in 2022 due to geopolitical problems, natural gas prices settled on a downward trend amid alleviated concerns and continued to decline further in the first quarter of the year as a result of temperatures above seasonal norms (Chart 2.4.15). The fall in international natural gas prices was reflected in industrial and electricity producer tariffs in the first quarter of the year, curbing production costs. In line with these positive developments, the annual rate of change in the import unit value index remained on the decline in the first quarter of the year, and the index decreased below the previous year's reading of the same period (Chart 2.4.16).

Chart 2.4.14: Commodity Price Indices (Quarterly % Change)



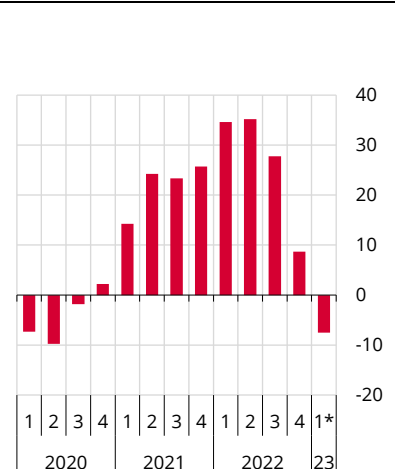
Source: Goldman Sachs.

Chart 2.4.15: Natural Gas Prices (2021Q1=100)



Source: Bloomberg, EXIST.

Chart 2.4.16: Import Unit Value Index (Annual % Change)

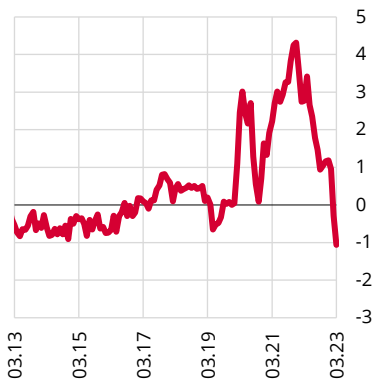


Source: TURKSTAT.

* As of February. Quarterly data denotes the last month of the respective period.

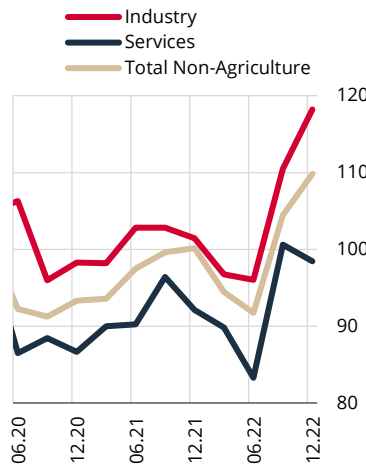
Annual producer price inflation continued to decrease while the underlying trend of prices posted a limited rise due to domestic factors. The Global Supply Chain Pressure Index dropped in the first quarter of the year, falling below its historical average (Chart 2.4.17). Parallel to the normalization in supply conditions, freight charges also decreased in the first quarter of the year. Meanwhile, after the earthquake disaster, there were disruptions in the domestic supply chain, albeit short-lived. The real unit wage per hour worked, another important factor for the course of producer prices, rose in the last quarter of 2022 (Chart 2.4.18). Following the increase in the minimum wage at the beginning of 2023, the real unit wage per hour worked further increased in the first quarter of the year, which had a more apparent effect on services and labor-intensive industrial sectors. Due to supply, wage and demand conditions, the rise in manufacturing prices excluding petroleum and base metals remained slightly above the 2021 levels in the first quarter of the year (Chart 2.4.19). On the other hand, affected by the fall in natural gas tariffs, the headline producer price increase was weaker compared to the underlying trend, and annual producer inflation also continued to decrease.

Chart 2.4.17: Global Supply Chain Pressure Index*



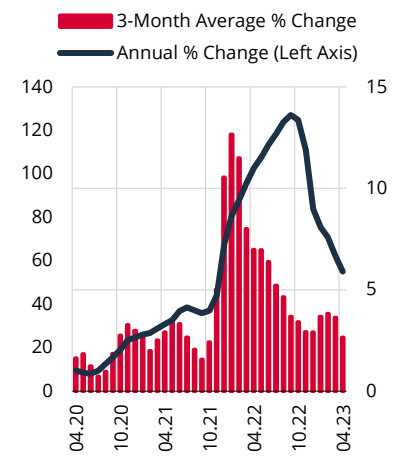
Source: New York Fed.
* Standard deviations from the average index value.

Chart 2.4.18: Real Unit Wage per Hour Worked* (Value Added, 2015=100, Seasonally Adjusted)



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

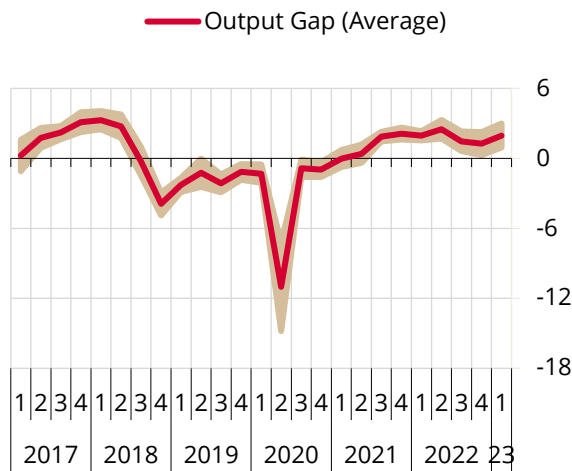
Chart 2.4.19: Manufacturing Prices Excl. Petroleum and Base Metals



Source: CBRT, TURKSTAT.

Aggregate demand conditions strengthened slightly in the first quarter of the year. The average of various output gap indicators monitored at the CBRT increased in the first quarter of the year after having decreased slightly in the second half of 2022 due to weak global demand conditions (Chart 2.4.20). Recession concerns eased, and growth outperformed expectations in our main trading partners, which led to recovery in external demand in the first quarter of the year compared to the previous quarter. In seasonally adjusted terms, the positive outlook in travel revenues continued. In addition, domestic demand remained buoyant in the first quarter of the year. Domestic demand was supported by the increase in household purchasing power following the strengthened employment, the wage increase, and public finance-related developments at the beginning of the quarter, as well as by the current level of loan utilization, personal loans in particular (Chart 2.4.21). Despite interruptions in production after the earthquake, domestic demand was strong across the economy due also to additional spending directed towards the earthquake zone.

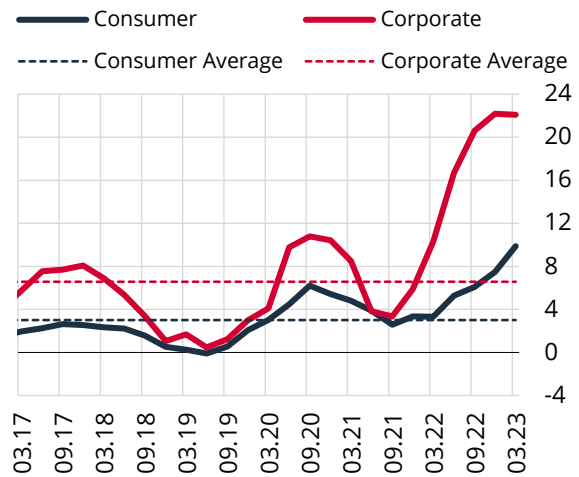
Chart 2.4.20: Output Gap Indicators* (%)



Source: CBRT.

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

Chart 2.4.21: Net Loan Utilization* (%)



Source: CBRT.

* Net loan 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 from 2006Q1 to 2023Q1. Credit cards are included in personal loan utilization. Corporate loan utilization is adjusted for exchange rate effects.

While the impact of administered prices on headline inflation increased in the first quarter of 2023, some actions supporting the disinflation process were taken as well. In line with international price developments, cuts were made in natural gas tariffs for manufacturing industry companies and electricity producers throughout this period. Thus, production costs-driven indirect pressures on consumer prices were alleviated. Cuts in natural gas tariffs for manufacturing industry companies and electricity producers continued as of April, while electricity and natural gas tariffs for consumers were also reduced. On the other hand, municipal water prices, in which the backward-indexation behavior is strong, registered substantial increases particularly in January. Public transport fares were raised significantly in major cities in January. Likewise, tariffs of intercity passenger transport by railway were also increased in the first quarter of the year. As bridge and highway tolls were kept unchanged in January, consumer prices were positively affected both directly and indirectly through transportation costs. Price hikes were seen in the alcoholic beverages and tobacco products following the increase in specific and minimum specific taxes. As the euro reference rate, on which the medicine prices are based, was raised in mid-December, part of the inflationary impact was carried over to January. With the adjustment of legal profitability scales in mid-March, medicine prices picked up again driven particularly by products with low prices. Large price increases were recorded in health and education services, in which the fees are determined through backward-indexation. Items such as vehicle inspection and notary fees, whose fees are based on the revaluation rate, also posted price hikes.

Box 2.1

Findings from Interviews with Firms

The CBRT holds face-to-face meetings with firms as part of the “Economic Lens to the Real Sector” (ELRS).¹ This box summarizes the findings from the interviews conducted in the January-March 2023 period.

Demand conditions in the first quarter of the year displayed a buoyant outlook compared to the previous quarter. In this period, production activities accompanied the positive outlook in demand conditions, while the improvement in investment stance continued. The emphasis on energy and exchange rate as a cost element decreased significantly.

Information obtained from the interviews indicates that the aggregate demand conditions in the first quarter of the year were more buoyant compared to the previous quarter. It was observed that wage increases, campaigns and price hike expectations at the beginning of the year supported domestic sales, while export market diversification activities of the companies and easing concerns over recession in Europe limited the slowdown in foreign demand. It was also observed that the decline and disruptions in domestic demand, export shipments and production activities due to the earthquake that occurred in early February were compensated for in the non-earthquake zone as of March, while a recovery has started in the earthquake zone.

Positive effects of wage increases were seen in sales of non-durable and semi-durable goods, and sales of durable goods remained strong.

In the last quarter, demand, chiefly for durable goods, was brought forward with increasing household income and expectation for price hikes, and domestic sales performed better than anticipated with the support of the campaigns. This revival, which has been more evident especially since December 2022, continued in the first quarter of the year with the support of consumer financing conditions. Accordingly, a rapid compensation was seen in the significant drop in demand caused by the earthquake in February in various sectors across the country.

It was stated that the positive effects of wage increase at the beginning of the year were reflected in food production and sales were more favorable compared to the previous quarter. It was also revealed that the demand for aid to the earthquake zone, which had increased significantly in February, turned to normal in March. It was stated that apparel sales were supported through campaigns, and the sharp decline in sales due to the earthquake in February was gradually reversed as of the end of the month. While it was stated that demand for white goods and furniture products normalized following the strong demand recorded in the last quarter, it was specified that cumulative demand in the automotive sector due to supply shortages supported sales further. Despite the decrease in foreign demand, it was emphasized that the demand for housing increased in the provinces which received immigration after the earthquake.

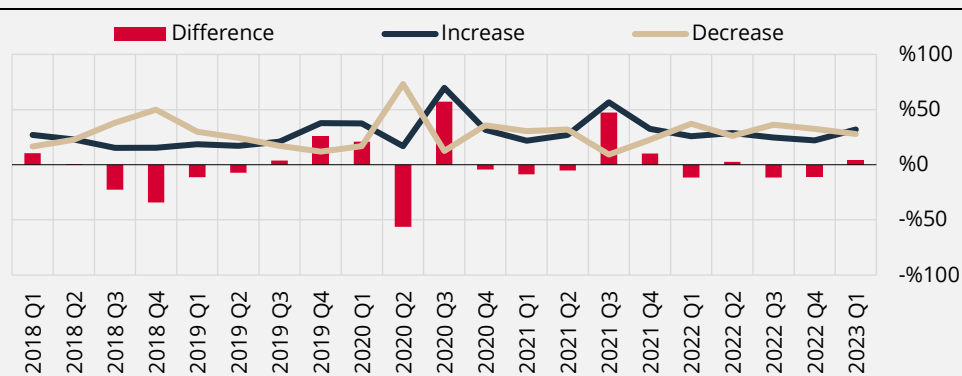
It was observed that exports followed a positive outlook.

Exports recorded a better-than-expected outlook at the beginning of the period, which was mainly attributed to eased concerns over the energy crisis and recession in Europe. In addition, it was stated that companies could compensate for the losses in orders they incurred in this process with new countries and customers.

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

On a sectoral basis, the rebound in foreign demand in the European textile sector started to be mirrored in export orders, and apparel exports remained strong compared to the previous quarter. In furniture exports, it was stated that despite the cost disadvantage caused by the lower freight prices, product quality and delivery speed advantage of the Turkish firms in the US and European markets continued. In the white goods main and sub-industry, it was emphasized that the negative impact of the recession in Europe on sales remained limited, thereby leading to a sustained steady course. While it was disclosed that exports in the automotive sector maintained a positive outlook, it was pointed out that producer companies in the basic metal industry might shift to the domestic market amid the growing demand mainly for construction steel after the earthquake. It was stated that the course of the tourism sector hovered around normal seasonal levels, and although there were short-term cancellations due to the earthquake in February, the demand was not negatively affected for most of the quarter. It was also expressed that the booking data indicate that the European demand is strong.

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



Source: CBRT ELRS.

* Demand perception shows the evaluation made by considering the current sales, orders and expectations of the firms. The series is constructed as 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, rather than the size of the change.

In the first quarter of the year, production activity recorded a buoyant course compared to the previous quarter.

The production activity, which slowed down after the earthquake disaster in February, gained momentum again in March. Export demand affected production positively throughout the quarter. On the other hand, the earthquake-driven slowdown in demand was compensated for companies that mainly produce for the domestic market, which supported production. Furthermore, the production activity in **Adana** and **Gaziantep**, the provinces with the highest share in national income within the earthquake zone, returned back to its pre-earthquake levels. On the other hand, the recovery was more limited in **Kahramanmaraş** and **Hatay**.

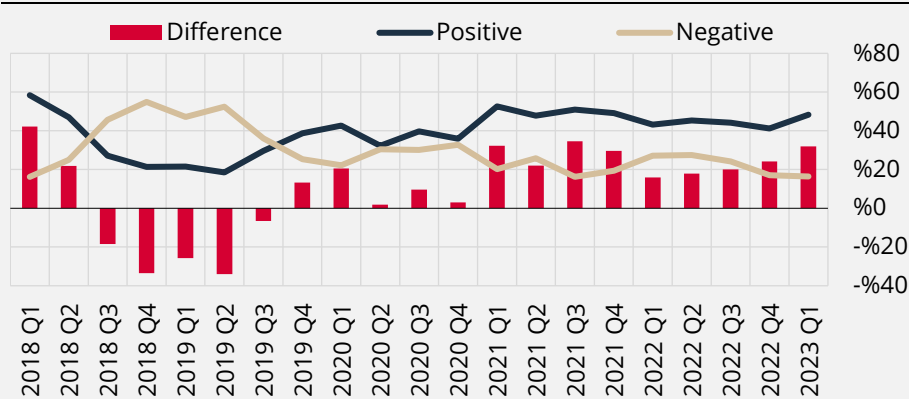
In the automotive industry, one of the sectors where production activities are positive across Turkey, supply disruptions eased in production, which also affected the orders of the automotive sub-industry positively. In **white goods** and **consumer electronics**, the efforts of the main manufacturers to replace the depleting inventories supported production. In **textile**, the pickup in EU demand started to be reflected in orders and production, while a more limited activity was observed in **apparel**. In **furniture**, while the normalization in domestic demand weighed on production activities, the robust export demand limited this effect. In **basic metals**, despite the recent weak outlook, companies stated that they could compensate for this by steering towards the domestic market in the upcoming period.

The investment stance for the next twelve months remained on a positive track in the first quarter of the year.

In this period, improved prospects for exports led by alleviated concerns over the energy crisis and recession in Europe coupled with the sustained financing facilities provided by targeted loan policies enhanced investment motivation. Some companies suspended their new production facility or store investments in the earthquake-hit provinces, yet this did not spill over into the whole.

Machinery-equipment and energy investments remained on top among the investment plans of the companies. In this period, mechanization and automation investments were accelerated in order to reduce costs, and energy investments, chiefly solar energy systems, became the focus. From a sectoral point of view, the investment stance in the manufacturing sector remained strong and was more positive in exporting companies. It was observed that the weak outlook in land investment for housing in the construction sector continued in this quarter. In the retail trade sector, demand remained favorable, and store and office investments continued, mainly in companies operating in durable product groups. Although logistics companies have investment plans for renewal and expansion, it was stated that the required number of new vehicles could not be reached due to supply problems.

Chart 2: Investment Stance of Firms* (12-Month-Ahead)



Source: CBRT ELRS.

* Investment stance shows the evaluation made by considering the investment appetite of the firms for the next 12 months. The series is stated as 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, rather than the size of the change.

Investment and production outlook continued to support firms' employment plans for the next six months.

While companies maintained their tendency to preserve employment in the future, efforts to foster automation and productivity in the production process limit the increase in employment. Labor markets were affected dramatically in the earthquake-hit zone, and the return period of the labor force was extended. It was said that the early retirement package will not cause a significant loss of employment, and that most of the employees who opted to claim retirement under this scheme will continue to work in their companies.

In the first quarter of the year, companies' financing needs remained high, but decreased slightly compared to the previous quarter.

Despite falling energy prices and the stability in exchange rate, the high working capital requirement across the quarter was attributed to increased labor payments and deteriorated cash flows of firms in the earthquake zone. The emphasis on investment financing continued, with the need for long-term financing in the lead.

Within the framework of macroprudential measures, credit conditions and standards continued to loosen in the first quarter as well. This easing was mainly driven by the decline in commercial loan rates throughout the quarter. While the emphasis on maturity and limits, excluding targeted areas, continues, the percentage of firms that pointed out to eased access to credit as of the quarter increased. The emphasis on the supportive role of CBRT-led export and investment loans continued.

While the emphasis on energy and exchange rates decreased significantly, a limited rise was seen in the cost pressure on firms due to labor expenditures compared to the previous quarter.

Firms mostly base their wage adjustments on the rate of increase in minimum wage at the beginning of the year. In the first quarter, transfers related to input and supply-chain costs as well as labor costs increased slightly. On the other hand, the reductions in energy prices limited cost pressures in both manufacturing and trading companies. The reduction in electricity and natural gas prices, mainly in energy-intensive sectors such as metal, glass and ceramic manufacturing, counterbalance the rise in labor costs.

Box 2.2

A Detailed Look at Economic Activity after the February 6 Kahramanmaraş Earthquake

On February 6, 2023, earthquakes occurred in Kahramanmaraş that profoundly affected 11 provinces in the region, namely Kahramanmaraş as the epicenter of the earthquake, Hatay, Adıyaman, Diyarbakır, Şanlıurfa, Malatya, Kilis, Gaziantep, Osmaniye, Adana and Elazığ.

The population of these provinces was around 14 million as of 2022, corresponding to 16.4% of Türkiye's population. While 3.8 million people are employed in these provinces, the region's employment makes up 13.3% of the country's employment. The shares of the agricultural, industrial and services value added of the provinces in the earthquake region in Türkiye's total value added in the relevant sectors are 15.1%, 11.4% and 7.4%, respectively, while their total share in the GDP is 9.8%. The region makes a significant contribution to Türkiye's exports in the iron-steel and textile sectors. The provinces affected by the earthquake account for 8.6% of Türkiye's exports and 6.7% of its imports (PSB, 2023).

It is estimated that the loss of life and the destruction caused by the earthquake disaster will have direct effects on economic activity through production, employment and demand, as well as indirect effects through reconstruction activities and the implementation of supportive policies. The sectoral and regional implications of all these effects may differ, creating uncertainty regarding economic activity. While the earthquake is expected to affect economic activity in the near term, it is anticipated that it will not have a permanent impact on the performance of the Turkish economy in the medium term.

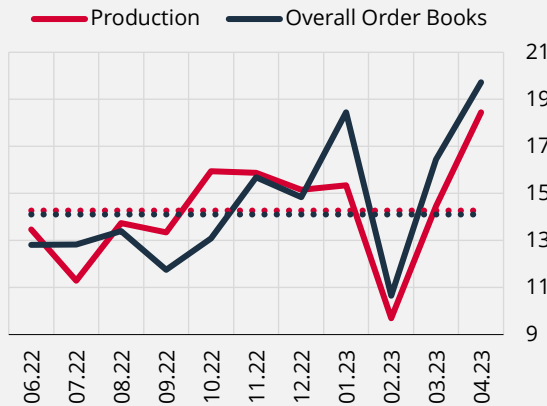
In this box, the developments regarding the post-earthquake economic activity outlook are evaluated by means of data and high-frequency indicators on production, consumption, labor market and foreign trade released concerning the earthquake and its aftermath.

Production

High-frequency data released after the devastating earthquakes on February 6 indicated that the short-term effects of the earthquake were partially reflected in the future production and orders expectations of manufacturing industry companies in February, and that the recovery started in March. The production volume expectation for the next three months included in the BTS, which registered a considerable decrease of 5.7 points in February compared to January, increased by 4.8 points in March and converged to its pre-earthquake level. Continuing its increase into April, the index rose by 4 points and exceeded its pre-earthquake levels (Chart 1). Among the demand indicators, the current overall order books continued to increase in March as well. Due to the negative impact of the earthquake on the activity, the order expectations for the next three months decreased in February. However, the adverse effect of the earthquake on the strong domestic demand was relatively short-lived, and according to the March and April BTS data, demand expectations for the next three months increased. When the BTS results are analyzed on a provincial basis, production and demand expectations also increased in centers of the disaster region with high economic weight.

When the production sub-index of the PMI is analyzed to include sectoral details, all sub-sectors (except basic metal) and the main index were below the threshold value of 50 in February. In March, the PMI production index increased by 2.9 points compared to the previous month and reached 50.9, pointing to an improvement in manufacturing industry conditions and ending the 15 months of slowdown during which, the index was below the threshold value. The PMI production index maintained its upward movement and increased by 1.1 points to 51.9 in April. In terms of sub-sectors, six out of ten sectors, particularly the vehicles, basic metal, and textile sectors, increased their production by taking a value above the 50 threshold (Chart 2).

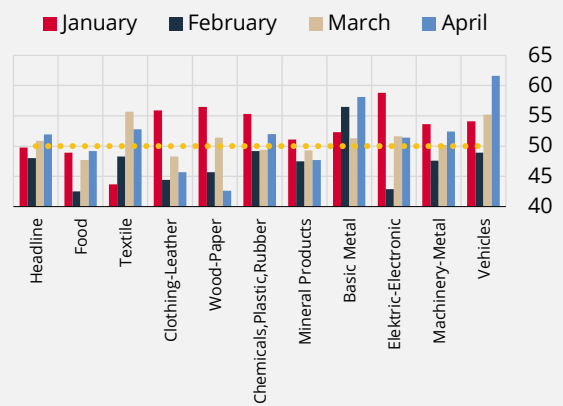
Chart 1: BTS Expectations for the Next Three Months* (Seasonally Adjusted, Level)



Source: CBRT.

* The dashed lines represent the averages for the period of June 2022-January 2023.

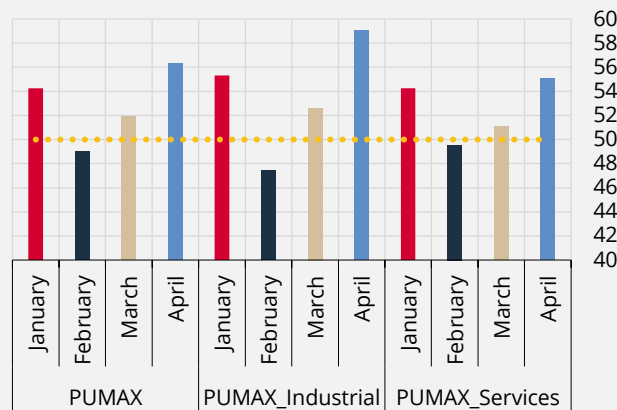
Chart 2: PMI Production Index (Seasonally Adjusted, Level)



Source: S&P Global, Istanbul Chamber of Industry.

The Purchasing Managers Index (PUMAX)-composite index decreased by 5.3 points to 49 in February. The decrease in the PUMAX services sector index by 4.7 points to 49.5, and the decrease in the PUMAX industrial sector index by 7.9 points to 47.4 were effective in this decline. In March, the PUMAX composite index increased by 2.9 points to 51.9, indicating a positive outlook. In this month, both the services and industrial indices increased, while the increase in the industrial index was stronger. In March, services and industrial indices rose to 51.1 and 52.6, respectively, reaching a level above the threshold again (Chart 3). PUMAX industrial and services sector indices continued to increase in April and remained above the threshold level. In this month, the services and industrial sector indices were 55.1 and 59, respectively, while the PUMAX composite index rose to 56.3, confirming the recovery in activity.

Chart 3: PUMAX (Seasonally Adjusted, Level)



Source: Independent Industrialists and Businessmen's Association.

Consumption

In Table 1, card spending on a provincial basis are shown by normalizing the average expenditure for the last four weeks before the earthquake to 100. In Kahramanmaraş, Hatay, Malatya and Adiyaman, card expenditures fell to around 20-40 percent of pre-earthquake levels, and then, with a slow recovery, they rose to 60-70 percent of the pre-earthquake levels as of mid-April. In Elazığ, on the other hand, the recovery was observed in the week after the earthquake, and the card expenditures exceeded the pre-earthquake level. Similarly, card expenditures in Kilis and Osmaniye provinces also reached pre-earthquake levels as of end-February and the beginning of March. In Gaziantep, Adana, Diyarbakır and Şanlıurfa provinces, the recovery was observed as of end-March, and pre-earthquake

levels were achieved. When we look at the earthquake region in general, card expenditures, which fell to around 60 percent, reached their pre-earthquake levels at the end of March and exceeded these levels by mid-April. Throughout the country, the impact of the earthquake was around 10 percent in the first week, whereas spending was 25 percent above the pre-earthquake level by mid-April.

When the course of card expenditures in the provinces affected by the earthquake is analyzed in sectoral detail, the largest recovery was in the construction contracting services, car rental-sales, service, spare parts, electronics, building materials and jewelry sectors. In these provinces, the slowest recovery was observed in sectors such as tax payments, education-stationery, accommodation, and airlines.

Table 1: Card Spending in the Earthquake Region*

	4-10 Feb	11-17 Feb	18-24 Feb	25 Feb- 3 Mar	4-10 Mar	11-17 Mar	18-24 Mar	25-31 Mar	1-7 Apr	8-14 Apr
Kahramanmaraş	42.3	21.4	29.6	41.4	48.0	53.1	57.8	63.8	63.2	66.6
Hatay	47.4	40.1	46.4	50.2	48.1	51.9	51.0	50.9	62.9	70.2
Gaziantep	53.7	59.3	81.2	89.6	98.6	104.9	103.9	107.7	125.7	131.0
Malatya	53.0	30.8	38.2	49.0	55.0	52.9	58.9	53.9	63.9	70.6
Adana	76.4	83.9	93.4	100.7	97.8	106.9	112.2	131.3	122.1	121.5
Kilis	99.6	92.2	96.5	102.8	107.0	115.7	115.1	103.1	114.7	129.5
Diyarbakır	68.1	82.4	93.3	94.0	98.8	107.6	112.4	97.1	108.6	121.5
Şanlıurfa	71.5	82.3	93.5	96.6	99.1	96.6	103.8	96.8	112.6	123.9
Osmaniye	65.4	69.5	87.7	91.2	102.0	104.1	101.5	89.9	106.5	108.2
Adıyaman	41.2	28.0	32.6	44.3	47.3	46.2	52.6	52.8	57.3	60.8
Elazığ	98.6	106.3	107.5	121.7	122.2	121.5	124.5	117.4	130.3	130.9
<i>Earthquake Region</i>	<i>63.2</i>	<i>65.1</i>	<i>76.5</i>	<i>83.4</i>	<i>86.1</i>	<i>91.2</i>	<i>94.3</i>	<i>97.5</i>	<i>104.2</i>	<i>109.0</i>
<i>Other Provinces</i>	<i>92.1</i>	<i>96.4</i>	<i>101.1</i>	<i>116.4</i>	<i>112.6</i>	<i>115.9</i>	<i>118.2</i>	<i>124.9</i>	<i>121.8</i>	<i>126.5</i>
<i>All Provinces</i>	<i>89.8</i>	<i>94.0</i>	<i>99.2</i>	<i>113.9</i>	<i>110.6</i>	<i>114.0</i>	<i>116.4</i>	<i>122.8</i>	<i>120.4</i>	<i>125.2</i>

Source: Interbank Card Center, CBRT.

* The average level of the four weeks before the earthquake is indexed to be 100.

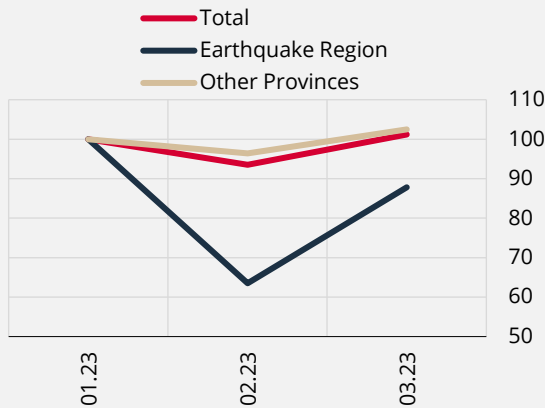
Foreign Trade

According to the foreign trade statistics announced by the Turkish Statistical Institute (TURKSTAT) and the Ministry of Trade, exports in February decreased by 6.5% annually to USD 18.6 billion. The Ministry of Trade announced that the earthquake had a downward effect of USD 1.5 billion on exports in February. According to the foreign trade data for March, exports increased by 4.4% on an annual basis and reached USD 23.6 billion.

The daily province-based export data compiled by the Türkiye Exporters Assembly (TIM) indicate that the earthquake-affected regions have diverged from other regions since February 6, when the earthquake struck. Seasonally adjusted exports in the earthquake region fell approximately 40% below the January level in February, while they recovered in March and approached the January level. Meanwhile, exports in provinces outside the earthquake region recorded a limited decline in February but recovered to the January level in March (Chart 4). The disaster region has a share of less than 10% of total exports. Its share was around 9% before the earthquake, decreased to 6% in February and then increased to 7.6% in March (Chart 5).

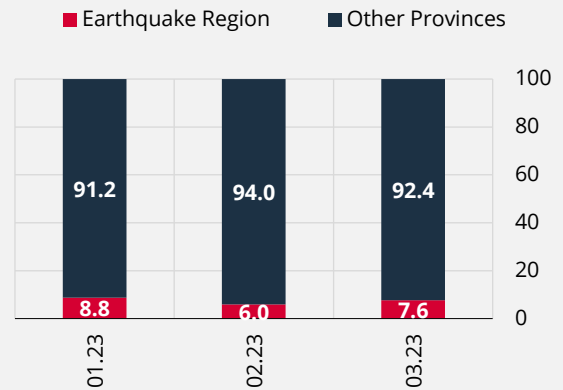
When the TIM data is analyzed in sectoral detail in the provinces affected by the earthquake, the most prominent products of the sectors that have a high share in the exports from the region are carpet, textiles, cereals-pulses-oil seeds, fresh fruits and vegetables, furniture, paper, steel, mining, chemical products, iron and non-ferrous metals, and ready-made clothing and apparel. The decrease in the exports of the region after the earthquake spread across the sectors, but it was relatively higher in the steel, carpet, iron and non-ferrous metals, and textile sectors. As of April, there was a recovery in the grains-pulses-oil seeds, fresh fruits and vegetables, furniture, and paper sectors.

Chart 4: Exports (Seasonally Adjusted, January 2023=100)



Source: CBRT, TIM.

Chart 5: Export Shares (Seasonally Adjusted)

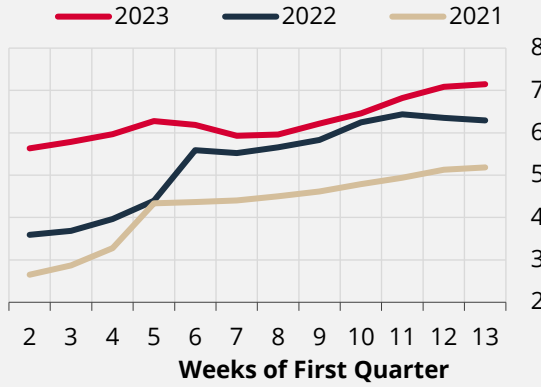


Source: CBRT, TIM.

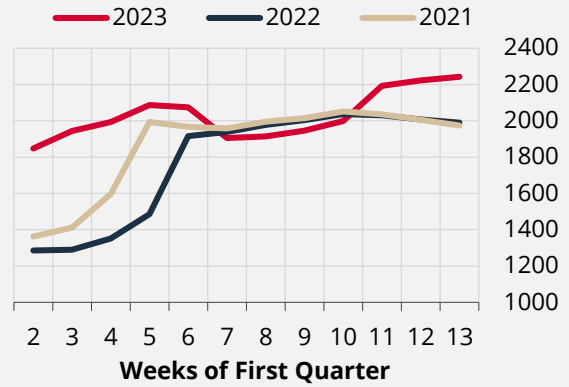
Labor Market

After the earthquake, there were employment losses due to loss of life, damage to workplaces, and migration from the region. According to the earthquake report prepared by the Presidency of Strategy and Budget (PSB), the number of people who notified authorities about their migration is around two million. Although this is a factor that may increase employment in provinces outside the earthquake region, the high number of fatalities and injured citizens in the population over the age of 15 in the region may adversely affect employment and labor force participation overall. In order to safeguard the labor market after the earthquake, a layoff ban has been imposed in the region during the state of emergency, and unemployment and half-time work allowances have been provided to employees. However, according to the PSB earthquake report, the high level of unregistered employment at 39 percent may limit the effectiveness of the measures taken. The coming data flow will enable a clearer evaluation of the impact of the earthquake on the regional labor market in the following months.

Looking at the electronic platform data, which provides high-frequency information on labor market developments across the country, new job postings and total job applications decreased to a very limited extent after the earthquake in the sixth week of the year, and recovered as of March as a result of the strong production activity (Charts 6 and 7). In addition, it is noteworthy that the new job postings in 2023 and the total job applications after the earthquake exceeded the previous year's levels (Chart 7).

Chart 6: New Job Postings (4-Week Moving Average, Thousand)

Source: Kariyer.net.

Chart 7: Total Job Applications (4-Week Moving Average, Thousand)

Source: Kariyer.net.

In summary, high-frequency indicators related to production, consumption, foreign trade and the labor market indicate that the negative effects of the disaster on economic activity have been gradually disappearing in the weeks following the earthquake. Considering the magnitude and the impact area of the earthquake, the recovery confirms the agile and resilient structure of the economy, and points to the effectiveness of the decisions to support the region as well as the social assistance response. The fact that the impact is relatively mild in the regions with high population and economic weight has a positive effect on the speed of recovery of economic activity. Despite the slowdown in the economic activity in the region affected by the earthquake, it is anticipated that the increase in the value added of the provinces outside the earthquake region in order to heal the wounds of the region and the additional value added that will be triggered by the reconstruction and restoration activities in the earthquake region will compensate for the negative impact of the earthquake on national income, and the earthquake will not have a permanent effect on the performance of the Turkish economy in the medium term.

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Box 2.3

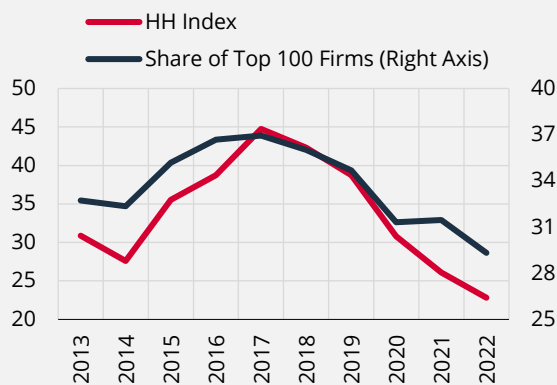
Broadening the Exports Base and Resilience to External Demand Shocks

Studies conducted at the firm level reveal that the responses of firms to external shocks may differ according to their size. Most of the studies have shown that large firms can react differently to smaller firms to the common shocks affecting all firms, and the heterogeneity of the responses affects the economy-wide response to these external shocks. In his study of the USA, Gabaix (2011) argues that while the idiosyncratic movements of the 100 largest firms explain approximately one-third of the variations in the total production level, the "granular" fluctuations in the economy due to the weight of large firms become more pronounced in parallel with the concentration in production. Wagner (2013) found similar results for the manufacturing sector in Germany and emphasized that the response of the largest firms to external shocks is important for understanding the overall volatility in manufacturing industry production.

The literature also shows that exports made by large firms are more sensitive to external demand shocks than those by small firms, and that exports from larger enterprises decrease relatively more during periods of contraction in foreign demand. Antràs (2020) argues that because large firms are more integrated into global value chains compared to small firms, this causes large firms to be more sensitive to external shocks. Di Giovanni et al. (2020) emphasize that large firms play a key role in the reflection of external shocks on the local economy, as they are more involved in production networks. Bricongne et al. (2022) show that the determinant of the contraction in exports in France during the Global Financial Crisis and the global pandemic was the decline in the exports of large exporting companies. This study calculated that 67% of the shrinkage in total exports in 2020 was due to the decrease in exports of this group, although the share of those companies in the top thousand according to the export size in total exports was 41%. Aldan et al. (2023), on the other hand, reveal that the majority of the increase in exports in Türkiye in 2011-2021 period was due to the increase in SME' exports. This box discusses how the decrease of large firms' weight in total exports, or a broadened exports base, increases the macro-scale resilience against external shocks.

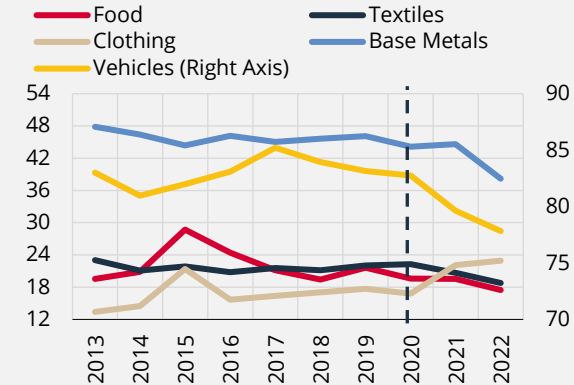
In order to monitor the course of the concentration in exports in Türkiye, the Herfindahl-Hirschman (HH) Index and the share of the top 100 exporting companies in total exports were calculated on an annual basis using the Ministry of Trade micro database containing company and foreign trade data (Chart 1). Accordingly, as of 2022, the share of the first 100 companies in total exports was approximately 29%. The HH index, which shows the degree of concentration or competition in the export market and is calculated by adding the squares of the corporate shares in total exports, was 22.8 as of 2022. On the other hand, both indicators reveal that the share of large exporting companies in total exports has decreased since 2018 and as new smaller firms enter the export market, exports base tend to broaden in this period.

Chart 1: Herfindahl-Hirschman (HH) Index and the Share of Top 100 Exporting Firms in Total Exports (%)



Source: CBRT, Ministry of Trade.

Chart 2: Share of Top 10 Firms' Total Exports of the Five Largest Export Sectors (%)



Source: CBRT, Ministry of Trade.

A sector-based analysis shows that the concentration in all of the top five exporting sectors according to 2013-2022 averages, apart from clothing, decreased in the post-pandemic period in particular, and exports spread more widely (Chart 2). However, the top five sectors showing the largest decrease in concentration compared to the pre-pandemic period, are base metals, coal-oil, electrical equipment, and recorded media and vehicles sectors (Table 1). As of 2022, the first five manufacturing industry sectors, in which the export concentration or the share of major exporters in the sector's exports are relatively low, were food, textiles, furniture, clothing and fabricated metal sectors (Table 2).

Table 1: Sectors with the Largest Decrease in Concentration in 2019-2022 Period (%)

Sector Name	The Share of Top 10 Firms		Change
	2019	2022	
Base Metals	46.1	38.2	-7.9
Coal-Oil	87.3	79.8	-7.5
Electrical Equipment	56.6	49.6	-7.0
Recorded Media	54.4	48.6	-5.8
Vehicles	83.2	77.8	-5.3
Machinery and Equipment	39.6	34.3	-5.2
Furniture	25.7	20.6	-5.0
Food	21.7	17.5	-4.2
Textiles	22.0	18.8	-3.2
Computer-Electronics	76.0	73.3	-2.7

Source: CBRT, Ministry of Trade.

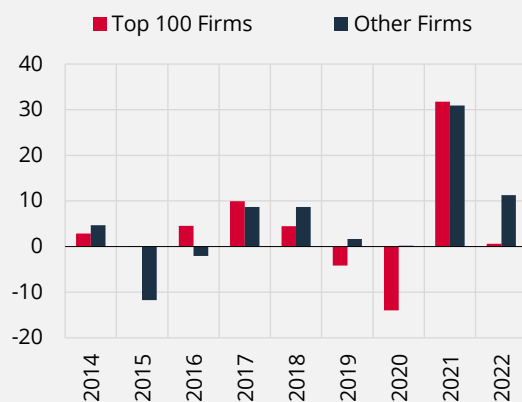
Table 2: Sectors with the Lowest Concentration as of 2022 (%)

Sector Name	The Share of Top 10 Firms
Food	17.5
Textiles	18.8
Furniture	20.6
Clothing	22.9
Fabricated Metal	24.0
Rubber-Plastic	30.7
Leather	32.9
Machinery and Equipment	34.3
Non-Metallic Minerals	34.4
Base Metals	38.2

Source: CBRT, Ministry of Trade.

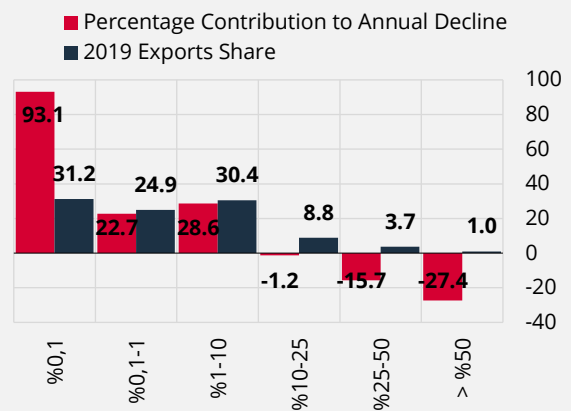
In order to show the relatively high sensitivity of large firms to external demand shocks, the annual growth of the total exports of the top 100 exporting firms in the 2014-2022 period was compared with that of those outside this group (Chart 3). In this context, in 2020, marked by significant shrinkage in foreign demand due to the global pandemic, the exports of large firms differed negatively from the exports of other firms. Additionally, consistent with the studies in the literature, it is noteworthy that the compensation of export losses after the foreign demand shock was relatively slow among large firms.

Chart 3: Exports of Top 100 Exporting Firms and Others (Annual % Change)



Source: CBRT, Ministry of Trade.

Chart 4: Percentage Contribution of Percentile Groups by Export Size to the 2019-2020 Total Export Decline and Their Shares in 2019 Exports



Source: CBRT, Ministry of Trade.

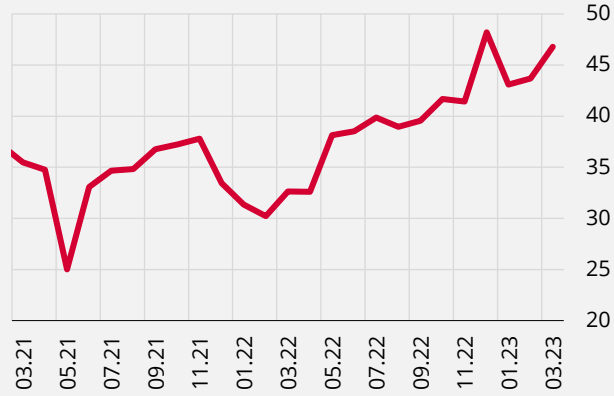
A more detailed analysis of the contributions to the contraction in exports in 2020 based on company groups reveals a similar picture. In this context, companies that exported in both years are divided into percentile groups according to their export sizes, and the percentage contribution of these groups to the total export change in 2019-2020 and their share in total exports in 2019 were compared (Chart 4). Assuming that all firms grow at the same rate, the percentage contribution of each group to the annual change in total exports is expected to be equal to its pre-shock share. However, although the firms that are in the 1 per thousand group according to their export size, realized approximately one-third of total exports excluding energy in 2019, approximately 93% of the contraction in total exports in 2020 was due to the decrease in the exports of these firms. In the same period, the percentage contributions to the annual change in exports of company groups, which were between 1‰ and 1%, and between 1% and 10% according to the export size were close to their export shares in 2019. On the other hand, although the export shares of small firms were relatively low, they contributed positively to annual export growth and limited the contraction.

The findings of the study are consistent with the findings of previous studies in the literature (Antràs, 2020; Di Giovanni et al., 2020), which stated that large firms are more sensitive to external shocks as they are more integrated into global value chains and production networks. In the face of lower demand for the goods of final consumer firms, to which large firms higher up in global value chains supply inputs, a decrease can be expected in the exports of supplier firms depending on the intensity of their forward linkages. In terms of backward linkages, demand-induced production or transportation problems in other firms, which are suppliers of inputs used by large firms in production, may similarly affect the exports of firms depending on their scope of integration into value chains.

In this context, it is considered that the continued broadening of exports in recent years will increase the resilience of the Turkish economy to foreign demand-induced shocks, and is also important for the sustainability of the acceleration in exports. Enhancing the access to finance of smaller firms plays an important role in supporting the production and export capacities of SMEs. Targeted loan policies make it possible to systematically improve this resilience. The targeted loan programs implemented by the CBRT also aim to facilitate SMEs' access to finance. With the steps taken in this direction, while the number of rediscount credit borrower companies was 3,499 at the end of 2021, this number reached 6,650 as of April 2023, and the share of SMEs in these companies increased from 58% to 81.7% in the same period. In line with this development, the share of SMEs in the amount of loans extended also increased, reaching 21.7% from 6.6%.

Similarly, advance loans against investment commitment also prioritize SMEs, as they aim to support highly efficient investments that will reduce imports and boost exports, reduce both external dependency and the current account deficit problem, and support sustainable growth. In this framework, SMEs accounted for 60% of the firms that used these loans in 2022, while this ratio reached 68% as of April 2023. In the same period, the SME share in terms of loan amount increased from 21% to 24%. On the other hand, the targeted approach in the CBRT's rediscount credits and advance loans against investment commitment finds its reflections in TL corporate loans offered by the banking sector. Thanks to the opportunities provided by the targeted loan practices, the share of SMEs in total TL commercial loans, which was around 33% in December 2021, edged up to 50% as of March 2023 (Chart 5). While the aforementioned developments indicate broader access to finance in the recent period, it is considered that the CBRT's targeted loan programs will continue to contribute to the resilience of the Turkish economy to external demand shocks by supporting a broad-based access to finance, and hence, the exports base.

Chart 5: Share of SMEs in Total TL Commercial Loans (Flow, %)



Source: CBRT.

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