7. Medium-Term Forecasts

This chapter summarizes the underlying forecast assumptions and presents the medium-term inflation and output gap forecasts as well as the monetary policy outlook for the upcoming 3-year horizon.

7.1. Current State, Short-Term Outlook and Assumptions

Financial Conditions

In the last quarter of 2013, the Fed's announcement on its gradual taper from quantitative easing led to further capital outflows from emerging economies with relatively weak growth. In fact, the FCI for Turkey shows that financial conditions became tighter especially due to capital flows that were weak in the last quarter (Charts 5.1 and 5.2). Thus, interest rates rose for all maturities compared to the previous reporting period (Chart 5.1.33).

Inflation

Consumer inflation increased to 7.4 percent in end-2013, overshooting both the October Inflation Report forecast and the uncertainty band around the target. This was attributed to the depreciation of the Turkish lira and the surge in food prices (Box 7.1).

In the last quarter of the year, food prices were influential on the course of inflation with food price inflation amounting to 9.7 percent at end-2013, as opposed to the October assumption of 7.0 percent. In view of the adverse movements in food prices and the historical averages, the end-2014 assumption for the rate of increase in food prices has been revised up to 8 percent. This revision brought the end-2014 inflation forecast up by about 0.3 points.

Table 7.1.1.
Revisions to Assumptions

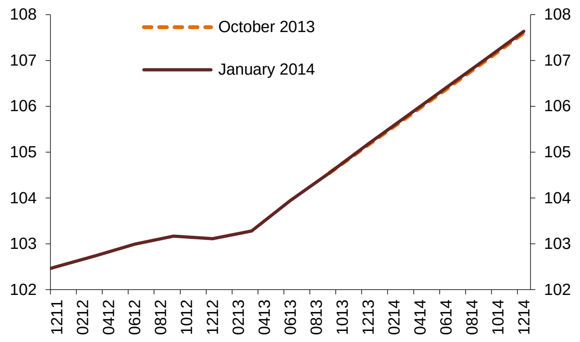
		October 2013	January 2014
Output Gap	2013Q3	-1.90	-1.70
	2013Q4	-1.42	-1.50
Food Prices (Year-end Percent Change)	2014-2016	7.0	8.0
Import Prices (Average Annual Percent Change, USD)	2014	-0.4	0.0
Oil Prices (Average, USD)	2014	105	105
Export-Weighted Global Production Index (Average Annual Percent Change)	2014	2.3	2.4

Demand Conditions

In the third quarter of 2013, economic activity was largely consistent with the outlook presented in the October Inflation Report. The output gap was revised slightly upwards for the third quarter of 2013 (Table 7.1.1). Seasonally adjusted data signal a modest growth in economic activity. In the third quarter, private consumption and investment provided a positive contribution to growth, while public sector contributed negatively in quarterly terms. On the external demand side, both exports and imports narrowed. Yet, net exports still contributed positively to quarterly growth.

Leading indicators for the fourth quarter of 2013 show that economic activity continued to grow moderately. Meanwhile, indicators on external demand suggest that net exports contributed positively to growth. In particular, it is favorable that the Euro Area import demand has been growing more steadily. Yet, the export-weighted global economic activity index remained broadly unchanged from the previous reporting period (Chart 7.1.1).

Chart 7.1.1.
Export-Weighted Global Economic Activity Index*
(2008Q2=100)

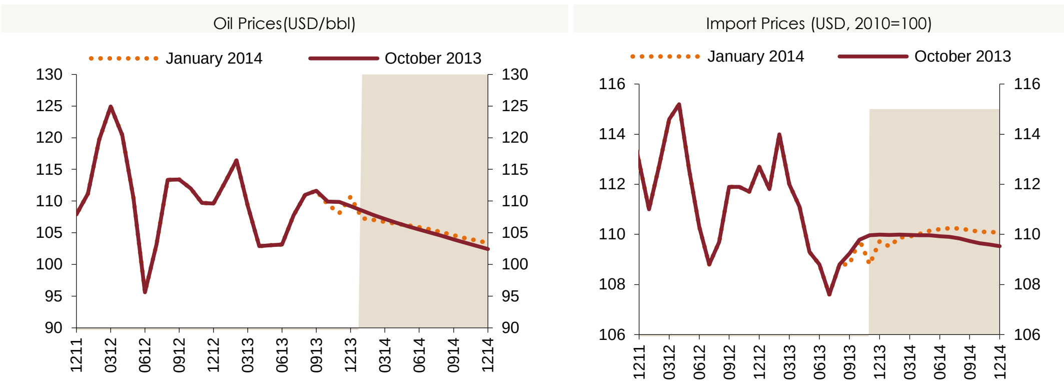


* For methodology, see Box 2.1, Inflation Report 2010-II.
Source: Bloomberg, Consensus Forecasts, CBRT.

Import Prices

In the last quarter of the year, import prices remained slightly below the assumptions presented in the October Inflation Report, while oil prices proved consistent with assumptions (Chart 7.1.2). The assumption for the average import price increase for 2014 was revised slightly upwards. On the other hand, the average oil price assumption for 2014 was kept unchanged from the previous reporting period. These assumptions suggest that import prices are expected to impose no significant pressure on inflation in 2014 (Table 7.1.1).

Chart 7.1.2.
Revisions to Oil and Import Price Assumptions



Source: Bloomberg, CBRT.

Source: TurkStat, CBRT.

Fiscal Policy and Tax Adjustments

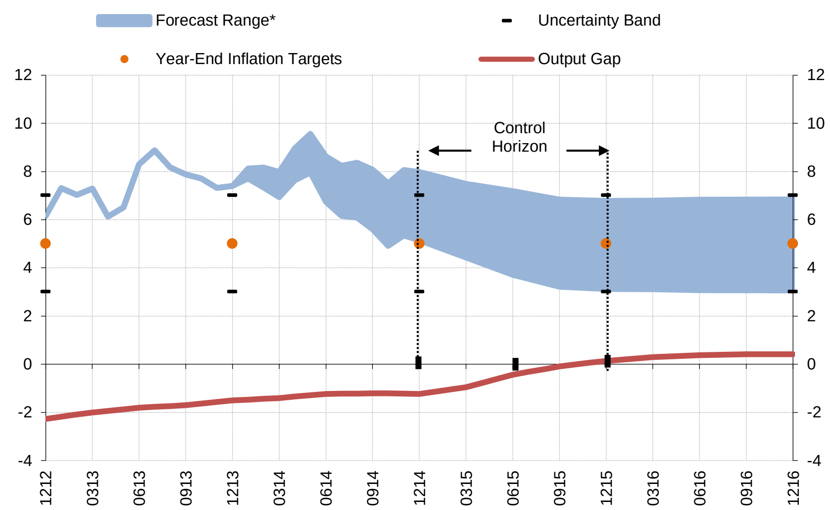
Tax hikes on automobile and tobacco prices in early January are expected to add around 0.5 percentage points to the year-end inflation in 2014. It is assumed that no additional adjustments will be imposed on these prices in the rest of the year, while price hikes to electricity and natural gas are assumed to be consistent with the inflation target.

The medium-term fiscal policy stance is based on the MTP projections covering the 2014-2016 period. Accordingly, it is assumed that the cautious fiscal stance will be maintained and primary expenditures will be kept under control.

7.2. Medium-Term Outlook

Medium-term forecasts are based on an outlook where the liquidity policy will mostly be tight by sustaining the cautious monetary policy stance and the annual loan growth rate will near the reference value of 15 percent as of the second half of 2014 on the back of the adopted macroprudential measures. Accordingly, inflation is expected to be, with 70 percent probability, between 5.2 percent and 8 percent (with a mid-point of 6.6 percent) at end-2014 and between 3.1 percent and 6.9 percent (with a mid-point of 5 percent) at end-2015. Inflation is expected to stabilize around 5 percent in the medium term (Chart 7.2.1).

Chart 7.2.1.
Inflation and Output Gap Forecasts
(Percent)



* Shaded region indicates the 70 percent confidence interval for the forecast.
Source: CBRT.

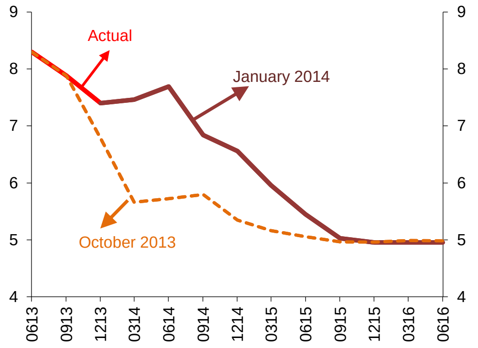
On account of the tax adjustments and the lagged effects of exchange rate developments, inflation is envisaged to fluctuate and remain considerably above the 5 percent target in the short run. Base effects also play a significant role on the course of inflation (Box 3.1). Inflation is expected to assume a downtrend starting from the second half of the year, and decline to 6.6 percent at the year-end (Chart 7.2.2).

The year-end inflation forecast for 2014 was revised upwards by 1.3 percentage points compared to the October Inflation Report. Of this revision, 0.3 percentage points stemmed from the upward revision of the year-end food inflation assumption. Meanwhile, tax adjustments in January will add around 0.5 percentage points to year-end inflation. Moreover, the change in exchange rates due to external developments in the inter-reporting period is expected to add around 0.5 percentage points to year-end inflation.

Chart 7.2.3 presents revisions to the output gap forecasts. The third-quarter data on national income are marginally more favorable than the October Inflation Report forecasts. Accordingly, the output gap forecast for this period was revised slightly upwards. Yet, given the recent data and the heightened uncertainty, the output gap forecasts for 2014 were revised slightly downwards (Chart 7.2.3).

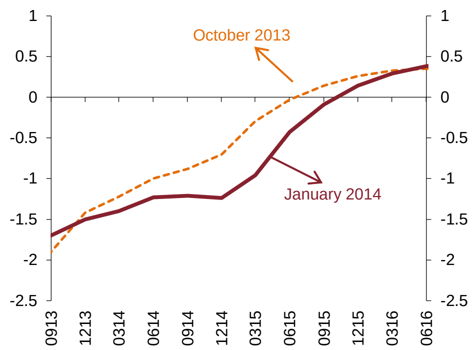
Comparison of October 2013 and January 2014 Inflation Report Forecasts

Chart 7.2.2.
Inflation Forecast
(Percent)



Source: TurkStat, CBRT.

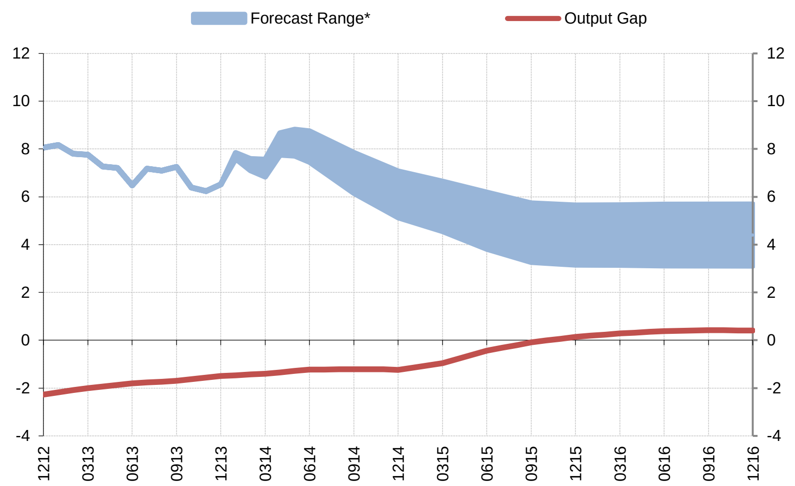
Chart 7.2.3.
Output Gap Forecast
(Percent)



Source: CBRT.

Unpredictable price fluctuations in items beyond the monetary policy domain, such as unprocessed food and tobacco, are among major factors that cause a deviation in inflation forecasts. Hence, inflation forecasts excluding unprocessed food and tobacco prices are also publicly announced. Accordingly, inflation forecasts excluding unprocessed food, tobacco and alcoholic beverages are presented in Chart 7.2.4. The inflation indicator as measured above is expected to start a gradual fall by the second quarter of 2014 and stabilize around 4.5 percent in the medium term.

Chart 7.2.4.
Inflation Forecast Excluding Unprocessed Food, Tobacco and Alcoholic Beverages
(Percent)



* Shaded region indicates the 70 percent confidence interval for the forecast.
Source: CBRT.

Comparison of the CBRT's Forecasts with Inflation Expectations

It is critical that economic agents take the inflation target as a benchmark in their plans and contracts, and focus on the underlying trend of medium-term inflation, rather than temporary price fluctuations. Likewise, it is crucial that the CBRT's current inflation forecasts be compared with inflation expectations of other economic agents to serve as a reference guide. Accordingly, 12-month and 24-month ahead inflation expectations of the Survey of Expectations' respondents are above the CBRT's baseline scenario forecasts (Table 7.2.1). Furthermore, the increase in inflation expectations in the inter-reporting period necessitates close monitoring of expectations.

Table 7.2.1.
CBRT Inflation Forecasts and Expectations

	CBRT Forecast	CBRT Survey of Expectations*	Inflation Target**
2014 Year-end	6.6	7.4	5.0
12-month ahead	6.4	7.1	5.0
24-month ahead	5.0	6.5	5.0

* January 2014 survey period results.
** Calculated by linear interpolation of year-end inflation targets for 2014- 2016.
Source: CBRT.

Box 7.1

Sources of Revisions to end-2013 Inflation Forecasts

The main drivers behind the revision to end-2013 inflation forecasts are exchange rate developments as well as commodity and food prices. The assumptions regarding these prices needed frequent update throughout the year owing to their high volatility. Inflation rose to 7.4 percent at the end of 2013, overshooting the October forecast. The course of annual inflation was mainly determined by food prices that remained elevated over the entire year.

The CBRT is liable to inform the public by publishing reports as per the inflation targeting regime. Accordingly, this Box gives a summary of the revisions to year-end inflation forecasts throughout 2013, along with the underlying reasons.

January Inflation Report

Inflation forecasts were formed under the assumption that loans would grow by 15 percent and the real effective exchange rate would barely change. Inflation was expected to increase slightly on tobacco price adjustments in the first months of 2013 and begin to fall again later. Accordingly, the year-end inflation for 2013 was projected to be 5.3 percent in the January 2013 Inflation Report. Core inflation indicators were estimated to fall below 5 percent by the end of 2013.

Table.1. Inflation Report Assumptions in 2013

	January	April	July	October	Actual
Food Prices (Annual Percent Change)	7.0	7.0	7.0	7.0	9.7
Export-Weighted Global Production Index (Annual Average Percent Change)	1.7	1.6	1.2	1.2	1.2*
Import Prices (Annual Average Percent Change)	-0.2	-1.4	-1.3	-1.5	-1.7*
Crude Oil Prices (Brent) (USD)	108	103	107	109	109

* Estimate as of January 2014.

April Inflation Report

In the fourth quarter of 2012, economic activity proved to be slightly worse than projected in the January Inflation Report. Private investment and consumption demand narrowed, while net exports provided the greatest contribution to growth.

The higher-than-average prices in processed food as well as price hikes to tobacco products required an upward revision to the April inflation forecast path in the short term. Meanwhile, in view of the favorable course of oil prices during the first quarter of 2013, the January Inflation Report assumption for the yearly average oil price in 2013 was revised down to 103 USD in the April Inflation Report (Table 1). In addition, global demand was assumed to remain weak for a while. Based on the assumption that the positive contribution from commodity prices and the weak global growth to inflation would compensate for the upside risks driven by food prices, the inflation forecast for end-2013 was left unchanged and kept at 5.3 percent as in January.

July Inflation Report

In the second quarter of the year, economic activity grew moderately as projected in the April Inflation Report, while external demand remained weak leading to a slight downward revision of the export-weighted global growth index. Given domestic demand developments on one hand and the external demand developments on the other, the end-2013 inflation forecast was estimated to remain unchanged.

TL-denominated import prices increased substantially as a result of the exchange rate movements in the second quarter. In addition, the average oil price assumption of 103 USD in April was revised up in July to 107 USD. These developments drove the end-2013 inflation forecast up by 0.8 points. In addition, changes in prices of services also added 0.1 point to the end-2013 inflation forecast.

As the unfavorable course of unprocessed food prices during the second quarter was assumed to be temporary, forecasts for the year-end food price inflation were left unchanged. As a result, the end-2013 inflation forecast was revised up by 0.9 points in the July 2013 Inflation Report due to developments in import and energy prices (Table 2).

October Inflation Report

Economic activity was more robust in the second quarter of 2013 than projected in the July Inflation Report. Therefore, the output gap for the second half of 2013 was revised up compared to the previous Report (Chart 1). This revision added 0.1 point to the end-2013 inflation forecast.

In the third quarter of the year, oil prices hovered slightly above the July Inflation Report assumption, and accordingly, the oil price assumption for 2013 was raised from 107 USD to 109 USD. Meanwhile, import prices remained slightly under the July Inflation Report assumption, causing a downward revision to import prices (Table 1). All these revisions brought the inflation forecast up by 0.1 point.

The increased global uncertainty during the third quarter besides the exchange rate developments were the key drivers of the end-2013 inflation forecast revision. These developments caused the end-2013 inflation forecast to increase by 0.4 points. Hence, of the 0.6 point revision to year-end inflation in October, 0.5 points came from exchange rate developments as well as oil and commodity prices (Table 2).

To summarize, mainly due to the exchange rate depreciation as well as the revisions to economic activity and oil prices, the end-2013 forecast was revised up by 0.6 points from the July Inflation Report.

Table 2. Revisions to end-2013 Inflation Forecasts

	January	April	July	October
Inflation Forecast (percent)	5.3	5.3	6.2	6.8
Sources of the Difference between Actual Inflation and the Forecast (percentage point)				
	April-January	July-April	October-July	December-October*
Food Prices	0.0	0.0	0.0	0.6
Import Prices and Exchange Rate	-0.2	0.8	0.5	0.4
Underlying Inflation	0.2	0.1	0.1	-0.1
Tobacco Prices**	0.0	0.0	0.0	-0.3

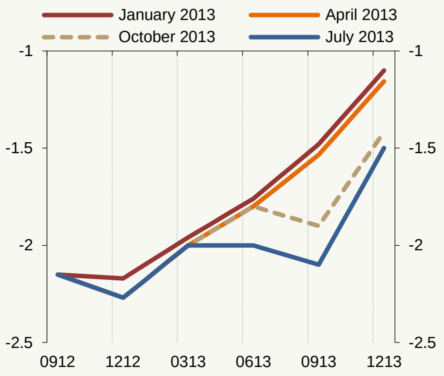
* Shows the sources of the difference between actual inflation and the October forecast. Year-end inflation for 2013 was realized as 7.4 percent.
**Alcoholic beverages and tobacco products.
Source: CBRT.

Actual Inflation at end-2013

Developments in food prices during the fourth quarter of 2013 were the main reasons behind the higher-than-expected increase in inflation. The food price inflation that was assumed to be 7.0 percent for end-2013 in October ended the year at 9.7 percent. This was particularly due to developments in unprocessed food prices. This unpredictably negative course of food prices was the driving force behind the 0.6 percentage point difference between the October Inflation Report forecast of end-2013 inflation (6.8) and the actual end-2013 inflation (7.4).

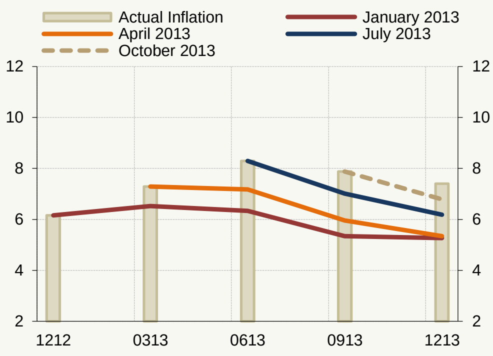
Exchange rate developments in the final quarter put upward pressure on inflation. Together with the developments in import prices, exchange rate developments explain the 0.4 percentage point difference between the year-end inflation forecast and actual inflation (Table 2). Meanwhile, due to tax adjustments on tobacco products in October 2011, prices of alcoholic beverages and tobacco products were assumed to rise by 15 points in early 2013. Yet, the annual inflation in these prices stood at 10.5 percent, thus falling below the assumption. This development pulled the year-end inflation down by 0.3 points. Another factor that contributed positively to inflation has been the favorable course of services prices. Both of these effects compensated for the upward pressure from import prices and exchange rate developments.

Chart 1. Revisions to Output Gap Forecast in 2013



Source: CBRT.

Chart 2. Revisions to Inflation Forecast in 2013



Source: TurkStat, CBRT.

In sum, end-2013 inflation forecasts differed across quarters due to unforeseen movements in food prices as well as import prices and exchange rate developments (Chart 2). In line with its accountability principle, the CBRT has clearly informed the public about the revisions to inflation forecasts including the underlying reasons via Inflation Reports.