# 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

Consumer inflation, which rapidly increased in the third quarter, remained significantly above the forecasts presented in July Inflation Report (Table 7.1.1). In this quarter, the deviation of inflation forecasts was mainly driven by the cumulative impact of the depreciation of the Turkish lira and the deterioration in pricing behavior. The rise in annual inflation is widespread across all sub-categories and a clear deterioration is observed in the underlying trend indicators as well. The current elevated levels of inflation adversely affect pricing behavior via both the expectations channel and the backward indexation channel. As producer inflation hit very high levels in the third quarter, cost pressures on consumer prices further intensified.

The recent GDP and employment data releases and the backward revisions show that the economic activity in the second quarter was slightly stronger than the forecasts in the July Inflation Report. Indicators for the third quarter suggest that the slowdown in economic activity continues. Accordingly, the output gap forecasts for the second quarter have been revised upwards, whereas those for the third quarter have been revised downwards (Table 7.1.1). Recently, volatility in financial markets has risen due to the rapid deterioration in the Turkish lira and heightened uncertainty perceptions and financial conditions have become tighter than envisaged. Therefore, the slowdown in demand conditions is expected to be faster in the final quarter of the year. The output gap forecasts for the upcoming period are based on the assumptions that fiscal policy will provide increased contribution to rebalancing and that risk sentiment will improve gradually.

Table 7.1.1: Changes in Key Forecast Variables\*

	2018-II	2018-III
Output Gap	1.3 (0.4)	-0.7 (-0.5)
Consumer Inflation (Quarter-end, Annual % Change)	15.4 (15.4)	24.5 (15.4)
Inflation excl. Unprocessed Food, Tobacco and Alcohol (CPIX) (Quarter-end, Annual % Change)	15.2 (15.2)	24.8 (15.7)

 $<sup>\</sup>ensuremath{^{*}}$  Numbers in parentheses denote the values from the July Inflation Report.

In the aftermath of the July Inflation Period, Turkey's financial market indicators negatively diverged from other emerging market economies due to geopolitical developments, deterioration in the inflation outlook and uncertainties pertaining to the macro policy mix. Between August and October 2018, Turkey was one of those emerging markets that saw portfolio outflows. With the impact of the volatility in financial markets, the loan-deposit rate spread widened and tightening in financial conditions increased remarkably. The decrease in loan growth continues both on the supply and demand side. Bank Loans Tendency Survey also indicates a tightening of lending standards for the third quarter, which may continue into the fourth quarter.

On the back of the liquidity measures taken by the CBRT and the BRSA in August and the strong monetary tightening delivered at the MPC meeting in September with an aim to support the price stability objective, financial indicators displayed some improvement and depreciation in Turkish lira was partly compensated in September and October. The CBRT maintained the tight monetary policy stance in the October MPC meeting due to prevailing upside risks on pricing behavior, notwithstanding the judgment that weaker domestic demand conditions also owing to tighter financial conditions would partially mitigate the deterioration in the inflation outlook.

### **Assumptions for External Variables**

#### Global Growth

After the July Inflation Report, the global growth lost pace. Data released in the inter-reporting period indicate that in the second quarter US growth followed a similar trend to the first quarter while growth in the euro area slowed down. Indicators for the third quarter suggest that global growth will continue to contract. In the September Consensus Forecasts bulletins, compared to the previous reporting period, year-end growth forecasts for the US have not been changed, whereas forecasts for the euro area have been revised downwards. The ongoing growth trend in global economic activity is estimated to lose some pace in the rest of the year and in 2019 mainly because of emerging economies and the euro area. Thus, while making medium term forecasts, the assumption for the annual growth rate of the export-weighted global production index, a measure for Turkey's external demand, has been revised slightly downwards for the upcoming period (Chart 7.1.1). Turkey's external demand outlook seems slightly weaker, largely due to the geopolitical developments and downside risks stemming from the recent protectionist discourse.

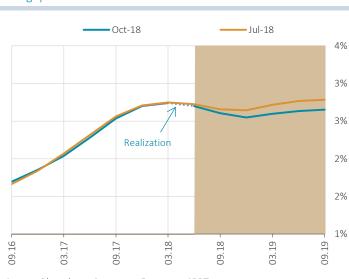


Chart 7.1.1: Export-Weighted Global Production Index\* (Y-o-Y % Change)

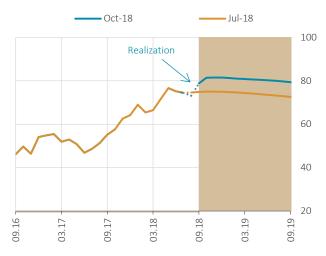
Source: Bloomberg, Consensus Forecasts, CBRT.

\*Shaded area shows the forecast period.

# Import prices

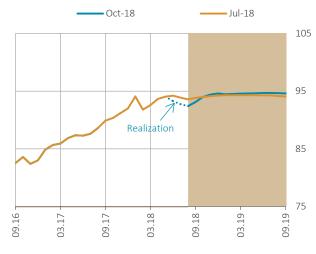
Due to the recent increase in crude oil prices on spot and futures markets, the assumption for crude oil prices in the July Inflation Report has been revised upwards to USD 75 from USD 73 for 2018 and to USD 80 from USD 73 for 2019, on average (Table 7.1.2, Chart 7.1.2). The realization for average annual increase in import prices in USD terms remained below the July Inflation Report assumptions. Assumptions for 2019 have been revised slightly upwards (Table 7.1.2, Chart 7.1.3).

Chart 7.1.2: Revisions in Oil Price Assumptions\* (USD/Barrel)



Source: Bloomberg, CBRT.

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



Source: Bloomberg, CBRT.

#### **Monetary Policies of Advanced Economies**

The normalization in monetary policies of advanced economies has continued since the July Inflation Report. The Fed raised rates for the third time in 2018, in line with expectations. Central banks of advanced economies are likely to continue tightening gradually in the upcoming period. Although the Fed envisages three rate hikes for 2019, the number of rate hikes priced on the market is at the same level as the previous reporting period and it is below two. Therefore, the exogenous assumption for the foreign interest-rate path has been revised slightly upwards for the second half of 2019 compared to the July Inflation Report period. Our forecasts are based on the assumption that the global risk sentiment will not worsen further over the upcoming period.

### **Unprocessed Food Prices**

Another external variable underlying medium-term forecasts is the path of unprocessed food prices. Unprocessed food inflation reached 34 percent by the end of the third quarter, significantly exceeding the July Inflation Report assumptions. The expected correction in fresh fruit and vegetable prices in July and August remained limited, followed by a strong price hike in September. Accordingly, the food inflation forecast was revised upwards to 29.5 percent from 13 percent for end-2018 and to 13 percent from 10 percent for end-2019 (Table 7.1.2).

#### Fiscal Policy, Administered Prices and Tax Adjustments

Fiscal policy was less supportive of the economic activity compared to the July Inflation Report period. The sliding-scale tariff system continued to curb the effect of increases in international oil prices and exchange rates on fuel prices. However, adjustments to electricity and natural gas prices exceeded the rates envisaged in the July Inflation Report, thus had an impact on inflation. 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. The New Economy Program (NEP) announced on 20 September 2018 indicated that public finances would contribute to the macro rebalancing process by conducting a tight policy framework. The fact that the tight policy framework has been designed based on cutting down on expenses rather than increasing taxes will contribute to price stability. In this context, future projections are based on the assumptions that the support of the public sector to economic activity will be replaced by a weaker stance that will be more pronounced in 2019; that the growth of spending and current transfers will decline accordingly; and that those prices and wages controlled by the government will be set broadly consistent with the inflation targets to reduce

<sup>\*</sup> Shaded area shows the forecast period.

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backward-indexation. The strong policy coordination to lower inflation and achieve macroeconomic rebalancing is envisaged to gradually improve the risk premium and uncertainty perceptions (Box 6.1).

Table 7.1.2: Revisions to Assumptions\*

	2018	2019
Export-Weighted Global Production Index* (Annual Average % Change)	2.5 (2.6)	2.6 (2.7)
Oil Prices (Average, USD)	75 (73)	80 (73)
Import Prices (USD, Annual Average % Change)	6.0 (6.3)	1.3 (0.5)
3-Month US Bond Rates (Year-end, %)	2.3 (2.3)	3.0 (2.9)
Food Price Inflation (Year-end % change)	29.5 (13.0)	13.0 (10.0)

<sup>\*</sup> Numbers in parentheses denote the values from the July Inflation Report.

# 7.2 Medium-Term Projections

With a tight policy stance that focuses on bringing inflation down through enhanced policy coordination, inflation is projected to converge gradually to the target. Accordingly, inflation is projected to be 23.5 percent at the end of 2018, 15.2 percent at the end of 2019, and 9.3 percent at the end of 2020 and stabilize around 5 percent over the medium term. With a 70 percent probability, inflation is expected to be between 21.9 percent and 25.1 percent (with a mid-point of 23.5 percent) at end-2018, between 12.3 percent and 18.1 percent (with a mid-point of 15.2 percent) at end-2019 and between 6.0 percent and 12.6 percent (with a mid-point of 9.3 percent) at end-2020 (Chart 7.2.1). Forecasts are based on a monetary policy framework where the tight monetary policy stance will be maintained for an extended period.

Forecast Range\* Uncertainty Band Inflation Targets Output Gap 30 Control 26 Horizon 22 18 14 10 6 2 -2 06.19 12.17 12.19 06.20 12.20 09.19 03.20 09.20 06.21 09.21 ..60 12. 03. 03. 09. 06.

Chart 7.2.1: Inflation and Output Gap Forecasts\*

Source: CBRT, TURKSTAT.

\*70 percent confidence interval.

The upward revision in inflation forecasts stemmed from the rapid depreciation of the Turkish lira and deterioration in pricing behavior since the July Inflation Report (Chart 7.2.2). Meanwhile, the output gap forecast has been revised significantly downwards for the last quarter of 2018 and for 2019 and the disinflationary impact of demand conditions has grown stronger since the last reporting period. The

underlying reasons for the upward revisions in inflation forecasts for 2018 and 2019 are presented in Table 7.2.1.

Table 7.2.1: Revisions to Inflation Forecasts for end-2018 and end-2019 and Reasons for Revisions

	2018	2019
2018-III (July 2018) Forecast	13.4	9.3
2018-IV (October 2018) Forecast	23.5	15.2
Revisions to Forecasts of 2018-III	10.1	5.9
Reasons for Forecast Revisions		
TL-denominated Import Prices (Exchange Rates, Oil and Import Prices and Adjustments to Energy Prices Included)	4.1	3.0
Deviation from the Inflation Forecast/ Underlying Trend of Inflation	2.5	3.6
Food Inflation	3.8	0.7
Output Gap	-0.3	-1.4
C CRRT		

Source: CBRT.

The inflation forecast for end-2018 has been revised upwards to 23.5 percent from 13.4 percent, indicating a 10.1-point rise compared to the July Inflation Report. 4.1 percentage points of this rise was driven by the increase in import prices in terms of Turkish lira. The bulk of this increase stemmed from the depreciation of Turkish lira along with the change in pass-through from exchange rates to inflation in the third quarter. Moreover, the increases in energy prices excluding fuel oil that remained above the assumptions of the previous report have also been influential in this revision. The assumption that the sliding-scale tariff system will be maintained until the end of 2018 limits the additional pressure of exchange rate increases on the inflation forecast through the channel of fuel oil prices. The 9.1-point deviation from the consumer inflation forecast, along with the deterioration in the pricing behavior in the third quarter pushed the year-end inflation forecast up by 2.5 percent and the revision in the food inflation assumption drove the forecast up by 3.8 points. The widening in the output gap, which became more pronounced in the last quarter of 2018, is estimated to curb 2018 inflation by -0.3 points.

The disinflationary effect of demand conditions is estimated to become apparent in 2019 (Chart 7.2.3). Accordingly, the revision in output gap forecasts pulls the end-2019 inflation forecast down by -1.4 points compared to the previous reporting period (Table 7.2.1). That said, due to the staggered exchange rate effect pushed forward to 2019 by inflation inertia, along with the expected effect of the rise in the oil price assumption for 2019 on energy prices, import prices in TL terms are estimated to push the end-2019 inflation forecast up by a total of 3.0 points. Of the 10.1-point revision in the end-2018 inflation forecast, 3.6 points is estimated to be influential on the end-2019 inflation forecast due to backward indexation. Finally, the revision of the food inflation assumption for 2019 to 13 percent from 10 percent added 0.7 points to the end-2019 inflation forecast. Accordingly, the inflation forecast for end-2019 has been revised upwards by 5.9 points to 15.2 percent compared to the previous reporting period (Chart 7.2.2).

#### Chart 7.2.2: Inflation Forecast

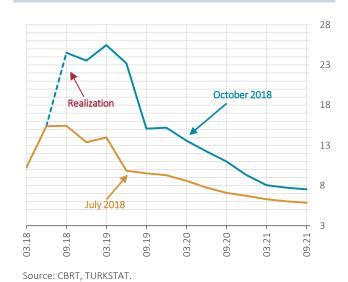


Chart 7.2.3: Output Gap Forecast



Source: CBRT.

The above-mentioned forecasts are based on a framework in which there would be no additional deterioration in the global risk appetite and the recent recovery in Turkey's risk premium would continue moderately. Projections rely on an outlook in which decisive implementation of a tight monetary policy stance and inflation-oriented policy coordination would continue, and the rebalancing process that is expected to continue in the current account deficit would contribute to the improvement of the country's risk premium, thereby containing exchange rate volatility. Accordingly, the determinants of the fall in inflation in 2019 are judged to be the moderation of cost pressures driven by a modest appreciation trend in real exchange rates and the expected slowdown in domestic demand. Breaking the backwardindexation behavior with the support of a stable course in exchange rates and strengthened macro-policy coordination targeting disinflation, and pulling medium-term inflation expectations to levels consistent with forecasts and targets are crucial to achieve disinflation.

Strengthened coordination between macroeconomic policies and particularly the policies supporting financial stability are expected to contain downside risks to the credit market and domestic demand, thereby contributing positively to macro balances and the disinflation process. In this framework, the output gap, which is expected to decrease significantly as of the final quarter of 2018 due to tight financial conditions, is expected to recover gradually and slowly as of the second half of 2019 and the slowdown in domestic demand is not likely to deepen (Chart 7.2.3). This projection is consistent with an outlook in which banks' external borrowing conditions and credit supply conditions are improved, uncertainties pertaining to restructuring of credits are reduced, and the credit channel becomes functional on the back of enhanced confidence.

Unpredictable price fluctuations in items beyond the monetary policy domain, such as unprocessed food, energy, alcoholic beverages and tobacco products, are a major factor causing deviation in inflation forecasts. Therefore, forecasts about the core inflation indicators are also publicly announced. Chart 7.2.4 shows inflation forecasts excluding unprocessed food, energy, alcoholic beverages, tobacco products and gold (B index). Similar to headline consumer inflation, annual B index inflation is expected to remain elevated through 2018, assume a rapid downtrend in the second half of 2019 and gradually decline to about 6 percent in the medium term.

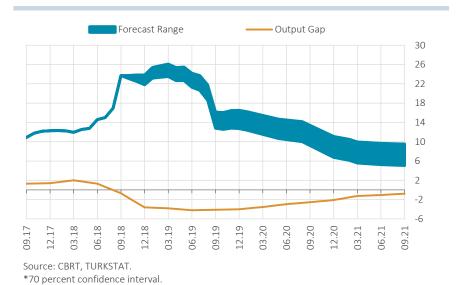


Chart 7.2.4: Annual B Index Forecast\*

#### Comparison of the CBRT's Forecasts with Inflation Expectations

The current high level of inflation appears to have been triggered not only by cost increases and demand-side pressures, but deterioration in pricing behavior and inflation expectations also contribute to the economy-wide diffusion of the tendency to raise prices. Currently, 24-month-ahead inflation expectations of respondents to the CBRT Survey of Expectations are significantly above the Bank's forecasts (Table 7.2.2). Medium-term inflation expectations exceed the uncertainty band, therefore, a monetary policy strategy designed to keep inflation expectations firmly anchored shall be implemented in coordination with other economic policies and the joint determination to bring inflation down should be communicated effectively. Ensuring the support of fiscal policy to the rebalancing process and the adjustment of government-controlled prices and wages in line with inflation targets in a way to reduce backward indexation will also contribute to better expectations management.

Table 7.2.2: CBRT Inflation Forecasts and Expectations

	CBRT Forecast	CBRT Survey of Expectations*	Inflation Target
2018 Year-end	23.5	24.2	5.0
12-Month Ahead	14.9	17.0	5.0
24-Month Ahead	10.4	12.7	5.0

Source: CBRT.

# 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. Nevertheless, various risks to these factors may affect the inflation outlook and necessitate changes in the monetary policy stance envisaged in the baseline scenario.

In addition to the rising uncertainty over inflation and forecasts due to changing inflation dynamics, major risks that have the potential to change the outlook that the baseline scenario hinges on are as follows:

<sup>\*</sup> As of October 2018.

- Further deterioration in pricing behavior and expectations formation;
- Weaker capital flows towards emerging market economies;
- Further supply-side tightening in bank loans;
- Risks to the coordination between monetary and fiscal policies (administered prices, tax and wage policies);
- Higher backward indexation in wage inflation;
- Rise in international crude oil prices;
- Sustained rise in food prices.

Evaluations on the channels through which these risks may change inflation forecasts and the direction of this change are summarized in Table 7.3.1.

The primary risk to the inflation outlook in the upcoming period would be further deterioration in pricing behavior. In recent months, pass-through from exchange rates to consumer inflation has grown stronger, backward indexation has become more widespread, and pricing behavior has deteriorated considerably. Although exchange rate-related inflationary pressures are expected to remain relatively subdued under current circumstances, risks to the inflation outlook remain solid amid highly volatile exchange rates. In case of a failure to implement the macroeconomic rebalancing process rapidly and effectively enough to bring inflation down amid high inflation rates and risk premium levels, inflation and exchange rate expectations may feed each other and undermine the disinflation process. In such a case, any further deterioration in pricing behavior may necessitate a tighter monetary policy stance for a longer time in order to bring inflation down.

The deteriorated pricing behavior, tight financial conditions and the financial state of the corporate sector have recently caused inflation dynamics to change and the uncertainty over inflation and forecasts to rise. The cumulative cost pressures on firms and the decrease in their profitability, coupled with increased working capital costs, may cause the disinflationary impact of the demand channel to be more limited compared to the implications of the historical data. In the short run, monetary policy decisions will be more sensitive to incoming data and the monetary policy stance will be revised if any changes are detected in the inflation outlook.

There are also risks stemming from global monetary policies and risk appetite developments that may lead to a decline in capital flows towards emerging economies and feed into exchange rate volatility. The sustained monetary tightening trend and the increase in bond yields in advanced economies, heightened protectionism in global trade, Brexit developments, concerns over the budget deficit and sovereign debt of Italy, and imminent sanctions on Iran may cause fluctuations in the risk appetite for emerging economies and pose a downside risk to portfolio flows towards those countries in the upcoming period. In case of excessive market volatility due to fluctuations in global liquidity conditions and in perceptions of risk, the CBRT may use liquidity measures intended for providing the market with the needed FX liquidity in a timely, controlled and effective manner. In addition, the CBRT may introduce additional tightening in monetary policy to curb the impact of these risks on inflation and inflation expectations.

In the third quarter of the year, credit conditions recorded a significantly higher tightening than historical averages due to increasing risk premiums. The rate and extent of the normalization to be observed in credit conditions in the upcoming period are important with respect to the outlook for economic activity. As cash flows and balance sheets of firms have been adversely affected by the increase in exchange rates and loan rates as well as by the slowdown in economic activity, conducting the necessary assessments and analyses related to the asset quality of firms will have a decisive role in the credit market. Therefore, establishing coordination between the financial sector policies that restrict the balance sheet effects of the corporate sector and the monetary policy that focuses on inflation has become crucial for preventing the financial conditions from falling into an unproductive tightening cycle.

A weaker coordination between monetary and fiscal policy than in the baseline scenario is regarded as a risk factor with respect to disinflation and macroeconomic rebalancing. The fiscal policy outlook that the medium-term projections in the Inflation Report are based on incorporates a policy stance that focuses on disinflation and macroeconomic rebalancing and that is coordinated with the monetary policy, which is in line with the New Economy Program announced in September. Accordingly, the projections rest on an outlook where the fiscal policy introduces tight fiscal discipline, as envisaged in the New Economy Program. Moreover, it has been assumed that administered prices, tax and wage adjustments will be formulated in a way that will help reduce the backward-indexation behavior. If the fiscal policy significantly deviates from this framework leading to an adverse impact on the medium-term inflation outlook, the monetary policy stance may be revised.

Another risk factor for the medium-term inflation outlook is the impact of the significant uptrend in inflation on wage increases in 2019. Despite the downward effects of the slowdown in economic activity and increased unemployment rates as of the third quarter, elevated levels of inflation are projected to have an upward impact on wages through the indexation channel. In addition to the efforts to weaken the indexation channel, assessments of the extent of the compensation for cost pressures by productivity increases in the upcoming period and assessments of the impact of real wage hikes on aggregate demand will have an important role in monetary policy decisions.

Crude oil prices and domestic food prices are also considered to constitute upside risks to inflation in the upcoming period. Although problems in the US regarding the supply of shale oil have been largely settled in the recent period, the supply shortage due to geopolitical developments in Iran and Venezuela continues to be the major upside risk to crude oil prices. On the other hand, increased protectionism in global trade stands out as a downward risk factor for commodity prices due to its likely adverse effect on global growth. Risks related to domestic food prices are projected to be on the upside because of cumulative cost-side pressures, particularly in the short term. In this framework, the monetary policy response will be determined in such a way to curb a possible deterioration in inflation expectations and pricing behavior, taking into account the direct and secondary effects of respective risks on inflation.

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 $(\uparrow   \leftrightarrow   \downarrow)$	Indicators Monitored	Indicators Monitored	
Additional deterioration in pricing behavior and expectation formation	Pricing Behavior and Expectation Channel:  High levels of inflation may lead to additional deterioration in pricing behavior, thereby strengthening backward-indexation.  Inflation and exchange rate expectations may give rise to a mutually reinforcing cycle, which may lead to weak anchoring of inflation expectations.	<ul> <li>Core inflation</li> <li>Diffusion indi</li> <li>Survey of Exp</li> <li>Stronger back indexation te inflation expe</li> </ul>	ces pectations kward- ndency in	
Higher inflation- and forecast-uncertainty due to changing inflation dynamics	Pricing Behavior and Expectation Channel:  Cumulative cost pressures on firms and decrease in their profitability, coupled with increased working capital costs, may change the historical relationship between inflation and output gap.  Persistent state of high exchange rate volatility may increase exchange-rate pass-through to consumer prices.  Uncertainties regarding the magnitude and duration of the discounts introduced under the "All-Out War on Inflation" program may affect short-term inflation forecasts.	<ul> <li>Inflation indices sectors and sectors and sectors are sectors and sectors are sectors.</li> <li>Various output measures</li> <li>Financial states firms and NPI</li> <li>Diffusion indiese Expectations and exchanges</li> </ul>	ub- ut gap ements of Ls by sector: ces of inflation	

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

Weakening of capital flows towards emerging economies	Global Monetary Policies:	<ul> <li>Global risk appetite indicators</li> <li>The course and composition of global capital flows, Turkey's share</li> </ul>
	Protectionist trade policies may trigger concerns over global growth and affect the global risk appetite adversely.      Brexit developments, concerns over Italy's debt dynamics, and imminent sanctions on Iran may limit the global risk appetite.	<ul> <li>Developments in Turkish banks' borrowing costs</li> <li>Developments in loans received from abroad by firms</li> </ul>
Further supply-side tightening in bank loans	<ul> <li>Exchange rate- and input-cost-led deterioration of real sector's balance sheets may lead to more significant slowdown in economic activity compared to Inflation Report projections.</li> <li>The increase in the number of insolvent firms may affect the country's risk premium negatively.</li> <li>A significant deceleration in the rate of increase in house and commercial real estate prices may decrease the value of collaterals that the firms put up against loans, and firms may be exposed to tighter credit conditions.</li> <li>Bank Lending Channel:</li> <li>The decline in banks' CARs might affect credit supply adversely.</li> </ul>	<ul> <li>Developments in loan growth with a breakdown by public and private banks</li> <li>Developments in loan and deposit rates</li> <li>NPL breakdown by sectors and loan types</li> <li>Yield spread on corporate bond issues</li> <li>Credit conditions (Bank Loans Tendency Survey)</li> <li>Financial and corporate sector balance sheets, financial flows</li> <li>House prices (nominal/real)</li> <li>House sales, construction sector value added</li> </ul>
Risks to the effective coordination between monetary and fiscal policies	A more expansionary fiscal policy than envisaged may lead to continued demand pressure on prices.  Risk Premium:      Insufficient coordination between fiscal and monetary policies, along with lack of contribution from fiscal policy to macroeconomic rebalancing, particularly the current account balance and inflation, at a desired level, may cause an increase in the country's risk premium.  Administered Prices and Tax Adjustments:      Maintaining the practice of backward-indexation in government-set wages, other administered prices and tax adjustments may delay the disinflation process.      Terminating the administrative arrangement that alleviates the impact of crude oil prices and exchange rate fluctuations on fuel prices in an inflationary conjuncture may affect inflation adversely.	<ul> <li>Envisaged fiscal policy measures as part of the New Economy Program and the 2019 budget.</li> <li>Developments regarding the interaction of monetary and fiscal policies</li> <li>Domestic demand indicators</li> <li>Developments in expenditure items sensitive to fiscal policy measures</li> <li>Administered prices and tax adjustments</li> <li>Budget, current account and other balance of payments indicators</li> <li>Output gap forecasts</li> </ul>

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

Persistence of financial	Risk Premium:		<ul> <li>premium indicators</li> </ul>
market volatility caused by domestic factors	<ul> <li>Deterioration in risk perceptions towards Turkey due to factors that determine the risk premium or contagion effect that might arise from possible fluctuations in global financial markets may have an adverse impact on Turkey's risk premium.</li> </ul>	<b>↑</b>	<ul> <li>Global risk appetite indicators</li> <li>Exchange rates</li> </ul>
Higher backward indexation in wage inflation	Pricing Behavior and Expectation Channel:  • Elevated levels of inflation are projected to have an upward impact on wages through the indexation channel, unless cost pressures are compensated for by productivity gains.  Demand Channel:  • The anticipated real wage increases in 2019 may have an upward effect on inflation through the demand channel.	<b>↑</b>	<ul> <li>Real unit labor costs</li> <li>Real wage and earnings</li> <li>Partial labor and total factor productivity</li> <li>Minimum-wage negotiations</li> <li>Indicators for consumption expenditures</li> </ul>
Adverse effects of global protectionist trade policies on economic activity, trade volume and prices	Protectionist trade policies may have a downward effect on the global growth outlook, primarily in the US and China. The additional customs tariff keeps the downward risks to the European Union's economic activity alive. In such a case, a likely weakening in Turkey's foreign demand might reduce capacity pressures.  Sectoral capacity pressures may be experienced should demand head towards Turkey from countries exposed to protectionist measures in some sectors.  Global Inflation and Financial Conditions:  The monetary policy response to protectionism-driven inflation in related countries may tighten global financial conditions and lead to the depreciation of the Turkish lira.	<b>+ + +</b>	<ul> <li>Developments in protectionist trade policies</li> <li>Export-weighted global economic activity index</li> <li>Global trade volume and inflation developments</li> <li>Data on sectoral activity and prices</li> <li>Monetary policy response in advanced and emerging economies</li> </ul>
Crude oil and import prices	Import Prices:  Possible supply shortages in crude oil markets due to geopolitical developments in Iran and Venezuela continue to be the major upward risk for crude oil prices.  Risks regarding the weakening global growth are likely to cause a downward effect on commodity prices in the medium term.	<b>↑</b>	<ul> <li>Crude oil prices and supply/supply balance</li> <li>OPEC decisions</li> <li>Arrangements on domestic fuel oil prices</li> <li>Imports and current account balance</li> </ul>
Sustained rise in food prices	Unprocessed Food Prices:  • Inflation expectations may be affected adversely due to a later-than-anticipated correction in unprocessed food prices that have recently soared relative to long-term trends.	<b>↑</b>	<ul> <li>Developments in food prices by categories and sub-categories</li> <li>Deviation of unprocessed food prices from historicatrend</li> <li>Food Committee measures and their implications</li> </ul>

<sup>\*</sup> 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  $\uparrow$ ,  $\downarrow$  indicate the direction in which the risks influence the inflation forecast (upside and downside, respectively). The sign  $\leftrightarrow$  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.