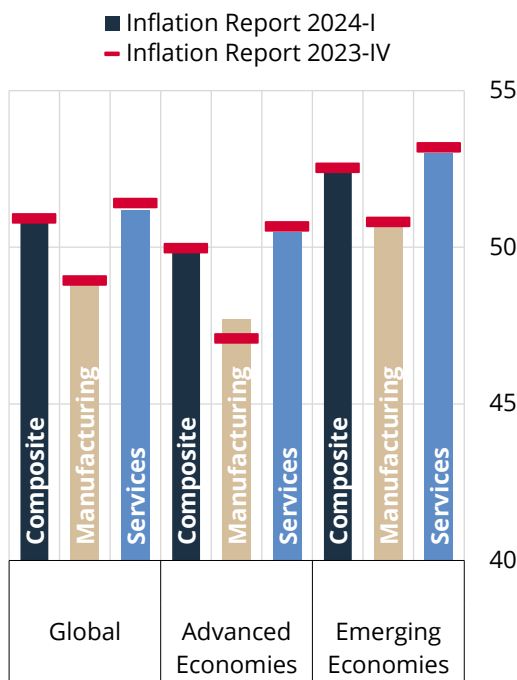


2. Economic Outlook

2.1 Global Economy

Having become more pronounced in the third quarter, the weak global growth outlook persisted in the fourth quarter. While the impact of tighter global financial conditions on economic activity intensified, the services sector, which had driven economic growth in the first half of the year, continued to lose momentum. An analysis of global PMI indices reveals that the manufacturing industry was flat in emerging economies while remaining weak in advanced economies. In the services sector, PMI fell by 0.2 points each in advanced and emerging economies compared to the previous reporting period. Accordingly, the global composite PMI dropped by 0.1 points compared to the previous reporting period and stood at 50.8, right above the threshold value (Chart 2.1.1). Despite the deterioration in leading indicators, the global growth index weighted by the export shares of Türkiye's trading partners maintained its flat course compared to the previous reporting period. The index is projected to grow by 1.7% and 2.0% in 2023 and 2024, respectively. The growth forecasts for Türkiye's trading partners continued to be revised downwards, especially for 2024 (Table 2.1.1). Among advanced economies, the US diverged positively from the global outlook on the back of strong growth in the third and fourth quarters, but the outlook for the euro area remained weak. Despite a limited improvement in forecasts regarding China's economy, a growth rate below the historical average is projected for 2023 and 2024.

Chart 2.1.1: Global PMI Indices* (Level, Quarterly Average)



Source: S&P Global.

* July, August and September averages are used for Inflation Report 2023-IV, while October, November, December and January averages are used for Inflation Report 2024-I.

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

	2022	Forecasts for 2023		Forecasts for 2024	
		IR 2023-IV	IR 2024-I	IR 2023-IV	IR 2024-I
Euro Area	3.5	0.5	0.5	0.6	0.5
Germany	1.8	-0.4	-0.3	0.5	0.3
USA	2.1	2.2	2.4	0.9	1.4
UK	4	0.4	0.4	0.3	0.2
Italy	3.8	0.7	0.7	0.6	0.5
Iraq	8.8	1.1	-0.5	3.8	3.7
Spain	5.5	2.3	2.3	1.3	1.3
France	2.6	0.8	0.8	0.8	0.7
Netherlands	4.5	0.5	0.2	0.8	0.5
Israel	6.4	3.0	1.9	3.2	1.6
Russia	-2.1	1.7	3.0	1.4	1.7
UAE	7.2	3.0	2.9	4.2	4.2
Romania	4.8	2.3	2.0	3.4	3.3
Belgium	3.1	0.9	1.4	0.9	1.0
Poland	4.9	0.2	0.5	2.7	2.9
Egypt	6.6	4.1	3.9	3.9	3.5
Bulgaria	3.4	1.7	1.8	2.3	2.1
China	3.0	5.0	5.2	4.4	4.6

Source: Consensus Economics, S&P Global.

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

Commodity prices continue to be driven by the global growth outlook and composition, geopolitical risks, financial conditions and supply-side factors. Compared to the previous reporting period, the headline commodity index declined on the back of falling energy prices but still hovers above the average of the last decade. Energy commodity prices posted significant decreases compared to the previous reporting period. Geopolitical risks and the decisions by the OPEC+ member countries to maintain production cuts led to the continuation of upward supply-side pressures on oil prices, while the global growth outlook, levels of oil stocks and financial conditions pushed oil prices down (Zoom-In 2.1). Brent oil prices per barrel went down

by 10.8% compared to the previous reporting period but remained volatile. While natural gas prices also retreated, the decline in natural gas prices, which serve as a benchmark for Europe, was sharper on an annual basis due to the weaker economic outlook in the euro area. Industrial commodity prices, which have historically been on a path consistent with the global growth outlook and China's growth in particular, were on a slightly upward trend compared to the previous reporting period, despite significant year-on-year declines. Although agricultural commodity prices exhibit heterogeneity, the headline index for agricultural commodities receded by 3.1% compared to the previous reporting period (Table 2.1.2).

Table 2.1.2: Commodity Prices (%)

	October 2023	November 2023	December 2023	January 2024	Annual	Compared to the Previous Reporting Period*
Headline Commodity Index	-3.7	-4.2	-4.4	0.9	-7.1	-7.6
Energy	-4.7	-7.3	-6.7	1.8	-6.3	-12.4
Agricultural Commodities	-1.2	1.0	-1.7	-3.4	-18.5	-3.1
Industrial Metals	-2.8	1.4	0.5	-0.1	-11.2	1.0
Precious Metals	-0.7	4.1	2.1	-0.4	10.1	2.7
Non-Energy	-2.1	0.7	-1.2	-0.4	-8.3	0.0
Brent Oil	-3.1	-8.7	-6.1	2.5	-1.9	-10.8
Natural Gas (USA)	16.7	-3.2	-16.6	7.5	-15.0	-40.1
Natural Gas (Europe)	27.5	-2.6	-21.0	-16.9	-44.5	-40.1
Coal	-12.6	-11.7	17.2	-10.8	-47.6	-2.7
Aluminum	0.3	0.5	-0.5	0.5	-8.7	-0.2
Copper	-3.3	3.2	3.6	-1.0	-5.9	4.1
Iron	-1.7	9.1	4.7	1.1	4.1	2.4
Wheat	-0.4	-1.8	9.0	-1.9	-20.2	6.1
Soy Beans	-3.1	4.8	-2.6	-6.0	-21.7	-8.9
Rice	-1.4	6.4	1.2	2.0	4.4	14.1
Corn	3.2	-4.1	0.2	-3.5	-33.7	-5.8
Cotton	-2.0	-7.6	2.2	3.0	3.5	9.2
Sugar	1.3	1.5	-18.9	1.5	10.8	-13.1

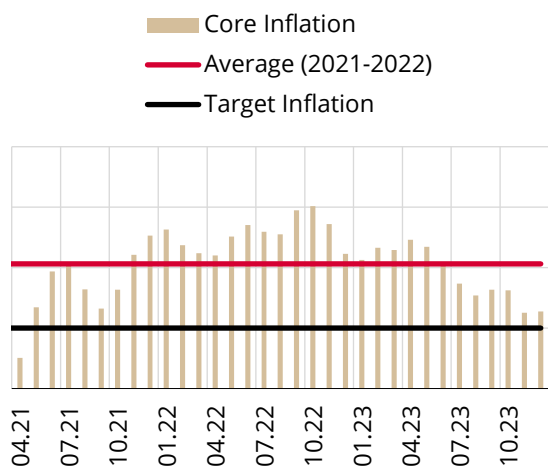
Source: Bloomberg.

* Denotes the percentage change between 2 February 2024 and 2 November 2023.

The downtrend in global headline inflation accelerated in the fourth quarter owing to energy prices, and core inflation also declined amid the restrictive effect of global financial conditions on demand.

Nevertheless, inflation hovered above the target levels. As the impact of tight monetary policy became more pronounced, core inflation in advanced economies, which had remained persistent in the 4-5% range, receded to the 3.5-4% range starting from the last quarter. On the other hand, core inflation outpaced headline inflation, particularly due to the persistence of services inflation. Monthly inflation data suggest that core inflation in advanced economies lost pace and followed a course more consistent with the targets (Chart 2.1.2). While inflation rates across emerging economies continued to converge towards the targeted levels in general, Russia diverged negatively. Although headline inflation has fallen to levels within the tolerance range in some countries, the majority of countries have observed price increases above their targets (Chart 2.1.3). Nevertheless, the global inflation outlook improved significantly, and inflation approached the targets from the peak levels reached in the second half of 2022. Meanwhile, the continued tightness in labor markets, despite some normalization, and the potential rise in energy prices continue to pose upside risks to the inflation outlook. The higher-than-expected inflation rates in December in the US, the euro area, and the UK support this outlook.

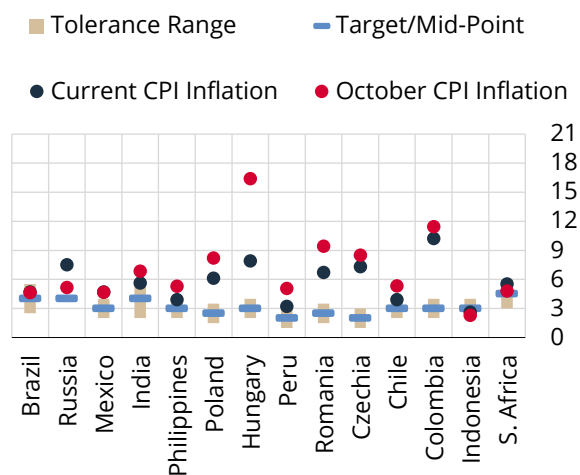
Chart 2.1.2: Core Inflation in Advanced Economies* (Three-Month Moving Average, Annualized, %)



Source: Bloomberg, CBRT.

* Advanced economies include Canada, euro area, Japan, Israel, Norway, South Korea, Sweden, Switzerland, UK and USA.

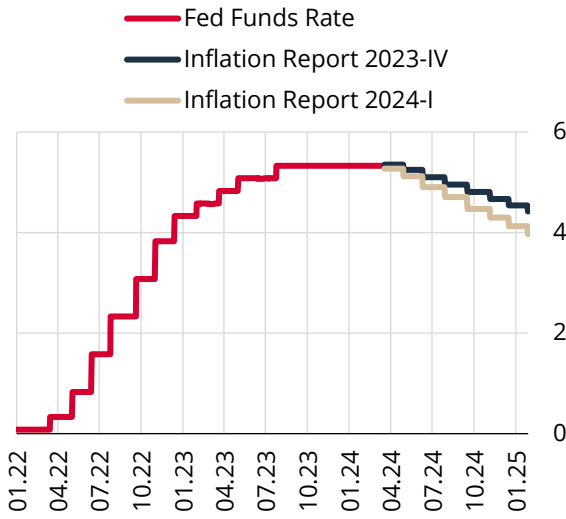
Chart 2.1.3: Consumer Inflation in Emerging Economies (%)



Source: Bloomberg.

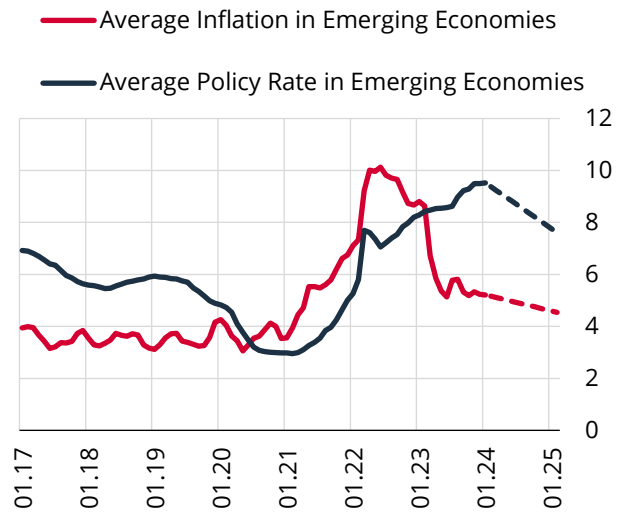
The retreat in global inflation rates and the weak economic outlook strengthened expectations that the central banks of advanced economies might start rate cuts earlier. In the current reporting period, the central banks of advanced economies have largely completed their tightening processes amid the mild inflation outlook, leading financial markets to focus on the timing and pace of rate cuts. The US Federal Reserve (Fed) kept the policy rate unchanged at 5.5% in January, as in December, noting that the policy rate had reached its peak. Although the median expectations of the committee members point to three rate cuts for 2024, market pricing implies rate cuts beyond that. At its January meeting, the Fed reinforced its message that there would be no early and rapid rate cuts. Although this has shifted the Fed's futures-implied policy rate path slightly upwards, this path is observed to have moved significantly downwards compared to the previous Report (Chart 2.1.4). The ECB, which kept its policy rate unchanged at its December and January meetings, reiterated in its decision statement that monetary policy would be sufficiently tight, noting that inflation was on a downward trend but carried the risk of rising again. The ECB's downward revisions in both inflation and growth forecasts for 2024 strengthened expectations about rate cuts for the ECB, as it was for the Fed. However, data on market pricing may display volatility. The Reserve Bank of Australia and the Norges Bank of Norway raised their policy rates by 25 basis points each, emphasizing that it would take time to achieve their inflation targets in the current reporting period, while the central banks of other advanced economies kept their policy rates constant. On the other hand, interest rate cuts continue in emerging economies on the back of the ongoing improvement in the inflation outlook. In the current reporting period, Banco Central do Brazil (100 basis points), Central Reserve Bank of Peru (75 basis points), Central Bank of Colombia (50 basis points), Czech National Bank (25 basis points), Central Bank of Chile (175 basis points), and Magyar Nemzeti Bank (225 basis points) cut their policy rates. In this period, the Bank of Russia raised its policy rate by 100 basis points, pointing to rising inflationary pressures driven by the war. In the upcoming period, interest rate cuts are likely to spread across advanced and emerging economies in line with the fall in inflation. However, as inflation hovers above the target levels in many of these countries, central banks are expected to continue their rate cuts in a way to maintain monetary tightness and ensure a sustainable decline in inflation. Futures-implied policy rates suggest that policy rates in emerging economies will continue to be set above inflation (Chart 2.1.5).

Chart 2.1.4: Futures-Implied Fed Funds Rate (Effective, %)



Source: Bloomberg.

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

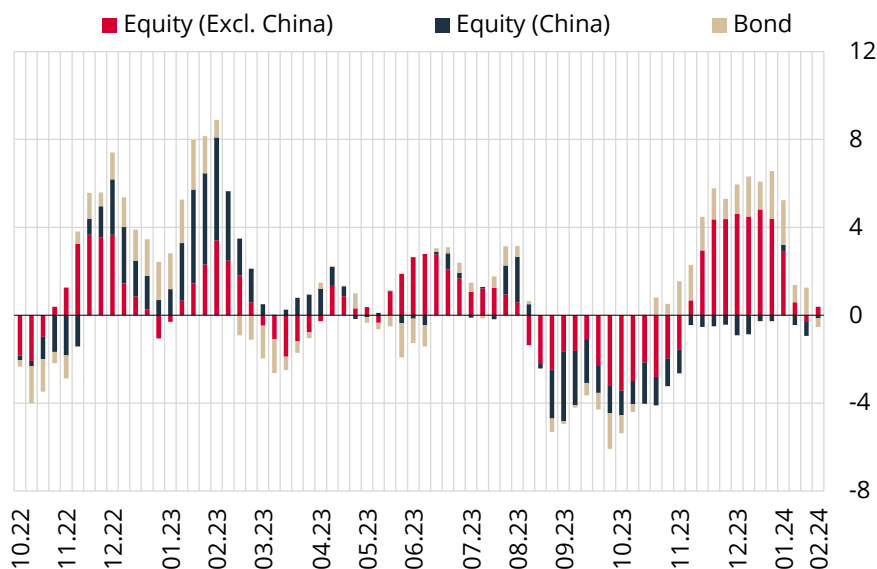


Source: Bloomberg.

* Emerging economies include Brazil, Chile, Colombia, Czechia, Hungary, India, Indonesia, Mexico, Peru, Philippines, Poland, Romania, Russia, South Africa and Thailand.

The increased risk appetite due to the continued convergence of inflation rates to the targets in emerging economies and the strengthened expectations that the central banks of advanced economies would cut policy rates earlier and faster led to the resumption of portfolio inflows to emerging economies. The recovery in the global risk appetite led to the resumption of portfolio inflows to emerging markets, which recorded strong outflows in the August-October period. Accordingly, between 30 October 2023 and 2 February 2024, portfolio inflows to emerging economies excluding China totaled USD 55.1 billion, of which USD 16.6 billion was to bond markets and USD 38.5 billion to equity markets. In this period, in addition to risks such as low growth and the property crisis, China, for which the credit rating outlook was revised downwards, saw an outflow of USD 4.3 billion from equity markets (Chart 2.1.6).

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



Source: IIF.

Zoom-In 2.1

Recent Outlook for Oil Prices

Although oil prices have recently followed a mild course, downside and upside risks to prices remain alive due to the global growth outlook, geopolitical developments and the decisions taken by OPEC+ members. The ongoing tensions in the Middle East and the decision by OPEC+ members to maintain production cuts keep exerting upward supply-side pressures on oil prices. However, the slowing pace of global oil consumption in line with the global growth outlook, high levels of oil stocks and financial conditions push oil prices down. As a matter of fact, Brent oil prices per barrel declined compared to the previous reporting period (Chart 1). Oil prices, which were trading around USD 90 per barrel in the previous reporting period, are trading around USD 80 per barrel in the current reporting period. Volatility indicators also show a decline, but they are still above the 2023Q3 readings (Chart 2).

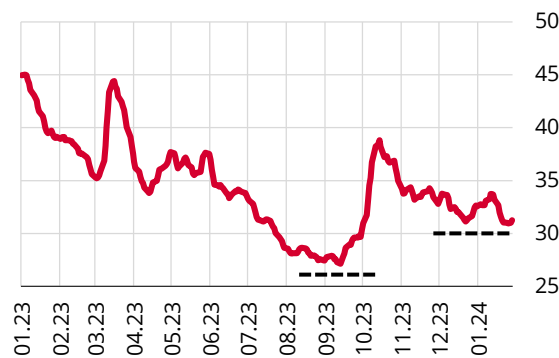
Forecasts of international institutions and organizations converge while futures prices exhibit divergence (Table 1). Box 3.1 in Inflation Report 2023-IV stated that indicators signaled that the volatile course of oil prices would continue in the upcoming period due to geopolitical developments, and in this framework, the oil forecast paths of international institutions and organizations for 2024 recently diverged from each other, and forecasts moved in a broad range. However, although oil prices remained above the levels observed before the recent geopolitical developments, the volatility declined slightly, leading international institutions and organizations to converge in their oil price forecasts for 2024. A significant number of organizations forecast oil prices similar to the 2023 realization, averaging slightly above USD 80 per barrel, and expect global supply and demand to be balanced while forecasting a downward trend for 2025. However, forecasts derived from futures prices imply a sharper decline in oil prices.

Chart 1: Brent Oil Prices (USD/bbl, Five-Day Moving Average)



Source: Bloomberg.

Chart 2: Three-Month Implied Brent Oil Price Volatility (Five-Day Moving Average)



Source: Bloomberg.

Table 1: Oil Price Forecasts* (Annual Average)

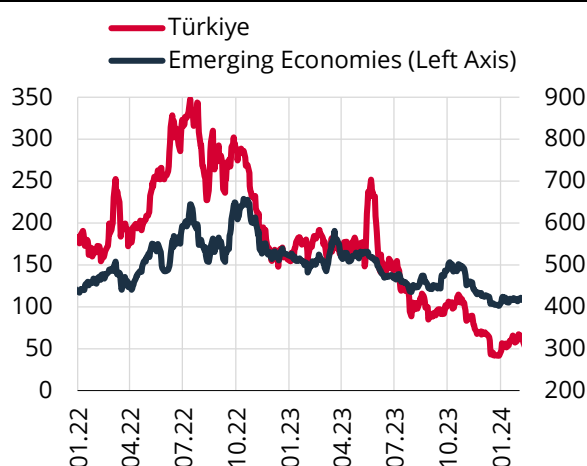
	2024	2025
Consensus Forecasts	82.5	80.6
EIA	82.5	79.5
World Bank	81.0	79.0
ECB	80.1	76.5
Futures Prices	79.6	75.4
IMF	79.1	75.3

* Forecasts by Consensus, the EIA, the World Bank, the ECB, and futures prices denote Brent oil prices per barrel, while IMF forecasts show the average of Brent, Dubai and West Texas Intermediate oil forecasts. Consensus forecasts are taken from the Consensus Forecasts Bulletin for January 2024; EIA forecasts are taken from the Short-Term Energy Outlook Bulletin for January 2024; World Bank forecasts are taken from the Global Economic Prospects for January 2024; ECB forecasts are taken from the ECB's December 2023 macroeconomic projections; and IMF forecasts are taken from the World Economic Outlook for January 2024. Futures prices denote the average of two-week futures prices until 2 February 2024.

2.2 Financial Conditions

The end of rate hikes by central banks of advanced economies and the communication that their monetary policy is tight enough to ensure the convergence of inflation to the target have supported the global risk appetite. Following the December meeting, the Fed did not change the policy rate in January either, stating that the policy rate had reached the peak. This communication of the Fed coupled with the projections that rate cuts would start in 2024 pushed the global risk appetite upwards in the current reporting period. With the pricing of the tightest period for global financial conditions being left behind, risk appetite towards emerging economies recovered. Against this backdrop, risk premium indicators in emerging economies receded, while the fall in Türkiye's CDS premium was larger despite the volatility recorded in the current reporting period. The CDS premium, which rose to 392 basis points as of 1 November amid elevated geopolitical risks in the neighboring regions in October, trended downwards again with the monetary tightening process and dropped to 280 basis points in December. In January, however, Türkiye's CDS premium increased again to 325 basis points due also to the deteriorating global risk appetite (Chart 2.2.1). The Turkish equity market attracted foreign investors back in November, and net foreign inflows totaled USD 1.92 billion in the current reporting period. Meanwhile, the GDDS market, which displayed the visible effects of the monetary tightening and the simplification in the macroprudential framework, recorded net foreign inflows of USD 1.79 billion in the current reporting period (Chart 2.2.2).

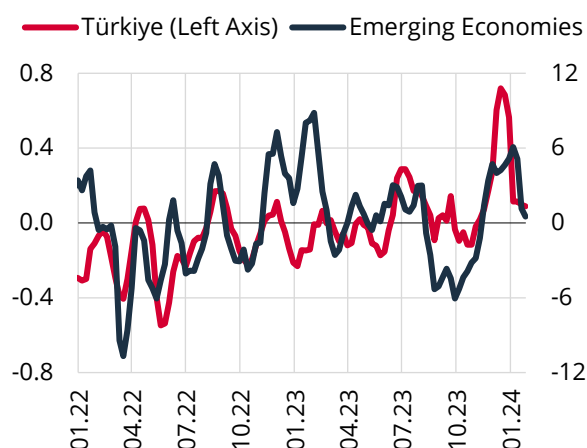
Chart 2.2.1: CDS Premiums in Türkiye and Emerging Economies* (Five-Year, Basis Points)



Source: Bloomberg.

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

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

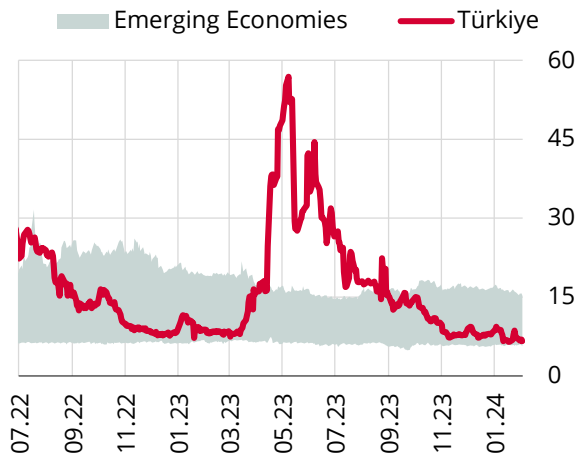


Source: CBRT, IIF.

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

The downtrend in the exchange rate volatility of the Turkish lira implied by options has continued in the current reporting period. In the current reporting period, emerging market currencies appreciated against the US dollar amid the improved global risk appetite, while the depreciation of the Turkish lira remained relatively limited. Meanwhile, the exchange rate volatility of the Turkish lira trended further downwards, more markedly in longer maturities. In the current reporting period, the one-month implied volatility of the Turkish lira fell below 7%, while the 12-month implied volatility stood below 21% (Charts 2.2.3 and 2.2.4). The difference between short and long-term volatilities suggests that the policies in effect continue to support exchange rate stability, yet risks to the long term are in place.

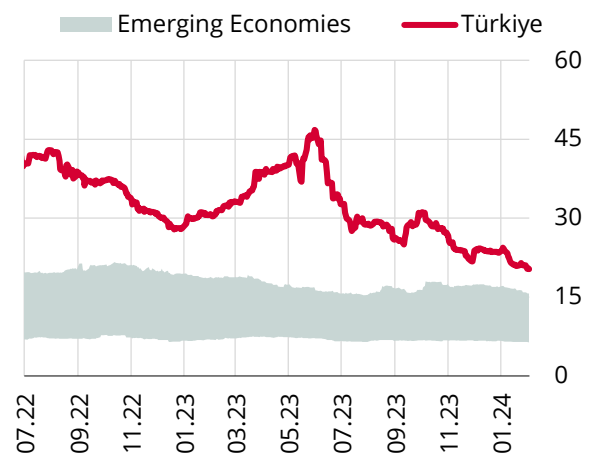
Chart 2.2.3: Implied FX Volatility by Options*
(Against USD, One-Month Maturity, %)



Source: Bloomberg.

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

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

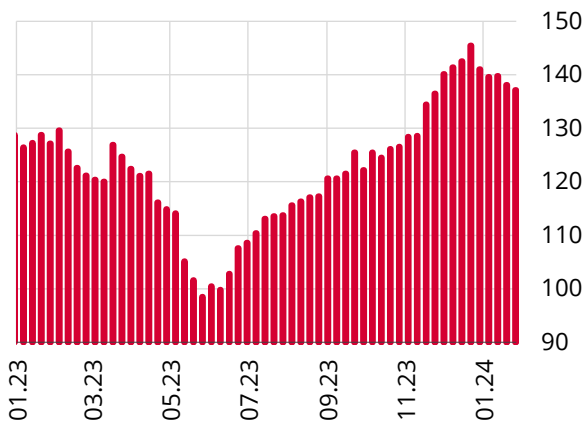


Source: Bloomberg.

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

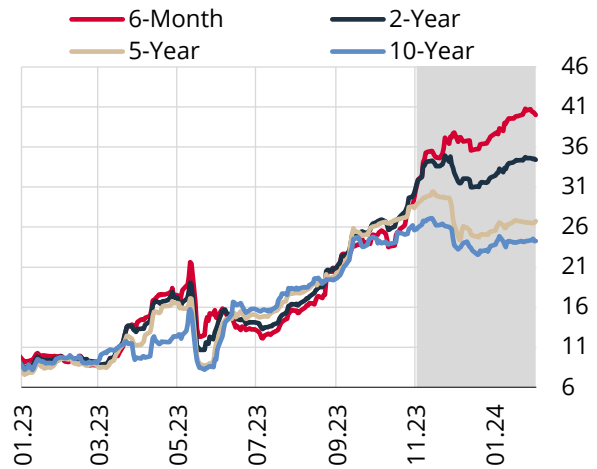
The CBRT's reserves remained on an upward trend thanks to the efforts towards monetary tightening and simplification. The CBRT's gross international reserves, which were USD 126.6 billion in the previous reporting period, rose to USD 137.2 billion as of 26 January (Chart 2.2.5).

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



Source: CBRT.

Chart 2.2.6: GDDS Yields (%)



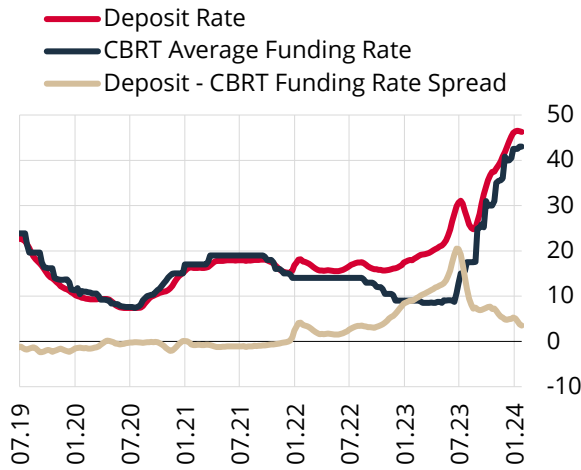
Source: Bloomberg.

In the current reporting period, in tandem with the higher policy rate, GDDS yields increased in short maturities, but declined in medium and long maturities (Chart 2.2.6). The slope of the GDDS yield curve, which turned to negative as medium and long-term yields fell below short-term yields, reflects that monetary tightening has become effective in anchoring market inflation expectations (Zoom-in 2.2).

Financial conditions tightened as a result of monetary policy decisions. Since the previous reporting period, deposit rates have risen further due to monetary and quantitative tightening as well as simplification decisions (Chart 2.2.7). In the current reporting period, the preference for Turkish lira deposits increased due to the rise in Turkish lira deposit rates, while the share of FX-protected deposits decreased (Charts 2.2.9 and 2.2.10). Although the rate of increase in the share of Turkish lira deposits slowed down in January, recent steps are expected to have a favorable effect on the attractiveness of Turkish lira deposits. Having surged in the previous reporting period amid the tightening process that started in June, Turkish lira commercial loan rates rose by 2.7 percentage points in the current reporting period and reached 53.5% as of January 26. In the same period, general purpose and housing loan rates

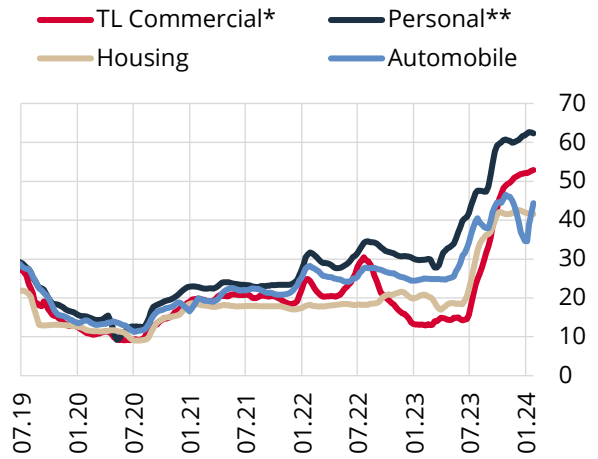
remained flat at 60.7% and 41.2%, respectively, while vehicle loan rates, which declined in December due to year-end campaigns, became 44.1% as of January 26, converging to the level of the previous reporting period.

Chart 2.2.7: Turkish Lira Funding Rates
(Four-Week Moving Average, %)



Source: CBRT.

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

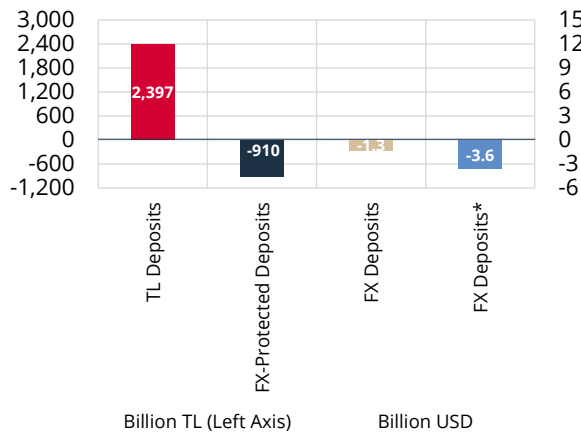


Source: CBRT.

* Excluding overdraft accounts and credit cards.

** Excluding overdraft accounts.

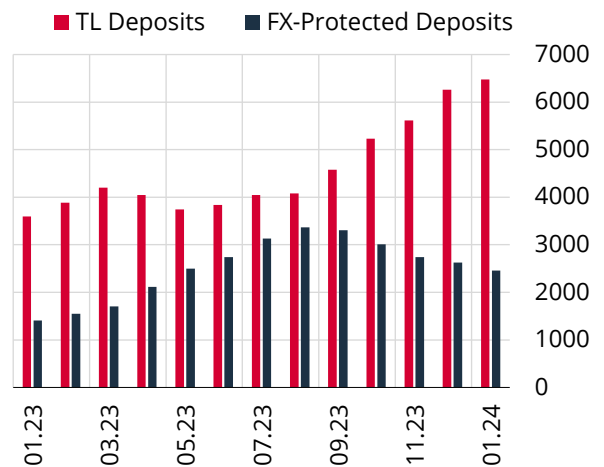
Chart 2.2.9: Deposit Change
(25 August-26 January)



Source: CBRT.

* Adjusted for the parity and price effects.

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



Source: CBRT.

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

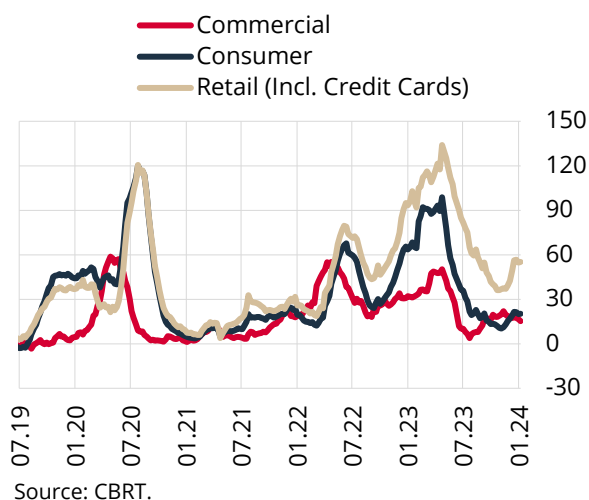


Chart 2.2.12: Retail Loan Growth (13-Week Annualized Growth, %)

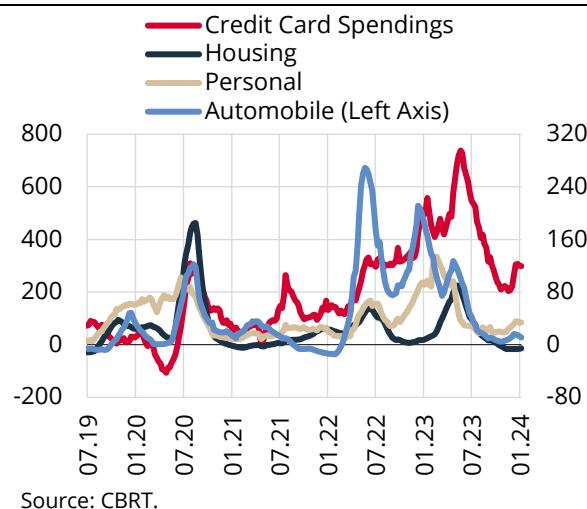
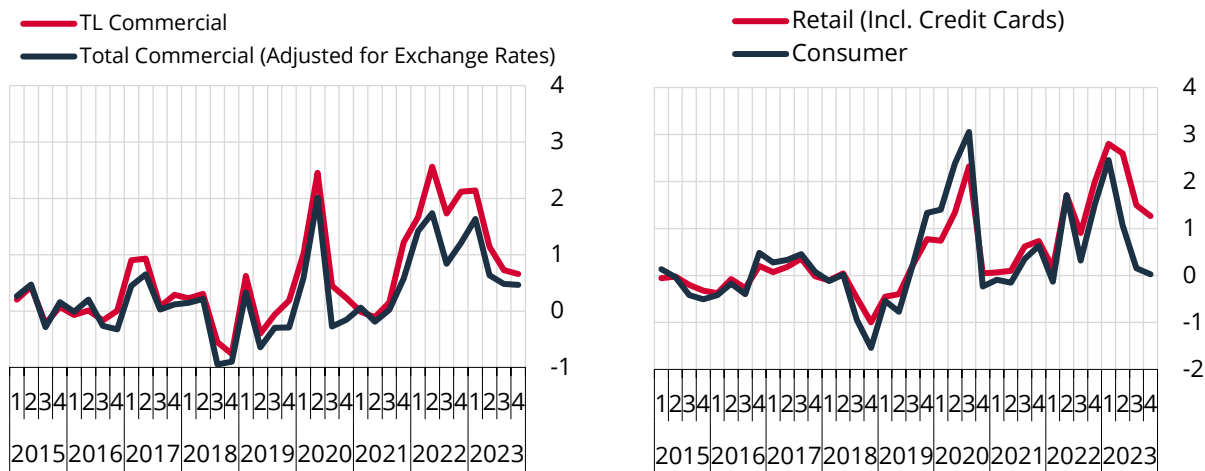


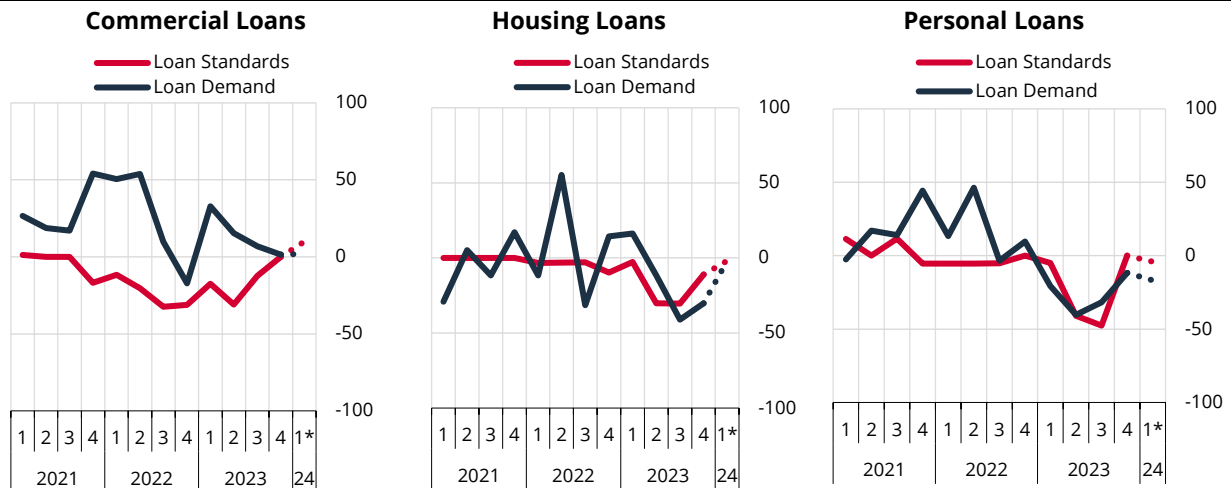
Chart 2.2.13: Credit Change* (Quarterly, Real, Standardized Value)



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

Commercial loan growth is following a steady course, and the balancing process in retail loan growth is monitored closely. Balancing in the loan composition continues in tandem with the policy steps taken to simplify the current micro and macroprudential framework to enhance the functionality of market mechanisms and foster macro financial stability. The total commercial loan growth adjusted for exchange rate has remained flat since the previous reporting period. Campaigns to stimulate demand coupled with wage hikes kept retail loans brisk in late December and January. As of 26 January, the 13-week annualized growth rate was 15.2% in total commercial loans and 20.3% in consumer loans adjusted for the exchange rate effect (Chart 2.2.11). As of 26 January, the 13-week annualized growth rates of general-purpose and vehicle loans were 33.9% and 27.1%, respectively, while housing loan growth contracted further and stood at -5.9%. In the same period, the 13-week annualized growth rate of personal credit card balances was 119.3%. (Chart 2.2.12, Zoom-in 2.3). An analysis of real loan changes reveals that in the last quarter of 2023, consumer loans hovered above long-term averages, while total commercial loans converged to long-term averages (Chart 2.2.13). On the other hand, according to the Bank Loans Tendency Survey (BLTS), it is expected that while commercial loan demand will remain flat in the first quarter of 2024, the downward trend in housing loan demand will continue with a weaker pace, and the decline in general-purpose loan demand will grow stronger (Chart 2.2.14).

Chart 2.2.14: Loan Standards and Loan Demand*



Source: CBRT BLTS.

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

Zoom-in 2.2

Changes in the Yield Curve

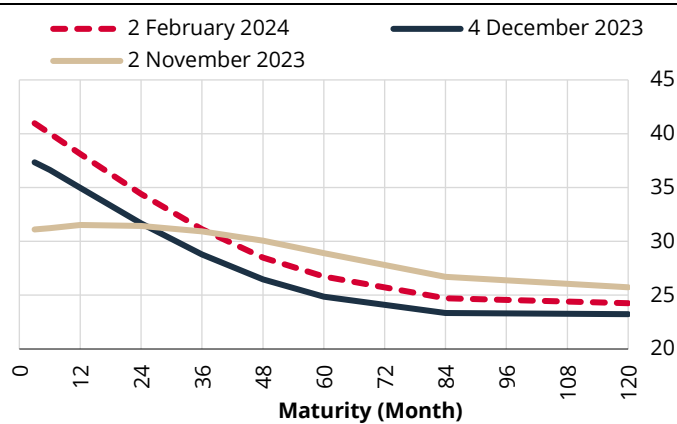
As interest rates are closely related to all other financial variables, yield curves carry information about the current financial market conditions and future expectations for the economy. Short-term GDDS yields are expected to be closely associated with the current monetary policy rates, while long-term GDDS yields reflect current and future monetary policy expectations. In an environment where the monetary policy rate moves in tandem with key macro indicators, particularly inflation and growth, yield curves become a significant tool to interpret the markets' future expectations.

The simplification steps taken in the micro and macroprudential framework enhanced the ability for GDDS prices to be set within the market mechanism, while monetary tightening implemented in the meantime pushed GDDS yields upwards across all maturities. In 2023, between the publication dates of Inflation Reports No. III and IV, the one-year GDDS yield increased by around 16 points to 31.2%, while five-year and 10-year GDDS yields rose by 11.7 and 7.5 points to 28.9% and 25.7%, respectively. In the last quarter of the year, long-term GDDS yields started to fall despite the rate hikes, and the negative slope of the yield curve became more evident. As of 2 February, the one-year GDDS yield reached 38.1%, while the five and 10-year GDDS yields fell to 26.7% and 24.3%, respectively (Chart 1). This change in the shape of the yield curve reveals that market participants expect inflation and monetary policy rates to fall in the future. The appearance of disinflation on the yield curve reveals that the monetary policy transmission mechanism has been strengthened by the steps taken to this end.

Adoption of the disinflation process by all stakeholders in the economy is the key factor to ease the tight monetary policy trade-off. The fact that the GDDS market has a structure aligned with the monetary policy and macro indicators supports the domestic and external Turkish lira investment preferences and contributes to the disinflation process in turn. Enhancing the functionality of market mechanisms enables the monitoring of the inflation and monetary policy expectations of financial actors more accurately and strengthening of the monetary policy communication.

As the effects of monetary policy on the disinflation process become more pronounced, it is expected that the interest in the GDDS market will grow further, and the gains made through this channel will be sustained.

Chart 1: Treasury Bill Yield Curve (%)



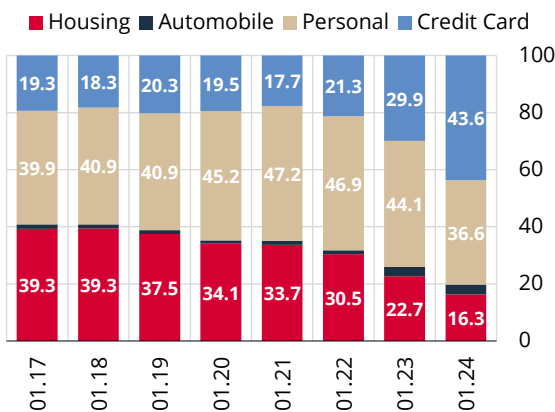
Source: Bloomberg.

Zoom-in 2.3

Decomposition of Payment and Borrowing Motives for Personal Credit Card Expenditures

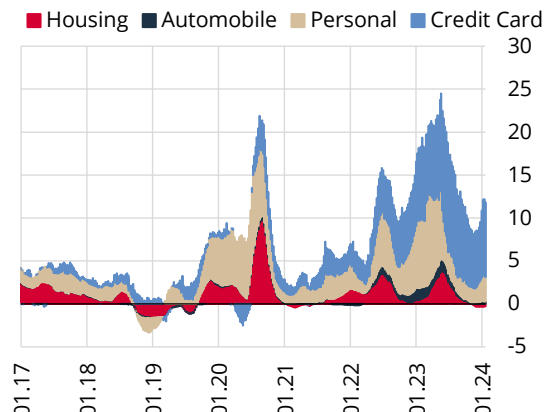
Monitoring credit card expenditures by decomposing payment and borrowing motives is important for analyzing the developments in household consumption demand. The use of credit cards as a payment instrument is gaining importance in the digitalizing economy. What is more, credit cards can also be considered as short-term borrowing instruments as they allow for cash advances and debt payments in instalments. While general-purpose and housing loans had the largest share in the growth composition of retail loans that are made up of consumer loans and credit card expenditures before 2020, the share of housing loans in retail loans declined after 2021, and personal credit cards gained importance (Chart 1). The 13-week retail loan growth of 11.6% in January 2024 largely stemmed from the contribution of 8.7 percentage points by personal credit card expenditures (Chart 2).

Chart 1: Retail Loan Composition (% Share)



Source: CBRT.

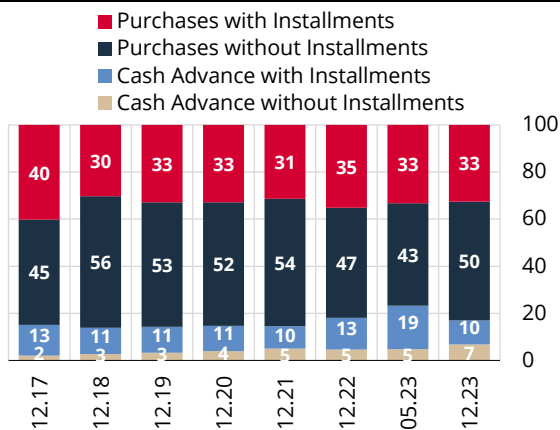
Chart 2: Contributions to Retail Loan Growth (13-Week Total Contributions, %)



Source: CBRT.

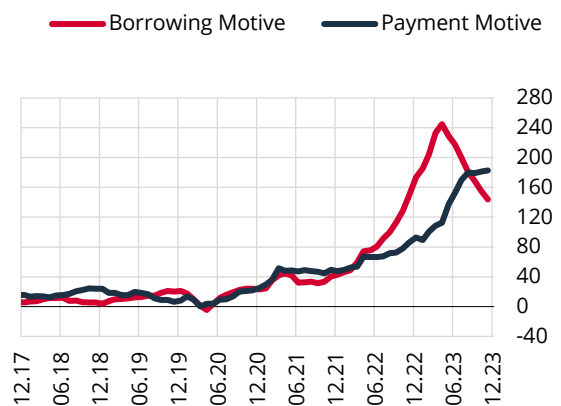
The personal credit card balance is composed of the sum of four items: purchase of goods and services with/without installments and cash advances with/without installments. The share of cash advances with or without installments within total personal credit cards, which was 14.1% on average between 2017 and 2021, increased after the second half of 2022 due to the low interest rates on credit cards compared to deposit and general-purpose loans and hit a peak before the monetary tightening (Chart 3). Being shaped by price developments and financial deepening as well as the wider use of credit cards instead of cash, the share of credit card expenditures to purchase goods and services in total credit card expenditures has recently climbed to 83%. Meanwhile, as of the second half of 2022, the share of purchases of goods and services by installments in total purchases of goods and services increased due to the rising inflation, fell to its average level after the monetary tightening and recently stood at 39%.

Chart 3: Composition of Personal Credit Cards (% Share)



Source: CBRT.

Chart 4: Annual Growth of Borrowing and Payment Motives for Personal Credit Cards (%)



Source: CBRT.

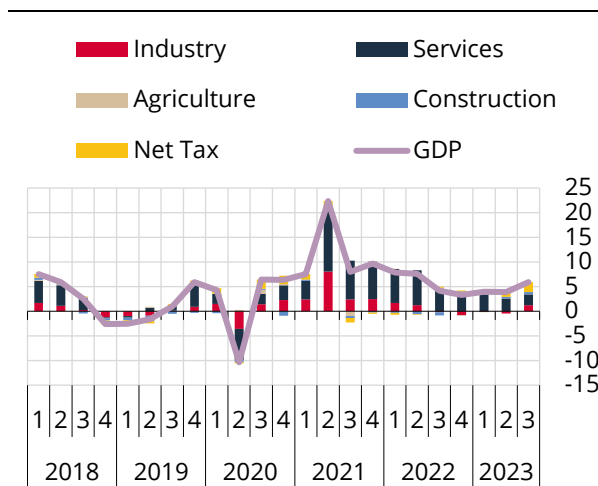
Following the monetary tightening implemented in June, growth in credit card expenditures with a borrowing motive declined significantly. Cash advance balances of credit card expenditures with or without installments are closely related to the borrowing function of the credit card. Meanwhile, purchases of goods and services in installments also offer "borrowing" opportunities due to the term-payment function. On the other hand, purchase of goods and services without installments is generally associated with the payment motive of the credit card, yet it may also entail the borrowing motive as it allows the customer to postpone the payment for about one month. Due to data constraints, decomposition of credit card growth is based on the use of cards as instruments for motives of borrowing or payment. Here, it is assumed that total cash advance balances and purchases of goods and services in installments are led by the "borrowing instrument motive" and credit card expenditures for the purchase of goods and services without installments are driven by the "payment instrument" motive. Since June, credit card expenditure growth has weakened considerably due to monetary tightening and the resulting rise in the credit card interest rates. On the other hand, although the growth rate of credit card expenditures for payment motive has lost momentum, it remains well above the inflation rate (Chart 4).

2.3 Economic Activity

Supply and Demand Developments

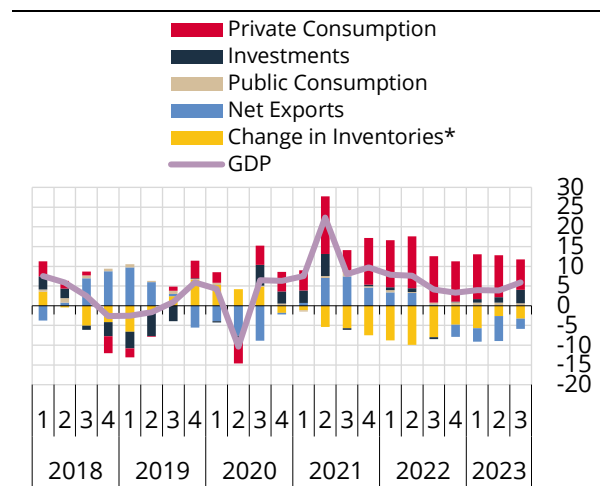
Economic activity posted subdued quarter-on-quarter growth in the third quarter of 2023, indicating that the rebalancing in domestic demand has begun amid the effects of monetary tightening. In the third quarter, GDP increased by 5.9% year-on-year, while quarter-on-quarter growth slowed and stood at 0.3%. The services sector remained the main driver of annual growth on the production side in this period. The contribution of the industrial sector to annual growth turned positive after four quarters, while that of the construction sector increased further (Chart 2.3.1). Thus, the composition of growth on the production side displayed a more balanced outlook. On the expenditures side, the largest contribution to annual growth was from final domestic demand with 11.8 points. The majority of this contribution, amounting to 7.7 points, was driven by the increase in private consumption (Chart 2.3.2). Meanwhile, the contribution of private consumption to annual growth decreased due to the tightening in financial conditions. In this period, investments contributed 3.4 points to annual growth, with the largest contribution coming from machinery-equipment investments that carried their annual upward trend over into the sixteenth quarter. On a quarterly basis, final domestic demand slowed and became almost flat amid the contraction in private consumption, while net exports made a positive contribution to quarterly growth for the first time in four quarters. In sum, the composition of growth on the expenditures side displayed a more balanced outlook in the third quarter compared to previous quarters.

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



Source: CBRT, TURKSTAT.

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

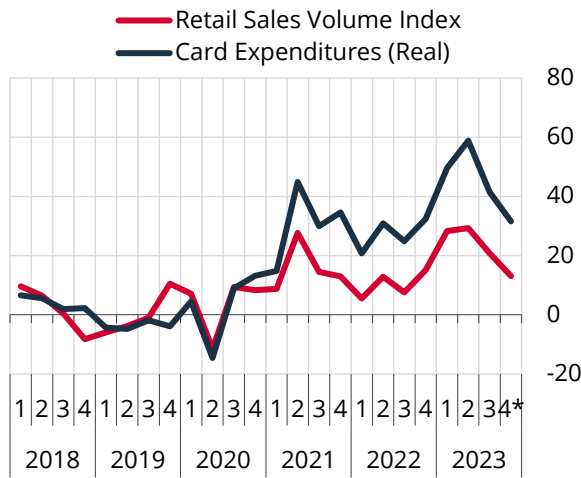


Source: CBRT, TURKSTAT.

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

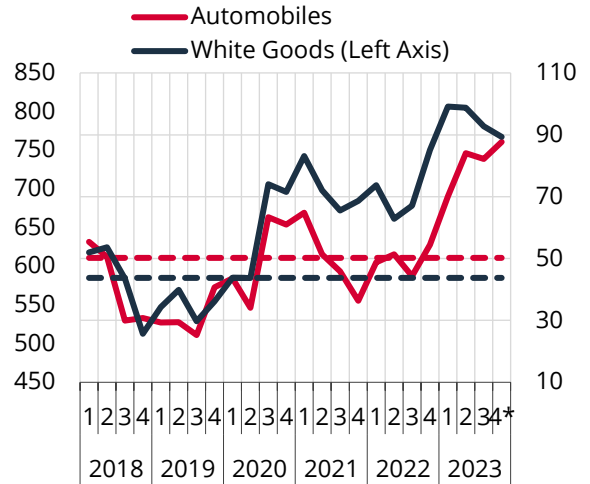
Recent indicators and high-frequency data suggest that domestic economic activity continued to rebalance in the last quarter of 2023, while growth momentum slowed on an annual basis. The retail sales volume index sustained its increase on an annual basis in the fourth quarter as of November, albeit at a slower pace, while the index recorded a slight decline on a quarterly basis (Box 2.1). Card expenditures indicate that the quarterly increase in consumption demand continued in the fourth quarter amid intensified discount campaigns, while the annual rate of increase slowed down (Chart 2.3.3). In this period, white goods sales lost momentum on a quarterly basis, while automobile sales posted a slight increase driven by sales campaigns. Nevertheless, both automobile and white goods sales still hovered above their historical averages (Chart 2.3.4). In addition to the registered orders indicators of the BTS, field interviews also affirm the slowdown in domestic demand, which was more visible in the durable goods group despite the compensatory effects of price discounts and the demand brought forward in the last quarter (Box 2.2). On the other hand, January BTS data point to a slowdown in the deceleration in domestic demand on the back of the ongoing rebalancing brought about by the monetary tightening as well as with the contribution of the wage revisions made at the beginning of the year. Hence, manufacturing industry firms' registered domestic market orders posted an increase again in this period.

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



Source: CBRT, TURKSTAT.
* Average of October and November for retail sales volume index.

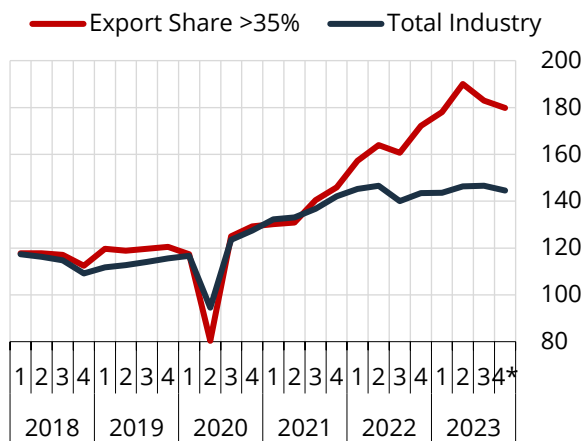
Chart 2.3.4: Sales of White Goods and Automobiles** (Thousand, Seasonally and Calendar Adjusted)



Source: CBRT, ODMD, TURKBESD.
* Average of October and November for white goods sales.
**Dashed lines show the average for the 2011-2019 period.

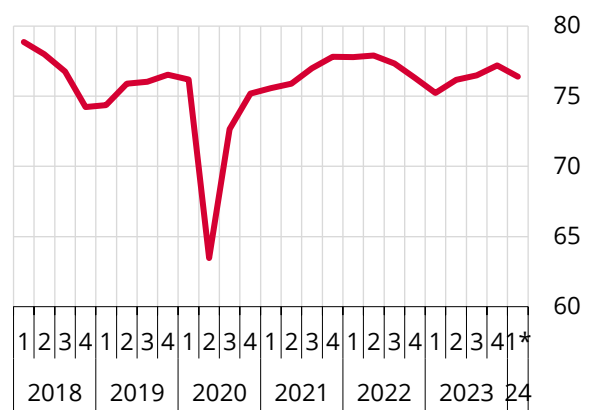
The ongoing weak foreign demand, coupled with the gradual slowdown in domestic demand, has a restraining impact on production indicators. As of November, in seasonally and calendar adjusted terms, industrial production dropped by 1.3% in the fourth quarter compared to the previous quarter (Chart 2.3.5). At 3.3%, the quarterly contraction in the manufacturing of consumption goods in this period was stronger than the overall contraction. Following the increase in November, the capacity utilization rate declined in December; however, it went up on a quarterly basis to 77.2% (Chart 2.3.6). In January, the capacity utilization rate was 76.4%, nearing its historical average.

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



Source: TURKSTAT.
* Average of October and November.

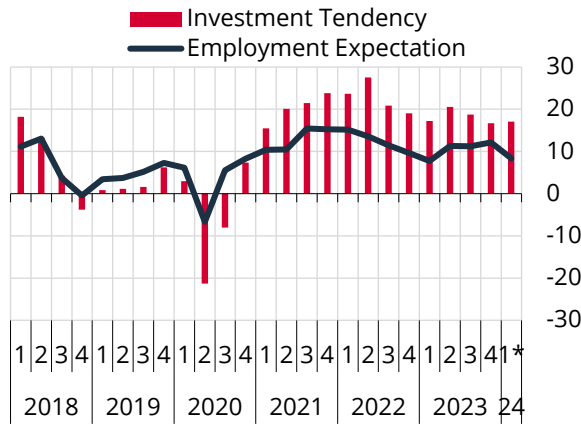
Chart 2.3.6: Capacity Utilization Rate
(Seasonally and Calendar Adjusted, %)



Source: CBRT.
* As of January.

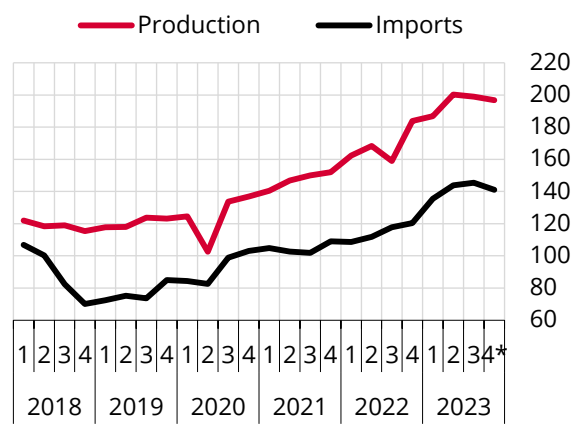
Investment tendencies of manufacturing industry firms declined slightly in the last quarter of 2023 but displayed a nearly flat course in the first quarter of 2024 as of January (Chart 2.3.7). Indicators for the production of capital goods and foreign trade confirm the downward outlook for investments. As of November, production of capital goods excluding vehicles fell by 1.1% quarter-on-quarter, while imports thereof decreased by 3% quarter-on-quarter in the same period (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 January.

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

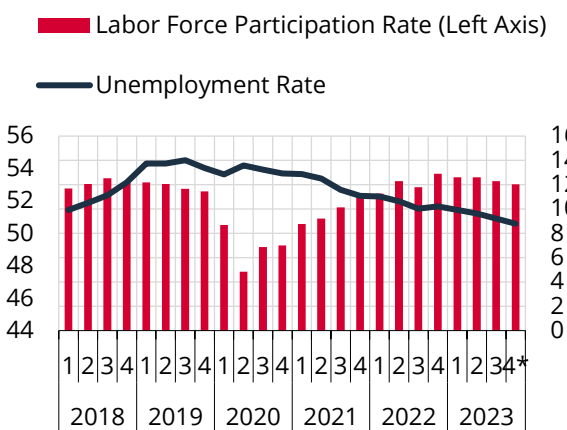


Source: CBRT, TURKSTAT.
* Average of October and November.

Labor Market Developments

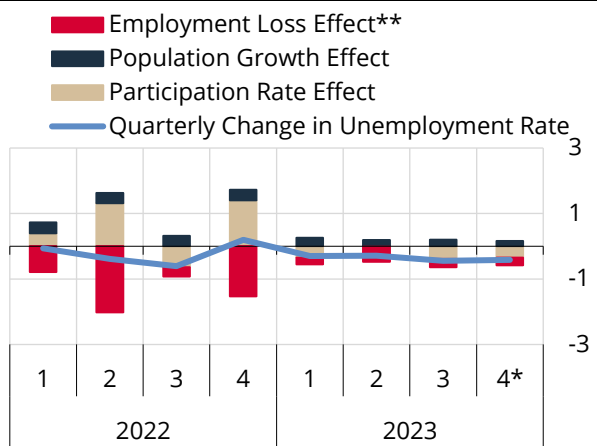
Employment increased moderately in the last quarter. As of November, seasonally adjusted employment grew by 0.3% (80,000 people) on a quarterly basis. Meanwhile, the seasonally adjusted labor force participation rate inched down by 0.2 points to 53.0% (Chart 2.3.9). Thus, the unemployment rate decreased by 0.4 points to 8.8% in the fourth quarter of the year compared to the previous quarter. In this period, population growth had an upward effect of 0.16 points on the unemployment rate, whereas the increase in employment and the fall in the participation rate had a downward effect of 0.23 points and 0.35 points, respectively. Accordingly, the unemployment rate posted a decline on a quarterly basis (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 October and November.

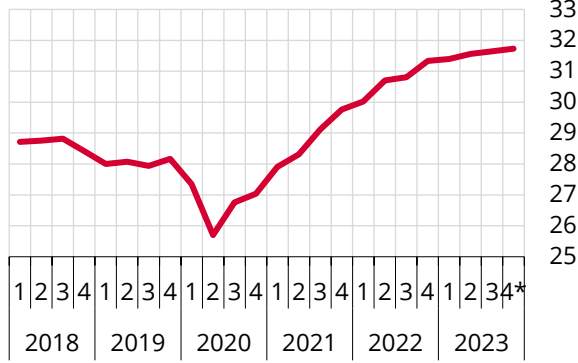
Chart 2.3.10: Contributions to Change in Total Unemployment Rate (Seasonally Adjusted, % Points)



Source: CBRT, TURKSTAT.
* Average of October and November.
** Negative value of the employment loss effect indicates an increase in employment.

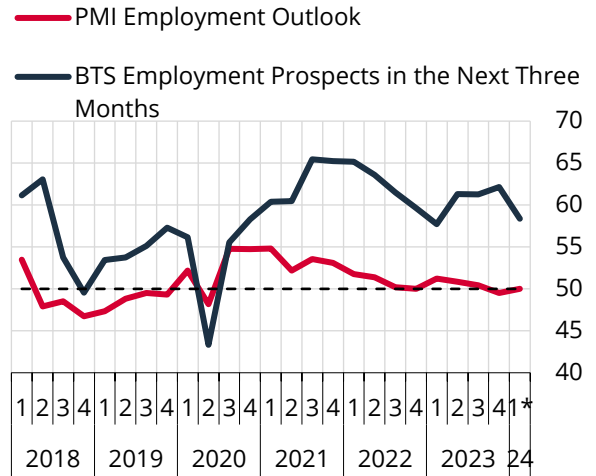
High-frequency data suggest that demand has slightly weakened in the labor market. As of January, new job postings edged slightly below the previous year's readings. Survey data for manufacturing industry firms indicate that the employment outlook of firms has deteriorated somewhat, while employment expectations for the next three months remain strong, albeit with a slight decline (Chart 2.3.12).

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



Source: TURKSTAT.
* Average of October and November.

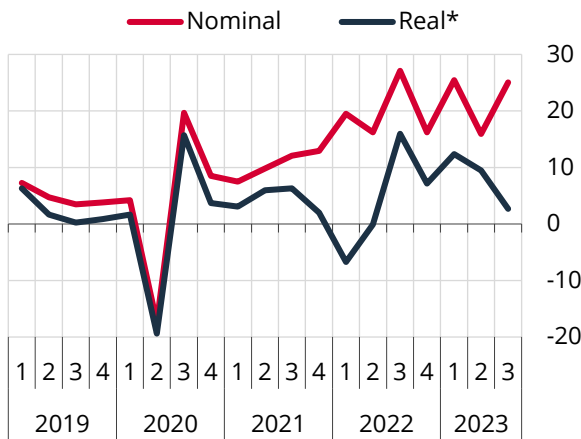
Chart 2.3.12: Employment Outlook and Expectation in the Industrial Sector** (Seasonally Adjusted, Up-Down)



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

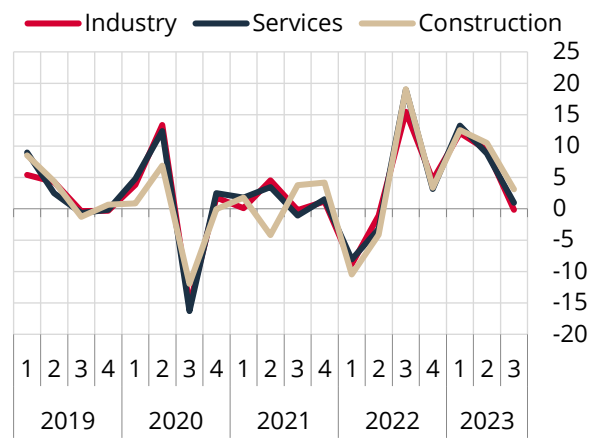
The increase in real terms in the non-farm gross wage and payroll index slowed down further in the third quarter of the year (Chart 2.3.13). Likewise, the quarterly increase tendency in the seasonally adjusted real earnings index observed across sectors lost momentum in the third quarter and turned negative for the industrial sector (Chart 2.3.14). The gross minimum wage was set at TRY 20,002 and the net minimum wage at TRY 17,002 for 2024. Thus, the minimum wage increase rate was approximately 49.0% compared to the last quarter of 2023 and approximately 100% compared to January of the previous year.

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



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

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



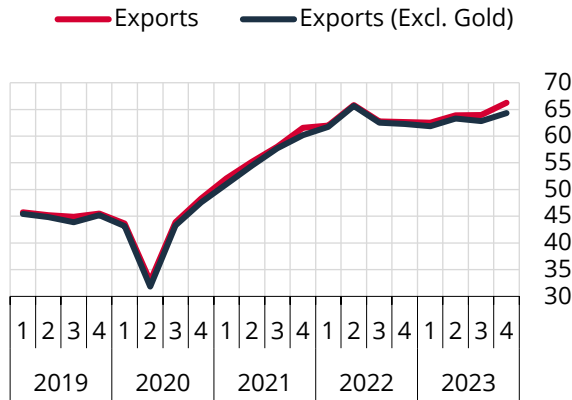
Source: CBRT, TURKSTAT.
* Deflated by the CPI.

Foreign Trade and Balance of Payments Outlook

Exports increased in the fourth quarter of 2023, while imports edged down. Seasonally and calendar adjusted exports, which remained virtually unchanged in the third quarter, picked up in the last quarter of the year despite weak demand conditions in major export markets (Chart 2.3.15). In this quarter, unprocessed gold contributed significantly to export growth, with vehicles, chemical products, mineral fuels, and food also making positive contributions. Exports to the Middle East and Africa increased in the last quarter, while exports to other regions, particularly Europe, declined (Zoom-In 2.4). Amid the

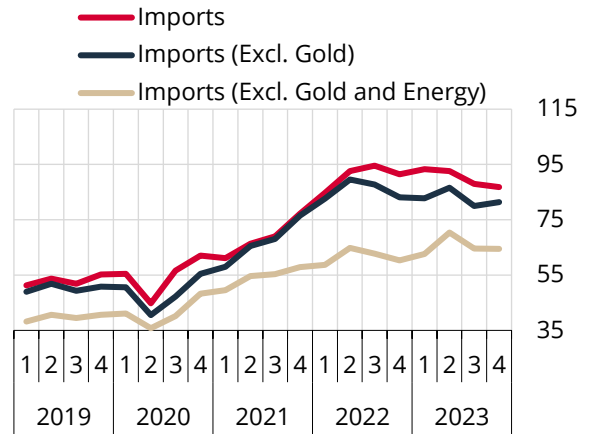
rebalancing in domestic demand on the back of the monetary tightening that has been reflected in financial conditions, the import bill excluding gold and energy decreased in the third quarter and remained almost flat in the last quarter (Chart 2.3.16). Meanwhile, imports excluding unprocessed gold increased in the last quarter in line with the quarterly rise observed in energy imports. Once unprocessed gold imports, which dropped significantly, are included, total value of imports was slightly down in the last quarter. Accordingly, the seasonally and calendar adjusted foreign trade deficit narrowed further in the last quarter of the year. The provisional data on foreign trade point to a relatively flat course of the foreign trade balance in January compared to the previous month.

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



Source: CBRT, TURKSTAT.

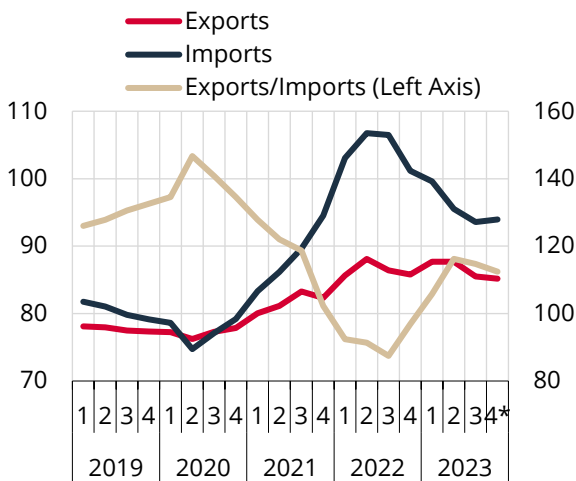
Chart 2.3.16: Imports (Seasonally and Calendar Adjusted, USD Billion)



Source: CBRT, TURKSTAT.

In the last quarter, in which the terms of trade declined, the export quantity index increased while the import quantity index decreased. According to the foreign trade unit value indices for the last quarter, calculated using the October and November averages, export prices were slightly down, while import prices were slightly up (Chart 2.3.17). Thus, the terms of trade decreased, adversely affecting the foreign trade balance. However, seasonally and calendar adjusted exports and imports, calculated using the October-November averages, increased and decreased, respectively, thereby improving the foreign trade balance (Chart 2.3.18). On the back of the gold foreign trade measures and monetary tightening, unprocessed gold stood as the main driver of the rise in exports and the fall in imports in the last quarter. High-frequency data suggest that the decline in gold imports persisted in December.

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



Source: TURKSTAT.

* Average of October and November.

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



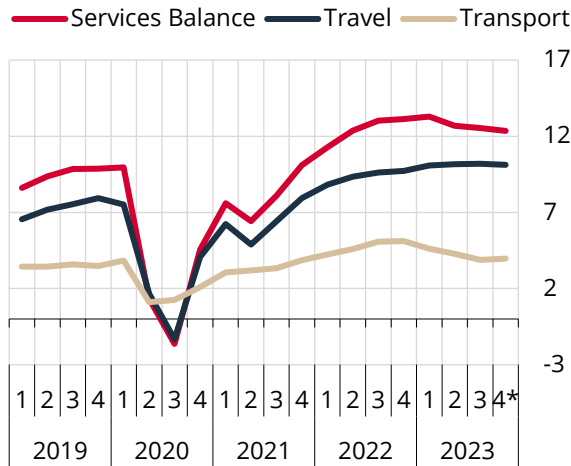
Source: CBRT, TURKSTAT.

* Average of October and November.

The services balance maintained its strong outlook, backed by travel revenues. As of November, the services balance surplus sustained its robust performance in the last quarter of 2023 as the surplus in the seasonally and calendar adjusted travel revenue balance remained high, and the transportation revenue

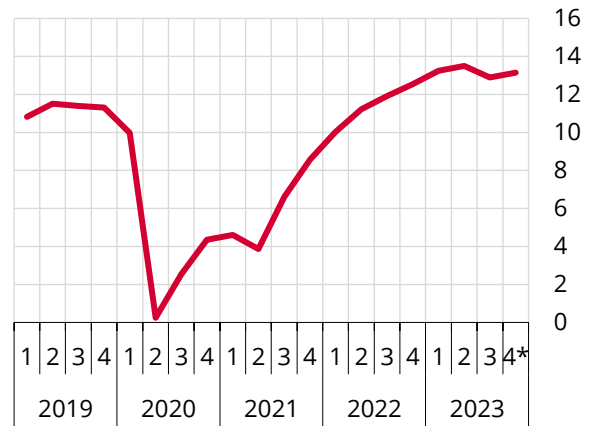
balance followed a flat course (Chart 2.3.19). Despite the new regional geopolitical issues that emerged in the last quarter, the rise in the number of seasonally and calendar adjusted foreign visitors proved to be the main driver of the increase in travel revenues (Chart 2.3.20). Leading indicators suggest that the number of visitors will remain relatively high in December and continue to contribute positively to the travel revenue balance.

Chart 2.3.19: Services Balance (Seasonally and Calendar Adjusted, USD Billion)



Source: CBRT.
* Average of October and November.

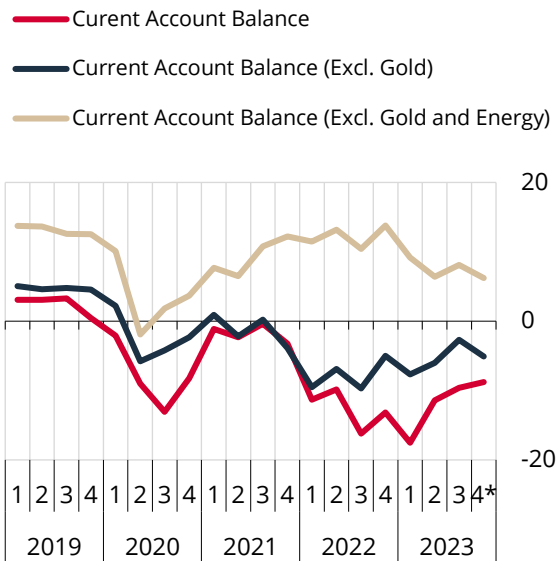
Chart 2.3.20: Number of Foreign Visitors (Seasonally and Calendar Adjusted, Million People)



Source: CBRT.
* Average of October and November.

The current account deficit narrowed in the last quarter amid the fall in the foreign trade deficit and the strong course of the services balance. Despite the deterioration in the primary income balance, the seasonally and calendar adjusted current account deficit narrowed in the last quarter compared to the previous quarter due to the decline in the foreign trade deficit and the strong contribution of the services balance (Chart 2.3.21). The balance of payments-defined foreign trade balance improved in this quarter as seasonally and calendar adjusted exports increased and imports decreased. While the gold foreign trade deficit narrowed, the energy foreign trade deficit widened due to the rise in imports. The current account surplus excluding gold and energy declined quarter-on-quarter amid the deterioration in the primary income balance. Moreover, the normalization trend in loans in the last quarter contributed to the narrowing of the current account deficit by alleviating demand-driven upward pressures.

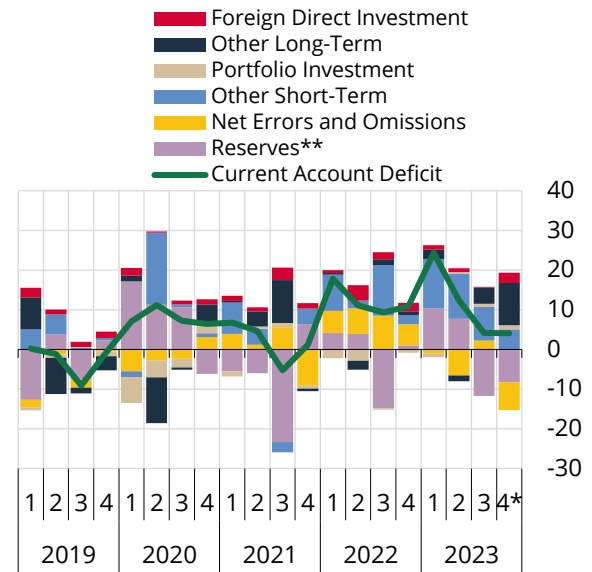
Chart 2.3.21: Current Account Balance
(Seasonally and Calendar Adjusted, USD Billion)



Source: CBRT.

* Average of October and November.

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



Source: CBRT.

* Average of October and November.

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

Reserve build-up continued in the last quarter on the back of the narrowing current account deficit and net capital inflows. The net capital inflows that exceeded the current account deficit in the second half of the year, when tight monetary policy was implemented, were instrumental in the increase in reserves (Chart 2.3.22). As of November, the capital inflows in the last quarter of 2023, mainly through long-term loans and Eurobond issuances, more than offset both the current account deficit and net errors and omissions-driven outflows, and led to a significant rise in reserves. December data indicate that reserves continued to increase in the last month of the year as well.

Public Finance Developments

The central government budget had a more favorable outlook in 2023 compared to the Medium-Term Program (MTP) projections, which mainly stemmed from revenues rather than expenditures.

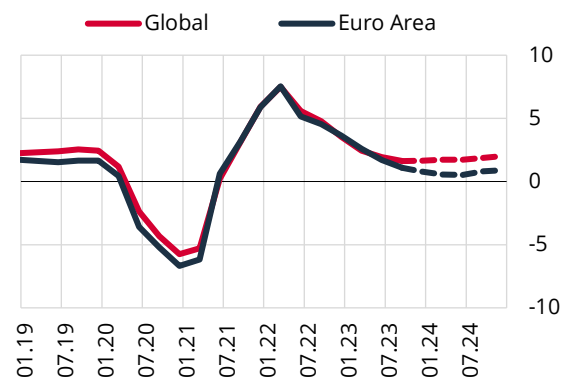
Consequently, the ratio of expenditures to the MTP realization forecast was 100.3%, while that of revenues was 105.7%. In 2023, the budget deficit was TRY 1,375.0 billion, and the primary deficit was TRY 700.4 billion. The budget deficit-to-GDP ratio, which was forecast at 6.4% in the MTP, is estimated to stand at 5.4% (Zoom-In 2.5). The annual rate of increase in primary expenditures and interest expenditures was 124.6% and 117.0%, respectively. The earthquake-related expenditures in February played an important role in the rise in primary expenditures, and the ratio of the earthquake-related expenditures to GDP was announced to be 3.7% (TRY 950 billion). Moreover, the adjustments made in the salaries of civil servants and pensioners as well as the EYT (early retirement package) regulation, which entered into force in 2023, stood out as factors pushing up primary expenditures. Meanwhile, tax revenues and non-tax revenues increased by 91.2% and 58.9%, respectively. The contribution of revenues to the budget was mainly driven by restructuring revenues and the revenue-raising measures introduced in July. However, the relatively limited increase in non-tax revenues was mainly led by the fact that the CBRT's dividend and reserve fund transfers, which were TRY 54.3 billion in 2022, have amounted to TRY 40 billion this year.

Zoom-In 2.4

Global Growth Outlook and Exports

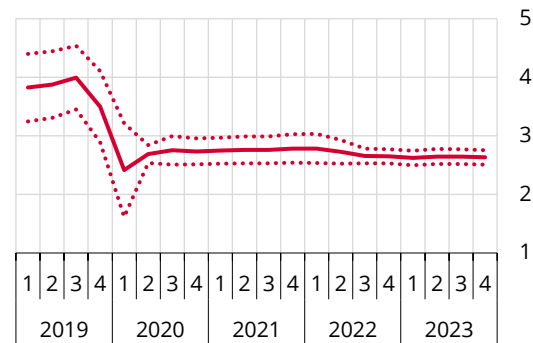
In 2024, the global growth outlook is expected to remain weak, with the euro area in particular projected to grow below potential in 2024 as it did in 2023. The growth outlook has weakened since the second half of 2023 as global monetary policies' effects on demand have become more evident and the services sector, as the driver of economic activity in particular, has lost momentum. Even though a gradual normalization in monetary policies is expected, global financial conditions are projected to remain tight, and the weak growth outlook is expected to persist in 2024 in order to drive inflation to converge with target rates. On the other hand, geopolitical risks remain alive, with the Chinese economy faced with issues such as the deflation threat, low consumer confidence, and particularly the risks related to the real estate market. This has an adverse impact on the euro area's growth outlook through foreign demand. Accordingly, many economies are projected to grow below potential in 2024. The export-weighted global growth index, an important indicator for Türkiye's foreign demand outlook, is forecast to grow by approximately 2% throughout the year, remaining below the pre-pandemic 10-year average of 2.5%. Meanwhile, the growth rate for the euro area is expected to be lower than the overall index (Chart 1).

Chart 1: Export-Weighted Growth Index
(Average Annual Change, %)



Source: Consensus Economics, S&P Global.

Chart 2: Foreign Demand Elasticity of Exports (%)



Source: CBRT calculations.

However, the dynamism of the exporting sectors in changing their orientations mitigates the adverse effects of the economic downturn on our exports, in particular in European countries, our largest trading partners. Research conducted within the CBRT on the determinants of the export performance in Türkiye reveals that the main determinant of exports is foreign demand, which denotes the income level of exporting countries. The real exchange rate, on the other hand, which denotes relative prices, has a more limited effect. Foreign demand elasticity estimates obtained with the sliding window method through the export demand function, which is estimated with a standard error correction model, point to a decline in the sensitivity of exports to foreign demand during and after the pandemic (Chart 2). This decline is attributed to the transformation in exports achieved through product and market diversification, coupled with other factors that emerged in the same period. The global supply problems faced during the pandemic were instrumental in increasing Türkiye's share in global trade, owing to its advantageous location. Moreover, expanding its diversity of products and countries in exports further eased Türkiye's vulnerability to external shocks. Despite the significant deterioration in the global growth outlook since the second half of 2022, the ongoing flat course of exports supports this finding. Accordingly, exports have become more resilient to the projected weakness in foreign demand in the upcoming period compared to the pre-pandemic period, backed by exports becoming more broad-based in recent years and the targeted credit programs implemented by the CBRT.

Zoom-In 2.5

2023 Budget Realizations and Public Fiscal Stance Under the Medium-Term Program

The central government budget posted a budget deficit of TRY 1,375 and a primary deficit of TRY 700.4 billion in 2023 (Table 1). The budget balance-to-GDP ratio, which was forecast at -6.4% in the MTP, is estimated to be -5.4% (Table 2).

The more favorable budget realization compared to the MTP forecast stems from revenues rather than expenditures. In comparison to the MTP realization forecast, expenditures stood at 100.3%, while revenues were at 105.7% (Table 1). The contribution of revenues to the budget was mainly driven by restructuring revenues and the revenue-raising measures introduced in July. However, the relatively limited increase in non-tax revenues was mostly due to the fact that the CBRT's dividend and reserve fund transfers amounted to TRY 40 billion this year from TRY 54.3 billion in 2022.

The earthquakes in February had a major role in shaping the primary expenditures. In July, a supplementary budget was issued to meet the resource needs stemming from earthquake-related expenditures. The 2023 budget includes earthquake-related expenditures amounting to TRY 950 billion (3.7% relative to GDP). The budget balance-to-GDP ratio excluding earthquake-related expenditures is more favorable at -1.7%. In addition to the adjustments made in the salaries of civil servants and pensioners, the EYT (early retirement package) regulation's entry into force in 2023 has also been instrumental in the increase in primary expenditures. Consequently, the budget balance-to-GDP ratio went up from -1% in 2022 to -5.4% in 2023 (Table 2).

Table 1: Central Government Budget Aggregates

	2022 Realizations (TRY Billion)	2023 Realizations (TRY Billion)	2023 Budget Targets ^{1,2} (TRY Billion)	2023 MTP Realization Forecast (TRY Billion)	Annual Increase (%)	Realizations- to-MTP Realization Forecast (%)
Expenditures	2,942.7	6,585.5	5,589.1	6,562.6	123.8	100.3
Primary Expenditures	2,631.8	5,910.8	4,942.9	5,916.5	124.6	99.9
Personnel Expenditures	615.3	1,324.5	952.3	1,326.5	115.3	99.8
Social Security Institution Government Contributions	96.9	185.7	150.4	183.2	91.7	101.4
Goods and Services Procurement Expenditures	257.7	452.9	419.4	471.0	75.8	96.2
Current Transfers	1,126.4	2,373.6	1,940.9	2,501.6	110.7	94.9
Capital Expenditures	276.9	543.0	383.3	538.8	96.1	100.8
Capital Transfers	48.8	858.1	521.0	685.1	1657.5	125.3
Lending	209.9	173.0	410.4	210.4	-17.6	82.2
Interest Expenditures	310.9	674.6	646.1	646.1	117.0	104.4
Revenues	2,800.1	5,210.5	4,929.7	4,929.7	86.1	105.7
Taxes/Tax Revenues	2,353.4	4,500.9	4,270.7	4,270.7	91.2	105.4
Non-Tax Revenues	446.7	709.6	659.0	659.0	58.9	107.7
Budget Balance	-142.7	-1,375.0	-659.4	-1,633.0	-	84.2
Primary Balance	168.2	-700.4	-13.3	-986.8	-	71.0

Source: Ministry of Treasury and Finance.

The MTP has set the budget deficit-to-GDP ratio for 2024 at 6.4%. The ratio of budget revenues to national income is stated to be 20.5%, while budget expenditures to be 26.9% (Table 2). The earthquake-related expenditures will be the main determinant of budget expenditures in 2024. The program allocates TRY 1,028 billion for earthquake-related expenditures, which corresponds to 2.5% of the GDP realization forecast specified in the program. Accordingly, the budget deficit-to-GDP ratio excluding earthquake-related expenditures is set to remain below 4% (3.9%).

The MTP forecast horizon of 2024-2026 aims to gradually restore fiscal discipline and adopts an outlook in which fiscal adjustment is to be achieved through savings in primary public expenditures.

Thus, the budget deficit-to-GDP is forecast to decline to 2.9% by the end-2026 from 6.4% in 2024. The ratio of primary expenditures to national income is targeted to be 23.9% in 2024, with the following two years targeted to be 20.6% and 19.9%, respectively. Tax revenues are estimated to stabilize at 18.0% (Table 2). The projected improvement in the budget balance, set to be achieved through a reduction in primary expenditures rather than an increase in tax revenues, indicates that the fiscal policy will support the fight against inflation. The success of the disinflation process depends on the coordination of monetary and fiscal policies.

Table 2: 2023 Realizations and MTP (2024-2026) Forecasts of Central Government Budget
(% of GDP)

	2022 Realizations	2023 Realizations ³	2023 MTP Realization Forecast	2024 MTP	2025 MTP	2026 MTP
Expenditures	19.6	25.8	25.8	26.9	24.0	23.5
Primary Expenditures	17.5	23.2	23.2	23.9	20.6	19.9
Interest Expenditures	2.1	2.6	2.5	3.0	3.4	3.6
Revenues	18.7	20.4	19.3	20.5	20.6	20.6
Taxes/Tax Revenues	15.7	17.7	16.8	18.0	18.0	18.0
Non-Tax Revenues	3.0	2.8	2.6	2.5	2.6	2.6
Budget Balance	-1.0	-5.4	-6.4	-6.4	-3.4	-2.9
Primary Balance	1.1	-2.7	-3.9	-3.4	0.0	0.7

Source: Ministry of Treasury and Finance.

2.4 Inflation

Consumer inflation rose by 3.24 points in the last quarter of 2023 to 64.77%, ending the year at a level close to the mid-point of the forecast range presented in the previous Inflation Report. This course close to the mid-point of the forecast range was also maintained in January. Significant cost increases led by the combination of multiple shocks in the third quarter were largely reflected on final prices (Zoom-in 2.6). USD-based commodity prices receded in the last quarter, especially in the energy group. Supply conditions were milder, except for the geopolitical developments in January, and exchange rates followed a stable course. Against this background, producer prices-driven pressures weakened. Despite the favorable course of international energy prices, as the limit for free use of natural gas was exceeded amid seasonal conditions, domestic energy prices recorded an upsurge on a quarterly basis in line with projections. Due also to the effects of monetary tightening on domestic demand, the underlying inflation decelerated more than projected in the previous report, and inflation expectations as well as the distribution of expectations improved (Box 2.1). In this period, the

¹ Budget targets are the sum of the budget forecasts presented in the initial budget and the supplementary budget.

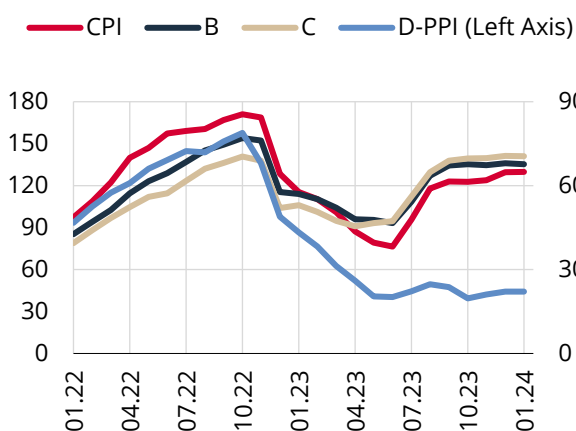
² The 2023 primary expenditure appropriation includes the reserve appropriation item amounting to TRY 165.2 billion.

³ The 2023Q4 GDP realizations are to be published on 29 February 2024. Figures presented here are calculated using the nominal GDP realization forecast in the MTP.

contribution of subgroups to annual inflation exhibited an increase in energy and services sectors, and almost a flat course in other subgroups (Table 2.4.1, Charts 2.4.1 and 2.4.2).

Consumer inflation rose in January in line with the forecasts in the previous Inflation Report. Despite the dampening effect of monetary and financial conditions, demand is still at an inflationary level as of early 2024. This is mainly due to wage hikes, which will be effective primarily in the first quarter of the year through the demand channel in addition to the cost channel. In recent years, the demand effect of wage increases has become increasingly more apparent due to the notable impact of the biannual revision of the minimum wage. Accordingly, the minimum wage will be revised once in 2024, which will contribute to the effectiveness of monetary tightening in the second quarter of the year. In addition to wages, monthly inflation increased temporarily in January due to time-dependent pricing items, in line with the forecasts in the previous Report. This increase is expected to slow down from February onwards, and the underlying trend is expected to converge to the values in the last quarter of 2023 in the first half of the year (Box 2.3).

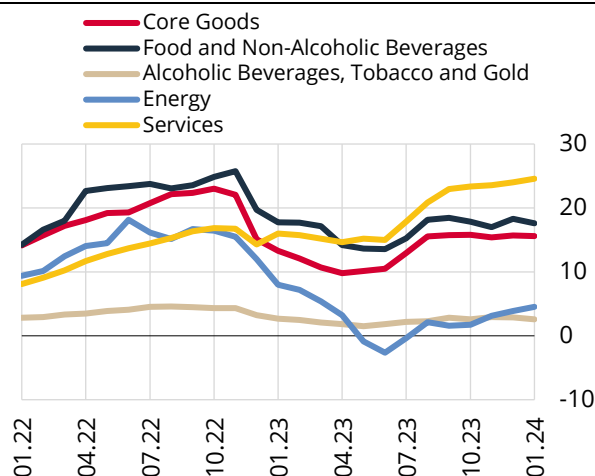
Chart 2.4.1: CPI, D-PPI, B Index and C Index*
(Annual % Change)



Source: TURKSTAT.

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

Chart 2.4.2: Contributions to Annual CPI
(% Points)

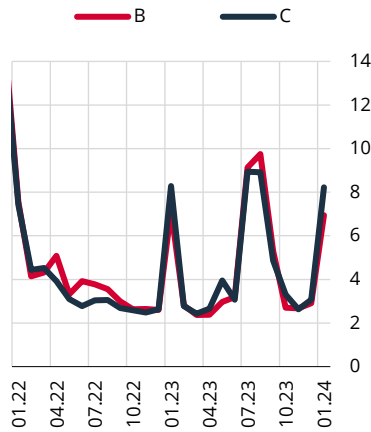


Source: CBRT, TURKSTAT.

In the last quarter, indicators for the underlying trend of inflation lost momentum. In the last quarter of 2023, seasonally adjusted monthly increases in the B and C indices, which posted a significant upsurge in the third quarter, remained below the trend in the first half of 2023 (Chart 2.4.3). The seasonally adjusted average monthly increases in the B and C indices were 2.8% and 3.0%, respectively in the fourth quarter (5.3% and 4.9% in September). Alternative indicators such as median inflation, SATRIM and dynamic factor-based indicators also displayed a similar trend and confirmed this outlook (Chart 2.4.4). The rate of increase in core indicators was more favorable than projected in the previous Report. An analysis of the subcategories of the B index reveals that monthly price increases declined in all subcategories in the last quarter, while the slowdown in core goods stood out (Chart 2.4.5). In this period, the quarterly price increase in processed food remained relatively strong, albeit at a slower pace compared to the previous quarter. Likewise, the services group, which has a strong tendency for inertia, was another subcategory which remained strong albeit decelerating from the previous quarter, with a quarterly price hike of 12.10%. Among services subcategories, transport prices recorded the most notable deceleration in line with the developments in fuel prices, while the performance of the restaurants-hotels subcategory was shaped by the slowdown in catering services prices as well as the quarterly decline in the prices of accommodation services. Quarterly inflation in the other services subcategory lost considerable momentum compared to the previous quarter with the completion of the effects of education services. On the other hand, despite the slowdown in the rate of increase in rents, the uptrend in annual terms continued (Box 2.4). Moreover, in communication services with contractual price rigidities, price increases remained strong on account of internet and phone call charges (Table 2.4.1). Against this background, the contribution of services to annual consumer inflation rose by 1.04 points to 23.99 points quarter-on-quarter (Chart 2.4.2). Thus, the largest contributor of consumer inflation across the year was the services group (Chart 2.4.1). In January, monthly services inflation rose significantly due to the impacts of wage adjustments on labor-

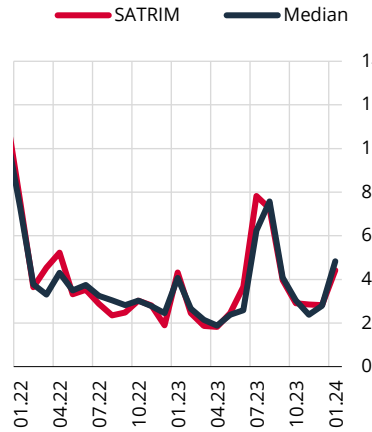
intensive services items, with the minimum wage in the lead, accompanied by the effects of items with high tendency for time-dependent price setting and regulated services items (Box 2.3 and Zoom-in 2.7). In the last quarter, the main driver of the slowdown in core inflation indicators was the price developments in core goods (Table 2.4.1). Due to the course of automobile prices, durable goods recorded the lowest quarterly increase (3.89%) since September 2021. In this period, prices in furniture and white goods registered quite weak increments (Table 2.4.1). The last quarter was marked by campaigns introduced by firms in the durable goods sector to deplete their inventories. In January, price hikes were seen in durable goods and other core goods subcategories that were fueled by cost increases.

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)

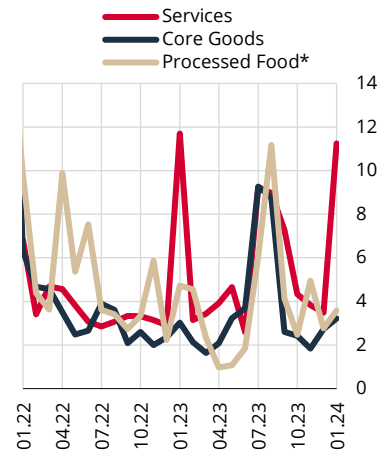


Source: CBRT, TURKSTAT.

* SATRIM: Seasonally adjusted trimmed mean inflation.

** Median: Median monthly inflation of seasonally adjusted five-digit sub-price indices.

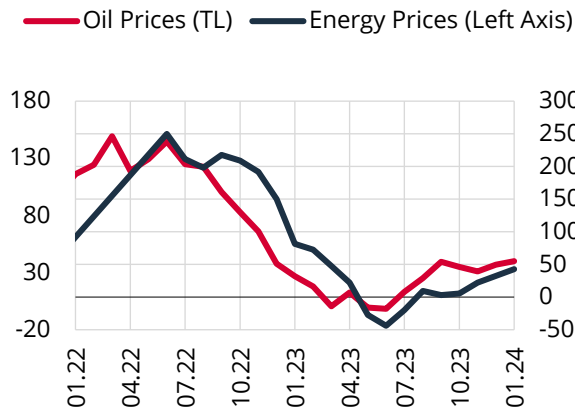
Chart 2.4.5: Subgroups of B Index (Seasonally Adjusted, Monthly % Change)



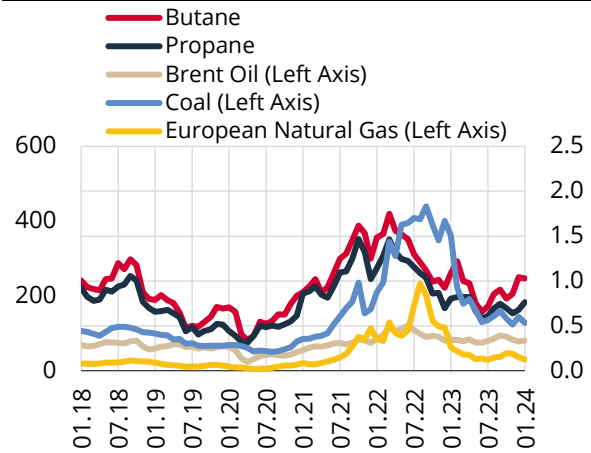
Source: CBRT, TURKSTAT.

* No seasonality detected for processed food.

In the last quarter, despite the positive effect of international oil prices, energy prices posted an increase as higher consumption drove usage above the limits for free natural gas (Chart 2.4.6, Table 2.4.1). Domestic energy prices soared by 17.08% in the last quarter, in line with the developments in natural gas prices (Table 2.4.1). The international Brent crude oil price, which was USD 94 on average in September, ended December around at USD 78 on average. Despite this favorable course, oil prices remain a potential risk factor for inflation as they may exhibit volatility caused by sensitivity to geopolitical developments (Zoom-in 2.8). Meanwhile, exchange rates followed a relatively moderate course compared to past periods. Following these developments, fuel prices fell by 5.32%. On the other hand, the prices of natural gas, the first 25 cubic meters of which are provided free of charge, increased in October due to the increase in consumption, and the effect of natural gas on annual consumer inflation in the last quarter was 2.36 points in total. The upward trend in energy commodity prices, which started in July, ended in October, and prices in the last quarter registered a decline. Butane prices diverged from this picture with a slight increase in the last quarter (Chart 2.4.7). In line with global energy prices, bottled gas prices slowed down in this period, while municipal water prices increased further. Due to the natural gas item, the contribution of the energy group to annual consumer inflation increased by 2.33 points quarter-on-quarter to 3.90 points (Charts 2.4.6 and 2.4.2). Annual energy inflation climbed to 27.19% as of December, yet lagged considerably behind other main groups. In January, monthly energy inflation still shows effects stemming from the natural gas arrangement, while the automatic lump-sum tax rise shaped fuel and bottled gas items, and the group's annual inflation climbed further.

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, butane and propane per gallon. European natural gas prices are in euro and per MWh.

Table 2.4.1: Consumer Prices

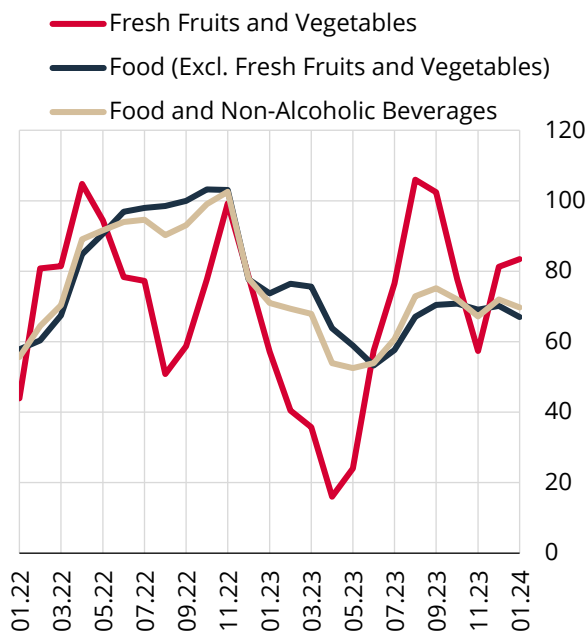
	Quarterly % Change (Seasonally Adjusted)				Annual % Change			
	2023				2023			
	I	II	III	IV	I	II	III	IV
CPI	11.82	5.97	26.27	10.05	50.51	38.21	61.53	64.77
B	12.79	8.78	26.12	8.52	52.11	46.63	67.22	68.02
C	13.99	9.99	24.42	9.28	47.36	47.33	68.93	70.64
1. Goods	8.39	5.33	24.80	9.04	47.10	30.92	52.39	55.46
Energy*	2.63	-20.84	33.71	17.08	35.66	-16.52	10.25	27.19
Food and Non-Alcoholic Beverages	13.64	12.40	22.25	10.10	67.89	53.92	75.14	72.01
Unprocessed Food	17.49	21.54	23.36	8.51	65.94	68.44	96.17	91.23
Fresh Fruits and Vegetables	6.27	28.60	35.12	-1.83	35.72	57.49	102.46	81.29
Processed Food*	12.04	3.96	22.81	10.50	71.68	43.36	59.95	58.05
Core Goods	6.93	9.27	21.93	7.15	36.58	36.69	53.23	52.81
Clothing and Footwear	3.82	6.70	15.22	7.95	16.26	20.04	31.36	39.74
Durable Goods (excl. gold)	9.33	13.72	24.41	3.89	40.21	43.30	65.61	60.70
Furniture	13.56	4.10	21.93	7.76	63.26	37.52	62.08	55.21
Automobile	8.48	17.15	29.11	3.87	31.93	46.61	72.91	72.24
Electrical and Non-electrical Appliances*	5.75	7.56	22.01	6.56	41.05	42.53	57.63	47.89
Other Durable Goods*	8.63	6.51	23.07	9.30	40.96	36.33	53.37	55.64
Other Core Goods*	7.85	4.13	22.69	9.17	44.48	37.75	50.10	50.42
Alcoholic Beverages, Tobacco Products and Gold*	10.37	12.25	26.24	9.45	41.00	40.14	67.19	71.18
2. Services	19.17	11.58	27.68	12.10	59.93	59.45	86.46	90.66
Rent	18.99	17.51	24.06	20.15	62.76	75.91	95.03	108.58
Restaurants and Hotels	21.85	13.73	24.07	12.17	70.73	67.22	92.48	93.24
Transport	10.67	3.77	60.11	4.75	57.12	36.25	95.97	92.44
Communication	12.06	14.93	13.34	12.02	35.87	43.84	55.04	63.92
Other Services	19.41	8.93	25.64	13.38	57.08	57.42	81.64	85.20

Source: CBRT, TURKSTAT.

* No seasonality detected.

Annual food prices hovered further above headline inflation on an annual basis. Annual inflation in food and non-alcoholic beverages declined in October and November after surging in the third quarter, but increased again in December. Although annual inflation in this group declined quarter-on-quarter, food inflation ended the year above headline inflation at 72.01% in an environment of falling global food prices (Chart 2.4.8). Seasonally adjusted data pointed to a fall of 1.83% in the prices of fresh fruits and vegetables in the last quarter following an upsurge in the previous two quarters. After a correction in October and November due to vegetable prices, inflation in fresh fruits and vegetables increased significantly in December, led again by vegetable prices. Annual inflation in food excluding fresh fruits and vegetables followed a flat course (Table 2.4.1, Chart 2.4.8). In this period, prices of canned vegetable products and pulses increased considerably above their historical averages (Chart 2.4.9). The impact of the recent rise in carcass meat prices, particularly lamb, appeared in red meat prices, and these increases were reflected simultaneously in prices of processed meat products. The Meat and Milk Board announced on 26 December that it would sell slaughter cattle to companies operating in the red meat industry (producing delicatessen products) within the scope of its duty to stabilize and regulate red meat markets. Olive oil prices, which accelerated in the second half of the year also due to external demand, maintained an uptrend in the last quarter despite the measures taken for exports. In this period, coffee, tea, cocoa and nuts stood out with price hikes above historical trends, while price increases in the bread and cereals group lost pace in the last quarter of the year. The strong uptrend in food prices continued in January, led by the unprocessed food subcategory.

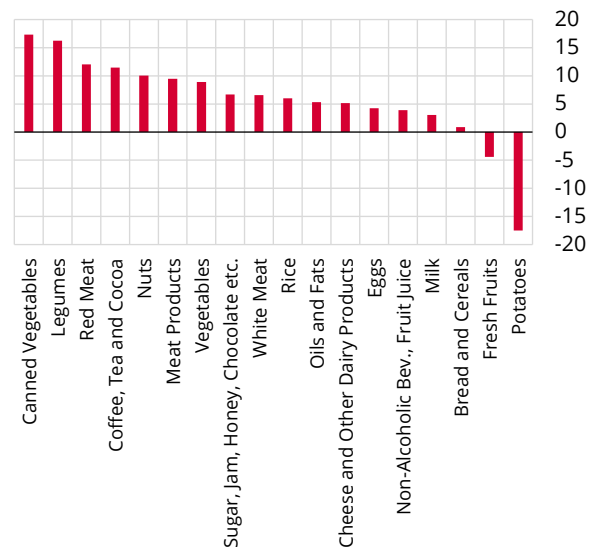
Chart 2.4.8: Food Prices (Annual % Change)



Source: CBRT, TURKSTAT.

Chart 2.4.9: Food Prices by Sub-Items*

(2023Q4 % Deviation of Change from Historical Average, Sorted)



Source: CBRT, TURKSTAT.

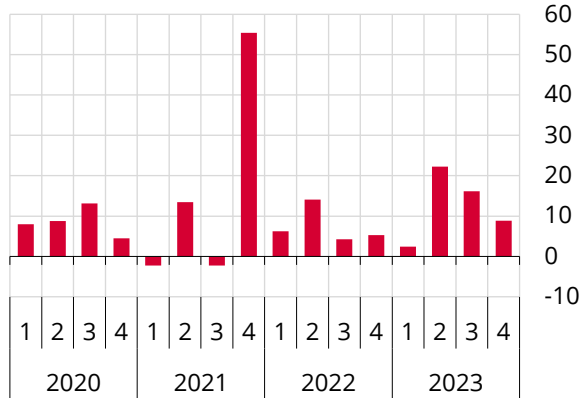
* Denotes the difference between the 2023Q4 quarterly percentage change and the historical average (fourth quarter average of the 2012-2021 period).

Prices of tobacco prices increased further in the last quarter of the year. In the fourth quarter, prices of alcoholic beverages remained relatively unchanged, while price increases in tobacco prices (10.02%) imposed by producer firms pushed prices of alcoholic beverages and tobacco up by 9.28%, and annual inflation rose by 4.10 points to 71.26%. In January, the D-PPI rise of the second half of 2023, which drove the lump-sum tax upward, led to higher prices across the group. Alcoholic beverages registered notable price hikes, while the tax reform in tobacco prices limited price increases to some extent (Zoom- in 2.8).

Drivers of Inflation

The relatively stable course of the Turkish lira affected consumer inflation positively. The exchange rate increases observed in the middle of the year were replaced by a milder course in the following period. This course became more evident in the last quarter of the year, and the rise in the currency basket remained rather limited compared to the previous quarters at 8.82% (Chart 2.4.10). Exchange rate developments subdued the price increases in items with high exchange rate sensitivity, durable goods in particular, and contributed to the fall in the underlying inflation.

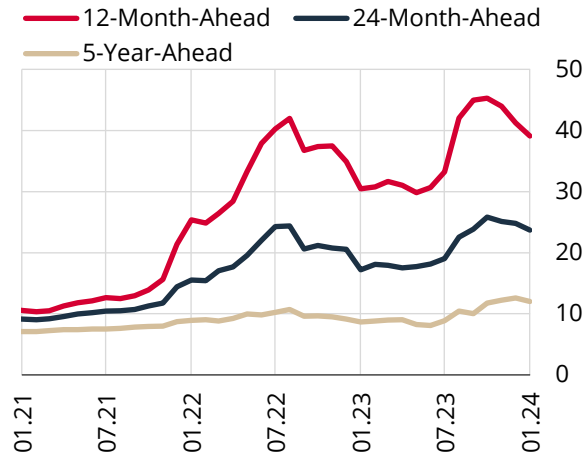
Chart 2.4.10: Currency Basket*
(Quarterly % Change)



Source: CBRT.

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

Chart 2.4.11: Consumer Inflation Expectations* (%)



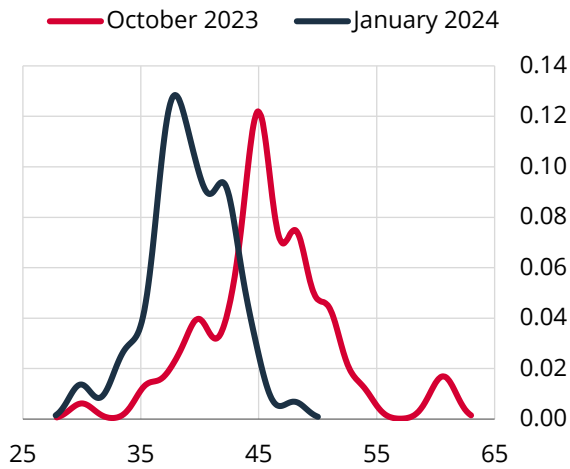
Source: CBRT.

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

Inflation expectations declined in the last quarter of the year, and the consensus around the central tendency strengthened in the distribution of expectations.

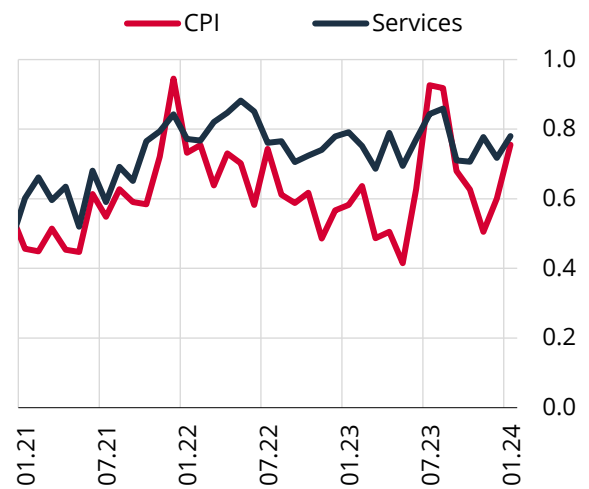
Results of the Survey of Market Participants indicated a downward revision in inflation expectations in the last quarter of the year, more visibly for shorter terms. Continued monetary tightening steps, the relatively stable course of the Turkish lira, and the weakened underlying inflation brought about a fall in inflation expectations. According to the survey results in January, the 12-month-ahead inflation expectation decreased by 6.19 points over the previous reporting period to 39.09%, while the 24-month-ahead inflation expectations receded 2.13 points to 23.69%. On the other hand, the five-year-ahead inflation expectation was revised slightly upwards by 0.25 points to 12.01% (Chart 2.4.11). The distribution of 12-month-ahead CPI inflation expectations shifted left in line with the revisions, while the consensus around the central tendency strengthened compared to the previous reporting period (Chart 2.4.12). In fact, the course of standard deviation and coefficient of variation of inflation expectations indicated a decline in the uncertainty regarding expectations. In this period, price-setting behavior also started to improve slightly. As the shocks that emerged in mid-2023 weakened, the frequency of price changes by firms decreased. While this weakening was more evident in the core goods sector, the impact of shocks continued to extend over time in the services sector as a characteristic of the price-setting behavior in this sector. In line with these developments, the CPI diffusion index fell in the last three months of the year, while diffusion index of services sector remained relatively flat (Chart 2.4.13). It is projected that the diffusion indices will be high in the early months of 2024 following the minimum wage hike and tax and administered price adjustments, but will decline in the core goods sector and continue to decrease moderately in the services sector in the subsequent period.

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



Source: CBRT.

Chart 2.4.13: Diffusion Indices of CPI and Services Sector* (Seasonally Adjusted, Monthly)

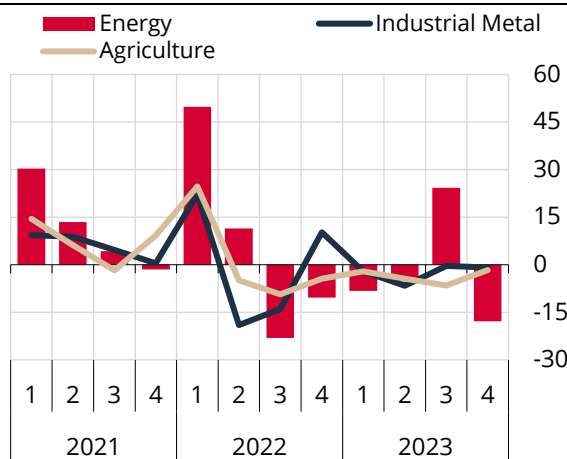


Source: CBRT, TURKSTAT.

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

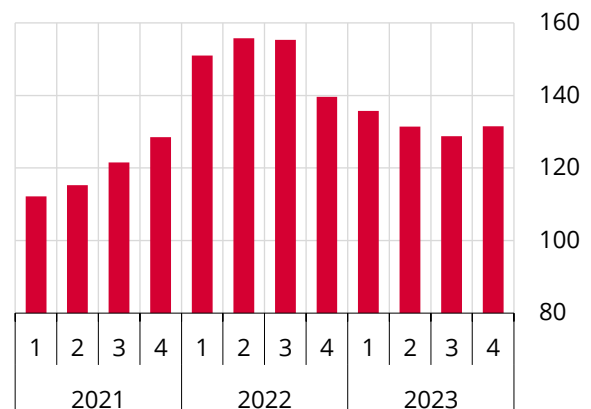
Global commodity prices decreased significantly, led by energy items. Having posted a substantial rise in the third quarter of 2023, global energy prices fell in the following period. While increases registered in the third quarter spread across the group, crude oil prices declined in the final quarter, and other items diverged from each other. Despite the sharp price movements in the energy group, the moderate downward course of prices was maintained in the industrial metal and agriculture groups, with their indices following a mild course in the last three-month period (Chart 2.4.14). In addition to the positive outlook of global commodity prices, global supply conditions remained consistent with their historical tendencies in the last quarter of the year. However, in January, escalated geopolitical problems led to longer lead times once again and to an increase in freight charges. Accordingly, the import unit value index rose slightly on the back of investment goods despite the almost flat course of intermediate goods, suggesting that there was no significant change in global cost pressures in the last quarter of the year (Chart 2.4.15).

Chart 2.4.14: Commodity Price Indices (Quarterly % Change)



Source: Goldman Sachs.

Chart 2.4.15: Import Unit Value Index* (2019Q4=100, USD)

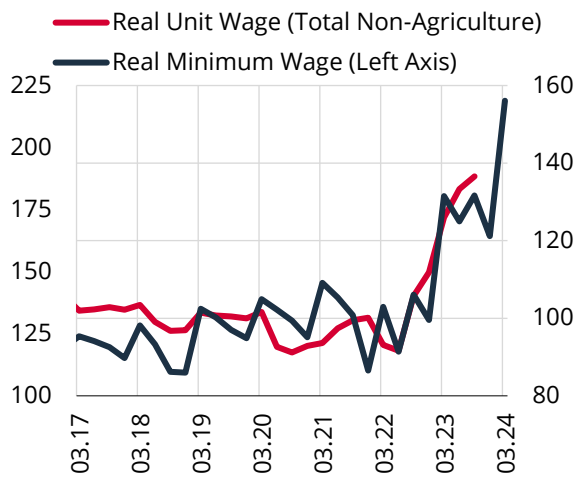


Source: TURKSTAT.

* Quarterly data denotes the last month of the respective period. As of November for 2023Q4.

The weakening of the underlying producer inflation was interrupted in January. Nominal wages rose over the previous quarter following the second increase in the minimum wage in July 2023, pushing up the real unit wages as well (Chart 2.4.16). The nominal wage hike is estimated to have weakened and real unit wages to have increased, albeit at a slower pace, in the last quarter of the year. On the other hand, real unit wages are expected to surge in the first quarter of 2024 due to the minimum wage hike in January. While macroeconomic shocks that emerged in mid-2023 lost strength in the last quarter of the year, wage pressures continued despite having moderated. In October, the rise in electricity and natural gas tariffs for firms elevated the cost pressures, whereas the favorable course of global conditions helped contain external cost pressures. As a result of these developments, the underlying producer price inflation decelerated in the last quarter of the year (Chart 2.4.17). As of January, the minimum wage adjustment, the rise in fuel prices as well as higher freight charges and longer lead times driven by geopolitical problems amplified the cost pressures, and the underlying producer price inflation increased.

Chart 2.4.16: Real Unit Wage per Hour Worked* and Real Minimum Wage (2015=100)**

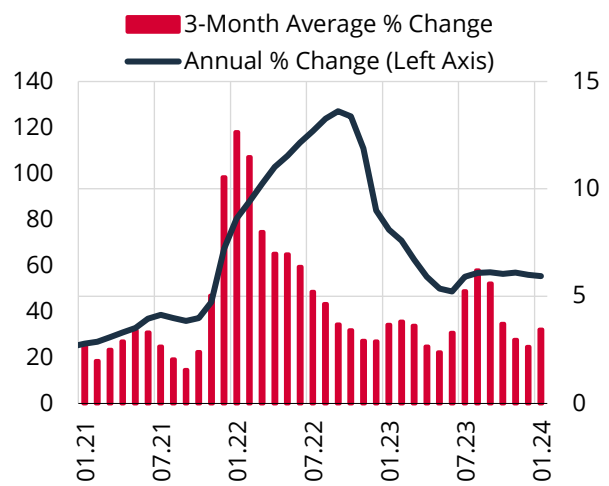


Source: CBRT, TURKSTAT.

* Deflated by the CPI. Real wage per hour worked/productivity. Value added and seasonally adjusted.

** Deflated by the seasonally adjusted CPI. Forecast is used for the 2024Q1 inflation data.

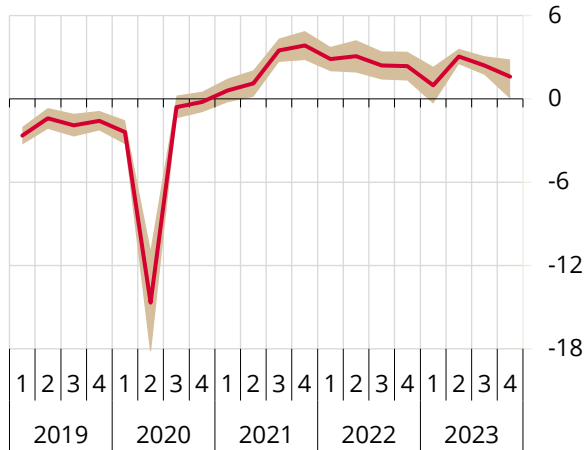
Chart 2.4.17: Manufacturing Prices Excluding Petroleum and Base Metals



Source: CBRT, TURKSTAT.

Demand conditions continued to weaken in the last quarter of the year but still remained inflationary. The base indicator obtained from output gap series monitored by the CBRT decreased slightly in the third quarter of 2023. The real wage that increased in parallel to the minimum wage adjustment, the employment outlook and strong tourism expenditures were the leading factors supporting aggregate demand. On the other hand, the tightening in monetary policy reined in domestic demand, thereby aligning aggregate demand conditions with the disinflationary path (Box 2.1). Leading indicators suggest that a similar situation prevailed in the last quarter of the year, and that the output gap will be closed further (Chart 2.4.18). While the output gap narrowed due to the below-potential growth in the second half of the year, the increased divergence between alternative output gap indicators heightened the forecast uncertainty (Box 3.1). Temporary campaigns by firms to deplete their stocks in the last quarter complicated the readings of the supply and demand balance. In this period, ongoing restrictive monetary policy measures also had their impact on loans. In the last three-month period, loans followed a flat course slightly above their historical averages (Chart 2.4.19). While corporate loans have been on a mild track moderately above their historical averages, consumer loans excluding credit cards remain in tandem with their historical averages (Chart 2.2.11). Output gap indicators suggest that aggregate demand conditions have developed in line with projections and turned less inflationary since the previous reporting period. As the lagged effects of monetary policy kick in, the course observed in the second half of the year is expected to be maintained.

Chart 2.4.18: Output Gap* (%)



Source: CBRT.

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

Chart 2.4.19: Total Credit Change* (13-Week Average, Real, Standard Value)



Source: CBRT.

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

Despite having weakened, the impact of taxes and administered prices, which had pushed headline inflation considerably upwards in the third quarter of the year, remained high in the last quarter. Among administered price items, natural gas was the most significant item in the last quarter of the year. Despite no change in consumer natural gas tariffs, the limits for free use of natural gas were exceeded due to increased consumption, and prices included in the index rose markedly. The natural gas item is estimated to have driven up annual consumer inflation by 2.36 points in the last quarter of the year and by 0.35 points in January. Besides, consumer inflation was indirectly affected by the increases made in industrial and commercial electricity tariffs as well as natural gas tariffs for industries and electricity producers in October. The rise in municipal water prices, which lost some pace over the last three months of the year, gained strength again in January. The upward revision of the euro reference price in mid-December caused pharmaceutical prices to increase, with half of its effect carried over into January. Strong price increases were observed in administered items as of January. As the producer price inflation from the second half of 2023 was reflected on lump-sum Special Consumption Tax (SCT), fuel and bottled gas prices rose. The minimum wage adjustment and the hikes in fuel prices started to affect urban transportation items. While taxes and charges that increased at the revaluation rate have a limited direct effect on consumer price inflation, they may have indirect effects through inflation expectations. In January, the high rates of increases in Turkish Medical Association and Turkish Dental Association tariffs started to affect health services inflation unfavorably. Milk and dairy product prices are expected to increase at an even stronger rate in the first quarter of the year following the rise in the reference price of raw milk. On the other hand, prices of tobacco products, which saw firm-driven increases in November, rose in January due to taxes, while the amendment in the tax structure limited a further rise. Through this amendment, the ad valorem SCT was lowered, and the specific SCT was increased (Zoom-In 2.7). The specific SCT set by the new regulation enabled firms to make more limited price hikes compared to the previous regulation. As a result, increases due to producer prices and the specific tax will have a smaller inflationary impact compared to the previous period.

Zoom-In 2.6

Main Macro Drivers of Inflation in 2023

Annual consumer price inflation was 64.8% at the end of 2023, consistent with the forecasts in the previous Report. In 2023, the high course of inflation was driven by exchange rate, wage developments, demand conditions, time-dependent pricing behavior, fuel prices, and tax adjustments (Table 1). In 2024, the rebalancing in domestic demand and the stable course of the Turkish lira are estimated to be the main drivers of the projected decline in inflation.

Table 1: Decomposition of Annual CPI Inflation (Points)

	June 2023	September 2023	December 2023
Exchange Rate	15.7	19.4	20.3
Fuel (Excl. Exchange Rate)	-1.0	3.7	4.9
Time-Dependent Pricing Behavior	0.3	10.3	8.7
Tax (Excl. Fuel)	1.1	3.9	4.6
Import Prices (Excl. Fuel)	-0.1	-2.3	-0.8
Wage	8.1	8.8	9.4
Demand	10.4	10.2	9.2
Unprocessed Food, Alcohol-Tobacco (Excl. Tax and Fuel)	7.5	8.4	7.9
Other*	-3.7	-0.9	0.5
CPI (%)	38.2	61.5	64.8

Source: CBRT, TURKSTAT.

* Other includes constant term, error term and exogenous effects not included in tax, such as the 25 cubic meters of natural gas subsidy to households.

After a substantial rise in the third quarter of the year, inflation was on a mild track in the last quarter. The most significant contribution to the 26.6 points of increase in inflation in the second half of the year came from the change in time-dependent pricing behavior driven by the depreciation of the Turkish lira and from the rise in fuel prices, followed by exchange rates and tax adjustments, respectively. CBRT models that consider the pricing behavior during periods of large shocks were used to decompose inflation.⁴ The findings show that the exchange rate effect reached 19.4 points in the third quarter and 20.3 points at the end of the year after following a mild course in the last quarter. In the third quarter, fuel prices recorded high rates of increases due to the rise in Brent crude oil prices and lump-sum taxes. Fuel prices (excluding the exchange rate effect) had a downward impact by 1.0 point on annual consumer inflation in June, whereas they had an upward impact of 3.7 points in September, and the total impact reached 4.9 points in the last quarter as the indirect effects also kicked in. With multiple shocks (exchange rate, wage, tax, oil prices, etc.) emerging within a short period of time, effects that were expected to extend over time were rapidly reflected on prices, while the impact of the deterioration in time-dependent pricing behavior driven mainly by the depreciation of the Turkish lira was 10.3 points as of September. Some part of the impact likely to be observed on inflation is assessed to have been brought forward in the last quarter, while the total impact from this channel was calculated at 8.7 points at the end of the year. Coupled with the effect of various tax regulations⁵ introduced after July to counterbalance the additional financing need due to the earthquake, the tax item had an impact of 3.9 points on annual inflation in the third quarter and 4.6 points by the end of the year. Together with the tax increase effects (direct and indirect) on fuel prices,

⁴ Inflation Report 2023-IV, Box 2.2, Macro Components of Consumer Inflation.

⁵ Inflation Report 2023-III, Zoom-In 2.2, Impact of Tax and Administered Price Adjustments on Inflation.

the total impact of taxes reached 9.1 points at the end of the year. According to estimations, the effect of wages increased by 1.3 points from June to 9.4 points at the end of the year. Model results indicate that the demand-driven effect from credit and output gap decreased by 1.2 points from June to 9.2 points in 2023. With an impact of -0.8 points over the year, import prices were supportive of the inflation outlook parallel to the fall in commodity prices. Excluding fuel and tax-related increases, the total impact of unprocessed food and alcohol-tobacco prices on consumer price inflation rose in the third quarter, whereas it declined by 0.5 points to 7.9 points in the last quarter of the year. Driven largely by the mechanical effect of the exit from the free provision of 25 cubic meters of natural gas, 3.8 points of the rise in inflation stemmed from the other item in the second half of the year.

The rebalancing in domestic demand and the stable course of the Turkish lira will be the main drivers of the projected fall in inflation in 2024. While the CPI components outside the control of monetary policy, such as unprocessed food, alcohol-tobacco and taxes, are expected to make a smaller contribution to inflation in 2024, contributions of possible hikes in domestic energy prices and temporal effects driven by the free use of natural gas are projected to increase. Accordingly, the rebalancing in domestic demand underpinned by the monetary stance and the stable course of the Turkish lira bolstered by growing demand for Turkish lira financial assets are estimated to be the main drivers of the expected decline in the inflation path in 2024.

Zoom-In 2.7

Services Inflation from An Alternative Perspective: Regulated Services and Market Services

Services inflation rose significantly in 2023, exceeding the headline inflation, and was the main group that made the largest contribution to annual inflation. In this framework, two new indicators have been constructed to monitor price dynamics in the services sector from different perspectives. In the services sector, which is one of the two main components of core inflation and had a weight of 26.46%⁶ in the CPI in 2023, prices are highly sensitive to domestic developments. Time-dependent pricing behavior and backward-indexation tendency are prevalent in the services sector in which aggregate demand conditions play an important role, and also the labor-intensive structure of this sector feeds into inertia (particularly at times of high and frequent wage increases). As the services sector includes sub-items with significant backward-indexation behavior that are subject to regulation, such as health, education, transportation, postal and various public services (notary services, court procedures, etc.), it becomes even more important to monitor price developments in this group separately. For this reason, in this study, services price developments are classified and analyzed under two separate groups as “regulated services” and “market services”.

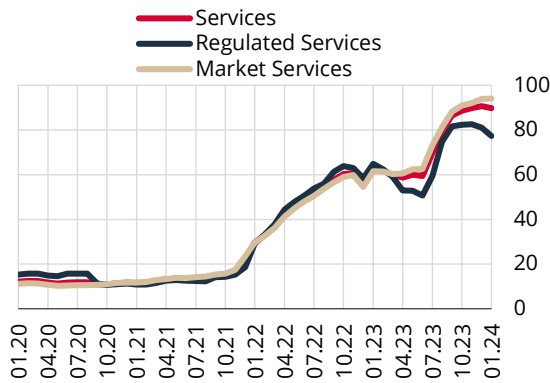
“Regulated services” refer to services items, the prices of which are determined, approved or regulated by private sector or public/public-affiliate institutions (municipalities, professional organizations, etc.). On the other hand, prices of the other services items (to be referred to as “market services”) are determined freely on the market. In this context, first, services items in the CPI have been classified based on whether they are subject to regulation or not, and two separate price indices have been composed – one with items subject to regulation and the other with the remaining items.⁷

⁶ This ratio increased to 27.85% in 2024.

⁷ Regulated services include transportation (railway, highway and bridge tolls, and urban passenger transport under the responsibility of municipalities, etc.), various health services (main hospital services, medical specialist fees, dentistry fees, etc., which are determined by the Turkish Medical Association, Turkish Dental Association and Communiqué on Healthcare Practices), education services (private education institutions including preschool, primary, secondary, precollege, etc., which are subject to the regulation of the Ministry of National Education), postal services, insurance services (Turkish Catastrophe Insurance Pool, traffic insurance, etc.), various public services (court procedures, notary, etc.), and games of chance.

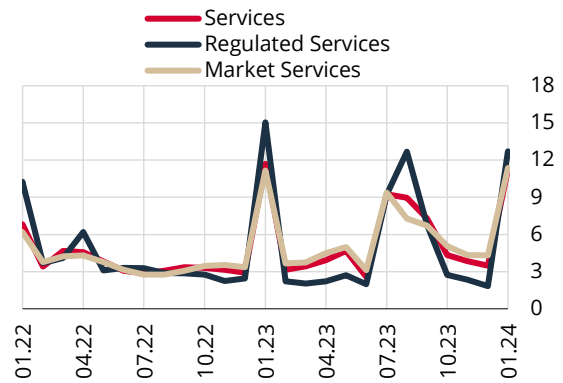
Regulated services account for approximately 25% (their weight was 6.63% in 2023) and market services 75% (their weight is 19.83%) of total services.⁸ A breakdown of services inflation reveals that there has been a partial divergence between the inflation of regulated services and the inflation of market services recently (Chart 1). While the average annual growth rates of the two indices were very close to each other in the 2004-2022 period, they diverged slightly in 2023. At the end of the year, annual inflation in regulated services stood at 81%, whereas it was higher at 94% in market services. In January, annual inflation was 77.2% in regulated services and almost flat at 94% in market services.

Chart 1: Indices of Services, Regulated Services, and Market Services (Annual % Change)



Source: TURKSTAT.

Chart 2: Indices of Services, Regulated Services, and Market Services (Seasonally Adjusted, Monthly % Change)



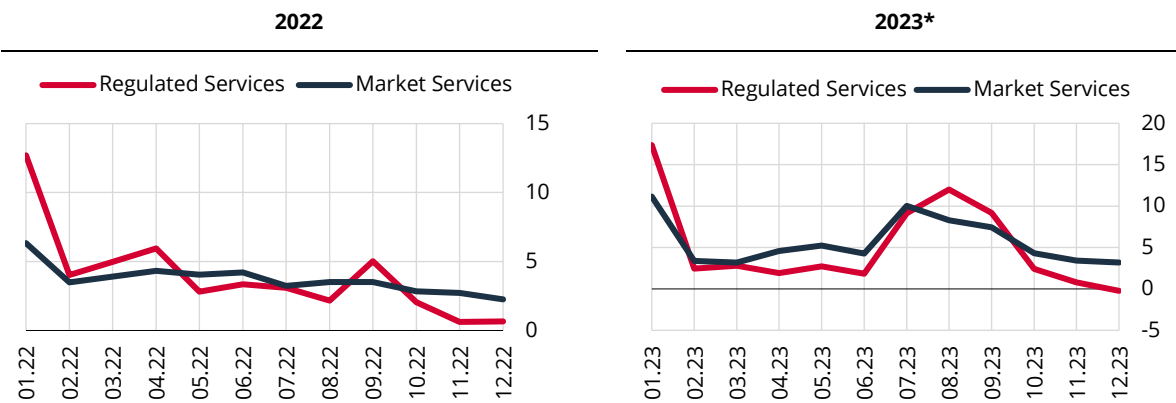
Source: TURKSTAT.

Regulated services are more volatile and subside more rapidly after a shock. When we analyze the seasonally adjusted monthly price developments, we see that prices of regulated services subside more rapidly after posting a large increase. In the last quarter, price increases in regulated services decelerated to relatively low levels, while the large monthly increase in the services group was rather driven by market services. Typically, regulated services increase at higher rates in January (Chart 2).

A closer look at the developments shows that the time-dependent pricing tendency is more salient in regulated services, and the seasonal structure of services stem predominantly from this group.

Analyzing monthly price changes by years to track the movements within the year, we observe that (i) regulated services are the main driver of the large increases in services prices in January, (ii) price increases in regulated services are more evident periodically in January and September (due to health, transportation, communication, postal, and revaluation-driven services items, etc.), and they may decelerate rapidly in periods following large increases, (iii) volatility in market services inflation is more limited, and this group is an important driver of the inertia in services inflation as the monthly levels reached over the year are generally maintained.

⁸ In 2024, the weight of regulated services is 6.86%, and the weight of market services is 20.99%.

Chart 3: Prices of Regulated Services and Market Services (Monthly % Change)

* The rise in value added tax had a significant impact on the increase observed in both items in July 2023. Moreover, in the third quarter of 2023, monthly price changes in regulated services were relatively high, led by transportation services, due to the rise in exchange rates and oil prices.

To sum up, while services inflation rose by 12.1% in January, the monthly increase in regulated services was more pronounced at 14.9%. Making up approximately one-fourth of the services sector, regulated services display a relatively stronger time-dependent pricing tendency, and price increases are concentrated periodically in January. In the following months, however, price increases in these services subside more rapidly than in market services. Improving the regulatory framework for these services to decrease uncertainty will contribute to increasing predictability and managing inflation expectations.

Zoom-In 2.8

Implications of the Tax Reform in Tobacco Products

With a regulation, the ad valorem SCT rate on tobacco products was reduced, while the specific SCT was raised effective from the beginning of 2024. As the tax base for tobacco products is the retail price, reducing the ad valorem SCT rate has also brought down the multiplier. Accordingly, the need for a change in the retail price due to higher costs or specific tax will be met with a lower rate of increase compared to the previous regulation, and the impact on headline inflation will be smaller.

While tobacco products are taxed at high rates globally, there are divergences between country practices. Tax revenues come largely from the specific tax in some countries, from a more balanced structure in others, and from the ad valorem tax in remaining countries including Türkiye.⁹ While the same tax revenue can be achieved through different methods, the fact that the tax base for tobacco products is the retail price brings up the concept of "multiplier" and changes the price-setting structure of the sector.¹⁰ The multiplier is the ratio by which a unit of increase in producer prices or specific taxes affects the final selling price. The multiplier is high in cases where the ad valorem SCT is set at a high rate, and the producer needs to make a higher rate of increase in the retail price in case of a rise in costs or specific tax in order to earn the same amount of revenue.

With a regulation introduced towards the end of 2023, the tax structure for tobacco products was changed.¹¹ Accordingly, the ad valorem SCT rate was reduced from 63% to 57%, and thus, the multiplier declined from 7.50 to 5.17 (Chart 1). So, when the costs or specific SCT increase by TRY 1, firms would increase the retail price by TRY 7.5 according to the previous regulation, but an increase

⁹ As of 2023, the ad valorem tax rate was 63% in Türkiye while the average ad valorem tax rate in EU countries was around 27%.

¹⁰ Further information on the price structure of tobacco products is available in Box 3.1 of the Inflation Report 2018-III.

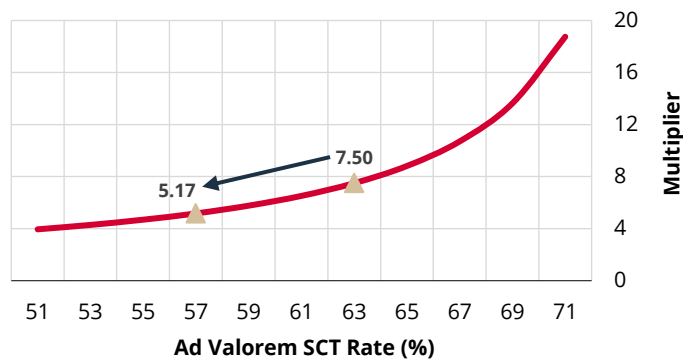
¹¹ Presidential Decree No. 8001 published in the Official Gazette No. 32413 dated 28/12/2023.

of TRY 5.17 will suffice now. The need for a smaller increase, in turn, alleviates the sector-driven impact on inflation. With the same regulation, the specific SCT amount per package was raised from TRY 1.1043 to TRY 4.8058 to compensate for the revenue loss due to the cut in the ad valorem SCT rate.¹² The specific tax amount was determined based on the public revenue to be obtained in the case where the tax structure is not changed, and the producer price inflation over the second half of 2023 is automatically reflected on specific and minimum specific taxes.

Due to the new tax structure, the inflationary pressure will be more limited in the period ahead.

Following the new tax regulation, retail prices of cigarettes rose by around TRY 2 in January, which is a more moderate increase than implied by the previous regulation. The new tax structure will also enable lower rates of increase in retail prices in the upcoming periods, and the inflationary pressure will be more limited. Aimed at aligning with EU countries, this regulation has also set an example for the coordination between fiscal and monetary policies during the transition to disinflation.

Chart 1: Multiplier for 20% Value Added Tax Rate



Source: CBRT, Revenue Administration.

¹² With the regulation, the minimum specific tax amount per cigarette was raised from 1.1114 Turkish liras to 1.4249 Turkish liras.

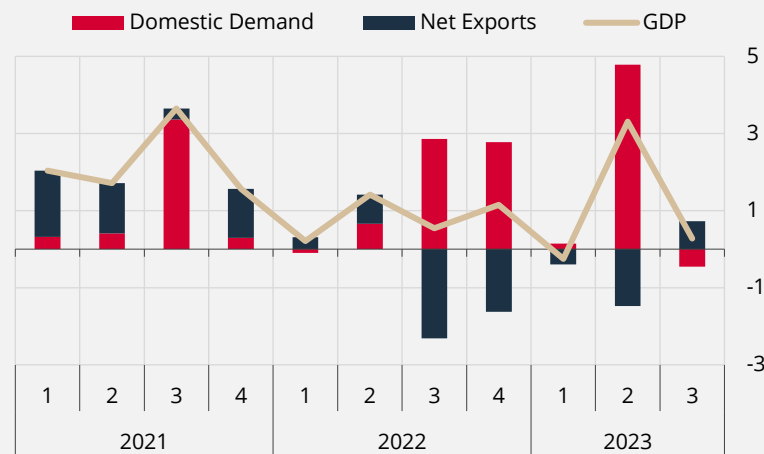
Box 2.1

Rebalancing Process in Domestic Demand

Strong domestic demand driven by high credit growth in the first half of 2023, was one of the main determinants of the rise in inflation and the deterioration in expectations. The tightening in financial conditions that started in June supported the normalization in credit growth and composition. Thus, it contributed to a gradual rebalancing of domestic demand and an improvement in inflation expectations. The course of demand conditions will also play a critical role in ensuring a permanent fall in inflation in the upcoming period. Accordingly, this box examines the impact of the monetary tightening process on demand conditions in sectoral detail with various high-frequency indicators.

Economic activity remained strong in the first half of the year, driven by domestic demand. Strong private consumption and domestic demand were the main drivers of growth, while net exports had a dampening effect on quarterly growth (Chart 1). In the third quarter, GDP growth decelerated on a quarterly basis, signaling the start of the rebalancing in domestic demand following the monetary tightening. With the tightening in financial conditions, the contribution of final domestic demand to quarterly growth declined significantly, led by the contraction in private consumption, while net exports made a positive contribution to quarterly growth for the first time in four quarters. While imports remained high in the first half of the year, mainly driven by imports of consumption and investment goods as well as gold imports, the monetary tightening in the second half of the year, which was reflected on financial conditions and the rebalancing in domestic demand, started to have a dampening effect on imports. In this period, in addition to the slowdown in gold imports, imports of consumption goods also lost momentum (Chart 2).

Chart 1: Gross Domestic Product and Its Components
(Contributions to Quarterly Growth, % Points)

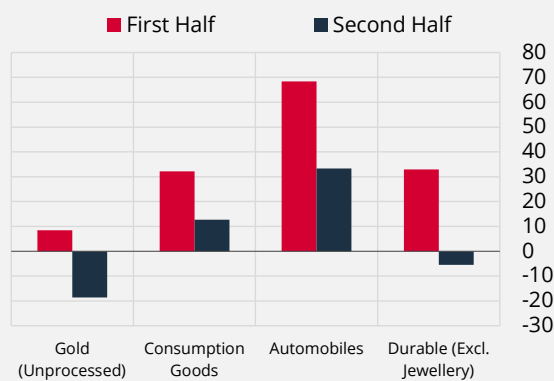


Source: CBRT, TURKSTAT.

Among the leading indicators of consumption, the retail sales volume index and data on card expenditures also point to a loss of momentum in domestic demand since the start of the monetary tightening (Chart 3). The retail sales volume index, which increased by 6.7% and 5.1%, respectively in the first two quarters of the year, decelerated to 0.6% in the third quarter, while the index pointed to a quarter-on-quarter contraction of 0.1% in the last quarter as of November. Recent tendency of the retail sales volume index, which is broadly in line with the private consumption trend, suggests that the loss of momentum in the second half of the year was more pronounced in non-food groups including computers, electronics, housing-related expenditure items, household appliances and furniture. As these groups typically include durable goods that are more sensitive to financing conditions, retail sales volume index data provide signs of the impact of monetary tightening.

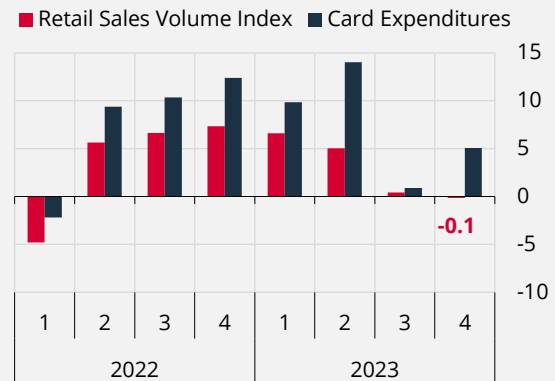
Similarly, data on card expenditures, which provide more timely information about the private consumption tendency, also indicate that domestic demand has started to rebalance. An analysis of card expenditures by sub-sectors deflated by the relevant CPI indices reveals that there were strong increases across sectors in the first half of the year compared to the last quarter of 2022. In fact, in real terms, total card expenditures increased by 9.7% and 14% quarter-on-quarter in the first two quarters of the year, respectively. On the other hand, in the third quarter, the rate of increase in card expenditures slowed down across sectors to 1.1% compared to the strong momentum in the first half of the year. Meanwhile, factors such as the year-end campaigns in the last quarter of the year and the demand incentive, which was brought forward, limited the loss of momentum in demand to some extent. In this period, card expenditures increased by 5.1% quarter-on-quarter but still implied a lower increase compared to the first half of the year.

Chart 2: Imports* (2023, Seasonally Adjusted, Nominal, Six-Month % Change)



Source: CBRT, TURKSTAT.
* Percentage change of imports in consecutive six-month periods.

Chart 3: Retail Sales Volume Index and Card Expenditures* (Seasonally Adjusted, Real, Quarterly % Change)

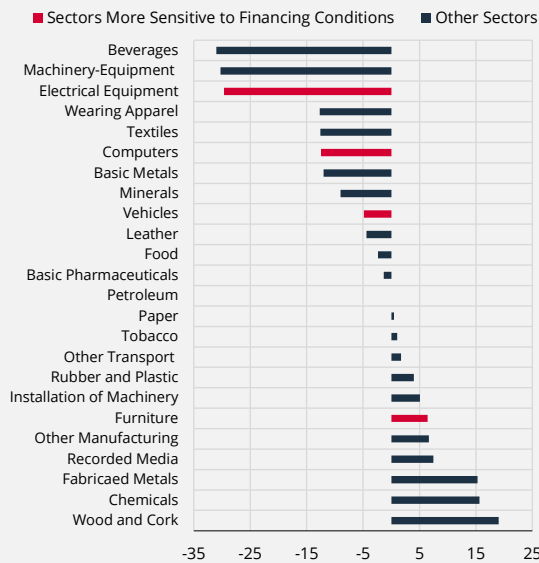


Source: CBRT, TURKSTAT.
* Retail sales volume index is as of November.

In addition to the data on retail sales volume and card expenditures, the BTS, which includes information obtained from interviews with manufacturing industry firms, also enables the current demand conditions to be monitored in sectoral detail. The survey question on the change in the quantity of registered domestic market orders provides leading information on the course of domestic demand. This indicator for domestic market orders is analyzed in the context of the impact of the monetary tightening launched in June on sectoral demand. Accordingly, an analysis of the change in registered domestic market orders in January-June period reveals that 12 out of 24 sectors recorded a decline, while 11 sectors posted an increase (Chart 4). Considering that durable consumption good sectors such as vehicles, electrical equipment, computers and furniture are more sensitive to financing conditions, survey data suggest that domestic demand in these sectors weakened, except for furniture.

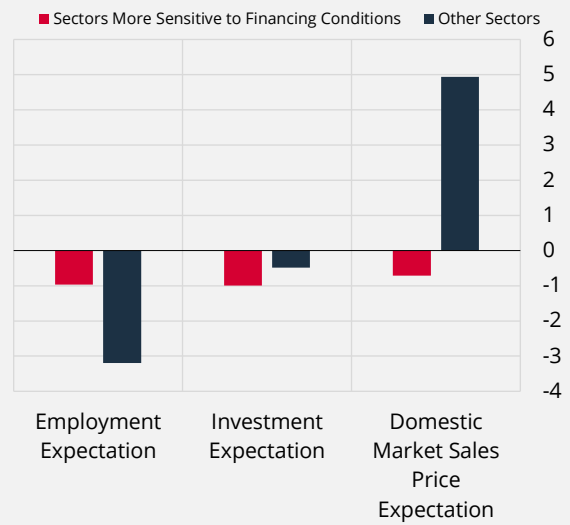
The questions in the BTS also allow examination of employment, investment and price expectation developments at the sectoral level. The sectoral analysis of these developments in terms of sensitivity to financing conditions reveals that employment expectations have decreased in sectors such as computers, vehicles and electrical equipment, which are more sensitive to financing conditions, whereas there has been a limited increase in the furniture sector. When these sectors are aggregated by their weights in the manufacturing industry, employment expectations imply a decrease compared to June but present a more positive outlook compared to other sectors (Chart 5). As for investment expectations, investment expectations decreased in the furniture, vehicle and electrical equipment sectors that are sensitive to financing conditions, while there was an increase in the computer sector. Despite this increase, investment expectations in sectors that are more sensitive to financing conditions decreased more than other sectors. On the price expectations side, domestic market sales price expectations increased in the electrical equipment sector during this period, while price expectations decreased in all other financing-sensitive sectors. When aggregated by their weight in the manufacturing industry, domestic market sales price expectations decreased in sectors that are more sensitive to financing, whereas there was an increase in other sectors.

Chart 4: Quantity of Currently Registered Domestic Market Orders (Increase- Decrease, Seasonally Adjusted, January 2024 – June 2023 Difference)



Source: CBRT.

Chart 5: BTS Price, Employment and Investment Expectations* (Increase- Decrease, Seasonally Adjusted, January 2024 – June 2023 Difference)

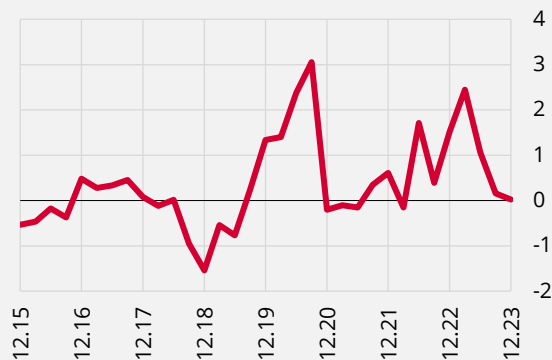


Source: CBRT.

* Excluding petroleum products sector due to high volatility.

A closer look at how the domestic demand outlook is reflected in consumer prices highlights developments in the durable goods group, where prices are highly sensitive to financing conditions. As implied by sectoral demand data, inflation in durable goods (excluding gold) remained high in the first half of the year due to strong demand and strengthened significantly in the third quarter due to combination of multiple shocks. In the fourth quarter, price increases slowed down significantly in this group due to the completion of the transmission of the shocks to a large extent and campaigns to deplete stocks as well as the loss of momentum in consumer loan growth (Charts 6 and 7). The analysis on a sub-group basis shows that the weakening in price increases in the last quarter of the year spread across sub-groups, with the slowdown in automobiles being more pronounced.

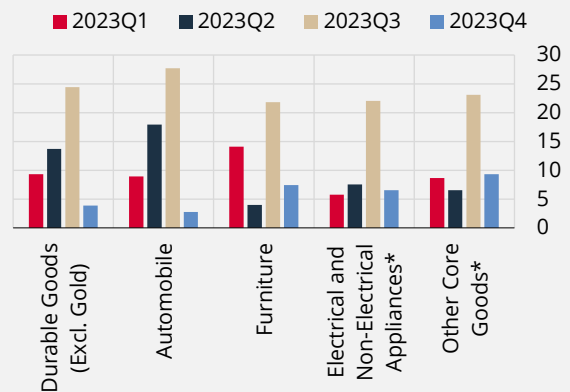
Chart 6: Consumer Loan Growth* (Quarterly, Real, Standardized Value)



Source: CBRT.

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

Chart 7: Prices of Durable Goods and Its Sub-Items (Seasonally Adjusted, Quarterly % Change)



Source: CBRT, TURKSTAT.

* No seasonality detected.

In sum, with the reflection of the monetary tightening process that started in June on financial conditions, domestic demand started to balance, and accordingly, the import tendency weakened while an improvement in pricing behavior and expectations was observed. On the other hand, it should be noted that domestic demand remains resilient due to the wage updates in January, and despite this balancing tendency, the current level of domestic demand may be a risk factor on inflation.

Box 2.2

Findings from Interviews with Firms

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

It was observed that economic activity conditions were more positive in the last quarter of the year than anticipated in the third quarter.

While domestic demand conditions supported sales mainly through the final consumer channel, no significant change was observed in foreign demand conditions in the last quarter, although the emphasis on downside risks continued. As a result of these developments, participants reported that the loss of momentum in aggregate demand conditions observed in the previous quarter decelerated in this period, and the limited slowdown in production continued. While the weak course of investment continued, it has been noted that firms have focused more on cost-cutting and efficiency-enhancing investments. On the other hand, it has been observed that price increases have slowed down with references to labor and input costs and exchange rate-related costs.

The loss of momentum in domestic sales, which started in the third quarter, slowed down in the last quarter of the year.

Consumer-oriented campaigns and the fact that consumers continue to bring forward their demand to hedge against expected price increases in the new year, stand out as factors supporting domestic sales. On the other hand, the high course of the general price level and the tightening in financing conditions, especially in durable goods, were noted as the main factors suppressing sales. It continued to be reported that consumers' sensitivity to campaigns was high and the tendency towards affordable products was widespread. On a sectoral basis, basic products such as food, consumer electronics and automotive sales stand out as product groups with a relatively positive trend, while ready-made clothing followed a more buoyant trend compared to previous periods owing to the impact of campaigns.

It has been observed that consumers' expectation of wage increases in the new year supported sales in **food and fast-moving** consumer goods. While it was stated that the fourth quarter was buoyant as a result of discount campaigns in the **apparel industry**, it was noted that the sales of firms that entered the season with attractive pricing policies were more positively differentiated. It has been reported that **white goods** sales increased as of November due to discount campaigns but slowed down slightly on a quarterly basis. Consumer electronics and small household appliances were reported to be more buoyant. While **furniture** sales followed a parallel course to the previous quarter, it was emphasized that factors such as weakness in new home sales, price levels and the low number of installments suppressed demand. On the other hand, it has been stated that the leading firms in the sector achieved their seasonal sales targets by refraining from price increases and organizing campaigns, and that firms that have brand power and strong resources differentiated positively. **In the automotive industry**, it has been observed that the increased automobile supply and competition as well as the response to campaigns including price discounts and the demand brought forward supported sales. It has been stated that demand for residence purposes is low in the **housing** sector due to high prices and credit conditions, and the expectation of campaigns that will revitalize the sector also creates additional pressure on sales. While the demand for investment housing purchases continues to slow down, it has been observed that the expected boost in sales to foreigners did not materialize.

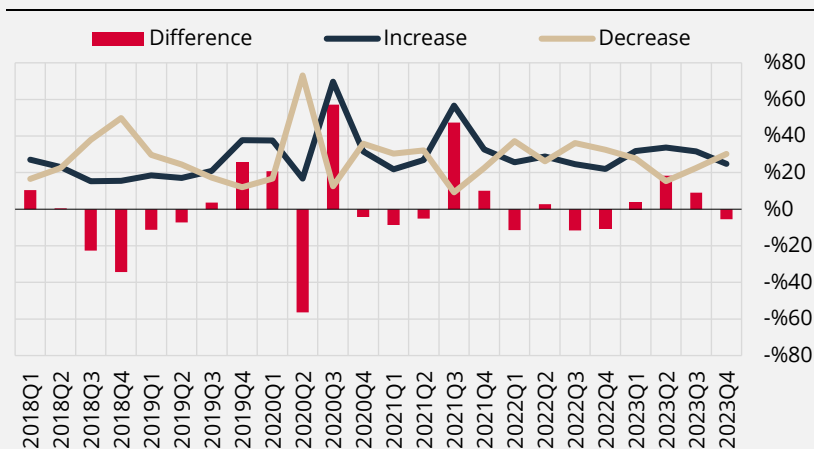
¹The main purpose of this study is to obtain information on periodic production, domestic and international sales, investments, employment, credit conditions, and cost and price developments in a timely manner to closely monitor economic activity and to improve the communication between the CBRT and 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.

It was observed that foreign demand conditions maintained their course in the third quarter.

Weak demand conditions in European countries, the decrease in freight costs especially until December, tighter competitive conditions with China's return to foreign markets and geopolitical risks were expressed as the main factors that put pressure on exports. While firms' export orientation and market/product diversification flexibility continue to be emphasized as factors that ease pressure, the beginning of the removal of energy subsidies in some countries has been noted as a development that will increase competitiveness.

On a sectoral basis, it has been observed that weak demand conditions continue in the **apparel** and **textile sector**, and the stagnation in EU demand continues to play a particular role in this weakness. It has been observed exports in **furniture** sector displayed a similar outlook as in the previous quarter, and the sales of firms with less dependence on the European market have followed a more positive course. It has also been stated that firms are trying to increase their exports through product and market diversification in order to compensate for losses in the domestic market. It has been observed that **white goods** main and sub-industry exports exhibit different trends on a product basis. It has been stated that the Chinese influence has become evident in foreign markets, especially in the stove, oven and hood product groups. It has been observed that exports in the **automotive** sector maintained their positive outlook. It has been reported that demand in Europe remained strong throughout the quarter, and that the original equipment manufacturer's side remained strong in the main industry exports and sub-industry, especially in the commercial vehicle market. Firms shared their anticipations that exports will gradually increase in 2024 with orders received from new customers and investments to be put into effect. It has been reported that while the demand for rebar in the **base metal** sector has contracted, the demand for pipe-profile products used in various sectors has maintained its strength despite the negative demand conditions in the EU.

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



Source: CBRT ELRS.

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

The slowdown in production activity that started in the third quarter continued in the last quarter.

For firms operating mainly in the domestic market, although the campaigns supported demand in November and December, production was affected by the tightening in financing conditions and expectations that the slowing in consumption may increase as of the second quarter of 2024. Although it has a positive trend compared to the domestic market, production activity in exporting firms started to slow down as of the last quarter.

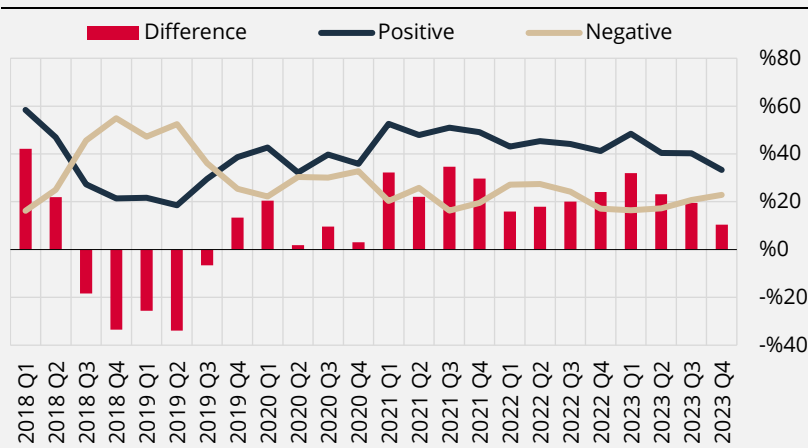
Looking at sectoral developments, production in the **automotive** industry remained strong amid strong domestic and foreign demand. Despite the anticipated slowdown in the domestic market in 2024, expectations for foreign demand are positive. It is envisaged that the current strong trend will

continue as the main industry plans are largely determined in this direction. In addition to the positive evaluations of foreign demand for **white goods** for 2024, production has maintained its strong course owing to campaigns organized by the main industry in the domestic market. **In furniture**, foreign demand remained similar to the previous quarter, while on the domestic side, although the effect of the campaign was more limited than in white goods, production followed a horizontal course on a quarterly basis. **In machinery and equipment**, the weakness in the investment stance in the domestic market negatively affected demand, while in exports, production activity remained similar to the previous quarter as a result of firms' ability to find alternative markets. **The chemicals industry** maintained its production in automotive and cleaning products in the domestic market as well as in foreign demand. On the other hand, weakness in textile and construction-related areas suppressed production. **In basic metals**, amid stagnation in the construction sector in the domestic market, the expected recovery in foreign demand has not yet started, and Chinese competition continued to negatively affect production. **In construction**, demand remains weak except for the earthquake zones and earthquake-resistant provinces. While contractors try to complete ongoing projects in order to avoid additional costs, the appetite for starting new projects is low. **Textile and apparel** production slowed down compared to the previous quarter as a result of the negative reflections of the tightening in financial conditions in the domestic market on inter-firm trade and the increasing emphasis on the weakening of competitiveness in foreign demand. On the apparel side, demand supported by campaigns supported production to some extent.

The prudent investment stance of firms continued in the last quarter of the year.

The increase in investment financing costs and uncertainties regarding domestic and foreign demand have been highlighted as the main reasons for the weakness in the investment stance. Despite the weak course of the investment stance, it was observed that there was no significant increase in the rate of postponed investments in this quarter and those investments that had been started largely continued. The investment stance of export-oriented firms continued to be relatively positive. On the other hand, due to uncertainties regarding the course of demand in the main markets during this period, it was observed that the exporting firms also increased their prudence regarding their investment stances within the quarter.

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



Source: CBRT ELRS.

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

It is observed that firms focus on cost-reducing and efficiency-increasing investments in their investment plans. In this context, machinery-equipment, expansion and energy investments continued to be at the forefront. In this period, while the investment motivation of firms with strong resources differed positively, decreasing labor and energy costs, increasing efficiency by reducing unit costs by economies of scale and completing ongoing investments supported this motivation. **On a sectoral basis**, it is observed that the investment stance has differentiated positively in the **food manufacturing** and **automotive** sectors. There are new investments in the **food manufacturing**

sector to increase production capacity and to introduce new products. It is seen that investment appetite is strong due to strong demand conditions in the **automotive** sector and the growth in the electric vehicle market. **Textile, apparel** and **construction** sectors stand out among the sectors where the investment stance is negative due to the weak demand outlook. High land prices in the **construction** sector and the weak course of housing demand are cited as factors that suppress investment appetite.

As of the fourth quarter, it was observed that the weakness in the investment stance of firms continued to be reflected in their employment plans.

Firms' efforts to increase automation and efficiency in the production process continued to be a factor limiting employment growth. In this period, in addition to uncertainties regarding domestic and foreign demand and wage increase expectations, the increasing share of social service costs granted to employees in the total cost also increased the limiting effect on employment plans. On the other hand, efforts to retain existing experienced employees owing to difficulties in finding employees and the start of operations in completed investments supported employment plans.

The emphasis on the increase in financing needs showed a limited decrease in the last quarter of the year.

The emphasis on financing needs, which mainly arise from demand for working capital, decreased in December from their high levels in October and November. It has been stated that declining and/or flat raw material prices were effective in this decrease. On the other hand, for firms with increasing working capital needs, the emphasis on cash flow disruptions in December was remarkable while costs related with fuel and electricity expenses were highlighted more intensely in the first month of the quarter. Although the need for investment-based financing remained important, it was expressed less in this quarter.

Even though the tightening in credit conditions continued in the last quarter, it was stated that there was an easing in terms of maturity and limit. It has been observed that the decrease in firms' loan demand due to high TL loan costs started to become evident as of December, and exporting firms' tendency towards more cost-effective rediscount loans increased. It was stated that banks' appetite for lending increased, and correspondingly, access to credit was eased in the fourth quarter compared to the previous quarter. This relief is conveyed especially by exporters and manufacturing firms, and it is attributed to increasing rediscount credit limits.

While the increase in maturity differences in inter-firm trade caused cash purchases to become widespread, there was a slight increase in the emphasis on delays in receivables in December. Although it was reported that the increase in receivables-payable maturity mismatch caused disruptions in the cash flows of firms, there were no significant problems with collections as of the last quarter. However, it is seen that the increased use of checks in the market, the increase in financing costs and the expectations of a weakening in demand led to concerns about collections.

It was observed that the cost pressure on firms eased, and the price increase rate slowed down in the last quarter.

The emphasis on labor costs, which stood out as a source of cost increase in the previous quarter, dropped significantly in this quarter. Although input costs were the most frequently mentioned cost factor during the quarter, they were cited less frequently owing to the stable course of global commodity prices. In addition, there was a significant decrease in the ratio of companies emphasizing exchange rate-related cost increases compared to the third quarter. Although references to energy costs came to the fore in October with the increases in natural gas and electricity prices, they faded out in the remaining months of the quarter.

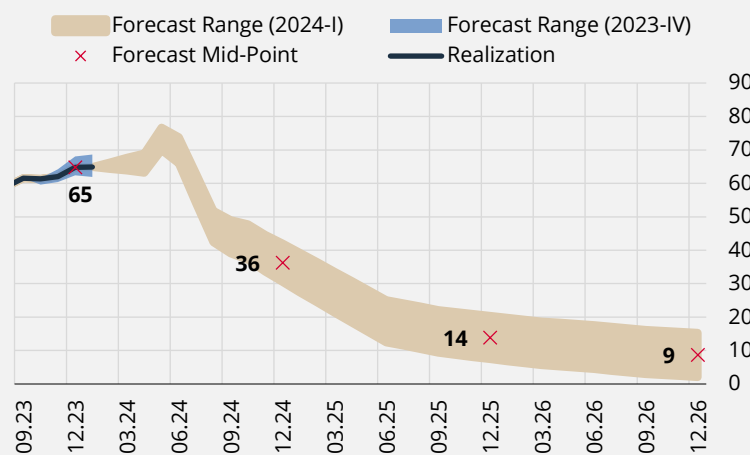
It was observed that price increases decelerated, and the frequency of price updates decreased during the quarter. It is considered that i) monetary tightening, ii) the recent easing in cost pressure, iii) the fact that the cost increases from the previous period have been largely reflected, iv) the public call to fight against inflation and v) competitive pressures arising from the campaign period are effective in this slowdown.

Box 2.3

A Closer Look at the Disinflation Path

In the last quarter of 2023, inflation was consistent with the 2023-IV Inflation Report forecasts and stood at 64.8%, approximately 0.2 points below the mid-point. This outlook was maintained in January, with inflation realizing in tandem with forecasts. In this box, the 2024-I Inflation Report forecast path (Chart 1) is analyzed more closely, while shedding light on basic issues regarding the "mechanics" of the disinflation path. In this context, (i) the relationship between the course of annual inflation and monthly movements of inflation is assessed, (ii) the base effect and its impacts on 2024 inflation are explained, and (iii) while the current situation is evaluated, important factors that will affect the inflation path in 2024 are stated, and the implications of the path in 2025 and beyond are discussed.

Chart 1: Inflation Report Forecasts* (%)



Source: CBRT.

* 2023-IV Inflation Report forecasts are reported for the period before January 2024, and 2024-I Inflation Report forecasts are reported for the period after February 2024.

Inflation Forecasts

Chart 1 indicates that inflation will remain flat in the first half of 2024, will peak in May with a significant increase, and then decrease sharply falling to 36%. The analysis of annual inflation outlook on a monthly basis reveals that (1) January is not different from February, (2) there will be a sharp price increase from April to May, (3) and the price increase rates will suddenly drop to very low levels afterwards.

These evaluations are clarified as follows in the light of the monthly inflation path implied by the forecasts. (1) Although annual inflation remained flat, there was a significant monthly increase in January due to wage adjustments, especially the minimum wage, and items with a high tendency for time-dependent price setting. While seasonal increases were recorded in service items such as health and transportation, there were automatic increases in some administered items (alcohol, tobacco, fuel, etc.). Since similar effects were prevalent in January 2023, annual inflation remained relatively flat. (2) The main reason for the expected sudden increase from April to May is that monthly inflation was close to zero due to the free natural gas in May 2023 and the normalization of the tariff in May 2024. (3) Although monthly price increase rates will show a gradual decline after May, the previous year's developments also play a role in the sharp decline in annual inflation. In other words, high monthly price increases were recorded in July and August 2023 due to exchange rate, taxes, administered prices, energy prices and the increase in demand as well as the non-linear effects of their combination on expectations and price-setting behavior. This factor, which causes the previous year's monthly inflation to significantly affect the current year's annual inflation in such periods, is called the base effect.

What Is Base Effect?

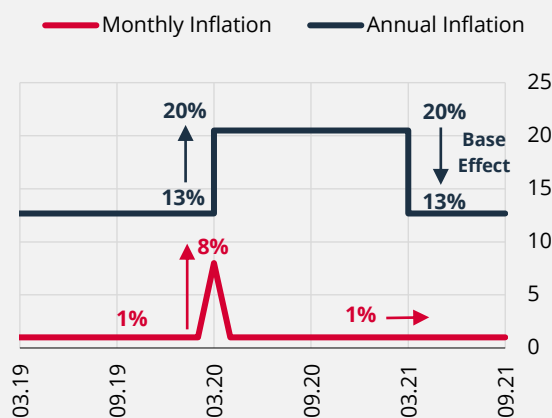
Chart 2 presents a sample visualization of base effects. The price of a product with a monthly price increase of 1% rose by 8% in March 2020, then price increases returned to normal levels in the following period. In the same period, annual inflation remained stable after rising to 20%. In March 2021, annual inflation decreased to 13% as the price change in 12 months earlier was excluded from the calculation of annual inflation. The source of this rapid decline in annual inflation in March 2021 without any change in monthly inflation is called “base effect”.

Taking a more detailed approach to the base effect, annual inflation (π_t), is calculated as the percentage change between the price index in a given month (P_t) and the index value 12 months earlier (P_{t-12}). The difference between the annual inflation rates in two consecutive months is approximately equal to the difference between the monthly inflation rate in the current month and the monthly inflation rate 12 months ago.

$$\pi_t - \pi_{t-1} \approx \left(\frac{P_t}{P_{t-1}} - \frac{P_{t-12}}{P_{t-13}} \right) * 100$$

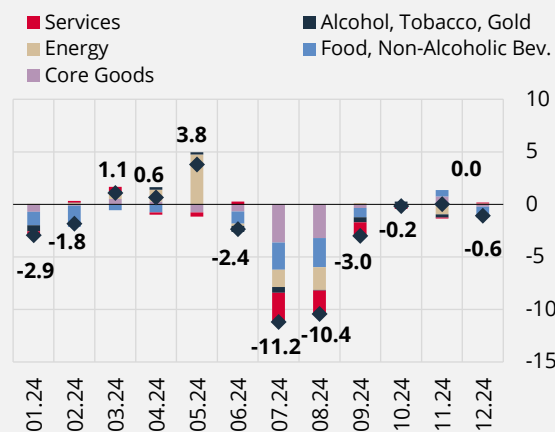
Thus, the change in annual inflation rates from one month to the next reflects the effect of price movements both in the current month and in the base month, which is the effect coming from 12 months ago (the base effect). For a significant base effect, the monthly change 12 months ago must deviate significantly from a typical monthly change that would normally be expected in that month.¹

Chart 2: Base Effects on Annual Inflation



Source: CBRT.

Chart 3: Base Effects on Annual CPI Inflation (% Points)



Source: CBRT.

Chart 3 analyzes the base effects on 2024 consumer inflation by main groups.² As seen in the chart, the energy group is projected to push annual inflation higher due to the natural gas subsidy in May. In the June-August 2023 period, multiple shocks in a short period of time led to high increases across subcategories. Therefore, in the June-September 2024 period, in addition to the cumulative effects of monetary tightening for reducing monthly inflation rates, base effects in almost all subcategories are expected to bring annual inflation down. On the other hand, from September 2024 onwards, no significant base effect is observed, while annual inflation is expected to decelerate further due to the strengthening of the lagged effects of monetary tightening in this period.

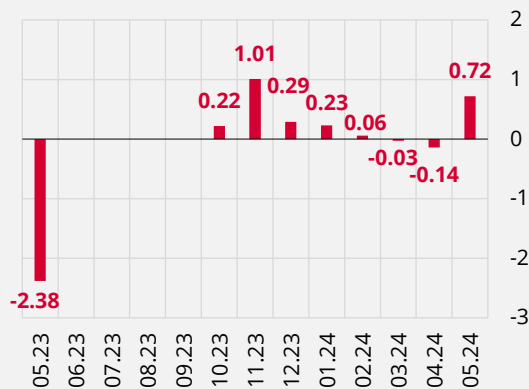
¹ Detailed information on this issue is presented in Box 3.2 of the Inflation Report 2019-II and Box 3.1 of the Inflation Report 2016-I. In addition, further evaluations on base effects can be found in ECB (2005, 2007).

² The contribution of base effects to annual inflation varies depending on the calculation of the typical monthly change. For the typical monthly changes, the average monthly inflation adjusted for outliers in the 2020-2022 period is used in each subcategory. The average and standard deviations of recent inflation rates are used for detecting outliers. The recent inflation trend (the average value of 4 seasonally adjusted inflation rates without outliers 2 months before and 2 months after the relevant month) is used for the typical monthly changes in the services item.

Effects of Natural Gas Subsidies Provided to Consumers on Inflation

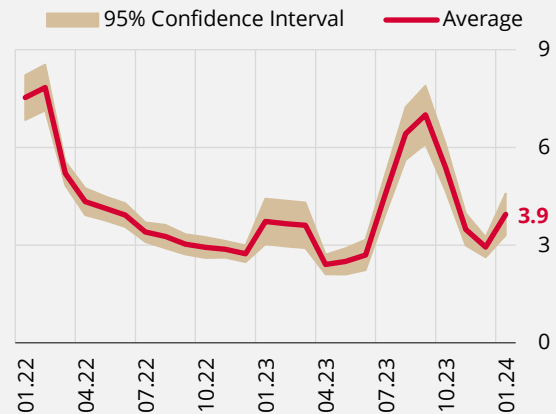
Considering the base effects and consumption quantity-driven effects, it is crucial to separate the contributions from the natural gas regulation in order to assess the course of inflation properly. Under this regulation, natural gas was offered free of charge to residential consumers in May 2023, and it was decided that up to 25 m³ of consumption would be covered by the state for the following one-year period. The free use of natural gas in May had a significant downward impact of 2.38 points on monthly consumer inflation (Chart 4). In line with the rise in consumption as the weather turned colder, consumer inflation picked up in the last quarter. While this effect was significant in November by around 1 percentage point, it weakened in December 2023 and January 2024. The sharp monthly increase in May 2024 due to the end of the regulation is particularly noteworthy (Chart 4). In addition to this development, annual inflation is expected to peak due to the base effect stemming from the fall in May 2023 (Chart 1).

Chart 4: Estimated Contribution of Natural Gas Price Adjustments to Monthly Consumer Inflation³ (% Points)



Source: CBRT, GAZBİR.

Chart 5: Average Underlying Trend Indicators of Monthly Inflation* (%)



Source: CBRT.

* Seasonally adjusted three-month average change. Reports the mean and 95% confidence interval for seven main trend indicators (B and C indices, SATRIM, Median, the index excluding most volatile items, indicators produced by principal component analysis and dynamic factor models.).

Current State, Forecasts and Assumptions

A closer look at current state reveals that inflation expectations and their distribution improve as the policy decisions begin to take effect. Evaluated together with the main inflation indicators, the underlying trend of inflation has been on a downward trend since September, although this was interrupted in January for the reasons given above (Chart 5). As a matter of fact, three-month averages showed a sharp decline in the last quarter and reached approximately 2.9% in December. In January, the three-month trend increased to 3.9% also with the effect of the increase in monthly inflation. After the rise in January, it is estimated that the averages will trend downward again in the coming months.

A comparison of the previous Report period forecasts with the realizations reveals that the three-month averages of seasonally adjusted inflation indicators indicate a more favorable course than the projections both in the last quarter of 2023 and in January (Table 1).

³ The figures presented here reflect estimates. Realizations will differ slightly due to (i) the difference arising from the regional consumption calculation used by TURKSTAT (here the calculation is based on Türkiye's average historical consumption from GAZBİR), (ii) price increases by natural gas supplier firms, and (iii) relative increases in items other than natural gas.

Table 1: Comparison of Inflation Realizations and Forecasts (Seasonally Adjusted, Three-Month Average % Change)

	CPI		B		C	
	Inflation Report 2023-IV	Realization	Inflation Report 2023-IV	Realization	Inflation Report 2023-IV	Realization
Sep. 23	6.0	5.8	5.7	5.9	5.4	5.7
Nov. 23	4.1	3.6	3.7	3.6	3.8	3.6
Dec. 23	3.8	3.2	3.2	2.8	3.5	3.0
Jan. 24	4.3	4.3	4.7	4.2	5.3	4.6

Source: CBRT, TURKSTAT.

The underlying trend fell to comparatively low levels as a result of the relatively flat exchange rate and declining commodity prices in the February-May period of 2023. Although monthly inflation rates are expected to slow down again after the temporary rise in January 2024, the projection of rates close to the previous year's levels indicates that annual inflation may remain relatively flat in the February-April period of 2024. Possible increases that may be seen in domestic energy prices in the second quarter of the year and beyond have been reflected in the Inflation Report forecasts and included within the forecast range with a cautious stance.

Within the framework of the forecasts in the Inflation Report 2024-I, the seasonally adjusted monthly inflation rate is projected to be below 4% on average in the first half of 2024 and around 3% on average excluding January. Disinflation period will start with a rapid decline in annual headline inflation after May. In this period, it is evaluated that favorable base effects, and more importantly, further decline in the underlying trend of inflation will be effective. The continued rebalancing of domestic demand, the completion of wage updates and the additional improvement in expectations caused by the decline in headline inflation will play an important role in this process. Thus, according to the projections, seasonally adjusted average monthly inflation will first drop below 2.5% in the post-May period and then drop to around 1.5% in the last quarter of the year. The decline in the underlying trend of inflation to historical averages will continue in 2025, along with the dissolution of the rigidity in services inflation and by maintaining the monetary stance in line with the targets. At this point, it should be noted that many assumptions that cannot be determined by monetary policy, such as commodity prices, are effective on the CBRT's inflation projection, especially in the short term. The Inflation Report examines in detail the assumptions and economic outlook behind these conditional forecasts.

While the rebalancing in domestic demand and the stable course of the Turkish lira continue in 2024, the main parameters that will stand out are, how strongly inflation expectations will decline and to what extent the stickiness in inflation, especially services inflation, will be broken. Monetary policy will be the main determinant in realizing the path envisaged in the medium term and reducing the underlying trend of inflation to 1% by 2025, and the course of fiscal policy will also be important in this process.

References

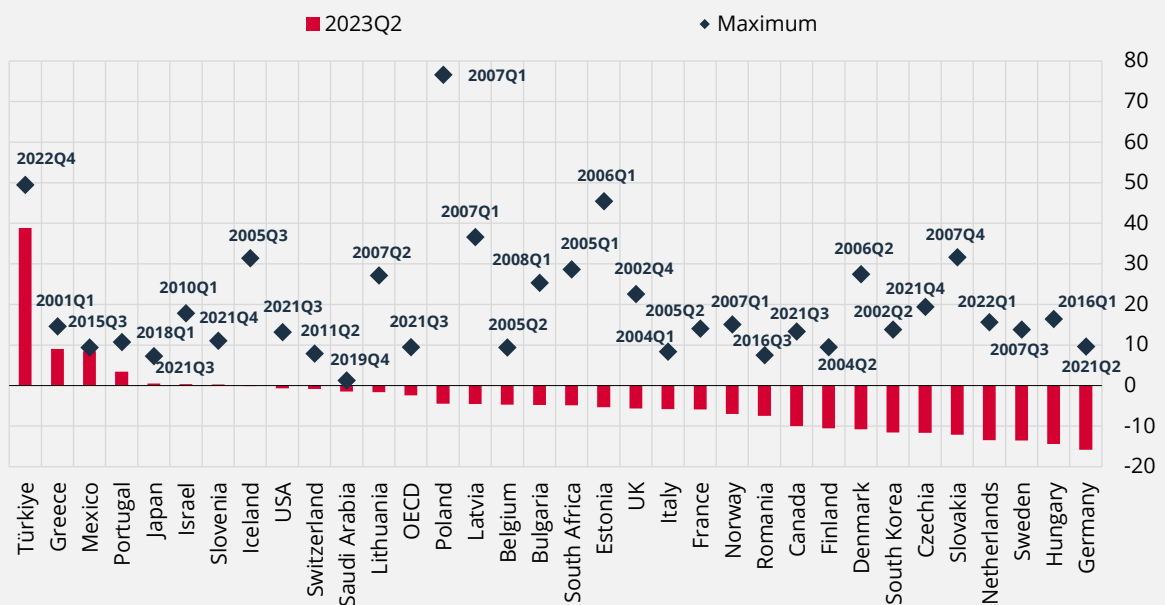
- CBRT (2019). Reflections of Base Effects on Consumer Price Inflation, Inflation Report 2019-II, Box 3.2.
- CBRT (2016). Impacts of Base Effects on the CPI Inflation in 2016, Inflation Report 2016-I, Box 3.1.
- ECB (2007). The Role of Base Effects in Driving Recent and Prospective Developments in HICP Inflation. Monthly Bulletin January: 33-35.
- ECB (2005). Base Effects and Their Impact on HICP Inflation in Early 2005. Monthly Bulletin January: 31-33.

Box 2.4

General Outlook in the Housing Market

The analysis of the peaks of real house price increases during the 2000-2023 period from a historical perspective reveals that the peaks are usually concentrated during the pre-Global Financial Crisis or the pandemic period. After 2020, Türkiye witnessed considerable increases in housing prices as well. In 2022Q4, real house price increases in Türkiye reached their highest level. In 2023, while the real house price increases recorded a decline, they continued to decouple from the rest of the OECD countries (Chart 1). The importance of the housing market increased further following the Kahramanmaraş earthquakes in 2023. Increases in house prices can implicitly affect inflation by reflecting on rents as well as by affecting living and demand conditions. In this box, developments in the housing market, house prices and rent inflation are analyzed, and the importance of the housing market for price stability is discussed.

Chart 1: House Prices (Real, Annual %Change)*



Source: OECD.

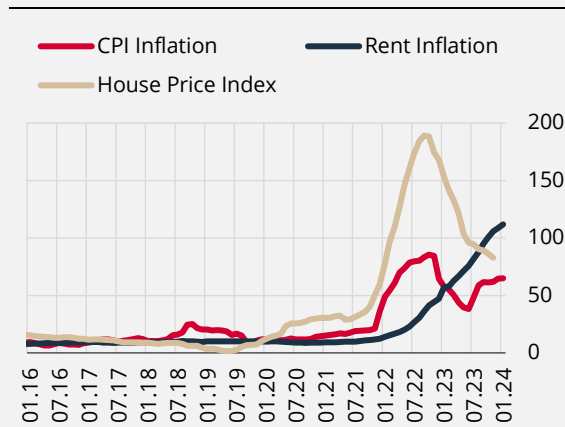
* The maximum value shows the greatest annual increase for each country for the period between 2000Q1 and 2023Q2.

The role of the housing market as an investment tool in a high-inflation environment has become more important in recent years. The demand for durable goods, especially housing, automobiles and white goods, has increased both with the high increases in Turkish lira loans and with the motivation to hedge against inflation in a high and volatile inflation environment.¹

The upward trend in housing prices, which started in 2020 with the impact of the pandemic, continued to accelerate in 2022 and reached their peak in October 2022. Although a slowdown has been observed in the rate of house price increases since the end of 2022, high levels have been maintained. As of November 2023, the annual rate of increase in the house price index was 82.8% (Chart 2).

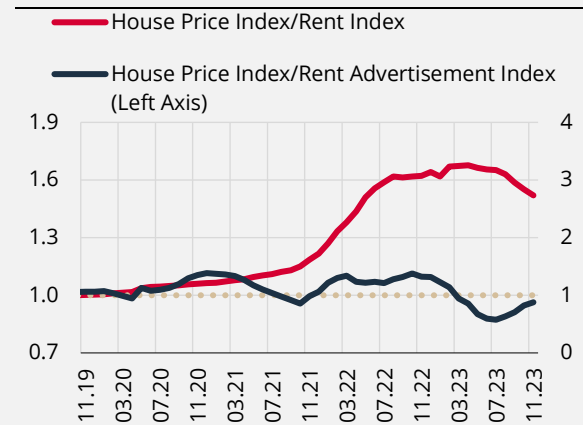
The annual increase of the rent index, which is a sub-item of the CPI and calculated from the real rents paid by tenants, generally remained below consumer price inflation until the end of 2022. However, rent inflation has strengthened since the beginning of 2022 and has exceeded the increase in consumer prices. With the earthquake disaster in February 2023, rent increases became more pronounced, and as of January 2024, the annual increase in consumer prices was 64.9%, while the annual rent inflation stood very high at 111.8% (Chart 2). In order to examine the reflection of the increase in house prices on rent inflation, the price-rent ratio was calculated by dividing the house price index by the rent index. This rate has increased rapidly with the increase in housing prices starting from 2020. The rapid increase in this rate is due to the slower reflection of the increase in housing prices on overall rents. In fact, housing prices are reflected much more quickly in the advertised rents for vacant homes. As a matter of fact, when a similar calculation is made using the rent advertisement index, it is seen that the pass-through of the increase in house prices to new rents is much higher (Chart 3). On the other hand, the reason for the slow reflection in the rent index measured in the CPI basket is that the ongoing rental contracts in residences are typically updated once a year and are subject to various limits when updating. Therefore, the reflection of the house price increases in inflation is much delayed, and even if house prices do not increase after reaching a certain level, they continue to affect inflation for a long time.

Chart 2: CPI Inflation, Rent Inflation and House Price Index (Annual % Change)



Source: CBRT, TURKSTAT.

Chart 3: Ratios of House Price Index/Rent Index and House Price Index/Rent Advertisement Index* (2019=1)



Source: CBRT, Sahibinden.com, TURKSTAT.

* The rent index is a sub-item of CPI. The rent advertisement index is constructed using rents (TRY, m²) collected from the three biggest provinces in Türkiye.

In order to better measure the trend in rents, which is one of the factors affecting the rigidity of inflation, the CBRT makes use of data regarding rental prices on online platforms and rent payments made through the Retail Payment System (RPS), which is the inter-customer TL transfer system of the electronic fund transfer in addition to TURKSTAT data to monitor rent inflation.

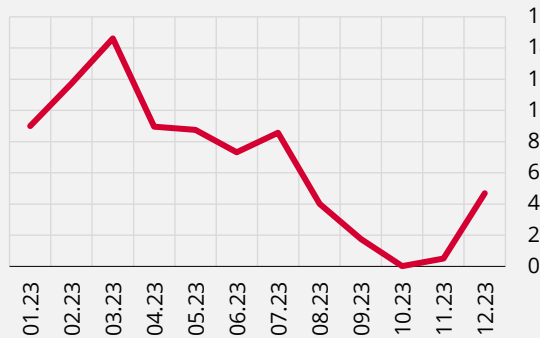
Rental prices quoted on online platforms only show the rental costs of residences subject to new contracts and represent prices that have not yet been realized. These data, which are inherently more sensitive to potential shocks that may be observed in the housing market, provide an idea about the general trend in the rental market. Since any impact on rents will be reflected first in new contracts, it is also important to monitor online rents as a leading indicator. Accordingly, the rent increase rates calculated from the advertisements in the three major provinces showed a steady decline after July 2023 and showed an increase in December due to the expected wage updates (Chart 4). The RPS data provides more comprehensive information about rents compared to online platform data, as it allows tracking of ongoing, renewed and newly concluded contracts as well as actual rent payments.

¹ For the effect of the mortgage program initiated during the pandemic on house prices, see Akgündüz et al. (2023).

Following the application of cleaning and tracking methods, the relevant dataset was transformed into a panel using the six-month sliding window method covering customers receiving regular rental

payments. Although the resulting series has certain divergences from the historical rent index, it is close to the rent index and follows a similar trend (Chart 5). Although this high-frequency data is not an alternative to TURKSTAT's data because it differs in terms of methodology and scope, it is monitored as a leading indicator for rent index.² This data also predicted a decrease in rents in the last quarter of the year amid monetary tightening and pointed to an increase due to the January wage updates and the high rent rates updated in January.

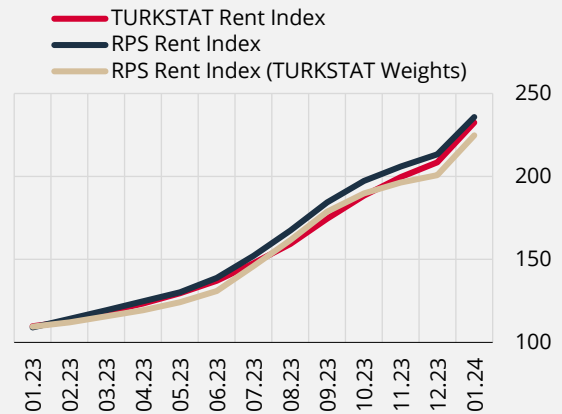
Chart 4: Rental Prices on Online Platforms* (Monthly % Change)



Source: Sahibinden.com.

* Includes ads in three biggest provinces.

Chart 5: TURKSTAT Rent Index and RPS Rent Index* (December 2022=100)



Source: CBRT, TURKSTAT.

* TURKSTAT weights are the typical monthly contract renewal frequency in the TURKSTAT sample.

Recent data demonstrates that housing inflation, unless faced with important shocks such as increases in wages, could swiftly retreat as a result of monetary tightening, but rents measured in CPI will mechanically continue to reflect previous increases in house prices. Nevertheless, regulations and supply-related factors are also important for the soundness of the residential real estate market and for their contribution to price stability. Policies regarding the residential real estate market in various countries point out to the need for infrastructure for the effective management of this market. Digital technology offers an opportunity for healthier analysis and the development of effective policies aimed at tackling the problem. To that end, tracking all rental contracts via an online platform (registering contracts and housing properties), setting standards in rental contracts and ensuring compliance can contribute to the establishment of regulations based on impact analysis for the healthy functioning of the rental market. In this context, the Ministry of Treasury and Finance decided that rental contracts should be arranged via the e-Devlet online platform as part of the Action Plan to Counter Informal Economy for the years 2023-2025. Considering the negative effects of regulations, a planned increase in housing supply is seen as a convenient solution in the medium and long run.³ Another practice is “state-supported rental houses” offered in various countries. For instance, in the Netherlands, houses owned by the state are allocated to various income groups at lower rental prices

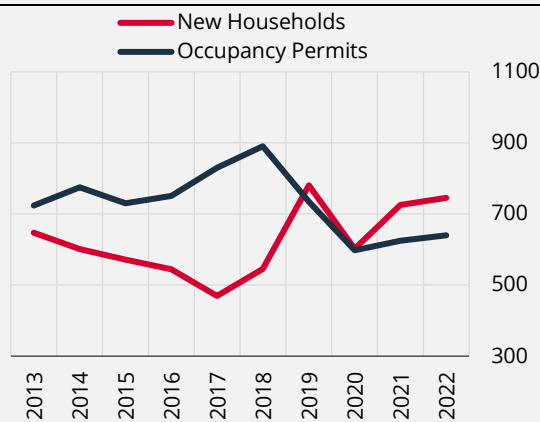
² TURKSTAT tracks the price of the “same” house as required by its methodology. The principle of ensuring all goods and services in the CPI basket to be of the same quality throughout the year is also valid for rents. While the same tenant can reside in a particular house for several years, a number of tenants can move in and out of the same house over the years. When the owner moves into the selected house or when the selected house is demolished, a substitute house is used. When the quality of house changes or when a new house is chosen to be tracked, a quality correction is applied (TURKSTAT, 2023 Consumer Price Index Methodology Document). Payment systems database does not contain data on the properties of houses or details of rental contracts. Data is prone to user errors made during the payment process.

³ Existing studies note that rent regulations have negative effects on the construction and maintenance of houses as well as real estate investments. While more regulation would shrink the rental housing market, less regulation could increase tenancy insecurity (Haffner et al., 2008). Kholodilin and Kohl (2023) show that in European countries with greater rental supervision, the number of rental houses decreased and homeownership rates increased since the World War II. In this context, rent regulations protecting tenants in the short run should be implemented carefully in order not to disrupt the rental housing market.

compared to the private sector. In Italy, as part of a similar policy, rents for social houses are subsidized depending on the tenants' level of income. Construction of social houses with the aim of

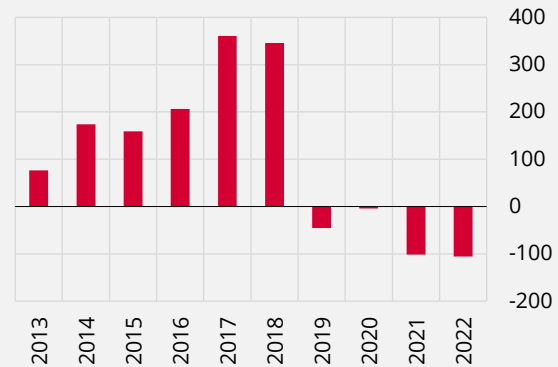
renting by the private sector along with the public sector is another step to be taken to increase rental supply. Houses to be rented by private sector firms along with individual investors, as seen in global examples, increase institutionalization and make it easier to track, regulate and tax rents. If these firms sell shares to the public and diversify their portfolios, they decrease the risks faced by individuals investing in the rental housing market, provide participants with regular cash flow, and enable tenants, even if their savings are low, to be hedged against shocks in the rental housing market. NGOs or institutional investors initiating shared ownership schemes,⁴ especially in major cities where house prices are high, could pave the way for households, especially those with low levels of savings, to enter the housing market.

Chart 6: Number of New Households and Occupancy Permits (Thousands)



Source: TURKSTAT.

Chart 7: Difference Between Occupancy Permits and Number of New Households (Thousands)



Source: TURSTAT.

In addition to monetary policy, other economic policies to be implemented in the coming period are important for the housing market and rents. The 25% limit⁵ on rent increases has been in effect since July 2021, and appropriate financing is provided to first-time home buyers. Increasing the effectiveness of taxes such as the title deed fee, the valuable property tax, the housing capital gains tax and the income tax on rental income, which are currently in force, is considered important for the efficient functioning of the housing market. Besides, legal measures such as gradual taxation according to the number of houses owned and a vacant house tax, introducing long-term, variable-interest or wage-indexed flexible housing loan models to help employees with regular income make house purchases and extending loans with interest rates that vary according to the number of houses owned stand out as demand-side arrangements. For example, related steps have been taken by the Banking Regulation and Supervision Agency (BRSA) to reduce the maximum loan amount for consumers who already own at least one house.⁶

Apart from demand-side developments, another important factor having an effect on the housing market in Türkiye is supply. As a matter of fact, the number of buildings receiving occupancy permits has decreased in recent years, and with the effect of the increasing population and urbanization rate, the formation of new households has exceeded the formation of new housing (Charts 6 and 7). After the Kahramanmaraş earthquakes, housing demand has increased further.

When the home ownership rate is examined by income groups, the ownership rate has been low in lower income groups in recent years (Chart 8). In order to increase home ownership rates, it is

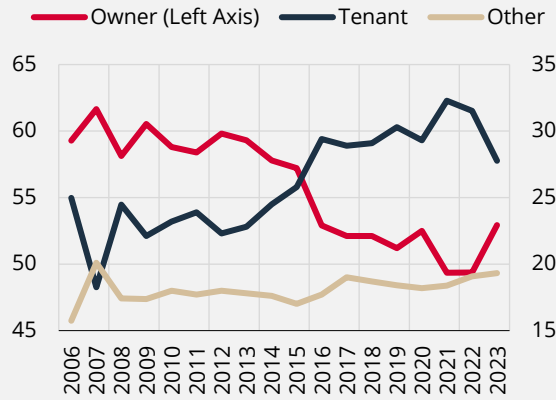
⁴ For instance, first-time home buyers in London could buy 25% of their homes and rent the rest, having the option to buy the rest of the shares gradually through the "shared ownership" scheme. <https://www.gov.uk/shared-ownership-scheme/who-can-apply>.

⁵ In Türkiye, the rent cap limiting annual rent increases to 25% is going to end in July 2024. RPS data indicate that the rent update rate in line with this constraint is quite low.

⁶ <https://www.bddk.org.tr/Mevzuat/DokumanGetir/1191>.

imperative that house supply not be interrupted, and the construction of social houses continue with the supply-side support to be provided to the private sector following the achievement of permanent price stability.

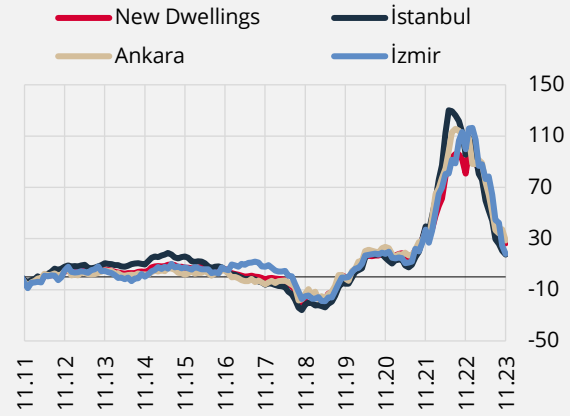
Chart 8: Home Ownership Rate for Lower Income Groups*



Source: TURKSTAT Income and Living Conditions Research.

* Households whose income is lower than 60% of the median household income.

Chart 9: Return on Real Estate Investment* (Deflated with CPI)



Source: CBRT, TURKSTAT.

* Similar results are obtained by deflating return on real estate investment using exchange rate depreciation and construction costs.

In sum, rent inflation, which is affected by housing market developments with a lag, is relatively stickier, and the upward pressure on consumer price inflation caused by increases in rent inflation is expected to continue for a while. With price stability and a correction in expectations, the return on real estate investments relative to other alternative investment options is expected to converge to historical averages. In this case, since real increases in house prices and expectations of a real increase would decrease, demand for houses for investment purposes would witness a gradual correction, and the relative cost of keeping homes empty would increase due to the increase in the investment horizon in the housing market and an increase in risk-free return in financial markets. At this point, steps to be taken in coordination with monetary policy and other economic policies are important in order to achieve medium- and long-term stability in the housing market.

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