7. Medium-Term Projections

This chapter summarizes the underlying forecast assumptions and presents the medium-term inflation and output gap forecasts as well as the monetary policy outlook over the next three-year horizon.

7.1 Current State, Short-Term Outlook and Assumptions

Changes in Key Forecast Variables

Inflation: Consumer inflation dropped to 9.26% in the third quarter of 2019. Annual inflation in the core indicator B index also significantly decelerated. Both consumer and core inflation figures stood close to the lower bound of the July Inflation Report forecasts (Table 7.1.1). Since the October 2018 Inflation Report period, inflation figures have been consistent with, and even below the mid-points of, the CBRT's forecasts. This has reinforced the credibility of forecasts throughout the year. The monetary stance has been determined in a way to ensure consistency of inflation with the forecasts, which has significantly contributed to the predictability of monetary policy. Increased credibility of forecasts and predictability of monetary policy have been influential in the improvement in inflation expectations and the gradual convergence of expectations to the CBRT's forecasts.

The significant slowdown in inflation observed since September 2019 has been driven by the stable course of the Turkish lira in the recent period, improving inflation expectations, and the domestic demand conditions, as well as the high base effect from the previous year. Import prices in dollars also supported the disinflation process.

Economic Activity: Economic activity had posted a moderate recovery in the second quarter of 2019 on the back of private consumption and net exports. This recovery trend also continued into the third quarter of the year. In line with the data flow since the previous reporting period and the backward revisions in national income data, output gap forecasts have been revised upwards for the first three quarters of the year (Table 7.1.1). Our output gap forecasts for the upcoming period are based on the assumption that net exports will continue to stimulate growth, albeit at a slower pace, the gradual recovery in the economy will persist owing to the downtrend in inflation and improving financial conditions, and fiscal policy will be largely set in line with the macroeconomic rebalancing process.

Table 7.1.1: Change in Key Forecast Variables*

	2019-II	2019-III
Output Gap (%)	-3.6 (-4.5)	-3.6 (-4.2)
Consumer Inflation (Quarter-end, Annual % Change)	15.7 (15.7)	9.3 (10.7)
B** Index Inflation (Quarter-end, Annual % Change)	16.3 (16.3)	8.9 (10.5)

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

Financial Conditions: While the easing in global monetary policies, those of advanced economy central banks in particular, has strengthened since the second quarter of 2019, lingering geopolitical problems and intensified concerns over international trade adversely affect the global risk appetite. Against this background, Turkey's risk premium followed a fluctuating course as was the case in other emerging economies, and remained relatively high in the third quarter of the year. Interest rates on credits and deposits decreased significantly on the back of the CBRT's policy rate cuts, the fall in inflation expectations and the improvement in banking sector liquidity while the spread between TL commercial loan and deposit rates declined as a result of easing credit standards (Chart 5.2.3). Consumer loans considerably accelerated due to credit incentive packages and seasonal needs, and commercial loans also started increasing (Chart 5.2.7). The speed, scope and sustainability of the normalization in loan growth will be important for the economic activity outlook.

Monetary Policy: At its Monetary Policy Committee (MPC) meetings in July, September and October 2019, in view of an improving inflation outlook amid upbeat indicators for underlying inflation, supply-side factors and import prices, the CBRT decided to move to a less tight monetary stance and lowered the one-week repo auction rate by a total of 1,000 basis points to 14%.

In addition to policy rate decisions, to support financial stability, reserve requirement ratios for foreign currency deposits and participation funds were raised whereas the remuneration rate for USD-denominated required reserves was reduced. Moreover, with a change introduced in August, the reserve requirement ratios for Turkish lira liabilities and the remuneration rates for Turkish lira-denominated required reserves were linked to banks' annual loan growth rates.

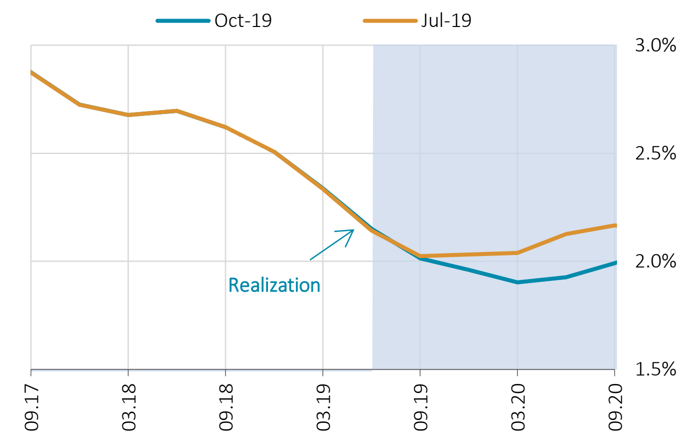
While policy rate cuts pushed short-term currency swap yields down, medium and long-term yields also receded on the back of the improvement in inflation expectations.

Assumptions for External Variables

Global Growth

Figures for the second quarter of 2019 reveal that the ongoing slowdown in global economic activity became more pronounced. Leading indicators for the third quarter of 2019 suggest that advanced and emerging economies continue to feed into the slowdown in global economy amid re-escalating trade uncertainties and geopolitical risks. Over the upcoming period, the global growth outlook will be dominated by both these factors and the prospects for monetary policies of advanced economies. Accordingly, our medium-term forecasts have been built on a downward revision from July Inflation Report projections for the growth path implied by the export-weighted global production index, which is used as a measure for external demand (Chart 7.1.1).

Chart 7.1.1: Export-Weighted Global Production Index* (Y-o-Y % Change)



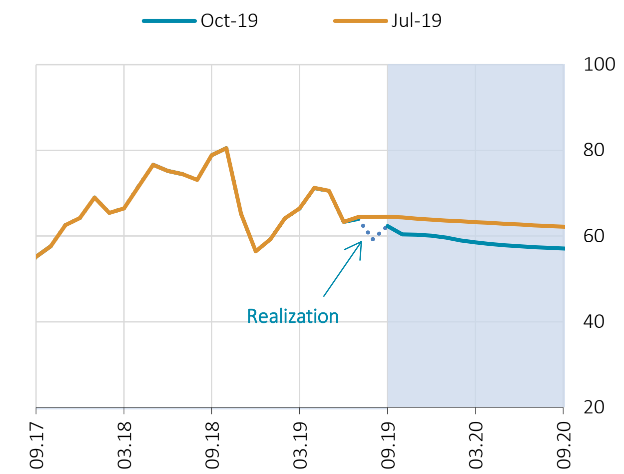
Sources: Bloomberg, Consensus Forecasts, CBRT.
* Shaded area shows the forecast period.

Import Prices

The average annual rates of increase in international crude oil prices and USD-denominated import prices were below the assumptions of the July Inflation Report. Despite protracted adverse supply-side developments in the meantime, forecasts for crude oil prices have been revised downwards due to muted global trade and growth outlook. The average crude oil price assumption has been lowered to 63.4 USD/bbl for 2019 from 65 USD/bbl in the July Inflation Report and to 57.7 USD/bbl for 2020 from 62.6

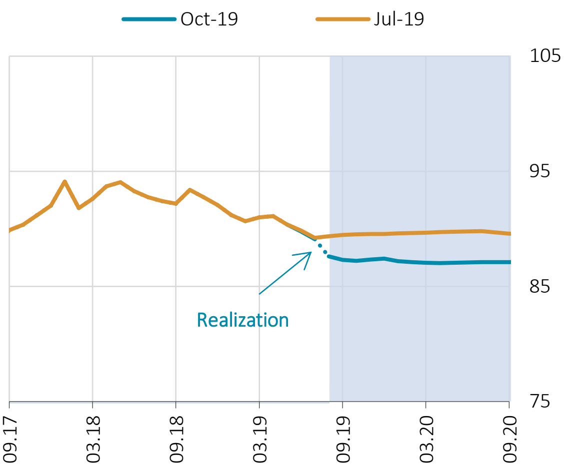
USD/bbl (Table 7.1.2, Chart 7.1.2). Accordingly, the assumptions for the average annual increase in USD-denominated import prices for 2019 and 2020 have also been revised downwards (Table 7.1.2, Chart 7.1.3).

Chart 7.1.2: Revisions to Oil Price Assumptions* (USD/bbl)



Sources: Bloomberg, CBRT.
* Shaded area shows the forecast period.

Chart 7.1.3: Revisions to Import Price Assumptions* (Index, 2010=100)



Sources: CBRT, TURKSTAT.
* Shaded area shows the forecast period.

Monetary Policies of Advanced Economies

Advanced economies, the US in particular, took monetary easing steps in the third quarter of 2019. Aggravated concerns over international trade reinforced expectations for further monetary easing in advanced economies in the upcoming period. At its July and September meetings, the Fed cut the benchmark interest rate by a total of 50 basis points. Likewise, the ECB further reduced the already negative interest rate on the deposit facility by 10 basis points at its September meeting. Additionally, it restarted asset purchases at a monthly pace of €20 billion. Thus, the exogenous assumption for the foreign interest rate path underlying our medium-term forecasts has been revised downwards from the July Inflation Report. Our forecasts are based on the assumption that the global risk sentiment will not worsen further in the upcoming period.

Food Prices

Another exogenous variable underlying the medium-term forecasts is the path of unprocessed food prices that is considered to be relatively outside the monetary policy domain. Unprocessed food inflation was significantly down from the previous reporting period thanks to fresh fruit and vegetable prices falling on the back of favorable supply conditions. On the other hand, the strong increase in processed food prices decelerated from the second quarter of the year to the third quarter. The increase in the second and third quarters of the year is believed to have been driven by accumulated cost pressures on processed food prices, which are expected to have a fading impact in the remainder of the year. In light of the favorable outlook for processed and unprocessed food prices, the year-end food inflation forecast has been lowered to 10% for 2019 from the 15% forecast in the July Inflation Report, while it has been left unchanged at 11% for 2020 (Table 7.1.2).

Fiscal Policy, Administered Prices and Tax Adjustments

Having supported economic activity in the first half of 2019 through fiscal incentives and measures as well as increased public spending, fiscal policy remained accommodative in the third quarter on the back of non-tax revenues. Our estimates for the upcoming period are built on the assumption that the fiscal policy, backed by a strong policy coordination, will provide a moderate contribution to economic activity without a deterioration in the structural budget balance. On the other hand, in the third quarter, alcoholic beverages and tobacco inflation rose at a faster pace than forecast in July due to increased cigarette prices and SCT tax hikes in alcoholic beverages, curbing the downward revision to the end-2019 inflation forecast.

Medium-term projections are based on an outlook where macroeconomic policies are determined with a medium-term perspective and in a coordinated manner, with a focus on bringing inflation down. In this context, our current projections are based on the assumption that fiscal policy will continue to contribute to the macroeconomic rebalancing and that administered prices and wages will be largely set to support disinflation, as laid out in the New Economy Program (NEP). The robust policy coordination that prioritizes a sustained disinflation process is critical for continued improvement in the risk premium and perceptions of uncertainty.

Table 7.1.2: Revisions to Assumptions*

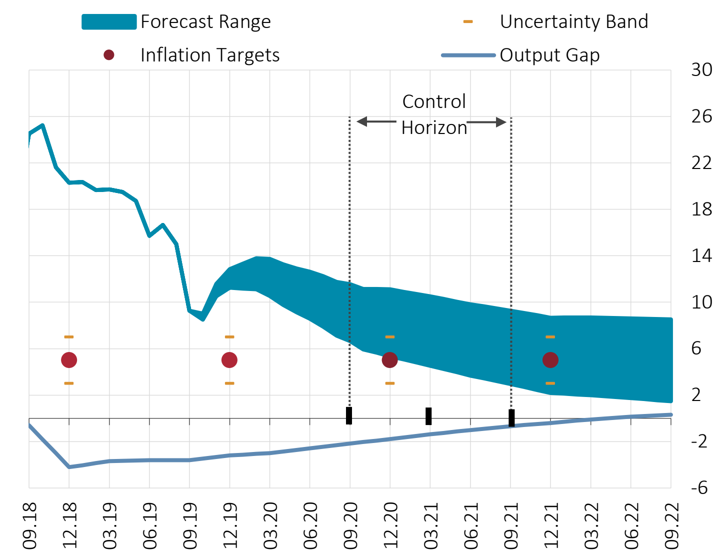
	2019	2020
Export-Weighted Global Production Index (Annual Average % Change)	1.96 (2.03)	2.07 (2.14)
Oil Prices (Average, USD)	63.4 (65.0)	57.7 (62.6)
Import Prices (USD, Annual Average % Change)	-4.0 (-3.1)	-2.3 (-0.5)
Food Price Inflation (Year-End % Change)	10.0 (15.0)	11.0 (11.0)

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

7.2 Medium-Term Projections

Under a tight monetary policy stance and a strong policy coordination focusing on bringing inflation down, inflation is projected to converge gradually to the targets. Accordingly, inflation is projected to be 12.0% at the end of 2019, 8.2% at the end of 2020 and 5.4% at the end of 2021, and to stabilize around 5% over the medium term. With a 70% probability, inflation is expected to be between 11.2% and 12.8% (with a mid-point of 12.0%) at end-2019, and between 5.3% and 11.1% (with a mid-point of 8.2%) at end-2020 (Chart 7.2.1).

Chart 7.2.1: Inflation and Output Gap Forecasts*



Sources: CBRT, TURKSTAT.
*70% confidence interval.

In the period after the July Inflation Report, inflation declined markedly, coming in closer to the lower end of the forecast band. The significant improvement in the underlying trend of inflation and the downward revisions to import prices and food prices had a positive impact on the year-end inflation forecast compared to the previous reporting period. However, the moderate recovery in the output gap and the price adjustments in alcoholic beverages and tobacco products pushed year-end inflation forecasts upward. Accordingly, the consumer inflation forecast for end-2019 was lowered to 12% from the July forecast of 13.9%. Meanwhile, as downward and upward effects balanced out, inflation forecasts for 2020 were left unchanged. Factors underlying our forecasts are given in Table 7.2.1.

Table 7.2.1: Revisions to Year-End Inflation Forecasts for 2019 and 2020 and Underlying Reasons

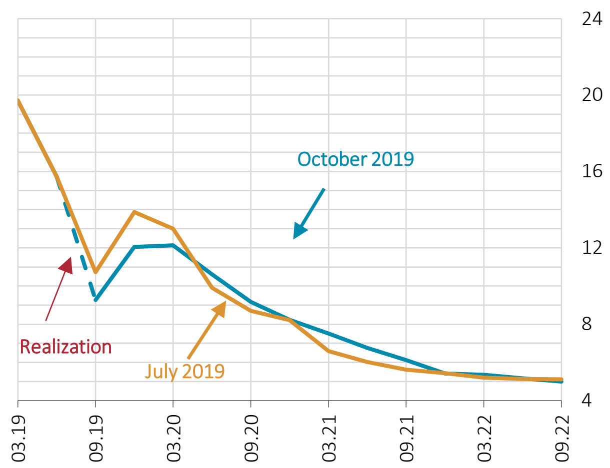
	2019	2020
2019-III (July 2019) Forecast	13.9	8.2
2019-IV (October 2019) Forecast	12.0	8.2
Revision to Forecasts Compared to 2019-III	-1.9	0.0
Reasons for Forecast Revisions		
TL-Denominated Import Prices (Incl. Exchange Rates, Oil and Import Prices)	-0.3	-0.2
Underlying Trend of Inflation/Revisions to Initial Point	-1.1	-0.3
Output Gap	+0.1	+0.5
Food	-1.2	-
Price Increase in Tobacco Products	+0.6	-

Source: CBRT.

The inflation forecast for end-2019 was revised down by 1.9 points (Chart 7.2.2). The third quarter's consumer inflation, which was 1.5 points down from the July forecast, and the expected fall in the underlying trend of inflation are estimated to bring the year-end inflation forecast down by 1.1 points. Moreover, TL-denominated import prices are projected to be lower, having a downward impact of 0.3 points on the inflation forecast. In addition, the downward revision to the food inflation assumption for end-2019 has led to a 1.2-point decline in the inflation forecast. However, the hike in tobacco prices drives the end-2019 inflation forecast up by 0.6 points. Furthermore, the slightly narrower-than-expected output gap adds 0.1 point to the consumer inflation forecast (Chart 7.2.3).

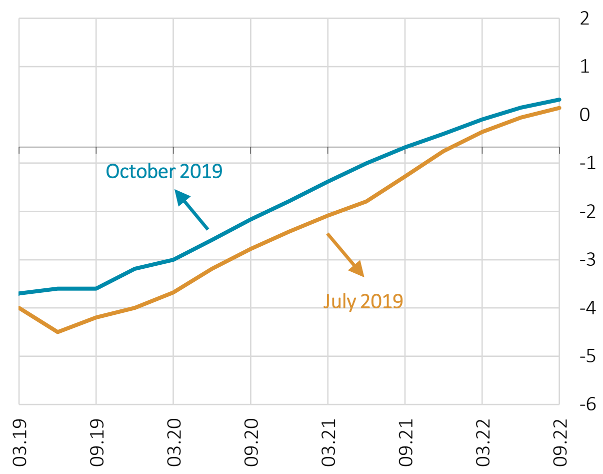
The inflation forecast for 2020 was kept unchanged at 8.2%. The improvement in the underlying trend of inflation and the revisions to assumptions for oil and import prices are estimated to bring the inflation forecast for 2020 down by 0.3 and 0.2 points, respectively. However, being revised upward from the previous reporting period, the output gap drives the end-2020 forecast up by 0.5 points, offsetting these disinflationary effects.

Chart 7.2.2: Inflation Forecast



Sources: CBRT, TURKSTAT.

Chart 7.2.3: Output Gap Forecast



Source: CBRT.

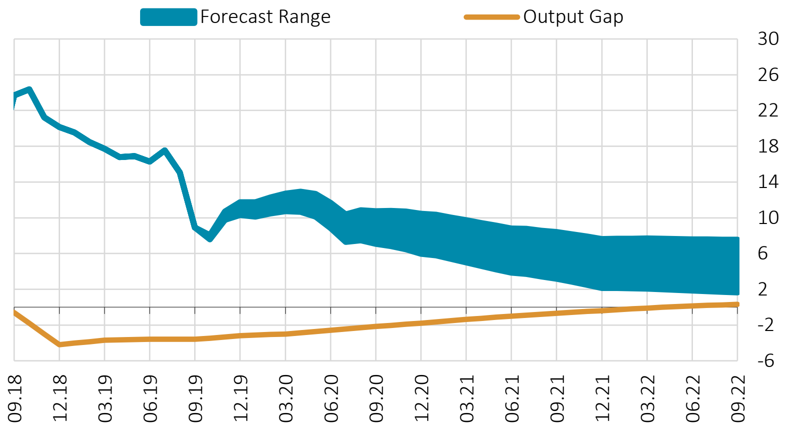
The above-mentioned forecasts are based on a framework in which global financial conditions will follow a moderate course and the recent gradual improvement in perceived uncertainty will continue into the upcoming period. Our projections rely on an outlook in which the extent of monetary tightness will be determined in a way to ensure the continuation of the disinflation process and its consistency with the target path. Additionally, it is assumed that the fiscal policy stance will be determined in coordination with monetary policy with a focus on price stability and macroeconomic rebalancing.

The improved outlook for global financial conditions as well as the third quarter's benign inflation and external balance outcomes helped reduce the volatility in financial markets. Against this backdrop, while adjustments in reserve requirements and other supportive measures provided a boost to loan supply, the reduction in the degree of monetary tightness stimulated loan demand, which led to a recovery in loan growth. Improved financial conditions support the gradual recovery in domestic demand. Given the state of competitiveness, despite sluggish global growth, net exports are expected to continue contributing to economic growth albeit more moderately than in the previous reporting period. The disinflationary contribution of aggregate demand conditions is projected to continue albeit with a moderate decline compared to the previous reporting period (Chart 7.2.3).

Maintaining a sustained disinflation process is key for achieving a lower country risk premium, lower long-term interest rates, and stronger economic recovery. For a successful disinflation process, it is critical to stop backward indexation and bring medium-term inflation expectations down in line with forecasts and targets by means of an enhanced disinflation-oriented policy coordination.

Unpredictable price fluctuations in items beyond the monetary policy domain, such as unprocessed food, energy and tobacco products, constitute a major factor causing deviation in inflation forecasts. Core inflation indicators obtained by excluding these items are relatively less volatile and 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 (Chart 7.2.4). In this context, annual inflation in the B index is projected to remain in a downtrend and gradually converge to the 5% target in the medium term.

Chart 7.2.4: Annual Inflation Forecast for the B Index *



Sources: CBRT, TURKSTAT.
*70% confidence interval.

Comparison of the CBRT's Forecasts with Inflation Expectations

Improved pricing behavior and inflation expectations are critical for a sustained disinflation process. Currently, 12 and 24-month ahead expectations of the respondents of the Survey of Expectations hover above the CBRT's forecasts but there is a convergence of expectations to CBRT forecasts compared to the previous reporting period (Table 7.2.2). The gradual convergence of inflation expectations to CBRT forecasts throughout the year was primarily driven by the monetary stance that safeguarded a consistency between inflation and forecasts as well as by increased credibility of forecasts. With medium-term expectations lying outside the uncertainty band around the inflation target, all macroeconomic policies should be well-coordinated with monetary policy to bring inflation down. To better manage expectations, it is necessary that monetary policy remain prudent and government-controlled prices and taxes be set in line with inflation targets to reduce backward indexation.

Table 7.2.2: CBRT Inflation Forecasts and Expectations

	CBRT Forecast	CBRT Survey of Expectations*	Inflation Target
End-2019	12.0	12.7	5.0
12-Month Ahead	8.5	11.2	5.0
24-Month Ahead	5.9	9.8	5.0

Source: CBRT.
* Data from the October Survey of Expectations.

7.3 Key Risks to Inflation Forecasts and the Likely Monetary Policy Response

The outlook underlying the medium-term projections presented in the Inflation Report is based on the Monetary Policy Committee's judgments and assumptions. Major upward and downward macroeconomic risks that may lead to a change in the baseline projections and the associated monetary policy stance are as follows:

- Possible fluctuations in the country risk premium,
- Elevated levels of medium-term inflation expectations,
- Risks to the coordination between monetary and fiscal policies (fiscal stance, administered prices, wage and tax adjustments),
- Risks to the credit market,
- Continued weakening in the global growth outlook,
- Uncertainty over the course of capital flows to emerging market economies,
- Volatility in international commodity prices.

Turkey's risk premium still hovers above that of other emerging market economies, and the exchange rate volatility remains high. The country risk premium and exchange rate volatility continue to pose upside risks to the medium-term inflation outlook, considering also the global uncertainties and geopolitical risks. Determining the degree of monetary policy tightness in a way that will keep the disinflation process on track with the target path is of great importance to achieve a sustained improvement in the country risk premium and exchange rate volatility. In this regard, in order to support the effectiveness of monetary policy and minimize potential inflation-growth trade-offs, it is deemed crucial that macro-financial policies are determined with a focus on reducing financial volatility and risk premium, and that the predictability of fiscal policy continues to be reinforced.

Despite a decline across all maturities, with more emphasis on the short term, inflation expectations still hover above the medium-term inflation target. Accordingly, it is assessed that elevated levels of inflation expectations pose an upside risk to the medium-term inflation outlook. Anchoring of inflation expectations is crucial for the effectiveness of monetary policy in the current period.

To keep the disinflation process on track with the target path envisaged in the Report, in addition to the support of macroeconomic rebalancing process to disinflation under the monetary and fiscal policy coordination, it is also important that the backward indexation behavior in administered prices and tax adjustments is reduced with a view to anchoring expectations and decreasing inflation inertia. The medium-term projections in this Report are based on a fiscal policy stance that focuses on disinflation and macroeconomic rebalancing, and supports the monetary policy transmission mechanism. Accordingly, projections rely on an outlook where the budget deficit will be contained parallel to the NEP projections over the forecast period. Moreover, it is assumed that the administered prices and tax adjustments will be determined in a way to support the disinflation process and that they will be broadly consistent with the inflation expectations and targets. In case the fiscal policy significantly deviates from the explained framework, the envisaged improvement in the risk premium and inflation expectations may be delayed, and the monetary policy stance may be revised if the medium-term inflation outlook is also adversely affected.

Owing to the CBRT's notable policy rate cut in the previous quarter, banks' domestic funding conditions were eased, leading them to reflect the reduced TL funding costs to loan rates. Accordingly, TL commercial and consumer loan rates decreased considerably, and total loans accelerated, with consumer loans in the lead. This increase in total loans was driven by both supply and demand-side developments. Should the recent significant acceleration continue without slowing down, the resulting credit growth's effect on growth and inflation may be higher than envisaged in the baseline scenario. Furthermore, banks' likely preference of a credit composition more tilted towards consumer loans than in the baseline scenario due to their risk perceptions may have repercussions on the composition of growth, inflation, current account deficit and the risk premium.

Decreasing the degree of monetary policy tightness will likely further underpin the normalization in credit conditions and the credit demand, yet downside risks to the credit market are in place for the upcoming period. Notwithstanding the accommodative stance of global monetary policies, uncertainties over global economic policies and geopolitical risks are climbing, which keeps the risk appetite subdued, restricting the acceleration of capital flows towards emerging economies. This indicates that the easing in external financing conditions may prove limited in the upcoming period, posing a downside risk to banks' loan supply. Moreover, possible impacts of the volume of non-performing loans and Stage 2 loans on the banking sector's loan supply in the short term are monitored closely. Meanwhile, the continuation of the recent recovery in credit demand induced by the fall in interest rates will depend on the developments in employment and income. The speed, scope and sustainability of the normalization in credit supply and demand remain important to the economic activity outlook.

The downside risks to the global economic activity outlook are still in place due to heightened uncertainties pertaining to global economic policies and persisting geopolitical uncertainties. These risks continue to pose downside risk to domestic growth via capital flows as well as the foreign trade channel. In this respect, the prospective effects of the weakened manufacturing industry in the Euro area and the developments regarding the trade disputes between the United States and China on Turkey's growth via the foreign trade channel are closely monitored.

Risks to capital flows to emerging market economies are balanced. While the easing in global monetary policies is expected to support capital flows to these economies, the strong downside risks to global growth, the elevated level of uncertainties regarding global economic policies, lingering geopolitical problems, and vulnerabilities peculiar to emerging market economies are restraining the recovery in capital flows and fueling downside risks for the upcoming period.

The downside risks to the future course of crude oil prices persist. Likely supply-side problems stemming from geopolitical issues might pose an upside risk to oil prices; however, heightened uncertainty in global trade and the unfavorable outlook in global economic activity bring downside risks to crude oil prices to the fore. Meanwhile, instabilities in emerging markets, the easing in monetary policies of advanced economies and increased economic and geopolitical uncertainties on a global scale make upside risks to precious metal prices more evident. Against this background, the monetary policy response will be determined in a way to keep the likely impact of energy and commodity prices-driven risks on inflation expectations and pricing behavior under control.

Table 7.3.1: Key Risks to Inflation Forecasts and Possible Impact Channels*

Risk	Assessment of Risks as against the Baseline Scenario and Possible Impact on Inflation (↑ | ↔ | ↓)		Indicators Monitored
Fluctuations in the country risk premium	**Pricing Behavior and Expectations Channel:** • Coupled with global uncertainties and geopolitical risks, relatively high levels of country risk premium and exchange rate volatility may pose upside risks to inflation forecasts via exchange rate and expectations channels. **Financial Conditions and Demand Channel:** • Likely upward movements in country risk premium and exchange rate volatility may exert a downward pressure on economic activity via the financial conditions channel.	↑ ↓	• Risk premium indicators • Global risk appetite indicators • Expectations of inflation and exchange rates • Implied volatility of exchange rates • Domestic macroeconomic indicators that may affect country risk premium • Financial conditions • Credit market indicators • Various output gap indicators • Leading indicators of demand and economic activity • Financial and real sector balance sheets • Capital flows • News flows regarding geopolitical developments
Elevated levels of medium-term inflation expectations	**Pricing Behavior and Expectations Channel:** • Elevated levels of medium-term inflation expectations as well as the high degree of inflation uncertainty implied by the distribution of expectations indicate that upward risks to pricing behavior prevail. **Pricing Behavior and Demand Channel:** • Delay in the projected decline in medium-term inflation expectations may increase the growth cost of disinflation.	↑ ↑	• Key inflation indicators • Diffusion indices • Indicators pertaining to backward indexation behavior in inflation expectations • Distribution of inflation expectations • Inflation uncertainty measures • Inflation indicators by sectors and subsectors • Various output gap indicators • Survey and market-based expectations of inflation and exchange rate
Uncertainties pertaining to backward indexation behavior	**Pricing Behavior and Expectations:** • Strong backward-indexation mechanism in pricing and wages may limit sensitivity of inflation to business cycles and lead to slower disinflation. • In case labor cost pressures cannot be offset by productivity increases, the impact on consumer prices may be stronger.	↑ ↑	• Real unit labor costs • Real wage and earnings indices • Partial labor productivity and total factor productivity • Private sector wage formation • Consumer spending

Table 7.3.1: Key Risks to Inflation Forecasts and Possible Impact Channels*

Risks to effectiveness of monetary and fiscal policy coordination	**Administered Prices and Tax Adjustments:** • The disinflation process may be delayed, should the path of administered prices and tax adjustments significantly exceed the path envisaged in this Report. ↑ **Risk Premium:** • If the budget deficit increases more than envisaged in the NEP, the country risk premium may rise. ↑ **Demand and Expectations Channel:** • The disinflationary effect of demand conditions may be reduced, should direct or indirect supportive impact of fiscal policy on domestic demand and economic activity be stronger than envisaged in the current Report. ↑	• Administered price and tax adjustments • Envisaged fiscal policy measures as part of the New Economy Program and the 2019-2020 budget • Developments in spending items sensitive to fiscal policy measures • Quasi-fiscal policy measures supporting economic activity • Credit growth in public and private banks • Government budget and public debt stock indicators • Estimates of the structural budget balance • Domestic demand indicators • Output gap indicators
Risks regarding food prices	**Food Prices:** • The correction in unprocessed food inflation due to weather conditions that increase vegetable supply may lead to a downward revision in unprocessed food inflation projections, depending on its course in the period ahead. ↓ • If there occurs a rapid correction in the recent better-than-usual supply conditions in 2020, the path of food inflation may be revized upwards. ↑	• Developments in food prices by categories and subcategories • Supply-side developments in agricultural production • Deviation of unprocessed food prices from historical trend • Food Committee measures and their implications
Risks regarding credit supply and composition	**Balance Sheet Channel:** • Despite declining over the previous period, risks regarding real sector's balance sheets and cash flows may curb the credit supply. ↓ • Due to the deceleration in the rate of increase in residential and commercial real estate prices and the decrease in the value of collaterals that the firms put up against loans, the easing in credit conditions for firms may be restrained. ↓ **Bank Lending Channel:** • A retail loan-driven expansion in credit composition of banks based on their risk perception may affect growth composition, inflation, current account deficit and risk premium. ↑ • On the other hand, a delay in the improvement in employment and incomes may limit retail loan growth. ↓	• Credit use by firms • Interest rates of deposits and loans • Stage 2 loans and NPL breakdown by sectors and loan types, NPLs, bad cheques and protested bills • Credit conditions (Bank Loans Tendency Survey) • Indicators regarding credit demand • Financial sector and real sector balance sheets, cash flows • Residential and commercial real estate prices (nominal/real)

Table 7.3.1: Key Risks to Inflation Forecasts and Possible Impact Channels*

	Expectations and Risk Premium Channel: • The interaction between firms' balance sheets and banks' asset quality, and the developments regarding the credit composition may adversely affect inflation expectations via risk premium and capital flows.	↑	• House sales, construction sector value added • Borrowing costs of Turkish banks • Firms' external borrowing • Data on the composition of loans by borrowers (retail/commercial), by sectors and firm size
Global growth outlook and uncertainties over capital flows to EMEs	**Foreign Demand and Global Financial Conditions:** • Increasing uncertainties over global economic activity and global trade outlook keep downside risks to domestic economic activity alive via capital flows and foreign trade channels. **Global Risk Appetite:** • If major central banks opt for stronger easing in their monetary policies, upside risks to portfolio flows to emerging economies may grow. • However, if the monetary easing in advanced economies becomes more limited than expected, downside risks to portfolio flows to emerging economies may increase. • Global risk appetite may be curbed by the US-China trade dispute, political uncertainties regarding Brexit and geopolitical problems concerning the Middle East.	↓ ↓ ↑ ↑	• Global inflation and growth indicators and forecasts • Export-weighted global economic activity index • Global economic policies and trade policies • Global risk appetite indicators • Trends and composition of global capital flows, Turkey's share
Fluctuations in crude oil and import prices	**Import Prices:** • Despite adverse supply side developments, downside risks to crude oil prices have increased due to the high level of uncertainty over global trade and the unfavorable outlook in economic activity. • Volatilities in emerging market economies, easing in monetary policies of advanced economies as well as global economic and geopolitical concerns keep upside risks to precious metal prices strong.	↓ ↔	• Crude oil and other commodity prices and supply-demand balance • Global trade policies • OPEC decisions • Adjustments in domestic fuel oil prices • Imports and current account balance

* Each risk row of the table presents evaluations on the channel through which inflation forecasts may change, along with the direction of that change, if the respective risk materializes. The signs ↑, ↓ indicate the direction in which the risks influence the inflation forecast (upside and downside, respectively). The sign ↔ denotes circumstances where the net effect on the inflation forecast is not clear. Indicators used in monitoring the risks are listed in the right column.