

Box 7.1

An Evaluation of End-2017 Inflation Forecasts

Under the inflation targeting regime, the CBRT provides the public with comprehensive reviews on inflation developments through reports. This box gives a summary of the end-2017 inflation forecasts announced in Inflation Reports throughout 2017, along with the changes in the main assumptions underlying these forecasts.

Among major reasons causing upward revisions to year-end inflation forecasts throughout 2017 were changes in TL-denominated import prices, rising food prices and revised output gap forecasts. Accordingly, output gap forecasts were revised upwards in all quarters, while food inflation was updated in the second quarter, and TL-denominated import prices were adjusted for the second half of 2017, which prompted upward revisions to year-end inflation forecasts (Table 1, Chart 1).

Table 1: Inflation Report Assumptions for 2017

	January 2017	April 2017	July 2017	October 2017	Actual
Food Prices (annual % change)	9.0	9.0	10.0	10.0	13.8
Export-Weighted Global Production Index (annual average % change)	1.9	1.8	2.1	2.3	2.5*
Import Prices (annual average % change)	3.0	4.4	6.2	7.1	7.5*
Brent Crude Oil Prices (USD/bbl)	57	55	50	53	54

Source: CBRT.

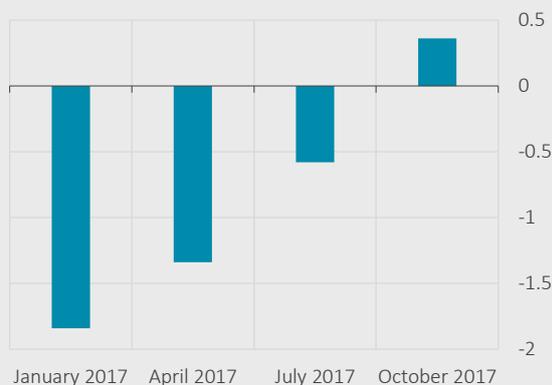
* As of December 2017.

Amid waning monetary policy uncertainty across advanced economies and strong capital flows to emerging economies, including Turkey, the developments in exchange rates during the first half of 2017, except for January, created no additional inflationary pressure. However, with mounting global and geopolitical tensions as of mid-2017, the Turkish lira depreciation pushed inflation higher for items particularly sensitive to the exchange rate and affected inflation expectations and pricing behavior negatively. In addition, the volatility of food prices, especially unprocessed food, was one of the key drivers of the faster-than-expected increase in inflation through 2017. Stronger-than-anticipated demand conditions were also among factors causing inflation to rise. Thus, inflation amounted to 11.9 percent at the end of 2017, exceeding the October Inflation Report forecast of 9.8 percent.

2017 January Inflation Report

TL-denominated import prices were expected to put upward pressure on inflation in 2017 due to rising oil prices at the end of 2016 and the Turkish lira depreciation in January 2017. Moreover, with the increased likelihood of a delay in the long-awaited decline in food inflation, the forecast for food inflation was revised up to 9 percent for 2017. Despite these inflationary pressures, consumer inflation was estimated to fall from the end-2016 rate of 8.53 percent to a projected 8 percent at the end of 2017 thanks to the tight monetary policy stance that focuses on bringing inflation down.

Chart 1: Revisions in Average Output Gap Forecasts (%)



Source: CBRT.

Chart 2: Revisions in Inflation Forecasts in 2017* (%)



Source: CBRT, TURKSTAT.

* The series show the projected inflation path from the start of the corresponding period to the end of year. The initial points in series show the actual inflation values.

2017 April Inflation Report

Economic activity turned out to be more buoyant in the fourth quarter of 2016 than envisaged in the January Inflation Report. Therefore, output gap forecasts for 2017 were revised upward from the previous reporting period (Chart 1).

Furthermore, TL import prices were estimated to post a slight increase compared to the previous reporting period. In addition, the actual inflation rate of the first quarter of 2017 surpassed the January Inflation Report forecast, suggesting a small increase in underlying inflation. Following these revisions to underlying inflation, output gap and TL import prices, the year-end consumer inflation forecast was raised to 8.5 percent.

2017 July Inflation Report

After the release of the first-quarter GDP data, economic activity was seen to have a stronger outlook than presented in the April Inflation Report. Moreover, output gap forecasts for 2017 were revised up as leading indicators signaled a strengthening economic recovery for the second quarter thanks to new accommodative incentives and measures. Meanwhile, with tighter monetary policy, the output gap was estimated to provide further support to disinflation in 2017, albeit to a lesser degree than in previous periods.

Another factor driving the year-end inflation forecast higher in the July Inflation Report was food prices. The actual rate of food inflation was slightly above the April Inflation Report forecast in the second quarter, and the food inflation assumption for end-2017 was raised from 9 to 10 percent in view of past realizations in second-half food inflation rates.

On the other hand, the stable Turkish lira, the significant fall in oil prices and the withdrawal of the automatic tax hike on tobacco products pulled inflation forecasts down. Accordingly, the year-end inflation forecast for 2017 was raised to 8.7 percent from 8.5 percent in the previous Report.

2017 October Inflation Report

In the period following the July Inflation Report, the Turkish lira depreciation against the currency basket and the rise in international commodity prices added to cost pressures on inflation. In addition to cost pressures, the disinflationary support from demand conditions also disappeared

as of the second quarter due to robust economic activity. The second quarter's GDP data revealed a much stronger economic activity for the second quarter of 2017, compared to the July Inflation Report. Additionally, leading indicators signaled that economic recovery gained momentum in the third quarter. Therefore, output gap forecasts were revised upwards for 2017. After peaking in the third quarter, the support from CGF-backed loans and macroprudential incentives to growth were estimated to subside gradually in the following period, and economic activity was anticipated to revert back to its trend. Thus, aggregate demand conditions were estimated to resume their disinflationary support by the second quarter of 2018.

In addition, both the actual third-quarter inflation that was higher than the July forecast and the rise in underlying inflation added 0.2 points to the end-2017 inflation forecast. Accordingly, the year-end inflation forecast for 2017 was raised to 9.8 percent from the July Inflation Report forecast of 8.7 percent.

Actual Inflation at the end of 2017

The revisions to inflation forecasts were induced by the higher-than-projected increase in TL import prices and underlying inflation amid the TL depreciation as well as rising food prices in the fourth quarter. The rise in commodity prices, especially oil and industrial metals, and volatile exchange rates were the key drivers of inflation via the cost channel. The solid growth in economic activity was another factor adding to the cost pressures on inflation. The final column of Table 2 shows how each of these factors contributed to the deviation of 2.1 points between actual and expected inflation rates.

Table 2: Revisions to end-2017 Inflation Forecasts*

	January 2017	April 2017	July 2017	October 2017
Inflation Forecasts (%)	8.0	8.5	8.7	9.8
Sources of Revisions				
	April-January	July-April	October-July	December-October
Food	0.0	0.2	0.0	0.8
Import Prices (TL)	0.1	-0.1	0.5	0.8
Underlying Inflation	0.2	0.0	0.2	0.4
Output Gap	0.2	0.2	0.4	0.2
Adjustments to Alcoholic Beverages, Tobacco Products and Other Taxes	0.0	-0.1	0.0	-0.1

Source: CBRT.

* The first three columns show the sources of revisions in the inter-reporting period, while the last column shows the sources of the deviation between actual inflation and the October Inflation Report forecast. Inflation ended 2017 at 11.9 percent.

In conclusion, end-2017 inflation forecasts were raised gradually throughout 2017 due to the increase in TL import prices, the developments in food prices and the stronger-than-expected course of the economic activity (Chart 2). Similarly, the deviation between the actual inflation rate in December and the year-end forecast in October was due to TL import prices, food prices and the revised output gap. The forecast revisions and their sources were clearly explained to the public by the CBRT through Inflation Reports, fulfilling the commitment of accountability on a regular basis.