3. Medium-Term Projections

3.1 Current State, Short-Term Outlook and Assumptions

Changes in Key Forecast Variables

Largely in line with earlier predictions, economic activity followed a strong course in the first quarter of 2021 despite the restrictive effects of the pandemic. In the first quarter, although domestic demand decelerated due to private consumption, demand conditions backed by total investments and the strong export performance hovered above the general trend in line with previous projections. Despite strong external demand, domestic demand lost some momentum in the second quarter due to pandemic restrictions and the tightening in financial conditions. Accordingly, while the output gap forecast was revised slightly downwards for the first quarter of the year, the forecast given in the April Inflation Repot remained unchanged for the second quarter (Table 3.1.1)

Standing at 17.5% in the second quarter of 2021, consumer inflation remained within the forecast range presented in the April Inflation Report. Price increases remained low due also to the lockdown-driven weakening in demand in May. With controlled normalization, prices increased in June, pushing inflation close to the upper bound of the uncertainty band. Inflation continued to rise due to the increase in international commodity prices, demand conditions, supply constraints and delivery problems, high inflation expectations and cumulative exchange rate effects (Table 3.1.1). Against this background, the headline and core B index inflation rates and trends increased and remained slightly above the projections in the second quarter.

Table 3.1.1: Changes in Key Forecast Variables*

	2021-I	2021-II
Output Gap (%)	2.1 (2.3)	0.8 (0.8)
Consumer Inflation (Quarter-End, Annual % Change)	16.2 (16.2)	17.5 (16.6)
B** Index Inflation (Quarter-End, Annual % Change)	17.5 (17.5)	18.2 (17.8)

* Numbers in parentheses denote the values from the April Inflation Report.
** B index is the CPI excluding unprocessed food, alcohol, tobacco, energy and gold.

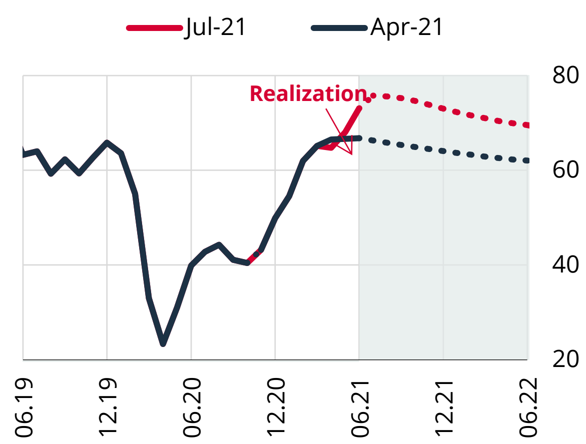
Assumptions for Exogenous Variables

The assumption for external demand has been revised upwards in response to the normalization steps taken thanks to the recently strengthened global vaccination rollout and the positive data flow regarding economic activity. Although restrictive measures have been partly increased due to the recent rise in the number of cases in some countries, they have largely been lifted in countries that made a significant progress in vaccination rollout compared to the previous reporting period. Therefore, the services sector, which was more adversely hit by pandemic measures, rebounded, the positive course of the global trade continued, and the labor market started to show signs of improvement. As social mobilization started to increase, the sectoral divergence in services that was mentioned in the previous report began to fade in line with the recovery in this sector. In sum, the worldwide speeding up of the vaccination rollout, especially in developed countries, has supported the global economic recovery. The countries that made progress in vaccination have been performing more strongly in economic activity thanks to relaxed restrictions.

Assumptions are based on a framework in which global financial conditions will start to tighten earlier than what was envisaged in the previous reporting period. In line with stronger economic activity thanks to easing pandemic measures, and the increase in international commodity prices, both demand-pull and cost-push inflation have increased in developed and developing countries. The signs of a recovery in economic activity and an increase in inflation led to an expectation of an earlier monetary normalization by the Fed. Moreover, rate increases by some emerging economies have also supported the expectation that global financial conditions will tighten sooner.

Assumptions for international crude oil and USD-denominated import prices have been revised upwards. Crude oil prices stood above the assumptions of the April Inflation Report due to increasing global demand and uncertainties regarding supply (Chart 3.1.1). Although the futures price curve implies that oil prices will start to decline after remaining at current levels for a while, they suggest an average of USD 69.6 in 2021 and USD 69.4 in 2022 (Table 3.1.2). The assumptions for the general level of import prices have also stood above those of the April Inflation Report recently owing to the increase in the energy and main commodity groups despite the decrease in agricultural commodity and industrial metal prices (Chart 3.1.2). The futures price curve in international markets indicates that import prices will maintain their current levels in the upcoming period.

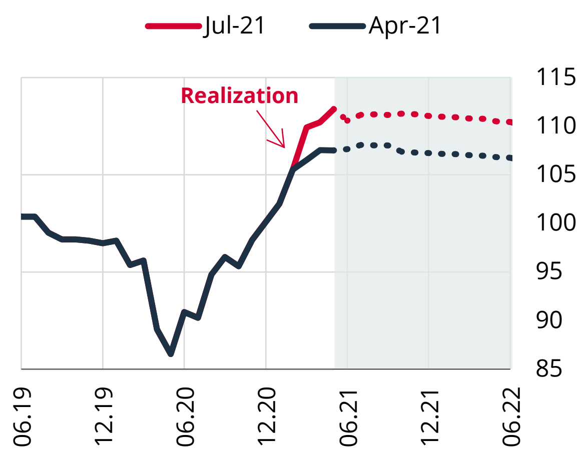
Chart 3.1.1: Revisions to Oil Price Assumptions* (USD/bbl)



Sources: Bloomberg, CBRT.

* Shaded area denotes the forecast period.

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



Sources: CBRT, TURKSTAT.

* Shaded area denotes the forecast period.

Given the exchange rate developments and increases in international prices, the assumption for food inflation has been revised upwards for 2021 and 2022. Annual inflation in food and non-alcoholic beverages rose from 17.4% to 20.0% in the second quarter. The increase in food inflation was driven by exchange rate developments, as well as the increase in international food prices though at reduced pace compared to the first quarter. Accordingly, food inflation assumptions for the end of 2021 and 2022 were revised upwards compared to the April Inflation Report and set at 15.0% and 10.1%, respectively (Table 3.1.2).

Table 3.1.2: Revisions to Assumptions*

	2021	2022
Export-Weighted Global Production Index (Annual Average (Annual Average % Change)	4.8 (4.4)	4.5 (4.4)
Oil Prices (Average, USD)	69.6 (64.4)	69.4 (61.9)
Import Prices (USD, Annual Average % Change)	16.3 (13.3)	0.2 (-0.5)
Food Price Inflation (Year-End % Change)	15.0 (13.0)	10.1 (9.8)

* Numbers in parentheses denote the values from the April Inflation Report.

Medium-term projections rely on an outlook in which fiscal and financial policies will be determined in tandem with the monetary policy, and within a macro framework that is in line with the projected disinflation path. In the sliding scale system, to curb movements led by international oil prices and the exchange rate, taxes imposed on fuel prices are changed so as to keep the final consumer price unchanged. Considering also the indirect effects of fuel prices, this system still alleviates a significant inflationary pressure despite the SCT increase introduced for fuel products in May. Increases in electricity and natural gas prices among administered prices in July have been exerting upward pressure on the end-2021 inflation forecast.

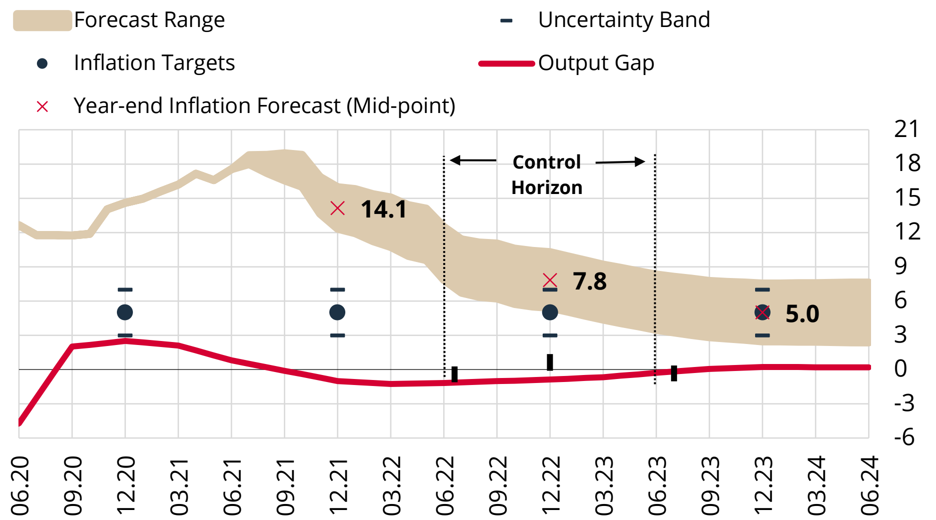
Medium-term projections are based on an outlook in which macroeconomic policies are determined with a medium-term perspective and in a coordinated manner with a focus on bringing inflation down. In this context, it is assumed that adjustments in administered prices will be determined in large measure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

3.2 Medium-Term Projections

The CBRT formulates monetary policy decisions with a medium-term perspective based on all factors affecting inflation and their interaction, focusing on the alignment of future inflation with the target.

Based on the main assumptions and short-term projections and under the scenario in which the policy rate would continue to be determined at a level above the inflation rate to maintain a strong disinflationary effect, inflation is estimated to converge gradually to the targets. Accordingly, inflation is projected to be 14.1% at the end of 2021 and fall to 7.8% at the end of 2022 before stabilizing around 5% in 2023, which is the medium-term target. With a 70% probability, inflation is expected to be between 12.2% and 16.0% (with a mid-point of 14.1%) at end-2021 and between 5.4% and 10.2% (with a mid-point of 7.8%) at end-2022 (Chart 3.2.1).

Chart 3.2.1: Inflation and Output Gap Forecasts* (%)



Sources: CBRT, TURKSTAT.
* Shaded area denotes the 70% confidence interval for the forecast.

Given the recent inflation realizations and all factors affecting inflation, year-end forecasts for 2021 and 2022 have been revised upwards (Chart 3.2.2). Despite the constraining effect of the pandemic, economic activity hovered above the trend in the first quarter of 2021. Due to pandemic restrictions and tightened financial conditions, domestic demand lost some pace, and the robust course of exports led by the global growth supported economic activity in the second quarter. The decelerating impact of the current monetary stance on credit and domestic demand became visible. Against this background, aggregate demand conditions remained broadly consistent with the projections in the April Inflation Report. Thus, output gap forecasts were revised slightly downwards for the first quarter of the year. Meanwhile, the recent exchange rate developments, cumulative effects of the rise in international food, energy, and commodity prices, supply constraints in some sectors, deferred cost increases, and the recent constraints in global supply chains worsened the inflation outlook. In addition to the recent increases in import prices and administered prices, demand conditions, supply constraints in some sectors, possible volatility in inflation during the summer due to the reopening, and high levels of inflation expectations continued to pose risks to pricing behavior and the inflation outlook. Against this backdrop, inflation forecasts were revised upwards.

Considering the high levels of inflation and inflation expectations, the CBRT maintained the tight monetary policy stance in the second quarter. It is projected that maintaining the tight monetary policy stance decisively until a permanent fall in inflation is achieved will rule out upside risks to the pricing behavior and inflation expectations. The current tight monetary policy limits credits and domestic demand while containing demand-side factors on the one hand and supports the current account balance on the other. Meanwhile, the recently implemented macroprudential measures are expected to fuel the decelerating impact of the monetary policy on credits. Thus, aggregate demand conditions will be able to contribute more to the disinflation process as projected. Therefore, the impact of a possible rise in inflation in the short-term on the underlying trend is considered to remain more limited in the second half of the year.

Table 3.2.1: Revisions to Year-End Inflation Forecasts for 2021 and 2022 and Sources of Revisions

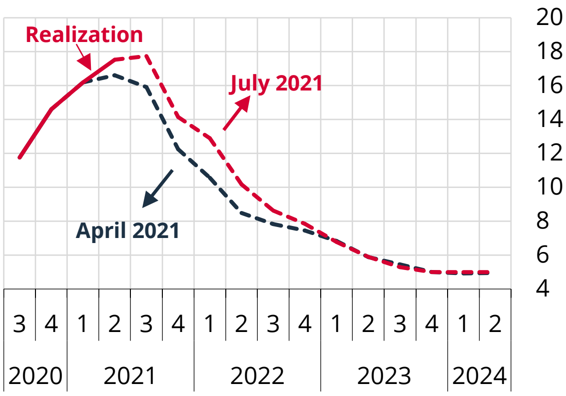
	2021	2022
2021-II (April 2021) Forecast (%)	12.2	7.5
2021-III (July 2021) Forecast (%)	14.1	7.8
Forecast Revision Compared to the 2021-II Period	+1.9	+0.3
Sources of Forecast Revisions (% Points)		
Turkish Lira-Denominated Import Prices (Including the Exchange Rate, Oil and Import Prices)	+0.8	-
Food	+0.5	+0.1
Administered Prices	+0.3	
Output Gap	+0.1	+0.1
Deviation from the Inflation Forecast / the Underlying Trend of Inflation	+0.2	+0.1

Source: CBRT.

The year-end forecast for 2021 has been revised upwards by 1.9 points from 12.2% to 14.1%. Compared to the previous reporting period, the inflation forecast was driven upwards by 0.8 points due to the revision in the Turkish lira-denominated import prices and by 0.5 points because of the expected high course of food prices. On the other hand, administered prices pushed the forecast up by 0.3 points primarily due to the raised prices of electricity and natural gas. The revision in the output gap added 0.1 points to the inflation forecast. Finally, the rise in the underlying trend of inflation drove the year-end forecast for 2021 up by 0.2 points (Table 3.2.1).

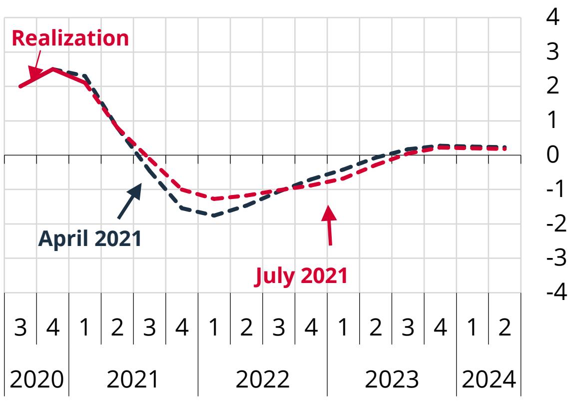
The inflation forecast for 2022 has been revised upwards from 7.5% to 7.8%. Effects of the revision in initial conditions on the underlying trend of inflation pushed the year-end inflation forecast for 2022 up by 0.1 points. Meanwhile, the revision in the food inflation assumption drove the forecast up by 0.1 points. Moreover, the revision in the output gap added another 0.1 points to the forecast (Chart 3.2.3).

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



Sources: CBRT, TURKSTAT.

Chart 3.2.3: Output Gap Forecast (%)



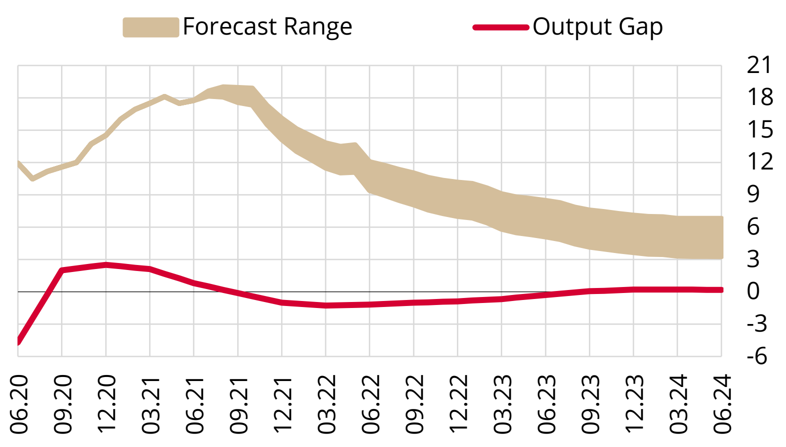
Source: CBRT.

Forecasts are based on the assumption that the outlook for global growth and external demand has been better than in the previous reporting period amid a rapid vaccination rollout, but rising global inflation and inflation expectations continue to have a significant impact on international financial markets. This outlook points to heightened uncertainty and slightly tightening global financial conditions compared to the previous reporting period. Thanks to the improved recovery in demand amid expansionary monetary and fiscal policies and a fast vaccine rollout, the global growth outlook increased global inflation expectations. Moreover, the recent increases in commodity prices, the rebound in demand, pent-up consumption, and supply constraints drove global inflation higher and caused inflation expectations to be revised upwards. Signs of a rise in global inflation and the recovery in economic activity increased the possibility of sooner-than-expected monetary policy normalization. Higher yields in advanced economies led to outflows from emerging economies, which may translate into heightened volatility. In this context, maintaining a tight monetary policy stance until strong indicators point to a permanent fall in inflation will limit the possible adverse effects of global financial market volatilities on the country's risk premium

As the decelerating impact of the monetary stance on loans and domestic demand has become more evident, aggregate demand conditions are likely to display a more moderate course in the second half of the year. In the first quarter of 2021, economic activity remained above trend despite the restrictive effects of the pandemic. Domestic demand lost some momentum in April and May due to pandemic-led restrictions and tight financial conditions. On the other hand, the acceleration of the domestic vaccination rollout has facilitated the recovery in services and tourism sectors, which have been adversely affected by the pandemic, and led to a more balanced composition in economic activity. Additionally, the strong demand from Turkey's trade partners supports economic activity through the export channel. Rising commodity prices, exchange rate changes, and global supply chain disruptions are the main drivers of producer inflation. Thus, cost pressures are observed on consumer prices. Moreover, there might be some volatility in inflation over the summer months due to the reopening. The course of administered prices also affects the short-term inflation outlook. However, the output gap is expected to contribute to disinflation by the third quarter of the year as the effects of the monetary stance on demand conditions are projected to grow more pronounced. Therefore, the policy rate will continue to be determined at a level above actual and expected inflation to maintain a strong disinflationary effect until strong indicators point to a permanent fall in inflation.

Unpredictable price fluctuations in items beyond the monetary policy domain, such as unprocessed food, energy and tobacco products, are among the main factors that cause deviation in inflation forecasts. Core inflation indicators obtained by excluding these items contain more information as to the underlying trend of inflation. Therefore, forecasts for inflation excluding unprocessed food, energy, alcoholic beverages, tobacco products, and gold (the B index) are also shared with the public. In this context, annual inflation in the B index is expected to slightly increase in the upcoming period, before assuming a downtrend in the third quarter of 2021 (Chart 3.2.4). Amid the curbing effect of the sliding scale system, items excluded from the B index, with energy inflation in the lead, are projected to perform better than core indicators across the year.

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



Sources: CBRT, TURKSTAT.

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

3.3 Key Risks to Inflation Forecasts and Possible Impact Channels

Macroeconomic risks that may change the outlook, on which the inflation forecasts are based, as well as the monetary stance are shared in detail in Section 1.3. Evaluations about the channel and direction that these risks may change inflation forecasts are summarized in Table 3.3.1.

Table 3.3.1: Key Risks to Inflation Forecasts*

Key Risks	Indicators Monitored
Cost Pressures ▪ The high level of international commodity prices continues to pose upside risks to the inflation outlook. ▪ Secondary effects of supply-side factors on inflation expectations and their interaction with financial indicators will be monitored closely. ▪ The ongoing disruptions in supply chains keep the supply-side risks to inflation alive. ▪ The rise in commodity prices, global supply constraints and high levels of freight costs push producer prices up. ▪ The pass-through from producer prices to consumer prices and its sources are monitored closely.	▪ Crude oil prices and supply-demand balance ▪ OPEC+ decisions ▪ Industrial metal prices ▪ Agricultural commodity prices ▪ Supply-demand balance in agricultural products ▪ Indicators pertaining to the divergence between producer and consumer prices ▪ Global supply indicators, transport and freight costs
Uncertainties Regarding Domestic and External Financial Markets ▪ Total loans remain on a mild course owing to the implemented monetary tightening. Macroprudential measures regarding developments in personal loan will support the effect of the monetary policy on loans. ▪ Although the country risk premium and implied exchange rate volatilities have declined, they still remain high compared to peer countries. ▪ The recovery in global demand and the rise in inflation expectations might be mirrored in long-term bond yields. Fluctuations in the risk appetite due to the monetary policies of advanced economies may affect exchange rates and inflation through capital flows. ▪ At its last meeting, the Fed adopted a tighter tone in its communications. The uptrend in global inflation and the expectations regarding the Fed's actions led to a tightening in the monetary policies of emerging economies as well.	▪ Course of demand and growth components ▪ Aggregate demand and credit composition ▪ Loan and deposit rates ▪ Credit conditions (Bank Loans Tendency Surveys) ▪ Financing of balance of payments ▪ Portfolio flows to equity and bond markets ▪ Bond yields and monetary policy stances of advanced economies ▪ Risk premium indicators ▪ Dollarization indicators ▪ Global inflation indicators

Table 3.3.1: Key Risks to Inflation Forecasts*

Pandemic and Economic Activity ▪ The developments regarding the vaccine rollout in Turkey and abroad add to the upside risks to economic activity. The worldwide speeding up of the vaccination rollout, especially in developed countries, supports global economic recovery. ▪ With gradual normalization, domestic economic activity is following a strong course. In this regard, economic activity is expected to show a more balanced composition of growth in the second half of the year, while services and tourism sectors might start seeing some recovery. ▪ The rebound in tourism amid faster vaccinations is likely to accelerate the improvement of the current account balance. ▪ However, it should be noted that the possibility of some coronavirus variants causing a spike in new cases and fueling another wave of the pandemic has not been ruled out.	▪ The course of the pandemic and vaccination in Turkey and abroad ▪ Developments in exports, the current account balance, tourism and transport ▪ Demand and inflation indicators by sectors and subsectors ▪ Wage and labor cost indices
Higher Inflation Expectations ▪ The short-term trend of inflation adversely affects medium-term inflation expectations and poses a risk of slowdown in the speed at which expectations converge to forecast targets. ▪ Increased financial volatility and inflation uncertainty keep risks to the pricing behavior alive.	▪ Survey and market-based expectations of inflation and exchange rates ▪ Indicators for backward indexation ▪ Indicators for inflation uncertainty ▪ Financial volatility indicators
Monetary, Fiscal and Financial Policy Coordination ▪ The disinflation process may be delayed, should the path of administered prices and tax adjustments exceed the path envisaged in this Report. ▪ Factors, which may push credit growth upwards and curtail the transmission of the tight monetary stance, and credit composition may deteriorate the inflation outlook through the aggregate demand, current account balance, external financing, and risk premium channels.	▪ Adjustments to administered prices and taxes ▪ Developments in tax revenues and public spending ▪ Government wage policies ▪ Indicators for government budget and public debt stock ▪ Fiscal stance (structural budget balance)

* Each risk row on the table presents evaluations on the channel through which inflation forecasts may change. Indicators used in monitoring the risks are listed in the right column.