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TÜRKİYE CUMHURİYET
MERKEZ BANKASI

inflation report

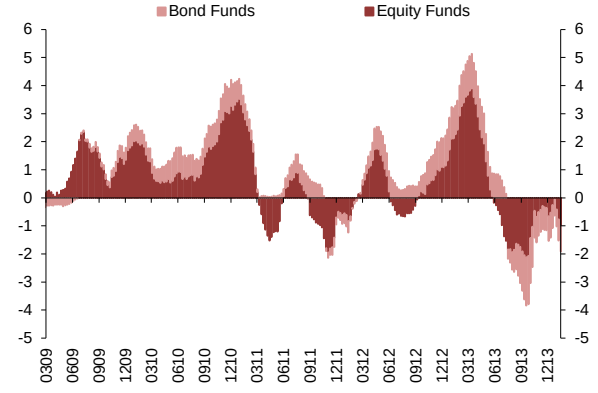
2014-I

Contents

1. Overview

Capital flows into emerging economies remained weak in the last quarter of 2013. The Fed's announcement that the exit strategy from quantitative easing policy would be maintained was influential on this development and outflows were observed especially in portfolio investment (Chart 1.1). Since most of the re-pricing in financial assets was already completed in the early days following the announcement on the exit strategy from the quantitative easing, price movements were more limited during the actual exit. Although this shows that uncertainties about global monetary policies have partially been alleviated, ongoing risks to the pace of global economic recovery in the upcoming period elevate uncertainties about the quantitative easing exit process and other components of the monetary policy such as forward guidance.

Chart 1.1.
Portfolio Flows to Emerging Economies
(12-Week Moving Average, Billion USD)



Source: EPFR.

1.1. Monetary Policy and Financial Conditions

In the last quarter of 2013, inflation was well above the October forecast, mostly due to the higher-than-expected food inflation and exchange rate volatility. The cautious stance of the monetary policy was strengthened in order to contain the deteriorating effects of inflation on the pricing behavior. Accordingly, one-month repo auctions were terminated, the average cost of funding was kept above 6.75 percent, and the liquidity policy was adjusted so that the BIST Interbank O/N rates were kept around 7.75 percent (Charts 1.1.1 and 1.1.2).

Since the release of the latest Inflation Report, the CBRT has continued to provide FX liquidity to the market via FX selling auctions. The unsterilization of the FX selling auctions has increased the liquidity need of the financial system. In addition, the average maturity of the funds provided by the CBRT has been shortened. As a result, the CBRT average funding rate and the BIST Interbank O/N repo rates have increased (Chart 1.1.1).

Chart 1.1.1. O/N Rates at the BIST Interbank Repo and Reverse Repo Market*
(Percent)

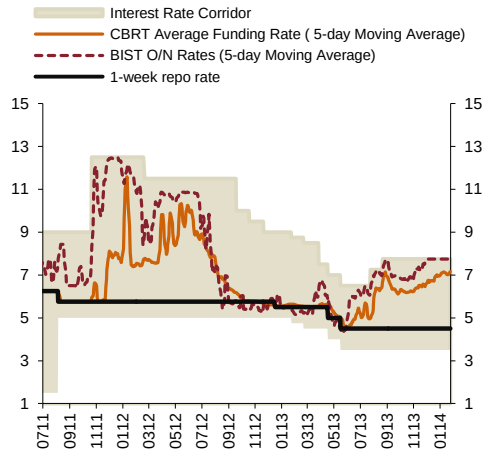
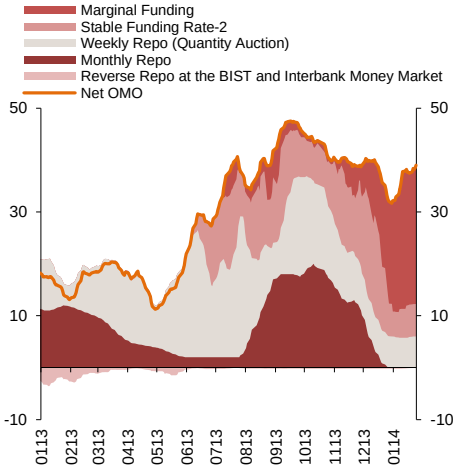


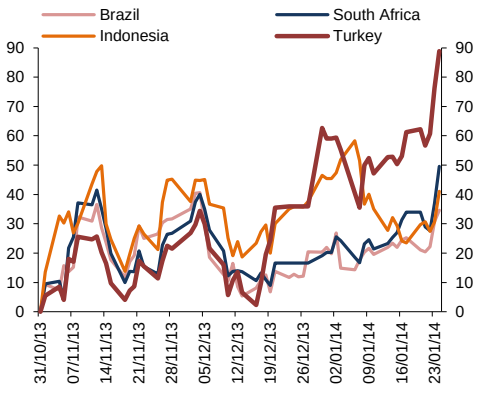
Chart 1.1.2. CBRT Funding**
(2-Week Moving Average, Billion TL)



* BIST O/N Rate is the O/N rate at the BIST Interbank Repo Market.
** Stable Funding Rate-2 is the O/N rate charged to primary dealers for funds provided within their limits, while marginal funding is O/N funding quoted at the upper limit of the corridor.
Source: BIST, CBRT.

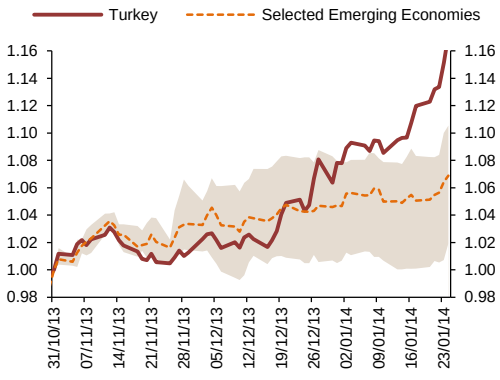
As a consequence of the domestic developments starting from the last quarter of the year, Turkey has slightly diverged from other emerging economies. In this period, Turkey's exchange rate depreciated more against the US dollar compared to economies with similar economic conditions and its relative risk increased (Charts 1.1.3 and 1.1.4). The exchange rate depreciation is expected to impose additional pressure on inflation in the upcoming period should the domestic uncertainty remain elevated for a long time. Meanwhile, aggregate demand conditions may put downward pressure on inflation amid rising risks and market rates. Therefore, how the domestic uncertainties will unfold in the upcoming period and their effect on the inflation outlook are crucial to the monetary policy stance.

Chart 1.1.3.
CDS Rates in Selected Emerging Markets*
(Basis Points)



* Change from October 31, 2013 to January 24, 2014.
Source: Bloomberg.

Chart 1.1.4.
TL and Selected Emerging Market Currencies vs USD*
(31.10.2013=1)



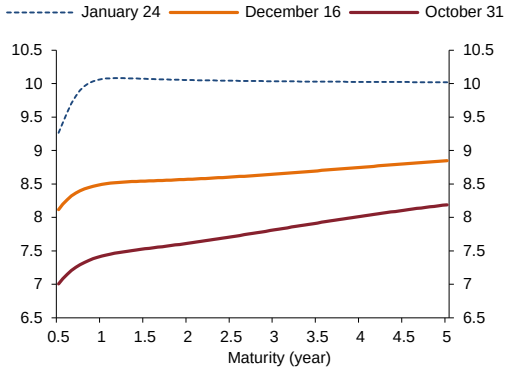
* Selected emerging economies include Brazil, South Africa, India, Indonesia and Turkey.
Source: Bloomberg.

Against this background, the CBRT assessed that it would be more appropriate to implement a flexible mechanism that can be enforced when deemed necessary. Thus, on days when additional monetary tightening is required, it was decided that the Interbank O/N rates would be kept around 9 percent instead of

7.75 percent (marginal funding rate). Accordingly, the increased flexibility of the policy framework allowed for a more prompt response to possible risk realizations.

In the last quarter of the year, the cautious monetary policy stance, the tapering of the Fed's quantitative easing as well as the domestic uncertainties caused interest rates to rise across all maturities (Chart 1.1.5). As nominal interest rates increased more than inflation expectations, 2-year real interest rates posted an increase as well (Chart 1.1.6).

Chart 1.1.5. Yield Curve* (Percent)



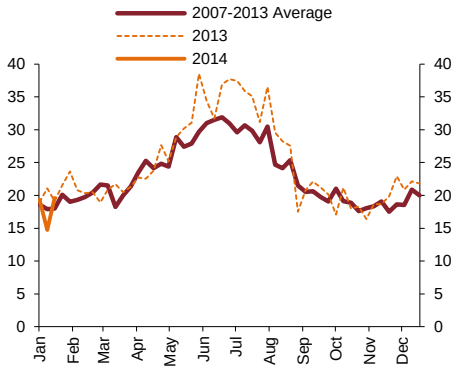
* Calculated from the compounded returns on bonds quoted at the BIST Bonds and Bills Market by using ENS method.
Source: BIST, CBRT.

Chart 1.1.6. 2-Year Real Interest Rates for Turkey* (Percent)

* Calculated as the difference between 2-year discounted bond returns derived from the yield curve and the 24-month ahead inflation expectations derived from the CBRT Survey of Expectations.
Source: BIST.

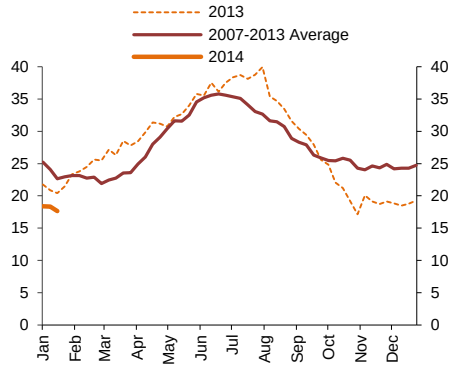
Amid higher market rates, banks' funding costs also soared, which were passed on to personal and commercial loan rates. The increase in loan rates and economic risks put pressure on both credit demand and credit supply, and slowed down growth rate of loans in the last quarter, consumer loans in particular (Charts 1.1.7and 1.1.8).

Chart 1.1.7.
Commercial Loan Growth
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



Source: CBRT.

Chart 1.1.8.
Consumer Loan Growth
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)

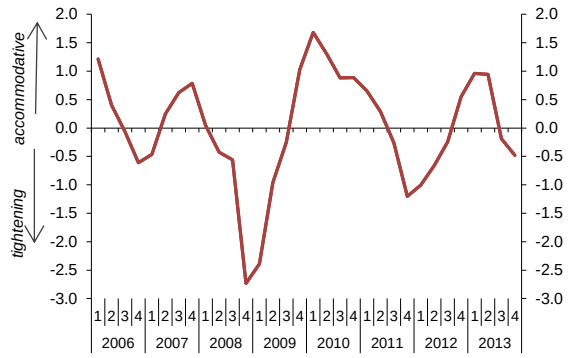


Source: CBRT.

Following the macroprudential measures taken by the BRSA, the growth rates of personal loans and credit card debts are expected to slacken further in the forthcoming period. Moreover, the fact that the CBRT increased the funding need of the financial system and lowered the maturity of its funding will also contribute

to the slowdown in consumer loans. In fact, there has been a significant tightening in financial conditions as of the last quarter of the year (Chart 1.1.9).

Chart 1.1.9.
Financial Conditions Index*



*For further details on financial conditions index, see the CBT Research Notes in Economics No. 12/31.
Source: CBRT.

1.2. Macroeconomic Developments and Main Assumptions

Inflation

Consumer inflation increased by 1.2 points year-on-year to 7.4 percent in 2013, overshooting the uncertainty band around the target (Charts 1.2.1 and 1.2.2). Inflation, which soared on tax adjustments on tobacco at the beginning of 2013, followed a volatile path in the remaining part of the year due to developments in unprocessed food and energy prices. In the second half of the year, the depreciation of the Turkish lira caused core inflation indicators to rise particularly through the core goods group. In addition, the higher-than-envisaged yearly increase in food prices also affected inflation. The main factors that curbed the rise in inflation throughout the year were the relatively flat course of import prices and the moderate course of administered energy prices.

Chart 1.2.1.
October 2013 Inflation Forecasts and Realizations
(Percent)

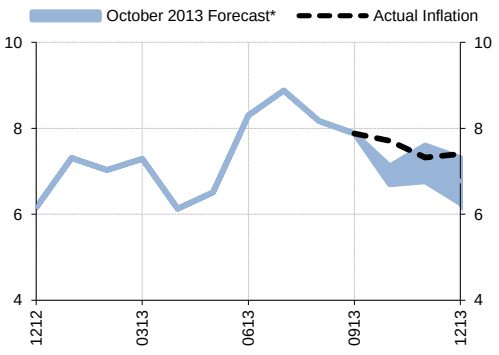
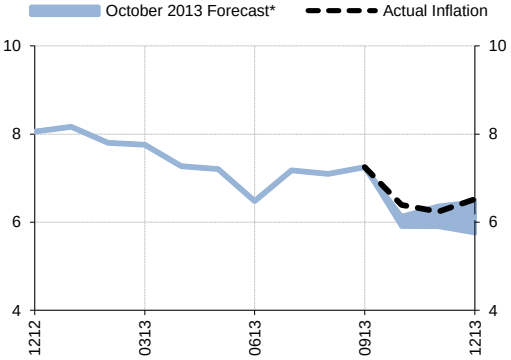


Chart 1.2.2.
Inflation Forecasts and Realizations Excluding Unprocessed Food, Tobacco and Alcoholic Beverages
(Percent)



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

Across subcategories, the total contribution of food and energy to inflation remained unchanged in 2013 compared to the previous year, while the rise in inflation is attributed to core inflation indicators and tax

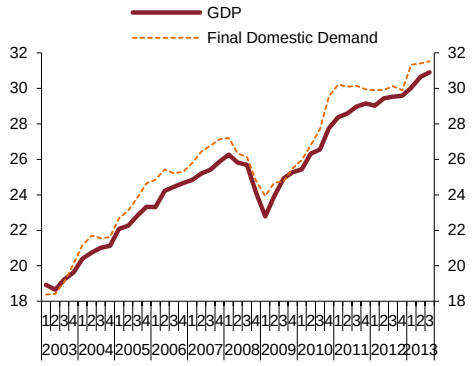
adjustments. In this period, the contribution of services and core goods to inflation increased by 0.8 points, while that of the alcohol and tobacco was up 0.4 points. The increase in core goods was mostly driven by the exchange rate, while, excluding definitional differences and temporary movements, the outlook for services inflation changed merely from the previous year-end.

The 2014 outlook for core inflation indicators may change depending on the degree of pass-through from tax hikes to final prices as well as the course of exchange rates and the economic activity. As implied by the indicators in January, the effect of taxes and exchange rates are particularly evident on annual core goods inflation. The rapid deterioration of inflation expectations spurred by developments in supply and cost factors is another channel that has an adverse effect on the outlook. However, the extent to which the aggregate demand conditions will restrict inflationary pressures in the upcoming period will be determined by the duration of the current economic cycle.

Supply and Demand

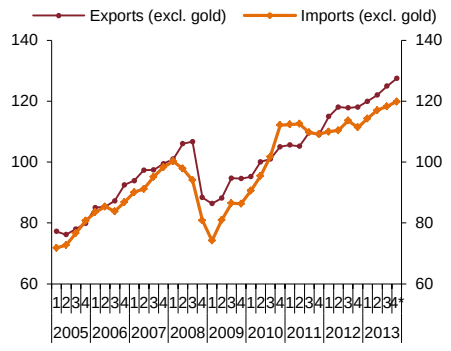
According to the GDP data for the third quarter of 2013, economic activity was largely consistent with the outlook presented in the October Inflation Report. Final domestic demand grew modestly in the third quarter (Chart 1.2.3). Analysis of the final domestic demand components shows that private demand continued to increase steadily, while public demand decreased for the second consecutive quarter after a strong first-quarter growth. Net exports provided a positive contribution to quarterly growth in this period.

Chart 1.2.3.
GDP and Final Domestic Demand
(Seasonally Adjusted, Billion TL, 1998 Prices)



Source: TurkStat, CBRT.

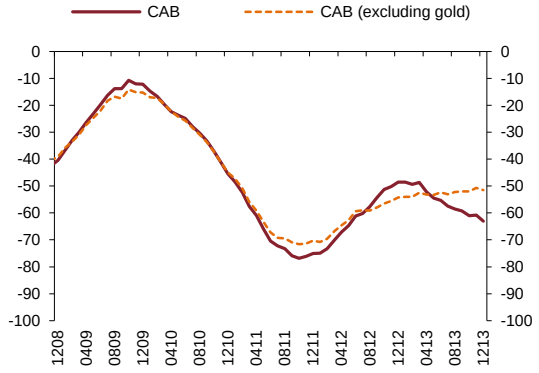
Chart 1.2.4.
Export and Import Quantity Indices
(Seasonally Adjusted, 2010=100)



* Estimate for December.
Source: TurkStat, CBRT.

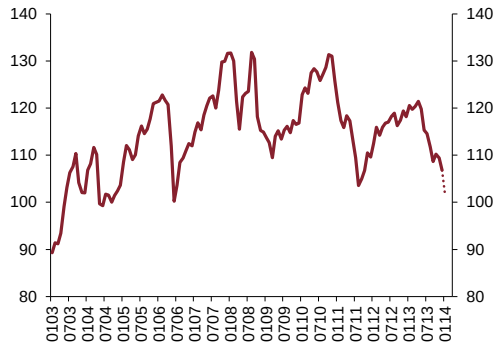
Data for the final quarter of 2013 suggest that economic activity continued to grow moderately. On the production side, the industrial production index was up in October-November from the third-quarter average, continuing on the steady quarterly growth trend. On the spending side, production, imports and survey data on both consumption and investment goods show that private demand maintained its stable growth momentum in the final quarter. Meanwhile, rebalancing of the goods trade excluding gold continued in the last quarter of 2013 (Chart 1.2.4). In this period, data on the current account balance were consistent with expectations. Excluding the recent temporary fluctuation of the gold trade, the 12-month cumulative non-gold deficit reflecting the underlying current account balance continued to improve (Chart 1.2.5). The real exchange rate, on the other hand, depreciated after May 2013 (Chart 1.2.6). This real depreciation is expected to support the improvement in the current account balance.

Chart 1.2.5.
Current Account Balance*
(12-Month Cumulative, Billion USD)



Source: TurkStat, CBRT.

Chart 1.2.6.
Real Effective Exchange Rate*
(2003=100)



* Estimate as of January 27, 2014.
Source: CBRT.

The Turkish lira has depreciated recently, while loan rates have increased and consumer confidence has declined. Accordingly, private sector demand is expected to recede in the first quarter amid falling expenditures on durable consumption goods and investment, which are sensitive to the exchange rate, financing conditions and confidence. In the forthcoming period, the course of private demand will depend on the level at which the exchange rate as well as consumer and investor confidence will stabilize and the time required to reach this level.

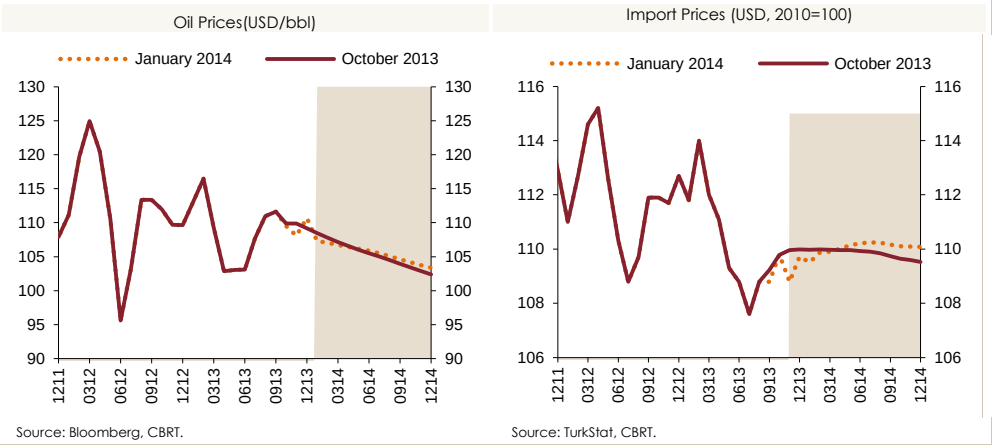
Under the assumption that the movements in the exchange rate, interest rate and confidence which have been driven by mounting domestic uncertainty are temporary, private sector demand is envisaged to continue improving in the second quarter of 2014 after a weak course in the first quarter. However, due to the cautious monetary policy stance, the recently adopted macroprudential measures and the weak course of capital flows, the increase in the final domestic demand is expected to remain moderate with risks to be more evident on the downside. Given this outlook, domestic demand developments are expected to partially contain the recent cost-push pressures on prices. Moreover, the expected slowdown in domestic demand is projected to support the recent improvement in the current account deficit and the rebalancing process. Exports are expected to grow further owing also to the recovery in the demand of European countries. Thus, the economy is envisioned to grow mildly and the demand components are expected to be favorably balanced in the upcoming period.

Energy, Imports and Food 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 the forecasts (Chart 1.2.7). The assumption for the average inflation of import prices in 2014 was revised slightly upwards. On the other hand, the average oil price assumption for 2014 was preserved as stated in the October Inflation Report. In other words, forecasts were built on the assumption that inflation would be subject to no significant pressure stemming from import prices in 2014. However, the exchange rate movements amid the external developments since the

publication of the October Inflation Report are assumed to add 0.5 percentage points to the end-2014 inflation forecast.

Chart 1.2.7. Revisions to Oil and Import Price Assumptions



Source: Bloomberg, CBRT. Source: TurkStat, CBRT.

Given the recent adverse movements in food prices and the historical averages, the year-end food price inflation assumption was revised up to 8 percent. This revision pushed the end-2014 inflation forecast upwards by around 0.3 percentage points.

Fiscal Policy and Tax Adjustments

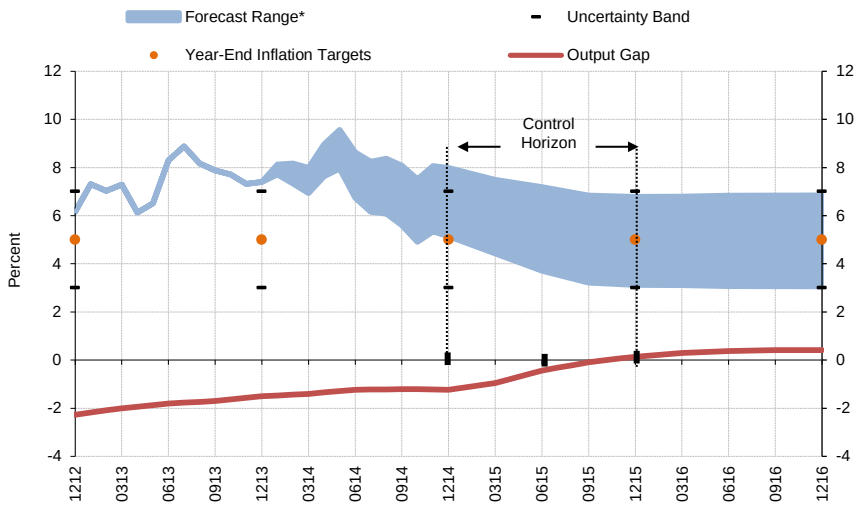
Tax hikes on automobile and tobacco prices in early January are expected to add around 0.5 percentage points to the year-end inflation in 2014. It is assumed that no additional adjustments will be imposed on these prices in the rest of the year, while price hikes to electricity and natural gas are assumed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

1.3. Inflation and the Monetary Policy 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 1.3.1).

Chart 1.3.1.
Inflation and Output Gap Forecasts
(Percent)



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

In sum, 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 introduced in January will add around 0.5 percentage points to year-end inflation. Moreover, exchange rate movements driven by external developments in the inter-reporting period are expected to add around 0.5 percentage points to year-end inflation.

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 upcoming period. Starting from the second half of the year, inflation is expected to fall and reach at 6.6 percent at the year-end (Chart 1.3.1).

It should be emphasized that any new data or information regarding the inflation outlook may lead to a change in the monetary policy stance. Therefore, assumptions regarding the monetary policy outlook underlying the inflation forecast should not be perceived as a commitment on behalf of the CBRT.

1.4. Risks and the Monetary Policy

Uncertainties regarding global monetary policies have been aggravated since May 2013. As a result, portfolio flows to emerging economies lost pace and financial assets were re-priced in the second half of the year. In the same period, external financing extended to the real sector and the banking sector in Turkey continued, while portfolio flows remained weak. Re-pricing of financial assets caused depreciation of the Turkish lira. Meanwhile, the domestic demand continued to grow mildly, while credits remained on an upward trend. Elevated external uncertainties were mainly influential on exchange rates rather than loans. Exchange rate developments coupled with the high course of food prices led the year-end inflation to considerably exceed the target. Furthermore, these developments also deteriorated inflation expectations. In this period,

with a view to containing the risks to inflation and achieving a target-consistent inflation outlook in the medium term, the CBRT enhanced its cautious monetary policy stance and tightened the liquidity policy.

The CBRT closely monitors inflation expectations and the pricing behavior. The slowdown in domestic demand is expected to slightly restrict the effect of the cost-push shocks on inflation in the coming period. However, lagged effects of the exchange rate movements and the unfavorable course of food prices are likely to cause inflation to remain above the target for an extended period. This may result in higher persistence in expectations and stronger inflation inertia. Materialization of such a scenario and deterioration of the pricing behavior will prompt the MPC to implement the necessary tightening in the monetary policy stance.

In 2014, owing both to the expectation for a recovery in the demand of European countries and the real exchange rate developments, exports are expected to partially compensate for the projected fall in private sector demand. On the other hand, the public sector demand posted a notable correction following the robust increase in the first quarter of 2013. Accordingly, even if the private sector demand contracts in the first quarter and remains weak in the rest of the year, it should be noted that other demand components may prove more favorable, thereby balancing the risks to growth that stem from the private sector demand.

On the other hand, should these uncertainties and the heightening of the risk premium last for a long time, the economy may face a significant slowdown through the confidence and balance sheet channels. Should such a risk materialize, the CBRT will pursue a stabilizing policy by using its policy instruments to reduce the intermediation costs of the banks.

The MPC closely monitors developments on fiscal policy and tax adjustments with regard to their effects on the inflation outlook. Inflation forecasts presented in the baseline scenario take the framework outlined in the MTP as given. Accordingly, it is assumed that fiscal discipline will be maintained and there will be no unanticipated hikes on administered prices in the forthcoming period. A revision of the monetary policy stance may be considered, should the fiscal stance deviate significantly from this framework, and consequently, have an adverse effect on the medium-term inflation outlook.

Maintaining the cautious stance in fiscal and financial sector policies is critical to the resilience of our economy against current uncertainties. Strengthening structural reforms that will ensure the sustainability of the fiscal discipline and reduce the savings deficit will support macroeconomic stability in the medium term. Steps taken in this regard will also provide more room for maneuvering the monetary policy and improving social welfare by keeping interest rates of long-term government securities permanently at low levels. In this respect, implementation of the structural reforms required by the MTP remains to be of utmost importance.

2. International Economic Developments

Data for the third quarter of 2013 show that the recovery in the global economy continued in the third quarter. This recovery was mostly driven by the favorable growth of advanced economies, while economic activity in emerging economies increased as well, albeit modestly. Data for the final quarter of the year suggest that both advanced and emerging economies will maintain the third-quarter trend. With the recovery of the global economy, the headline commodity price index picked up slightly during the second half of the year. As indicated by the inflation developments in the fourth quarter, advanced economies saw an inflation uptick in line with the rising economic activity. Similarly, inflation trended upward across emerging economies during the final quarter. The acceleration of inflation is assessed to be fuelled by the exchange rate depreciation resulting from capital outflows, rather than the modest recovery in economic activity.

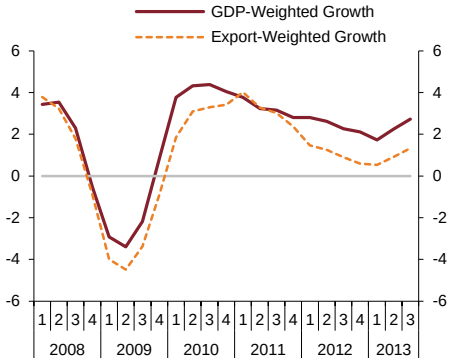
In the last quarter of 2013, the Fed's decisions towards normalizing monetary policy and hints at future action continued to have a strong influence on the global economy. In view of strong growth and favorable labor force data, the Fed decided to trim its monthly bond purchases to 75 billion USD from 85 billion USD at its December meeting. This partially reduced uncertainties about the Fed's monetary policy normalization regarding asset purchases. Yet, the question of when and how much the Fed will raise its policy rate, another component of its monetary policy, remains as a major source of uncertainty over the global economic outlook.

After the first tapering hint by the Fed in May, capital flows to emerging markets dropped significantly, plunging in the last quarter of the year. For the upcoming period, conditions are present to bolster downside risks to capital flows into emerging economies. While the gradual decline in global liquidity is one of the key factors that will feed into these risks, the divergence of growth in favor of advanced economies may remain a factor that will help capital flows to also diverge in favor of advanced economies over the upcoming period. Financial stability in emerging economies may be adversely affected should the uncertainty about global monetary policy persist and lead to an increase in capital market volatility.

2.1. Global Growth

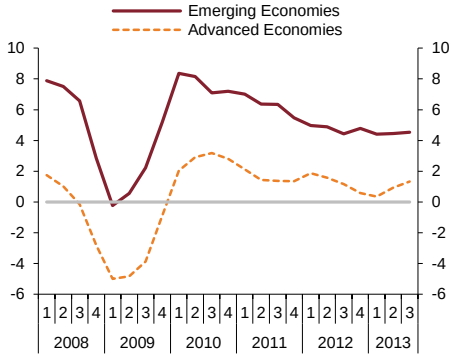
Having turned positive in the second quarter, the global growth outlook continued to improve in the third quarter of 2013 (Chart 2.1.1). In this period, the pace of growth in advanced economies, particularly the US, UK and Japan, surged dramatically, while the persisting recession in the Euro Area lost momentum. Meanwhile, growth rates accelerated, albeit modestly, across emerging economies in the third quarter of 2013, which stood as another favorable factor to support global economic recovery (Chart 2.1.2).

Chart 2.1.1.
Global Growth Rates*
(Annual Percent Change)



* Weighted by each country's share in Turkish exports and by each country's share in global GDP for export-weighted growth and GDP-weighted growth, respectively.
Source: Bloomberg, CBRT.

Chart 2.1.2.
Global Growth Rates*
(Annual Percent Change)

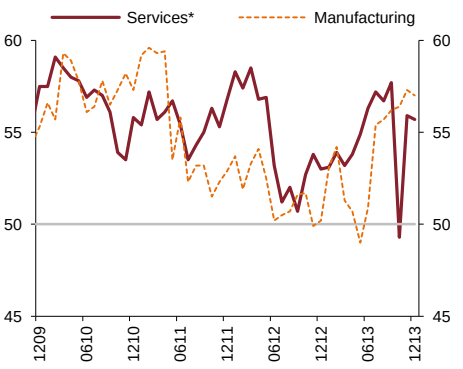


* Weighted by each country's share in global GDP.
Source: Bloomberg, CBRT.

The US economy continued to grow rapidly during the third quarter of 2013 and the GDP increased by an annualized 4.1 percent quarter-on-quarter. Private inventory investment, private consumption, non-residential fixed investment and exports provided a positive contribution to growth. Moreover, after contributing negatively in the first half of the year, public spending added 0.1 points to growth in the third quarter, which indicates that the tight fiscal policy in place since early 2013 has a broadly subsiding negative effect on growth. Yet, the federal government shutdown in October is expected to have an adverse, though limited, impact on public spending's contribution to growth in the last quarter. PMI data for the fourth quarter suggest that the US growth will remain favorable (Chart 2.1.3). The better-than-expected labor data for this period reinforce this view.

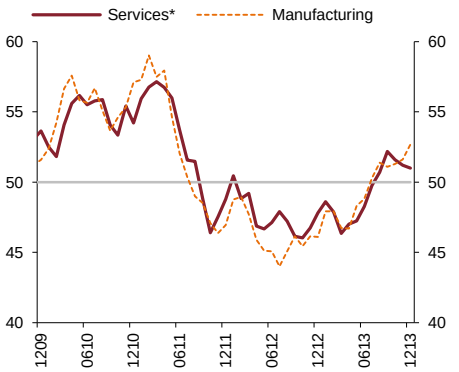
After a positive growth performance in the second quarter of the year, the Euro Area continued to improve in the third quarter and grew by 0.3 percent quarter-on-quarter. In addition to the favorable growth outlook, the second-half halt in the ongoing rise in unemployment shows that the economic recession has waned. In fact, the Euro Area PMI data indicate that the recession will continue to moderate in the last quarter of 2013 (Chart 2.1.4). However, current expectations suggest that a full exit from the recession may only be possible in 2014 given the present elevation in the unemployment rate (Table 2.1.1).

Chart 2.1.3.
The US PMI Indices



* Denotes the economic activity index.
Source: Markit.

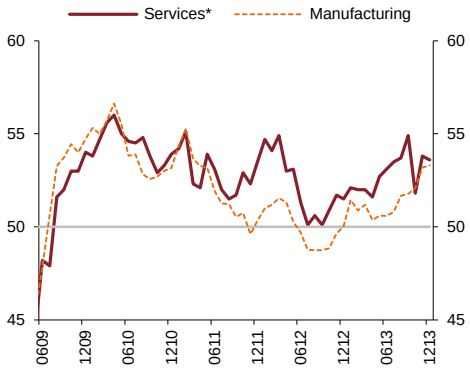
Chart 2.1.4.
The Euro Area PMI Indices



* Denotes the economic activity index.
Source: Markit.

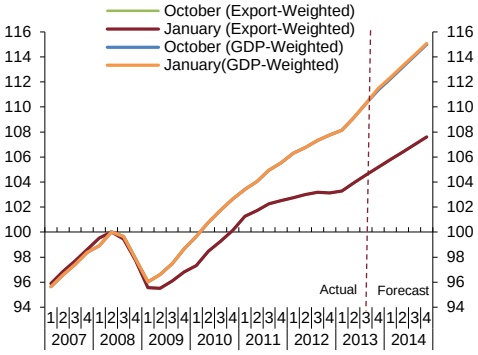
Displaying a positive outlook amid the economic activity in advanced economies, global growth is expected to pick up further in the fourth quarter of 2013. Although global PMI data for the fourth quarter receded slightly in services compared to the previous quarter, they were up in manufacturing, which reinforces the above view (Chart 2.1.5). In the January issue of Consensus Forecasts, growth forecasts for 2014 are revised upward for advanced economies, especially for the US and the UK, and downward for emerging economies, excluding China, compared to the previous reporting period (Table 2.1.1). Thus, the global growth forecast for 2014 remained unchanged from the previous reporting period. The GDP- and export-weighted global production indices revised by January growth forecasts remained virtually unchanged from the October reporting period (Chart 2.1.6).

Chart 2.1.5.
Markit Global PMI Indices



* Denotes the economic activity index.
Source: Markit.

Chart 2.1.6.
Global Production Indices*
(2008Q2=100)



* Weighted by each country's share in Turkish exports and by each country's share in global GDP for export-weighted growth and GDP-weighted growth, respectively.
Source: Bloomberg, Consensus Forecasts, CBRT.

Table 2.1.1.
Growth Forecasts for end-2014

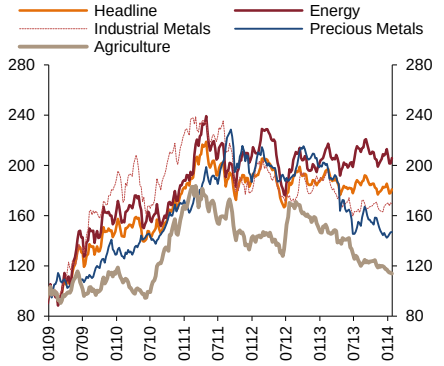
	Consensus Forecasts (Average Annual Percent Change)	
	October	January
World	3.1	3.1
Advanced Economies		
USA	2.6	2.8
Euro Area	0.9	1.0
Germany	1.7	1.8
France	0.8	0.8
Italy	0.5	0.5
Spain	0.5	0.7
Greece	-0.6	-0.3
Japan	1.7	1.7
UK	2.2	2.6
Emerging Economies		
Asia-Pacific	6.2	6.2
China	7.4	7.5
India	5.7	5.4
Latin America	3.0	2.8
Brazil	2.4	2.2
Eastern Europe	2.9	2.7

Source: Consensus Forecasts.

2.2. Commodity Prices

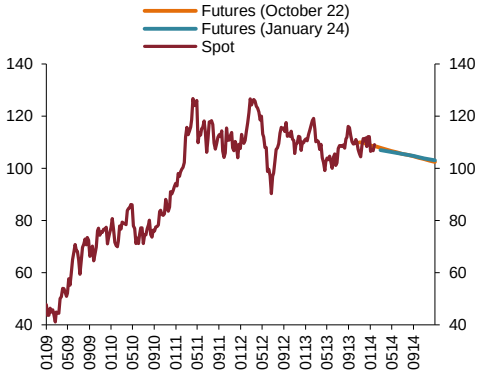
In the final quarter of 2013, the headline commodity price index remained unchanged from the end of the previous quarter, while energy prices and industrial metal prices increased by 1.3 and 0.7 percent, respectively. Meanwhile, agricultural and precious metal prices dropped by 5.7 and 9.6 percent, respectively (Chart 2.2.1).

Chart 2.2.1.
S&P Goldman Sachs Commodity Prices
(January 2009=100)



Source: Bloomberg.

Chart 2.2.2.
Crude Oil (Brent) Prices*
(USD/bbl)



* October 22 and January 24 denote the arithmetical average of the prices quoted in futures contracts during October 1 and 22, 2013 and January 1 and 24, 2013, respectively.
Source: Bloomberg.

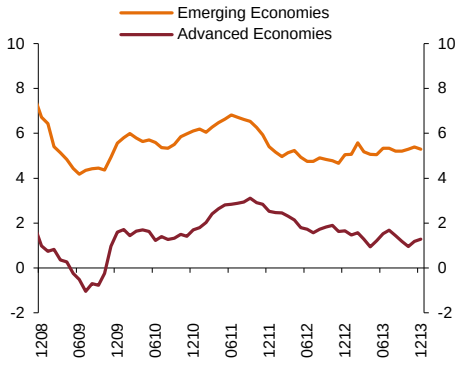
The weak course of growth, which marginally placed a demand-side pressure on oil prices, has largely shaped the course of commodity prices in emerging economies that have a commodity-intensive structure in manufacturing. The all-time high US crude oil production and inventories also provide a favorable outlook for oil prices. Meanwhile, output cuts resulting from technical issues as well as political risks add to the concerns over the Middle Eastern oil supply and may place upward pressure on prices. As a result, Brent crude prices settled at 112 USD as of the year-end. Yield curves derived from futures contracts on Brent crude oil appear to be unchanged from the previous reporting period (Chart 2.2.2).

Having maintained the downtrend that started in mid-2012, agricultural commodity prices continued to fall in the fourth quarter thanks to positive expectations about production and inventory levels for agricultural commodities. However, the uncertainty over weather conditions requires caution about agricultural prices.

2.3. Global Inflation

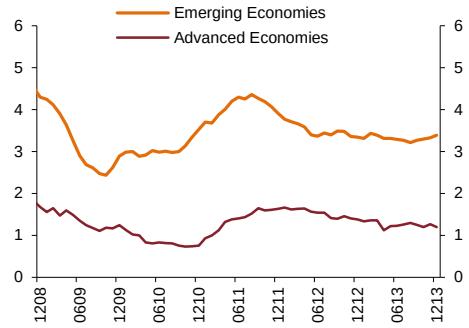
In the fourth quarter of 2013, consumer inflation was slightly up from the end of the previous quarter across advanced and emerging economies (Chart 2.3.1). The favorable outlook for advanced economies and the depreciation of emerging market currencies driven by strong capital outflows were the main factors that supported this development. Core inflation, on the other hand, increased slightly in emerging economies and remained flat in advanced economies (Chart 2.3.2).

Chart 2.3.1.
CPI Inflation in Advanced and Emerging Economies
(Annual Percent Change)



Source: Bloomberg, CBRT.

Chart 2.3.2.
Core Inflation in Advanced and Emerging Economies
(Annual Percent Change)



Source: Bloomberg, Datastream, CBRT.

Inflation forecasts for end-2014 are revised downward from the previous reporting period for all advanced economies except Japan. Across emerging economies, forecasts were revised down for Asia-Pacific and Eastern Europe and substantially upwards for Latin America and India (Table 2.3.1). The uncertainty about the inflation outlook will diminish as the possible effects of the Fed's taper and the direction of capital flows are clarified over 2014.

Table 2.3.1.
Inflation Forecasts for end-2014

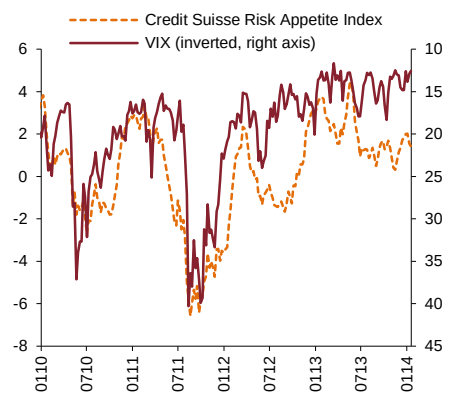
	Consensus Bulletins (Annual Percent Change)	
	October	January
World	3.0	3.0
Advanced Economies		
USA	1.8	1.6
Euro Area	1.4	1.1
Germany	1.9	1.6
France	1.5	1.2
Italy	1.6	1.1
Spain	1.3	0.9
Greece	-0.5	-0.8
Japan	2.3	2.3
UK	2.5	2.3
Emerging Economies		
Asia-Pacific	3.7	3.3
China	3.1	3.1
India	7.6	8.0
Latin America	7.3	8.7
Brazil	5.9	5.9
Eastern Europe	4.8	4.6

Source: Consensus Forecasts.

2.4. Financial Conditions and Risk Indicators

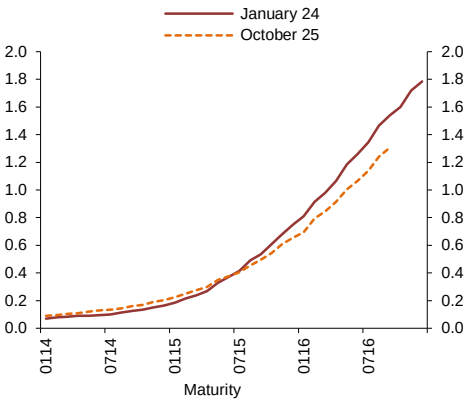
The fourth quarter of 2013 was marked by ongoing concerns over the US monetary policy and the volatile global risk appetite (Chart 2.4.1). The global risk appetite that started to recover early in the fourth quarter deteriorated due to the Fed's December decision that will trigger a global liquidity crunch. Against this background, the Fed funds future contracts imply that expectations about the timing of a policy rate hike remained unchanged. Yet, the amount of the expected hike has risen slightly (Chart 2.4.2).

Chart 2.4.1.
Global Risk Appetite



Source: Bloomberg, Credit Suisse.

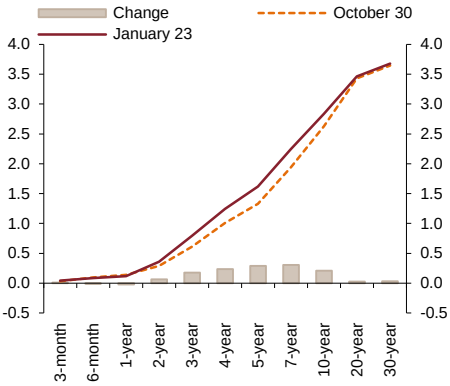
Chart 2.4.2.
Fed Funds Futures
(Percent)



Source: Bloomberg.

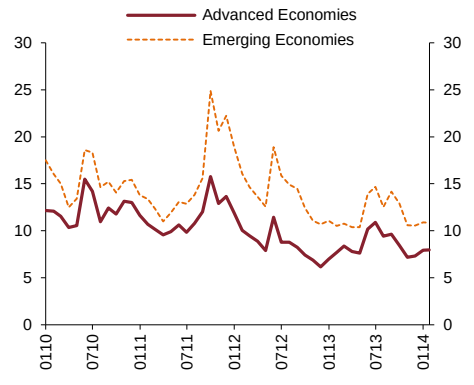
In line with the higher Fed rate hike expectation, medium- to long-term US yields increased by up to 30 basis points compared to the previous reporting period (Chart 2.4.3). Meanwhile, the impending tightening in the US monetary policy slightly raised the uncertainty over the US dollar and caused 1-month implied volatility of exchange rate options for advanced and emerging market currencies to rise from the previous reporting period (Chart 2.4.4).

Chart 2.4.3.
The US Yield Curve
(Percent)



Source: Bloomberg.

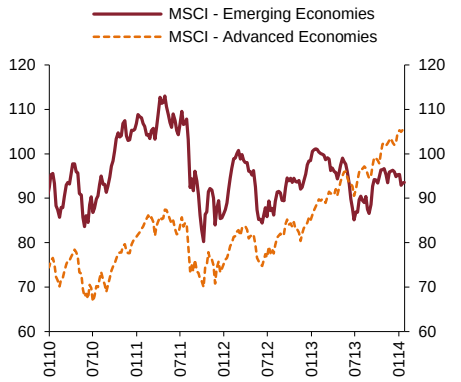
Chart 2.4.4.
Implied Volatility of Exchange Rates*
(Against USD, Percent)



* Advanced economies include Euro Area, Japan, UK, Australia, Switzerland, Canada and South Korea. Emerging economies include Mexico, Brazil, Poland, Hungary, Czech Republic and South Africa.
Source: Bloomberg.

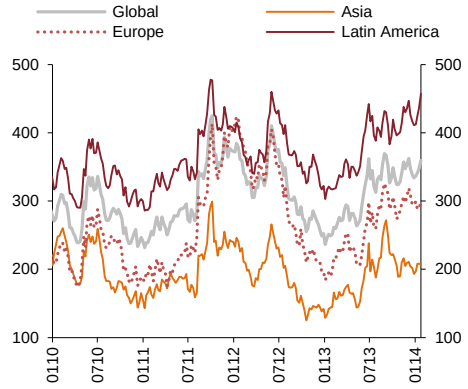
Despite the expectation for a tightening in the US monetary policy, both the reduced uncertainty about the US monetary policy and the shift in global capital flows towards advanced economies favorably affected the stock markets of advanced economies in the fourth quarter. Having followed a volatile course, stock market indices in emerging economies have changed marginally from the previous reporting period as of January 2014 (Chart 2.4.5). In this period, yields on emerging market bonds fluctuated in line with concerns over capital flows to emerging economies, the volatile global risk appetite and stock market developments (Chart 2.4.6).

Chart 2.4.5.
Global Stock Markets
(USD, 2007=100))



Source: Bloomberg.

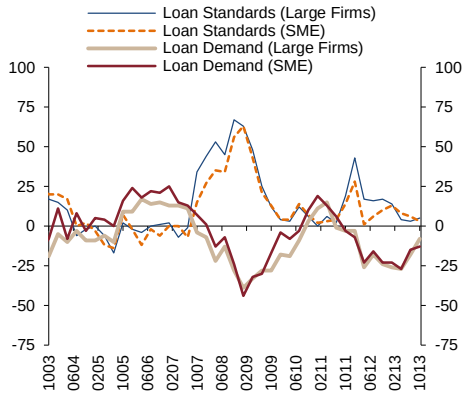
Chart 2.4.6.
Regional EMBI Developments
(5-year)



* EMBI indices denote the yield spread of the USD-denominated bills and bonds of countries over US Treasury bills and bonds.
Source: Bloomberg.

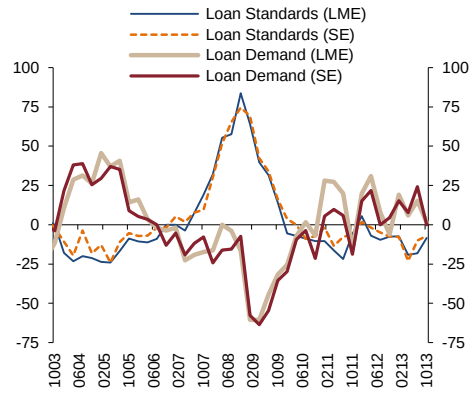
Similar to the second quarter, the ECB's third-quarter bank lending survey reported tightening of lending standards in the Euro Area and a continued contraction in the demand for loans (Chart 2.4.7). On the other hand, the Fed's bank lending survey for the same period showed further easing in the US bank lending conditions and an ended demand increase for loans from large and medium-sized as well as small firms (Chart 2.4.8).

Chart 2.4.7.
The ECB Bank Lending Survey*
(Percent)



* Upward movements denote tightening in credit conditions.
Source: ECB.

Chart 2.4.8.
The Fed Bank Lending Survey*
(Percent)

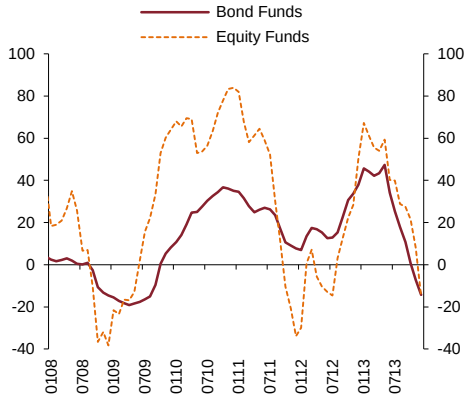


Source: Fed.

2.5. Capital Flows

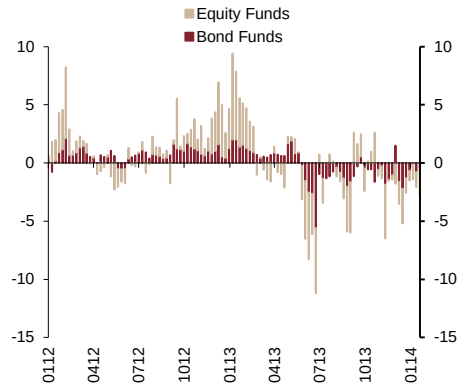
Capital flows to emerging economies, which have dropped significantly since May following Fed's hint at trimming asset purchases, continued to decline in the fourth quarter of the year (Chart 2.5.1). Capital outflows from emerging markets accelerated slightly in the fourth quarter compared to the previous quarter. The ratio of capital outflows to total emerging market funds, which was around 1.7 percent in the previous quarter, increased to 2.3 percent in the fourth quarter.

Chart 2.5.1.
Cumulative Portfolio Flows to Emerging Economies
(Billion USD)



Source: EPFR.

Chart 2.5.2.
Monthly Portfolio Flows to Emerging Economies
(Billion USD)



Source: EPFR.

In terms of the portfolio composition, while fixed-income securities of emerging markets accounted for most of the capital outflows in the third quarter, both bond and equity funds of emerging economies saw a similar amount of outflow in the last quarter (Chart 2.5.2).

The Fed's decision in December to cut bond buying by 10 billion USD starting from January caused no sharp fluctuations in capital markets. The previously signaled yet timing-wise unknown decision helped to alleviate some of the uncertainty about the quantitative easing exit strategy. However, downside risks to capital flows to emerging economies, particularly the gradual decline in global liquidity, are expected to continue into the upcoming period, while volatility of the capital markets may heighten. Additionally, as in the previous reporting period, the ongoing recovery across advanced economies may further support capital flows in favor of emerging economies.

2.6. Global Monetary Policy Developments

The Fed's December decision to cut asset purchases by 10 billion USD was the most important monetary policy development in the final quarter. Besides the strong emphasis by the Fed that the taper implied no tightening in monetary policy, the policies of other central banks also suggested that global monetary easing continued in the fourth quarter of 2013.

In 2013, policy rates continued to fall across advanced economies, albeit at a slower pace than in 2012. In the fourth quarter of the year, the ECB and the Sveriges Riksbank lowered policy rates by 25 basis points (Chart 2.6.1). On the emerging economies front, the divergence of the Central Bank of Brazil and the Bank Indonesia from other central banks continued in the October-January period, with the Central Bank of Brazil hiking policy rates by 150 basis points and the Bank Indonesia by 25 basis points. Meanwhile, the Central Reserve Bank of Peru, the Bank of Mexico and the Bank of Thailand each slashed policy rates by 25 basis points, while the Central Bank of Chile opted to cut rates by 50 basis points and the Magyar Nemzeti Bank and the National Bank of Romania each announced a 75 basis point rate cut. Against this background, it is possible to conclude that monetary easing was stronger throughout 2013 than in 2012 across emerging economies, except for Brazil and Indonesia (Chart 2.6.2).

Chart 2.6.1.
Policy Rate Changes in Advanced Economies from Jan. 2013 to Jan. 2014* (Basis Points)

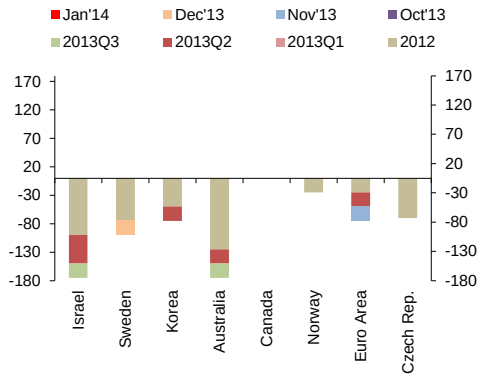
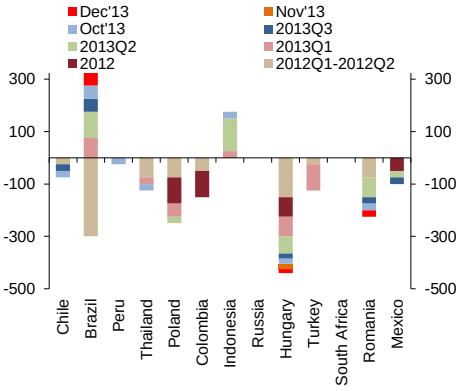


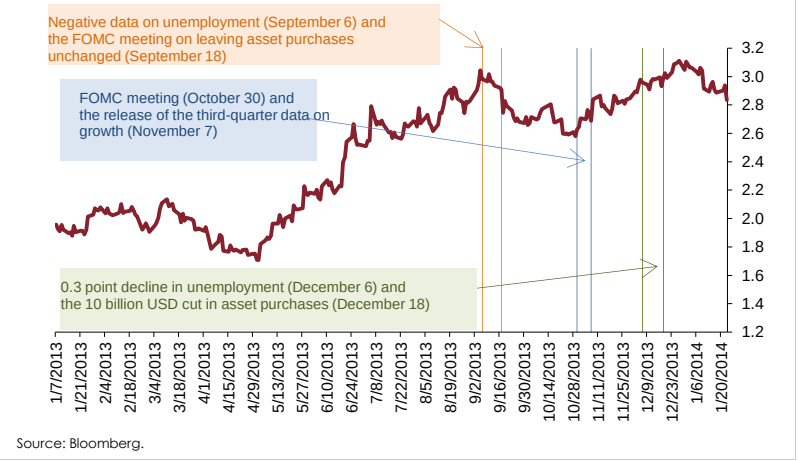
Chart 2.6.2.
Policy Rate Changes in Emerging Economies from Jan. 2013 to Jan. 2014* (Basis Points)



* As of January 24, 2014.
Source: Bloomberg, CBRT.

The negative US unemployment data released in early September and the unfulfilled expectation of a tapering decision at the Fed's mid-September meeting caused a fall in long-term interest rates, which continued until the end-October meeting. Announcements after the October meeting and data released on November 7 showing an improved third-quarter growth fueled expectations that the tapering would start in December and caused interest rates to rise again. The 0.3 point decline in unemployment during early December reinforced this expectation, and eventually, the Fed modified its bond-buying program at its December meeting as per expectations and cut asset purchases from 85 billion USD to 75 billion USD. In the meantime, long-term interest rates fell by about 45 basis points due to the surprise September decision to maintain the bond-buying program, and later, surged again at the same pace and returned to early September levels in early January (Chart 2.6.3). Thus, it is possible to conclude that the Fed's taper of asset purchases caused no higher-than-envisaged effect on the interest rate level.

Chart 2.6.3.
Yields on 10-year US Treasury Bills (Percent)



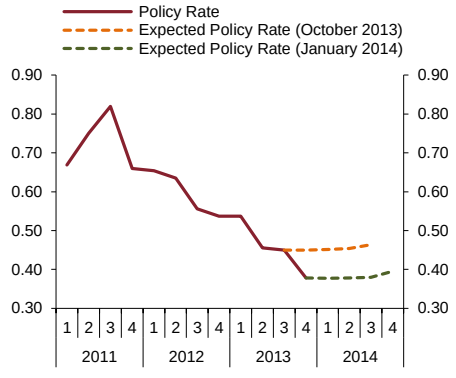
Source: Bloomberg.

When and how the Fed will begin hiking its policy rate, which is another component of its monetary policy, is a major source of uncertainty on the global economic outlook. The gradually improving recovery

signals about the US economy affect policy rate expectations as well. Yet, the Fed's quarterly releases, which include projections of the FOMC members, suggest that monetary tightening may start in 2015. According to these forecasts, tightening might happen in the 0.25 to 1 percent range in 2015 and in the 1.5 to 1.75 percent range in 2016.

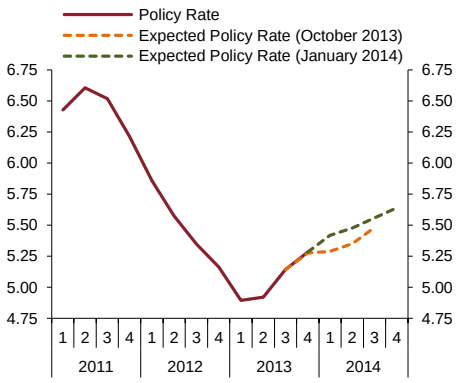
Given the signals of an economic rebound in Europe, the future course of the monetary policy of the ECB and the Bank of England is considered to be a critical factor that should closely be monitored with respect to global monetary policy. In this context, the ECB's long-awaited policy rate cut in November that aimed at abating deflation concerns and supporting the rebound is a notable development in terms of global monetary policy. Similarly, the Bank of England's recent decision to set the date to achieve the 7 percent unemployment threshold for a policy rate hike nearly two years ahead of schedule provides valuable insight into the future course of the monetary policy.

Chart 2.6.4.
Expected Policy Rates in Advanced Economies (Percent)



Source: Bloomberg, CBRT.

Chart 2.6.5.
Expected Policy Rates in Inflation-Targeting Emerging Economies (Percent)



Source: Bloomberg, CBRT.

The average policy rate in advanced economies was about 7 basis points lower than the October expectations during the last quarter. The ECB did not deliver the long-awaited rate cut, building up expectations that there would be no rate cut in 2013 as of October. Consequently, a 25 basis point rate hike in November led to a gap between the expected and the actual policy rate. Moreover, according to January expectations, policy rates of advanced economies are likely to remain flat in 2014 as in October (Chart 2.6.4). On the emerging economies front, the average policy rate increased in line with October expectations. In addition, January expectations for 2014 indicate a more aggressive policy rate hike in emerging economies compared to those of October (Chart 2.6.5). The future course of the GDP-weighted composite policy rate for emerging economies is mostly determined by the changes in Brazil's and Indonesia's policy rates. The average policy rate calculated by excluding these two countries has fallen by about 10 basis points since early 2013. However, expectations for 2014 show that prospects for an increase in the average policy rate are still even when excluding Brazil and Indonesia.

3. Inflation Developments

3.1. Inflation

In 2013, consumer inflation increased by 1.2 points year-on-year to 7.4 percent, overshooting the uncertainty band of the inflation target. Inflation followed a volatile path throughout the year. The consumer inflation, which soared due to the tax adjustments on tobacco at the beginning of 2013, followed a volatile path in the remaining part of the year amid developments in unprocessed food and energy prices, and ended the mid-year significantly above the value implied by the target. In the second half of the year, the weak course of portfolio flows driven by global uncertainty over the monetary policies in advanced economies led to deprecation of the Turkish lira and caused core inflation indicators to rise with the pass-through effect. Consequently, inflation expectations deteriorated slightly during the last six months.

In the last quarter of 2013, annual consumer inflation fell by 0.48 points from the previous quarter to 7.40 percent. The fall in inflation was mostly driven by the base effect from energy prices as well as tobacco prices that declined amid increased competition in the tobacco sector. On the other hand, unprocessed food prices rallied in this period. Moreover, the depreciation of the Turkish lira continued to affect the annual core goods inflation, while services inflation maintained its mild upward track. As a result, core inflation indicators remained elevated.

Across subcategories, quarterly rates of change proved more favorable for the energy, tobacco and gold prices in the fourth quarter compared to historical averages, yet still standing close to averages in other categories (Chart 3.1.1). In 2013, the overall contribution of the food and energy prices to inflation remained unchanged from end-2012 (food up 1.3 points, energy down 1.3 points). In the same period, due to exchange rate developments, the contribution of core goods to annual inflation went up by 0.5 points, while the contribution of services as well as tobacco and gold prices increased by 0.3 and 0.4 points, respectively (Chart 3.1.2).

Chart 3.1.1.
CPI by Subcategories
(Fourth-Quarter, Annual Percent Change)

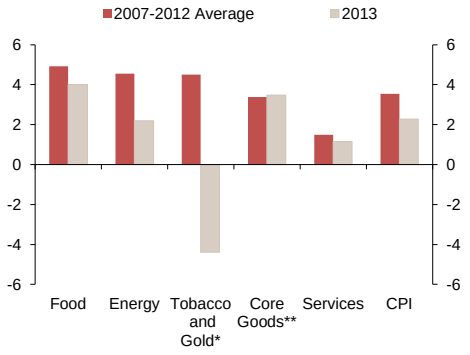
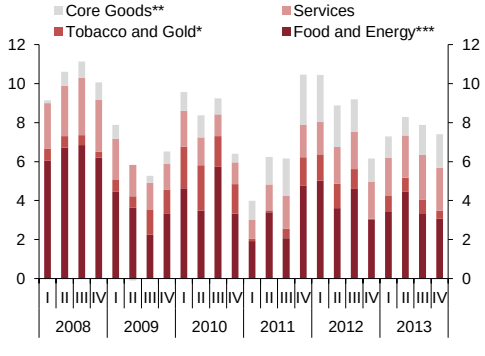


Chart 3.1.2.
Contribution to Annual CPI
(Percent)



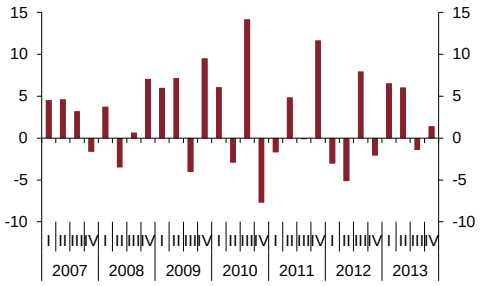
* Tobacco and Gold: Alcoholic beverages, tobacco and gold.
** Core Goods: Goods excluding food, energy, alcoholic beverages, tobacco and gold.
*** Food and Energy: Food, non-alcoholic beverages and energy.
Source: TurkStat, CBRT.

In sum, inflation went beyond the path projected in the October Inflation Report during the final quarter mainly due to developments in unprocessed food prices. In 2014, the course of inflation will be

determined by exchange rate developments and tax adjustments at the beginning of the year. Moreover, the cumulative effect of the depreciating Turkish lira and international prices put upward pressure on administered energy prices.

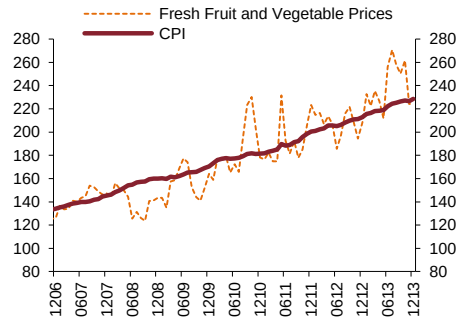
Unprocessed food inflation rose by 3.86 points from the third quarter to 12.88 percent (Table 3.1.1). In this period, seasonally adjusted unprocessed food prices increased modestly after the third quarter fall (Chart 3.1.3). Prices of fresh fruits and vegetables that remained elevated above the consumer prices throughout the year converged to the general price level as of December and increased by a year-on-year 7.86 percent (Chart 3.1.4). Meanwhile, the annual rate of increase in other unprocessed food prices, which soared substantially during the fourth quarter by 6.30 percent, reached 16.28 percent in December, thereby fuelling the high year-end inflation in the unprocessed food category.

Chart 3.1.3.
Unprocessed Food Prices
(Seasonally Adjusted, Quarterly Percent Change)



Source: TurkStat, CBRT.

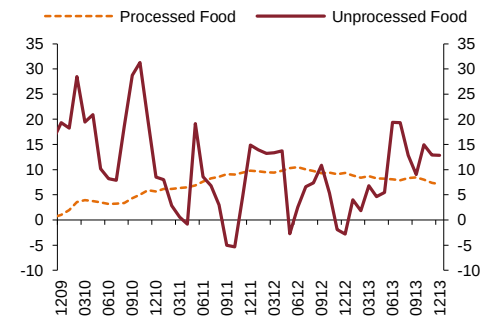
Chart 3.1.4.
Fresh Fruit and Vegetable Prices and the CPI
(Seasonally Adjusted, 2003=100)



Source: TurkStat, CBRT.

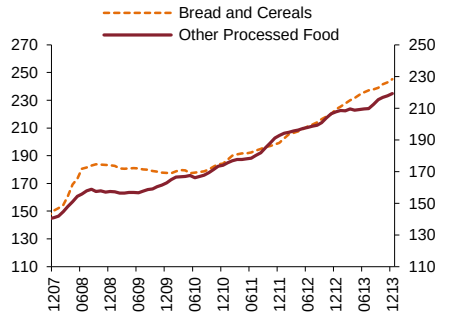
Processed food prices were up 2.04 percent in the last quarter and annual inflation in this category decreased gradually to 7.11 percent (Table 3.1.1 and Chart 3.1.5). This development was largely driven by the prices of bread and cereals that increased due to wheat prices. Moreover, annual inflation in this category rose due to processed food prices excluding bread and cereals that accelerated in the third quarter amid the weaker Turkish lira. Meanwhile, annual inflation in the prices of bread and cereals as well as other processed food, which excludes bread and cereals fell in the final quarter to 9.71 and 5.54 percent, respectively (Chart 3.1.6). As a result, annual food price inflation ended the year at 9.67 percent, exceeding the October Inflation Report forecasts.

Chart 3.1.5.
Food Prices
(Annual Percent Change)



Source: TurkStat, CBRT.

Chart 3.1.6.
Processed Food Prices
(2003=100)



Source: TurkStat, CBRT.

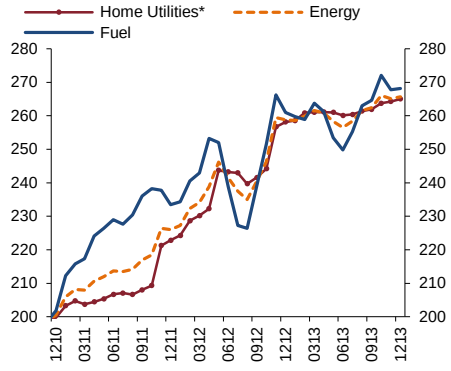
Table 3.1.1.
Prices of Goods and Services
(Quarterly and Annual Percent Change)

	2012		2013				
	IV	Annual	I	II	III	IV	Annual
CPI	**2.74**	**6.16**	**2.63**	**1.33**	**0.97**	**2.28**	**7.40**
1. Goods	**3.25**	**5.82**	**2.95**	**0.90**	**0.46**	**2.72**	**7.18**
Energy	5.02	13.79	0.86	-0.92	2.95	2.20	5.15
Food and Non-Alcoholic Beverages	3.12	3.90	7.06	-1.69	0.19	4.01	9.67
Unprocessed Food	2.82	-2.78	13.87	-4.70	-2.29	6.46	12.88
Processed Food	3.35	9.37	1.63	0.99	2.27	2.04	7.11
Goods (excl. energy and food)	2.50	3.78	0.92	3.65	-0.38	2.00	6.29
Core Goods	3.03	4.49	-1.52	4.86	-0.62	3.48	6.20
Durable Goods (excl. gold)	-0.48	0.17	2.54	0.05	3.75	1.12	7.62
Alcoholic Beverages, Tobacco and Gold	0.04	0.57	12.41	-1.35	0.68	-4.39	6.74
2. Services	**1.38**	**7.09**	**1.78**	**2.50**	**2.32**	**1.16**	**7.98**
Rent	1.61	5.46	1.25	1.59	1.70	1.81	6.50
Restaurants and Hotels	1.74	9.31	2.07	2.18	2.85	2.42	9.86
Transport	0.81	8.16	1.88	2.34	2.63	0.18	7.20
Communication	3.00	7.08	0.40	1.28	1.30	0.09	3.09
Other Services*	0.41	6.04	2.58	4.02	2.65	0.82	10.43

* Services excluding rents, restaurants, hotels, transport and communication.
Source: TurkStat, CBRT.

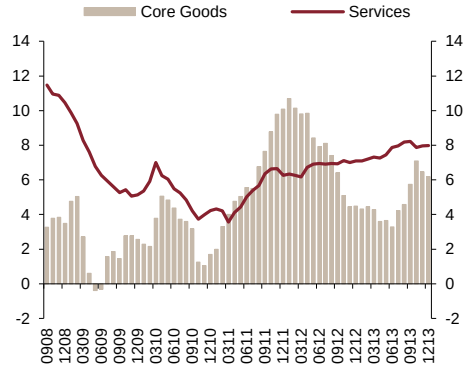
Energy prices increased by 2.20 percent in the fourth quarter, while the annual inflation dropped by 2.90 points to 5.15 percent due to base effects (Table 3.1.1). This surge was led by LPG and bottled gas prices that soared significantly in December (by 12.14 and 9.25 percent, respectively) owing to international prices. In addition, international oil prices and the weak Turkish lira caused fuel prices to surge by 3.27 percent in this quarter (Chart 3.1.7). With no adjustments to administered energy prices throughout the year, annual inflation in energy prices reached the 4-year low in 2013. However, it should be noted that the depreciation of the Turkish lira and the rising costs of administered energy items caused by international developments pose an upside risk to energy inflation in 2014.

Chart 3.1.7.
Energy Prices
(2003=100)



* Home utilities include electricity, water, natural gas, bottled gas and solid fuel.
Source: TurkStat, CBRT.

Chart 3.1.8.
Prices of Core Goods and Services
(Annual Percent Change)

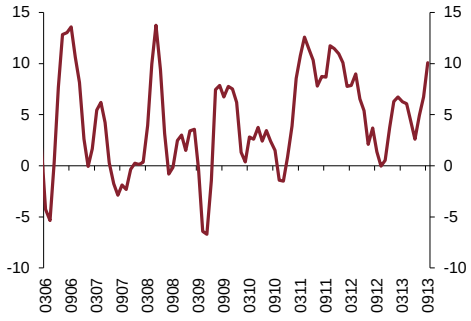


Source: TurkStat, CBRT.

Annual core goods inflation increased by around 0.5 points to 6.20 percent in the fourth quarter (Chart 3.1.8). The cumulative effects of the Turkish lira depreciation during May and November have largely ended and the pace of growth in seasonally adjusted core goods prices turned downward as of November (Chart 3.1.9). The rise in durable goods prices, which are rapidly affected by the exchange rate, continued in the last quarter, albeit more slowly, and annual inflation increased further. Across subcategories, the furniture

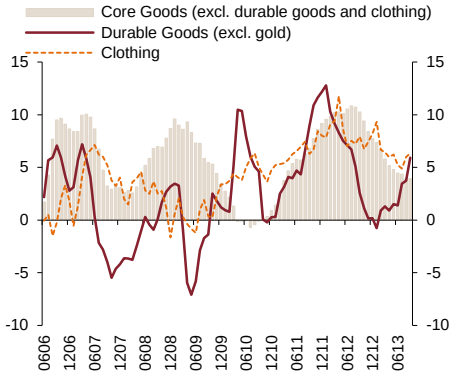
as well as electrical and non-electrical appliances prices witnessed the delayed effects of exchange rate developments, while automobile prices increased at a decelerating rate (Table 3.1.2). The Turkish lira depreciation also had lagged effects on core goods excluding clothing and durables, and the downtrend of the annual inflation in this category was reversed in the final quarter (Chart 3.1.10). Yet, annual clothing inflation fell to 4.82 percent, restraining the rise of the annual core goods inflation.

Chart 3.1.9.
Core Goods Prices
(Seasonally Adjusted, Annualized Quarterly Average Percent Change)



Source: TurkStat, CBRT.

Chart 3.1.10.
Core Goods Prices
(Annual Percent Change)



Source: TurkStat, CBRT.

Table 3.1.2.
Core Goods Prices
(Quarterly and Annual Percent Change)

	2012		2013				
	IV	Annual	I	II	III	IV	Annual
Core Goods	**3.03**	**4.49**	**-1.32**	**4.86**	**-0.62**	**3.48**	**6.20**
Clothing and Footwear	**12.00**	**8.20**	**-10.90**	**20.95**	**-10.43**	**10.38**	**4.82**
Durable Goods (excl. gold)	**-0.48**	**0.17**	**1.41**	**0.05**	**3.75**	**1.12**	**7.62**
Furniture	1.84	6.33	3.19	0.65	1.59	2.89	9.50
Electrical and Non-Electrical Appliances	-0.96	-3.41	0.94	-2.66	0.12	0.91	-1.48
Automobile	-1.07	-0.40	1.09	0.72	5.55	0.67	10.27
Other Durable Goods	0.54	5.68	1.22	1.53	1.80	2.69	7.25
Other	**1.05**	**7.71**	**2.76**	**1.15**	**0.75**	**2.13**	**5.05**

Source: TurkStat, CBRT.

In sum, the exchange rate effects, which were mostly limited to durable goods, particularly automobiles, in the third quarter, were also felt by core goods other than durables and clothing in the fourth quarter. Therefore, the depreciation of the Turkish lira since May continued to affect prices of core goods, though to a lessening degree, in the fourth quarter. Meanwhile, the accelerating depreciation of the Turkish lira as of mid-December and the tax adjustments on automobiles were the main factors that deteriorated the 2014 outlook for core goods prices. Tax adjustments to automobile prices may pull the year-end consumer inflation up by 0.3 points in case of a full pass-through to final prices. Leading indicators for January imply a significant surge in automobile prices due to both exchange rates and taxes. Thus, annual inflation in this category is expected to rise further in the forthcoming period.

Annual inflation in services fell 0.24 points quarter-on-quarter to 7.98 percent at year-end (Chart 3.1.8). In the fourth quarter, price hikes were close to averages of previous years for rents and restaurant-hotel services, but below historical averages for transport and communication services (Chart 3.1.11). Due to healthcare services, the prices of other services recorded an above-average rate of increase in the fourth quarter. An analysis of annual rates of increase as of year-end suggests that the prices of restaurants, hotels, rents and other services continued with a steady uptrend (Chart 3.1.12).

Chart 3.1.11.
Prices of Services by Subcategories
(Fourth-Quarter, Annual Percent Change)

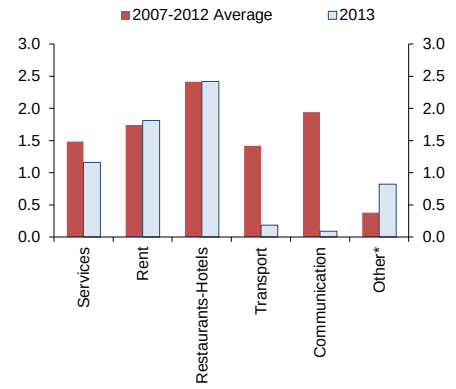
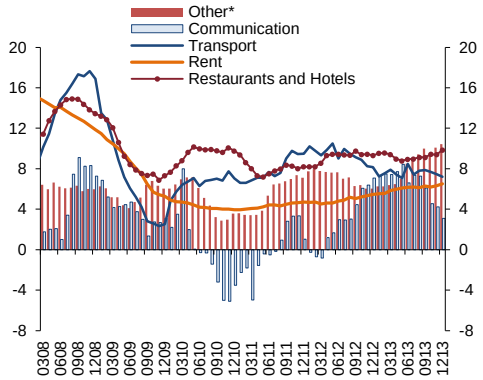


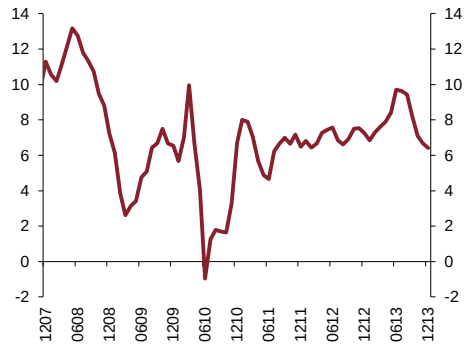
Chart 3.1.12.
Prices of Services by Subcategories
(Annual Percent Change)



* Services excluding rents, restaurants and hotels, transport and communication.
Source: TurkStat, CBRT.

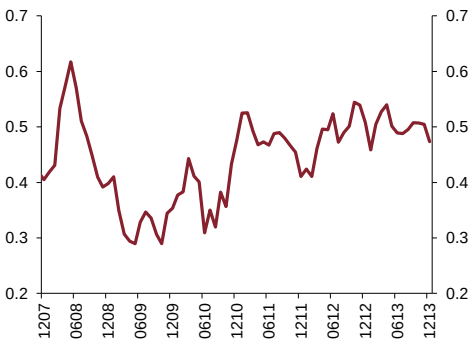
The seasonally adjusted underlying trend of the services decelerated slightly in the last quarter and returned to the early-2013 level (Chart 3.1.13). The diffusion index also displayed a similar pattern (Chart 3.1.14). Despite having decelerated, the underlying trend of services inflation still remains high.

Chart 3.1.13.
Prices of Services
(Seasonally Adjusted, Annualized Quarterly Average Percent Change)



Source: TurkStat, CBRT.

Chart 3.1.14.
Diffusion Index for Prices of Services*
(Seasonally Adjusted, Quarterly Average)

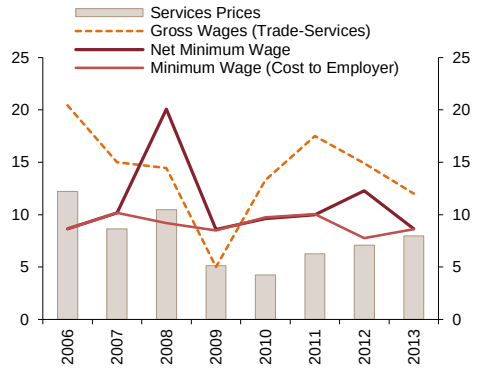


* Diffusion index is calculated as the ratio of the number of items with increasing prices minus the number of items with decreasing prices to total number of items within a given month.
Source: TurkStat, CBRT.

Wages, a key driver of the high inflation in services, increased at a faster pace than inflation (Chart 3.1.15). This trend is evident for wages in trade and services sectors as well as minimum wages. In addition, selected subcategories of services prices follow the same pattern especially with net minimum

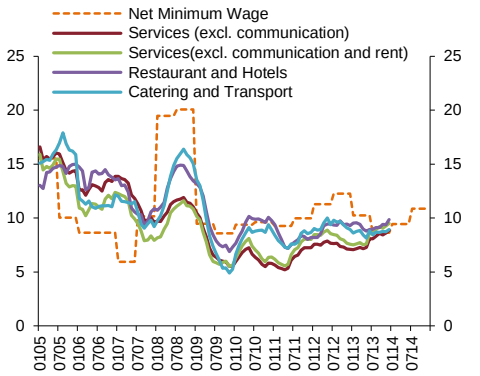
wages. Thus, the announced minimum wage figures for 2014 signal that services prices may be subject to further pressure through the wage channel in the upcoming period (Chart 3.1.16).

Chart 3.1.15.
Wages and Services Prices*
(Annual Percent Change)



* As of 2013Q3 for gross wages in trade and services.
Source: TurkStat, Ministry of Labor and Social Security, CBRT.

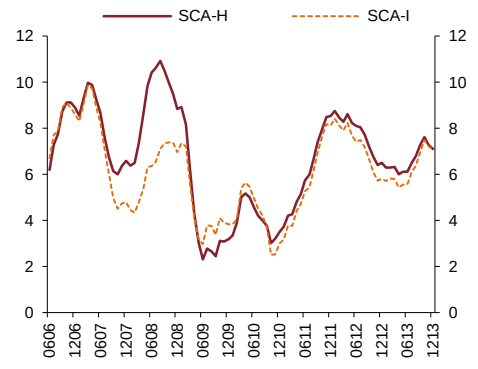
Chart 3.1.16.
Selected Services Prices and Net Minimum Wage
(Annual Percent Change)



Source: TurkStat, Ministry of Labor and Social Security, CBRT.

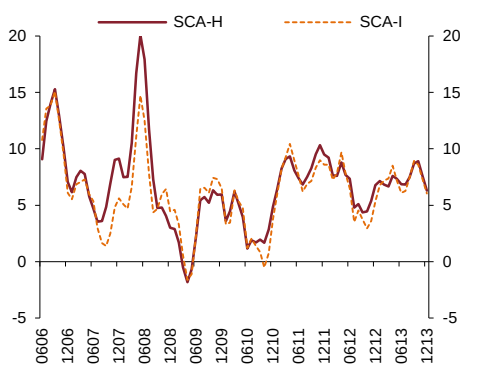
In the final quarter, annual inflation in the SCA-H and SCA-I, which are among core inflation indicators, remained elevated at 7.1 percent (Chart 3.1.17). Seasonally adjusted data suggested that the underlying trend of the SCA-H and SCA-I indices would decrease from the end of the third quarter thanks to prices of core goods and services (Chart 3.1.18).

Chart 3.1.17.
Core Inflation Indicators
(Annual Percent Change)



Source: TurkStat, CBRT.

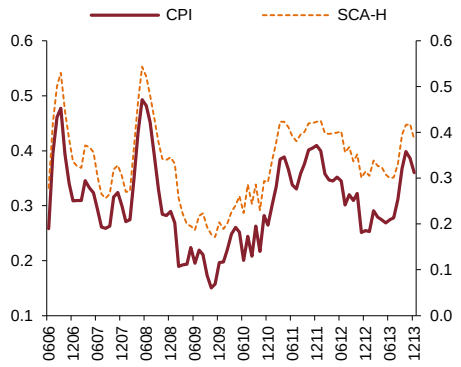
Chart 3.1.18.
Core Inflation Indicators
(Seasonally Adjusted, Annualized Quarterly Average Percent Change)



Source: TurkStat, CBRT.

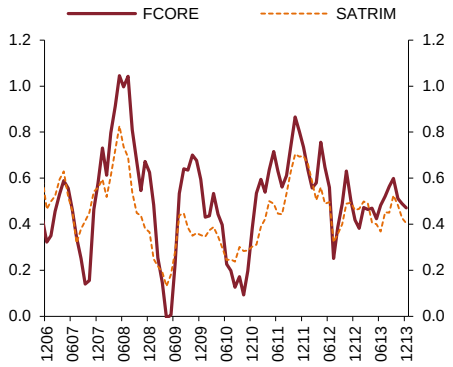
Diffusion indices of core goods and services displayed an outlook similar to increases in seasonally adjusted prices. Accordingly, diffusion indices for the CPI and the SCA-H indicator slumped in the fourth quarter (Chart 3.1.19). FCORE and SATRIM, the alternative core inflation indicators monitored by the CBRT, trended downwards compared to the third quarter (Chart 3.1.20). Thus, the analysis of core inflation indicators, diffusion indices and alternative core indicators suggests that the underlying trend of inflation is lower compared to the previous quarter due to the waning effects of the Turkish lira depreciation. However, the depreciation of the Turkish lira during the second half of December and tax adjustments to automobile prices pose an upside risk to inflation for the upcoming period.

Chart 3.1.19.
Diffusion Indices for CPI and SCA-H
(Seasonally Adjusted, Quarterly Average)



Source: TurkStat, CBRT.

Chart 3.1.20.
Core Inflation Indicators SATRIM and FCORE*
(Quarterly Average)



* SATRIM: Seasonally adjusted trimmed mean inflation.
FCORE: Factor model based core inflation indicator.
(See Box 3.2, Inflation Report 2011-I).
Source: CBRT.

Producer prices increased by 2.43 percent on account of the dramatic hike in manufacturing and agricultural prices in the fourth quarter of 2013, and annual PPI inflation went up by around 0.75 points quarter-on-quarter to 6.97 percent (Table 3.1.3). The increase in the agricultural prices was driven by fruit and vegetable prices that soared above historical averages (Chart 3.1.22). The major price hikes in cotton and wheat, both industrial crops, were also noteworthy.

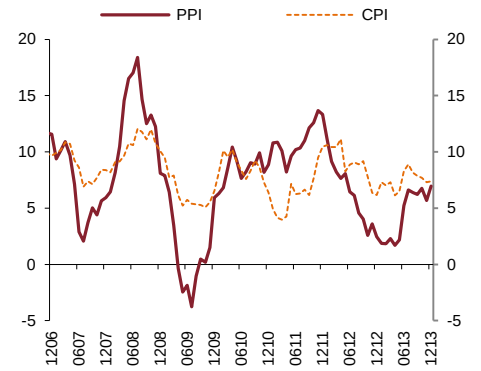
Table 3.1.3.
PPI and Subcategories
(Quarterly and Annual Percent Change)

	2012		2013				
	IV	Annual	I	II	III	IV	Annual
PPI	**1.72**	**2.45**	**0.50**	**1.95**	**1.92**	**2.43**	**6.97**
Agriculture	**-3.31**	**-4.17**	**-0.06**	**6.94**	**-6.77**	**7.97**	**7.58**
Crops, Fruits and Vegetables	-4.78	-5.05	2.32	10.72	-9.83	11.26	13.66
Livestock and Animal Products	-0.29	-3.15	-8.47	-0.62	1.86	2.28	-5.23
Industry	**2.74**	**3.83**	**0.61**	**0.98**	**3.71**	**1.41**	**6.85**
Mining	0.13	5.49	3.90	2.11	4.61	1.49	12.64
Manufacturing	**-0.17**	**1.27**	**1.87**	**0.88**	**3.97**	**1.51**	**8.45**
Manufacturing (excl. petroleum products)	0.18	1.48	1.75	1.04	3.56	1.58	8.15
Manufacturing (excl. petroleum and base metal products)	0.48	2.50	1.76	1.11	3.30	1.64	8.02
Electricity, Gas and Water	28.21	23.64	-11.28	1.45	0.82	0.38	-8.92

Source: TurkStat, CBRT.

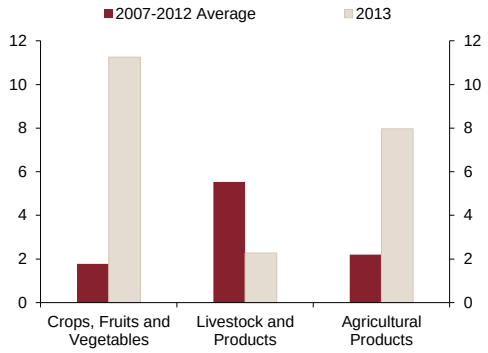
Despite the favorable course of commodity prices, manufacturing industry prices soared by 1.51 percent in the last quarter due to the depreciation of the Turkish lira, bringing the annual inflation in this category up to 8.45 percent (Table 3.1.3). In this period, the USD-denominated import prices remained mild in line with the commodity prices, while the TL-denominated import prices recorded an increase (Chart 3.1.23). Falling international oil prices helped to bring manufacturing industry prices for petroleum products down slightly in the fourth quarter. On the other hand, manufacturing industry prices excluding petroleum products surged by 1.58 percent in this quarter, and the annual inflation increased by 1.49 points quarter-on-quarter to 8.15 percent.

Chart 3.1.21.
Producer and Consumer Prices
(Annual Percent Change)



Source: TurkStat.

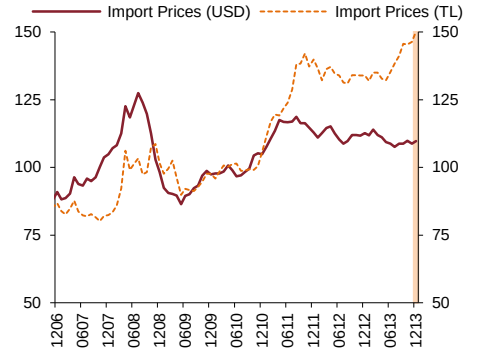
Chart 3.1.22.
Agricultural Prices
(Fourth-Quarter, Annual Percent Change)



Source: TurkStat.

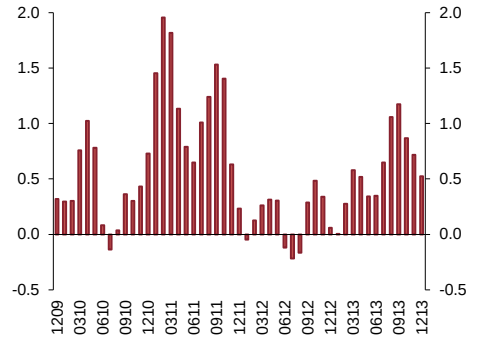
Across subcategories, intermediate goods, capital goods and non-durable goods recorded price hikes. The rise in non-durable goods was caused by manufacturing prices for food and clothing. Prices of durable goods fell slightly in this quarter mostly due to the December decline, which was attributed to falling manufacturing prices for jewelry. Overall, in this quarter, the depreciation of the Turkish lira had a lessening effect on manufacturing industry prices excluding petroleum products, which have been rising since April and growing at an accelerated pace as of the second quarter (Chart 3.1.24). However, both the current course of producer prices and the depreciation of the Turkish lira since December suggest that cost pressures on consumer prices, especially on those for durable goods, increased.

Chart 3.1.23.
USD- and TL-Denominated Import Prices*
(2010=100)



* Estimate for December.
Source: TurkStat, CBRT.

Chart 3.1.24.
Manufacturing Industry Prices Excluding Petroleum Products
(Quarterly Average Percent Change)



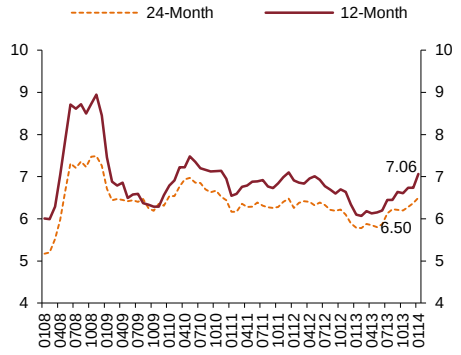
Source: TurkStat, CBRT.

3.2. Expectations

Medium-term inflation expectations, which displayed a flat course in the first half of 2013, deteriorated in the second half upon the depreciation of the Turkish lira (Chart 3.2.1). In January, medium-term expectations deteriorated further due to these developments as well as tax adjustments at the beginning of the year. Across maturities, inflation expectations for end-March were revised downwards compared to the previous quarter, while 12-month ahead inflation expectations increased and the spread widened. The

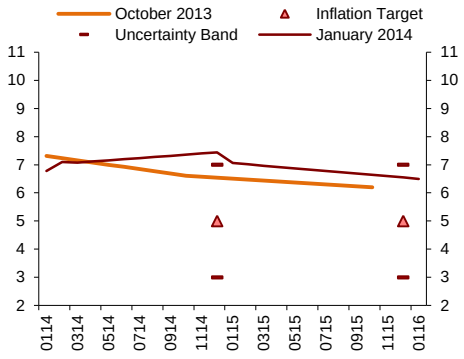
spread narrowed slightly for longer-term expectations (Chart 3.2.2). Nevertheless, inflation expectations still hover above the inflation target of 5 percent set for end-2014 and end-2015.

Chart 3.2.1.
12- and 24-Month Ahead CPI Expectations*
(Annual Percent Change)



* CBRT Survey of Expectations, second survey period results for the pre-2013 period.
Source: CBRT.

Chart 3.2.2.
Inflation Expectations Curve*
(Annual Percent Change)



* Calculated by linear interpolation of expectations for different time spans using the CBRT Survey of Expectations, second survey period results for the pre-2013 period.
Source: CBRT.

The dispersion of respondents' both 12-month and 24-month ahead inflation expectations reveals the pattern of the deterioration in inflation expectations (Charts 3.2.3 and 3.2.4). Almost half of the respondents' 12-month ahead inflation expectations are still in the range of 6.5 to 7.5 percent, while the number of respondents expecting inflation to rise above 7.5 percent increased significantly during this period.

Chart 3.2.3.
Distribution of 12-Month Ahead Inflation Expectations*
(Percent)

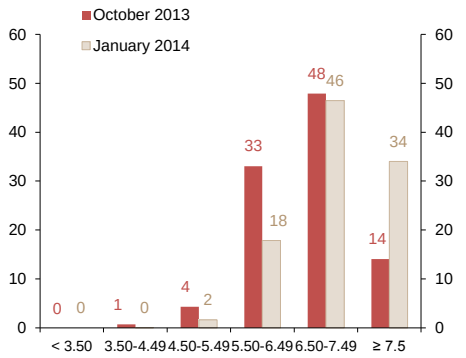
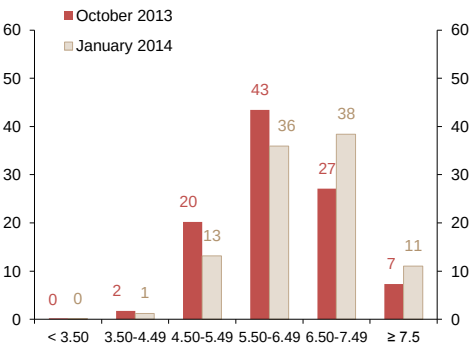


Chart 3.2.4.
Distribution of 24-Month Ahead Inflation Expectations*
(Percent)



* CBRT Survey of Expectations, second survey period results for the pre-2013 period. Horizontal axis denotes inflation rates, while the vertical axis denotes the Kernel forecast. For further details, see CBRT website Data/Surveys/Survey of Expectations/Methodological Explanation.
Source: CBRT.

Box 3.1 Implications of Base Effects for Consumer Inflation in 2014

After rising in January 2013 as a result of tax hikes on tobacco products, annual inflation hovered above the upper end of the uncertainty band throughout the year due to prices of unprocessed food, energy and core goods. In particular, capital flows that weakened in the second half of the year due to global uncertainty over monetary policies caused the Turkish lira to depreciate, which brought core inflation indicators up through the core goods channel. This box shows the implications of the changes in CPI subcategories during 2013 on the annual consumer inflation for 2014 through base effects.

The base effect manifests itself on the 12-month ahead annual inflation when the monthly change in an index for a certain month deviates from the "normal" monthly change of the respective month.[1] Therefore, when assessing the change in annual inflation, both current monthly price changes and base effects are taken into account.

Chart 1 shows the expected contributions from base effects of the CPI subcategories to the 2014 annual consumer inflation.[2] Accordingly, the greatest contribution for the whole year will come from base effects of the food category due to unprocessed food prices. Base effects from alcohol and tobacco in January will have negative contributions to annual inflation due to the sharp monthly increase caused by tax hikes on tobacco products in the same month of the previous year. Inflation was about 1.2 points above the normal monthly change in January and June 2013 and about 1.1 points below the normal monthly change in May 2013. Therefore, regardless of the current monthly price developments, base effects will bring inflation down by 1.2 points and up by 1.1 points for the respective months in 2014. However, it should be noted again that annual inflation may move in the reverse direction to the fluctuations implied by base effects due to current price developments in these months. In cumulative terms, base effects will reduce end-2014 consumer inflation slightly by 0.2 points compared to the previous year-end (Chart 2). In particular, the cumulative contributions of base effects over the entire year will be negative for core goods, services as well as alcohol and tobacco, and positive for the energy prices. Lastly, base effects are expected to pull annual SCA-H and SCA-I inflation down by 0.6 and 0.8 points year-on-year, respectively, by December 2014 (Chart 2).

[1] Normal monthly change reflects the underlying trend of the price movements in the respective period. Yet, there is no standard method for measuring this typical change. This analysis uses the median of the monthly inflation rates for subcategories across years for the respective month as the normal change.
[2] This box uses the method in CBRT (2012) to determine base effects.

Chart 1. Expected Contribution of Base Effects by Subcategories to Annual CPI Inflation in 2014 (Percent)

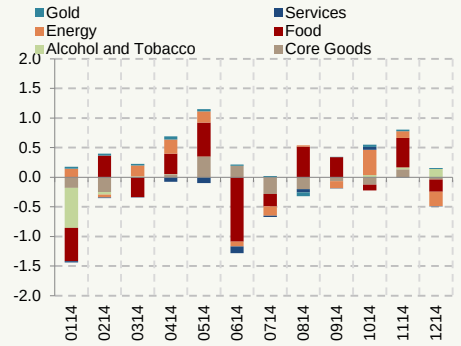
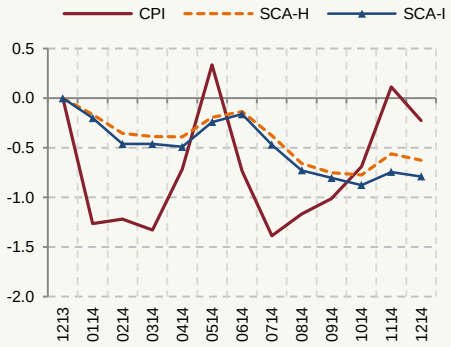


Chart 2. Cumulative Contribution of Base Effects to Annual Inflation in CPI and Core Inflation Indicators (Percent)



Source: TurkStat, CBRT.

In sum, base effects from CPI subcategories will play a major role on the path of annual inflation in 2014. However, it should be remembered that current price developments are another factor affecting annual inflation, and therefore, base effects will not be the sole driver of inflation realizations in 2014. In fact, as of year-end, base effects are expected to have a negative, albeit very limited effect on the annual CPI inflation. This suggests that the end-2014 annual CPI inflation will be shaped by current price developments rather than base effects. Factors such as exchange rate developments, public price adjustments, aggregate demand and weather conditions are considered to be especially influential on inflation in the upcoming period through the current prices channel. Yet, understanding the contribution of base effects to changes in annual CPI inflation is crucial for determining the inflation trend accurately.

REFERENCES

CBRT, 2012, The Role of Base Effects on the CPI Inflation in 2012, Box 7.2 in Inflation Report 2012-I.

4. Supply and Demand Developments

The GDP data of the third quarter of 2013 suggest that economic activity remained largely consistent with the outlook presented in the October Inflation Report. Seasonally adjusted data point to an increase by 0.9 percentage points in the GDP on a quarterly basis. Thus, economic activity, which gained momentum in the first half of the year, continued with a steady upward trend in the third quarter. Having followed a flat course in the previous quarter, final domestic demand recorded a mild increase in the third quarter. The mild course of domestic demand in the last two quarters is attributed to public expenditures. In fact, the analysis of final domestic demand components indicates that the private sector demand continued with a stable uptrend, while the public sector demand, which posted a fall in the second quarter after a robust increase in the first quarter, also fell in the third quarter. On the other hand, both imports and exports recorded a quarter-on-quarter decline in this period. As imports contracted more than exports, net exports contributed positively to quarterly growth. Thus, the balancing among demand components pointed to a positive outlook compared to the first half of the year, as projected.

The final-quarter data suggest that economic activity will continue to record a mild increase in the last quarter of 2013. On the production side, in the October-November period, industrial production stood above its average level of the previous quarter and maintained its stable uptrend on a quarterly basis. Out of the December indicators, those pertaining to PMI and BTS production of the last three months point to a positive outlook in the last quarter as well. On the expenditures side, data on production and imports of both consumption and investment goods show that private sector demand will preserve its steady uptrend in the last quarter.

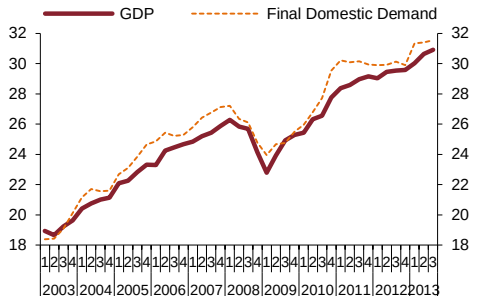
Indicators regarding external demand suggest that exports of goods and services will record a larger increase than imports thereof in the last quarter. A similar situation applies to indicators on non-gold exports and imports, which reflect the underlying trend in exports and imports, respectively. Accordingly, the improvement seen among demand components in the third quarter is expected to continue in the last quarter and the current account deficit will contract slightly on a quarterly basis.

In sum, domestic demand is projected to have continued with a steady course in the last quarter. The recovery in the European economies is believed to bolster growth through the export channel in the upcoming period. On the other hand, the recent depreciation of the Turkish lira and the rise in interest rates aggravated the downside risks to the future course of domestic demand. Against this background, domestic demand developments are expected to support the disinflation process and contribute to the recent improvement in the current account deficit.

4.1. Gross Domestic Product Developments and Domestic Demand

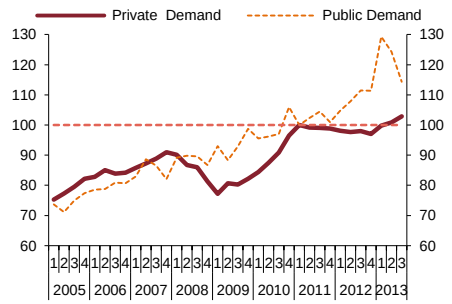
According to the national accounts data released by TurkStat, the GDP posted a year-on-year increase by 4.4 percent in the third quarter of 2013. In seasonally adjusted terms, the GDP recorded a quarter-on-quarter increase by 0.9 percent. The final domestic demand, which remained almost flat in the second quarter following a surge in the first quarter, displayed a mild increase in the third quarter (Chart 4.1.1). Due to the high volatility of public expenditures in 2013, examining the final domestic demand by private and public sector breakdown enables a more reliable analysis. In fact, private sector demand followed a steady uptrend in 2013, while public demand recorded a fall after the surge in the first quarter (Chart 4.1.2).

Chart 4.1.1.
GDP and Final Domestic Demand
(Seasonally Adjusted, Billion TL, 1998 Prices)



Source: TurkStat, CBRT.

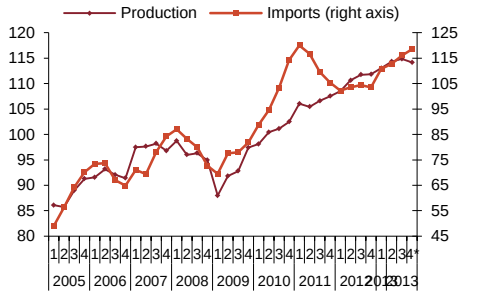
Chart 4.1.2.
Public and Private Sector Demand
(Seasonally Adjusted, 2011Q1=100)



Source: TurkStat, CBRT.

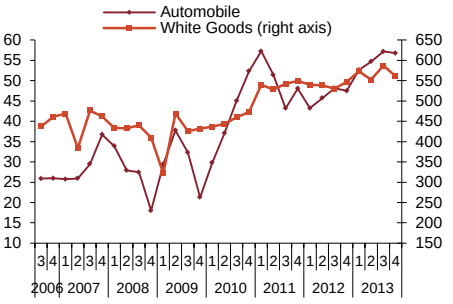
The final-quarter data show that private consumption and private investment demand, which recorded increases for three consecutive quarters in 2013, will remain on an upward trend. In the October-November period, imports of consumption goods remained on the rise, while production thereof decreased (Chart 4.1.3). Among the indicators on the demand for durable consumption goods, sales of automobiles remained flat, while the sales of white goods declined (Chart 4.1.4). Both imports and the production of investment goods excluding transport out of indicators regarding machinery and equipment investments recorded an increase (Chart 4.1.5). The data on construction investment indicate that construction investment continues to increase (Chart 4.1.6).

Chart 4.1.3.
Production and Import Quantity Indices of Consumption Goods
(Seasonally Adjusted, 2010=100)



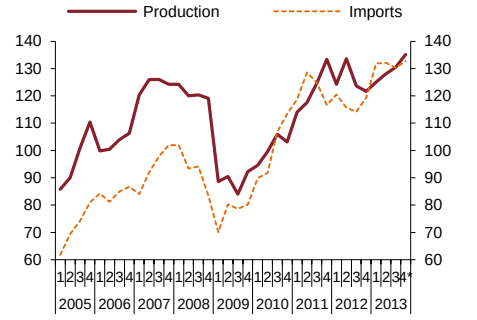
*As of November.
Source: TurkStat, CBRT.

Chart 4.1.4.
Automobile and Domestic Sales of White Goods
(Seasonally Adjusted, Thousand)



Source: AMA, WGMA, CBRT.

Chart 4.1.5.
Production and Import Quantity Indices of Capital Goods Excluding Transport Vehicles
(Seasonally Adjusted, 2010=100)



*As of November.
Source: TurkStat, CBRT.

Chart 4.1.6.
Production and Import Quantity Indices of Non-Metallic Mineral Goods
(Seasonally Adjusted, 2010=100)

*As of November.
Source: TurkStat, CBRT.

BTS indicators for manufacturing sectors on consumption and investment goods suggest a sustained recovery in domestic demand. In fact, for the manufacturing sector on consumption goods, the indicator on the normality of registered domestic market orders neared the 2010-2011 period, which was marked by robust demand. On the other hand, expectations of orders proved even more favorable than the 2010-2011 period (Chart 4.1.7). Domestic market expectations of the manufacturing sector of investment goods indicate an increase in investments (Chart 4.1.8). The course of investment and employment, which shows the relatively longer-term decisions of firms, also started to recover in the last quarter (Chart 4.1.9). Meanwhile, consumer confidence did not exhibit a strong pace (Chart 4.1.10).

Chart 4.1.7.
Registered Domestic Orders and Expectation of New Domestic Orders in the Manufacturing Sector of Consumption Goods*
(Seasonally Adjusted)

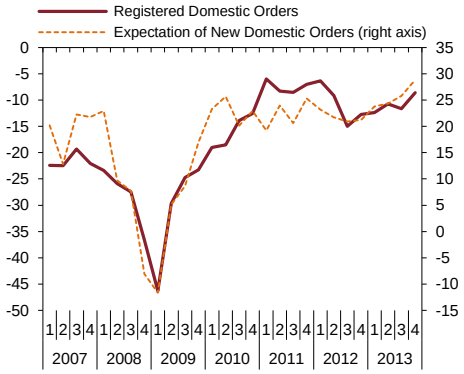
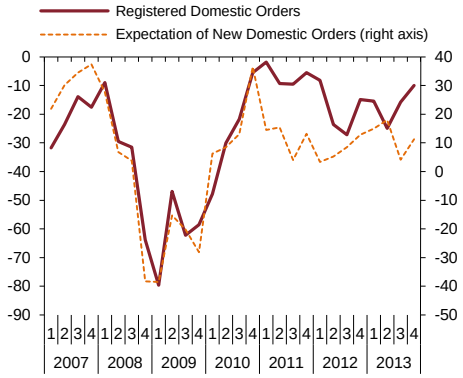
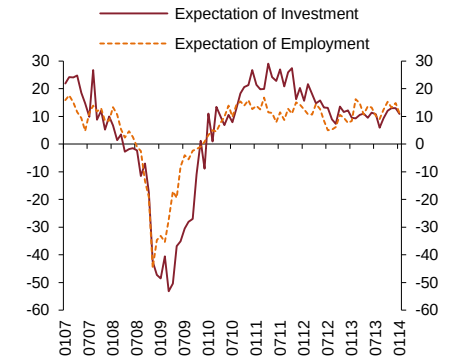


Chart 4.1.8.
Registered Domestic Orders and Expectation of New Domestic Orders in the Manufacturing Sector of Investment Goods*
(Seasonally Adjusted)



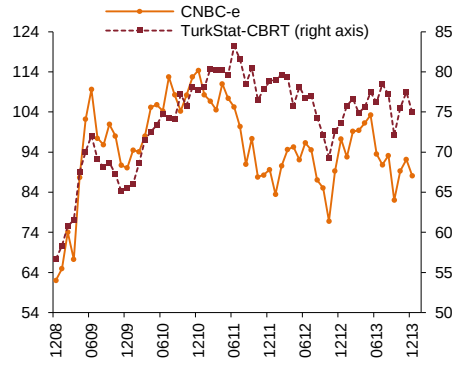
* Question 19 in BTS for registered domestic orders (below normal-above normal) and question 21 in BTS for expectation of 3-month ahead domestic orders (increase-decrease).
Source: CBRT.

Chart 4.1.9.
BTS Expectation for Investment and Employment*
(Seasonally Adjusted)



* Question 23 in BTS is for expectation of fixed investment to increase or decrease in the upcoming 12-month relative to past 12-month. Question 7 in BTS is the expectation of total employment to increase or decrease in the upcoming 3-month.
Source: CBRT.

Chart 4.1.10.
Consumer Confidence



Source: CNBC-e, TurkStat, CBRT.

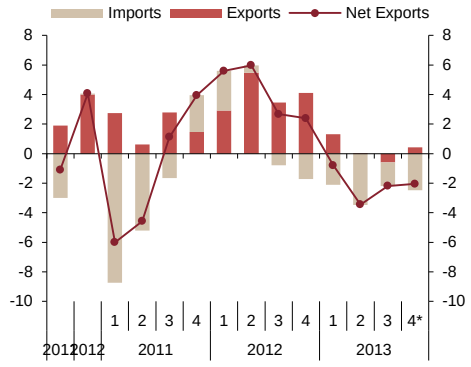
Coupled with accelerating economic activity, the rebound in the European economies is expected to support the upward trend of the domestic demand in 2014. On the other hand, the cautious monetary policy stance, adopted macroprudential measures and the weak course of capital flows are projected to bring credit growth rates to more plausible levels. Accordingly, the rise in final domestic demand is expected to be

moderate. Meanwhile, the recent depreciation of the Turkish lira, the rise in interest rates as well as the decline in consumer and investor confidence have heightened risks on the recovery in domestic demand. All these aggravate the downside risks on the strength of recovery, and the upside risks on the volatility of demand. Thus, the high-frequency data on domestic demand should be interpreted also considering whether these figures reflect a permanent trend or not. Under these circumstances, domestic demand developments are expected to partially restrain the recent cost-side pressures. Moreover, the anticipated slowdown in domestic demand is believed to support the recent improvement in the current account deficit and the balancing process.

4.2. External Demand

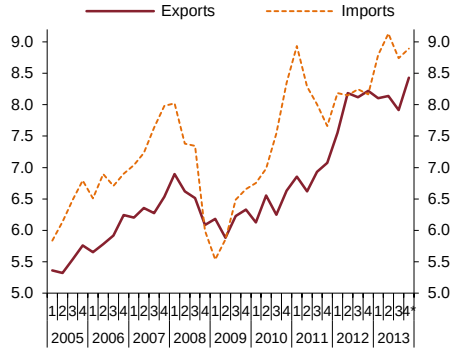
National accounts data of the third quarter indicated that exports of goods and services fell by 2.2 percent, while imports thereof rose by 6.0 percent in annualized terms. Thus, the negative contribution of net exports to annual growth continued into the third quarter (Chart 4.2.1). Seasonally adjusted data suggest that both exports and imports recorded a quarterly decline. Yet, the balancing among external demand components presented a better outlook than the second quarter as exports experienced a relatively smaller fall than imports (Chart 4.2.2).

Chart 4.2.1.
Contribution of Net Exports to Annual GDP Growth
(Percentage Point)



* Estimate.
Source: TurkStat, CBRT.

Chart 4.2.2.
Exports and Imports of Goods and Services
(Seasonally Adjusted, 1998 Prices, Billion TL)



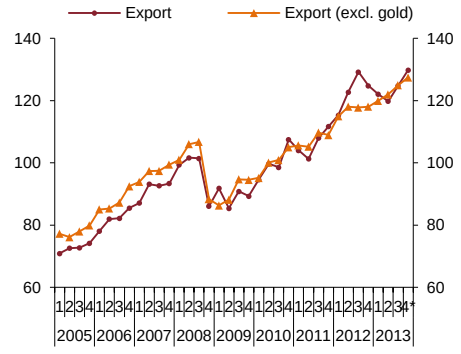
* Estimate.
Source: TurkStat, CBRT.

The final-quarter data reveal that the export quantity index rose in the October–November period. The core index excluding gold exports continued with its steady trend and posted a quarter-on-quarter increase (Chart 4.2.3). Recent indicators point to a possible month-on-month increase both in the headline export quantity index and the export quantity index excluding gold in December. Accordingly, the quarterly rate of increase in exports and exports excluding gold may even exceed the current level measured by the average of the October-November period data.

Global trends reveal that the mild increase in the global import demand slightly gained pace in the October-November period. The accelerating import demand from the Euro Area, which has a major share in our exports, has recently got stabilized following a prolonged sluggish course. The Asian import demand

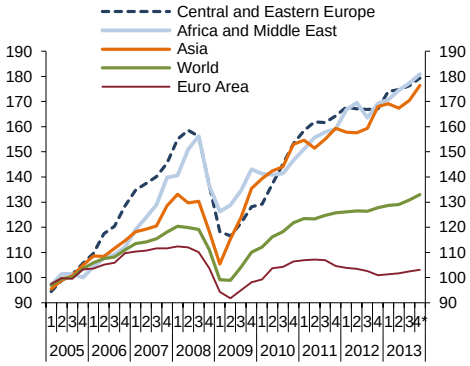
recovered after posting a decline in the second quarter, while the increase in the import demand from Africa and Middle East continued (Chart 4.2.4).

Chart 4.2.3.
Export Quantity Indices
(Seasonally Adjusted, 2010=100)



* Estimate for December.
Source: TurkStat, CBRT.

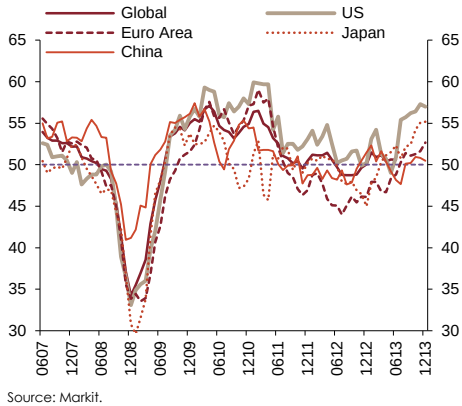
Chart 4.2.4.
Global and Regional Imports
(Real, Seasonally Adjusted, 2005=100)



* As of November.
Source: Netherlands Bureau for Economic Policy Analysis.

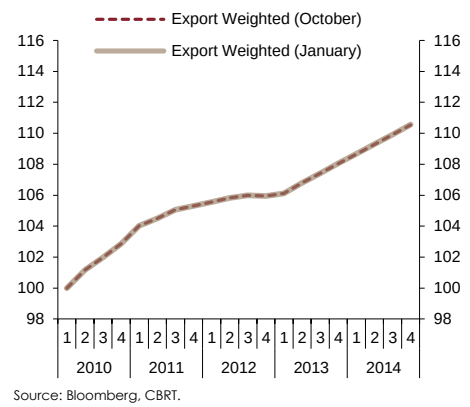
PMI indicators show that economic activity continues to recover on a global scale. In fact, having maintained an uptrend, the global manufacturing index climbed notably above the neutral 50 (Chart 4.2.5). After registering a surge in the third quarter, the US PMI index continued to increase in the last quarter, albeit at a slower pace. Meanwhile, the Euro Area PMI index increased at an accelerating pace towards the year end. The Chinese PMI index remained weak just above the neutral level, while the Japanese PMI displayed a marked surge. On the other hand, the export-weighted global growth outlook, one of the medium-term indicators, remained broadly unchanged in the inter-reporting period (Chart 4.2.6). Global PMI and import indicators point to a more favorable outlook in external demand conditions compared to the first nine months of the year. Against this background, the underlying trend of exports of goods and services is expected to continue with an upward track in the fourth quarter (Chart 4.2.2).

Chart 4.2.5.
PMI Indices
(Seasonally Adjusted)



Source: Markit.

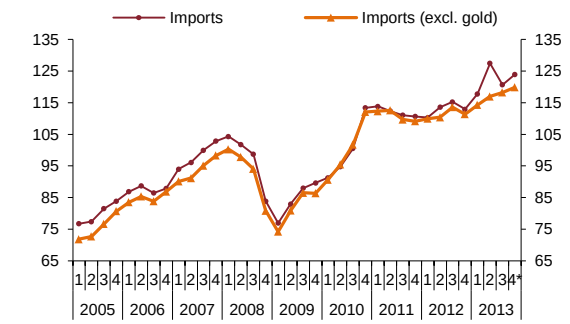
Chart 4.2.6.
Export-Weighted Global Production Index
(Seasonally Adjusted, 2010Q1=100)



Source: Bloomberg, CBRT.

Having registered a decline in the third quarter, the import quantity index moved upwards again in the October-November period by 3 percent compared to the third quarter. The rise in imports excluding gold stood at relatively moderate levels in this period. Recent indicators point to a mild increase in December in both measures for imports. Thus, both total imports and imports excluding gold are anticipated to register a quarter-on-quarter increase in the final quarter amid the expected mild recovery in domestic demand (Chart 4.2.7). Accordingly, imports of goods and services are also expected to record an increase in the third quarter (Chart 4.2.2).

Chart 4.2.7.
Import Quantity Indices
(Seasonally Adjusted, 2010=100)

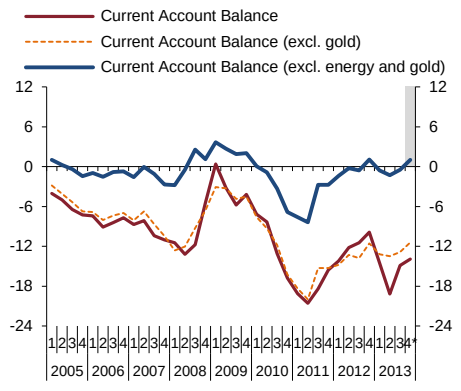


* Estimate for December.
Source: TurkStat, CBRT.

In the last quarter of the year, net exports are expected to continue with negative contributions to growth, albeit at a slightly slower pace than the third quarter (Chart 4.2.1). The projected mild course of final domestic demand and the signs of a rebound in the Euro Area are considered to be favorable regarding further balancing in the upcoming period.

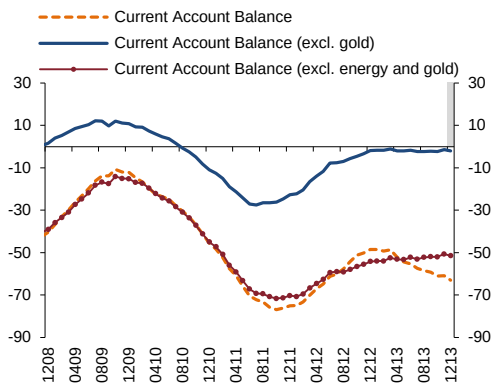
The improvement in the seasonally adjusted current account balance is expected to continue in the last quarter, albeit at a slower pace. In the same period, the current account balance excluding energy and gold is envisaged to display a stronger performance (Chart 4.2.8). On the other hand, the deterioration of the 12-month cumulative current account balance in nominal terms persisted (Chart 4.2.9).

Chart 4.2.8.
Current Account Balance*
(Seasonally Adjusted, Billion USD)



* Estimate for December.
Source: TurkStat, CBRT.

Chart 4.2.9.
Current Account Balance*
(12-Month Cumulative, Billion USD)

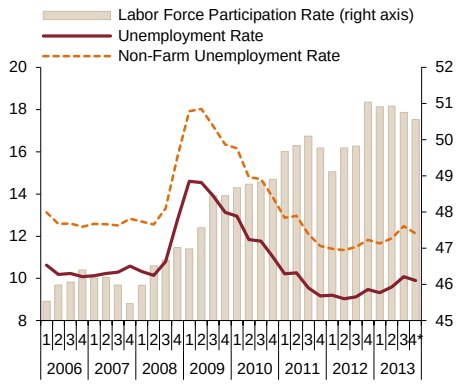


* Estimate for December.
Source: TurkStat, CBRT.

4.3. Labor Market

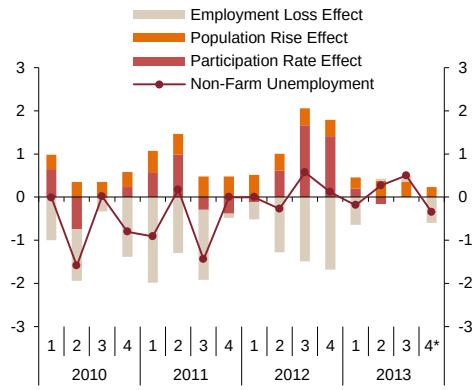
Unemployment rates have recorded an increase as of April 2013 amid the sluggish course of non-farm employment. The third quarter was marked by the deepest slowdown in employment such that the unemployment rates surged, while non-farm employment decreased (Charts 4.3.1 and 4.3.2). On the other hand, according to the most recent data as of October, unemployment registered a quarter-on-quarter decline in the last quarter. However, despite the pause in the unfavorable course of unemployment, the rise in non-farm employment in October was limited to certain sectors (Chart 4.3.2).

Chart 4.3.1.
Unemployment Rates
(Seasonally Adjusted, Percent)



* As of October.
Source: TurkStat HLFS, CBRT.

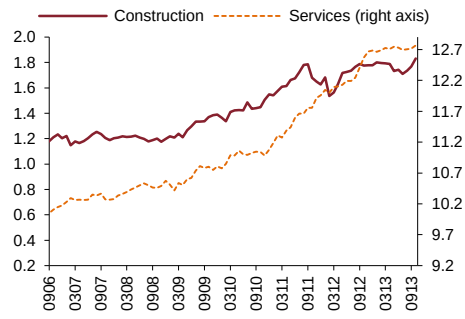
Chart 4.3.2.
Contributions to Non-Farm Unemployment
(Seasonally Adjusted, Percent)



* As of October. 2-month difference.
Source: TurkStat HLFS, CBRT.

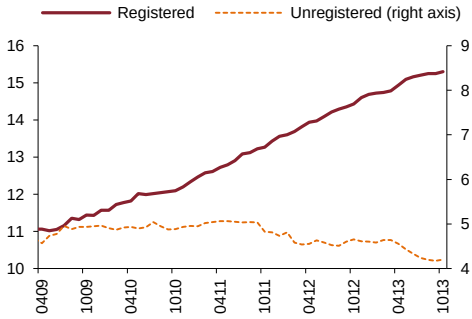
The slowdown in non-farm employment as of the second quarter of 2013 spread across sub-sectors. Thanks to the industrial and business services sectors, non-farm employment recorded an increase in the first quarter of 2013. In the succeeding period, the employment outlook deteriorated due to the slowdown in these sectors as well as employment losses in the construction sector (Charts 4.3.3 and 4.3.5). According to data releases in October, construction and services sectors pushed the non-farm employment upwards in the last quarter of the year. The construction sector employment went above the early-2013 level amid the increase in the unregistered construction employment. Another highlight regarding the labor markets in 2013 has been the fall in unregistered employment. The rate of increase in registered employment gradually slowed down in this period, while unregistered employment declined (Chart 4.3.4).

Chart 4.3.3.
Employment in Services and Construction Sectors
(Seasonally Adjusted, Million People)



Source: TurkStat HLFS, CBRT.

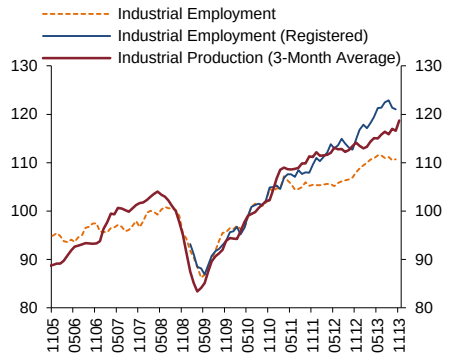
Chart 4.3.4.
Non-Farm Employment
(Seasonally Adjusted, Million People)



Source: TurkStat HLFS, CBRT.

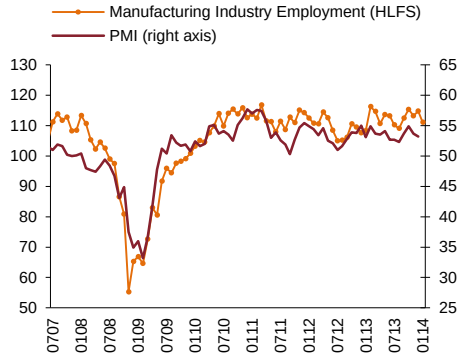
The persistent weak course in industrial employment since the second quarter of 2013 notwithstanding the uptrend in industrial production also continued in October (Chart 4.3.5). Leading indicators signal that no additional deterioration will be seen in industrial employment in the last quarter of the year. The BTS indicator of expectation on employment, which reflects views of the private firms operating in the manufacturing industry sector, posted an increase in the last quarter of 2013, yet trended back again in January 2014 (Chart 4.5.6). Similarly, the PMI indicator, which is a benchmark for the manufacturing industry employment, also recorded a limited rise in the last quarter (Chart 4.3.6). In addition, production developments in the manufacturing of non-metallic mineral goods, which provides the construction sector with intermediate goods, signal an increase in construction activities by trending upwards in November after a protracted period of slowdown (Chart 4.3.7). Construction employment developments in October are consistent with this indicator.

Chart 4.3.5.
Industrial Employment and Production
(Seasonally Adjusted, 2005 = 100)



Source: TurkStat HLFS, CBRT.

Chart 4.3.6.
Employment Expectation and PMI Employment Index
(Seasonally Adjusted)



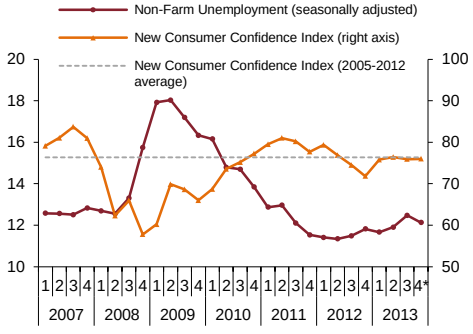
Source: BTS, Markit.

The CBRT's consumer confidence index, which reflects households' sentiments across Turkey, increased in the first quarter of 2013 to its long-term average (Chart 4.3.8). Having followed a flat course afterwards, it maintained this level in the last quarter of 2013. Given that the unemployment rate follows the confidence index with a lag, this outlook points to a sluggish course of unemployment growth in the last quarter.

Chart 4.3.7.
Non-Metallic Mineral Goods Production and Construction Value Added*
(Seasonally Adjusted, 2010 =100)

* Average of the October-November period for production and as of October for employment.
Source: TurkStat HLFS, CBRT.

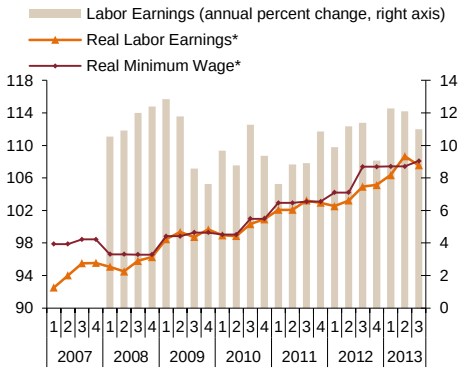
Chart 4.3.8.
Household Expectations and Non-Farm Unemployment Rate



* As of October for non-farm unemployment.
Source: TurkStat HLFS, CBRT Consumer Tendency Survey.

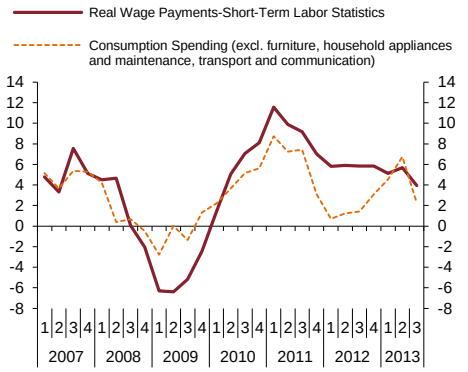
Analysis of labor market developments with regard to domestic demand suggests that the growth of labor earnings, one of the determinants of private consumption spending, receded in the third quarter of 2013 (Chart 4.3.9). Having surged in the first half of 2013, real hourly earnings declined in the third quarter. This enabled the increases in hourly earnings since end-2012 to near the minimum wage rise. In addition to the drop in real hourly earnings, the weak course of employment in the same period diminished the support that total wage payments provide to domestic consumption spending (Chart 4.3.10).

Chart 4.3.9.
Non-Farm Hourly Labor Cost
(Seasonally Adjusted, 2010=100)



* Deflated by CPI.
Source: TurkStat, CBRT.

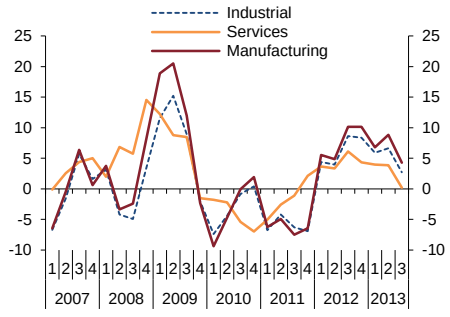
Chart 4.3.10.
Household Domestic Consumption and Real Wage Payments** (Annual Percent Change)



** Calculated as the weighted average of total wages paid in industrial, construction, trade, accommodation-catering, information and communication, professional scientific and technical activities and administrative and support services activities. Deflated by CPI.
Source: TurkStat, CBRT.

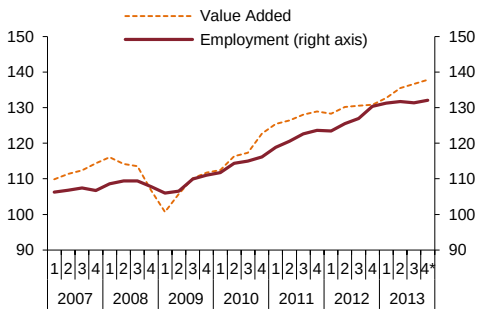
In the first half of 2013, the rise in hourly wages and the sluggish course of average productivity caused real unit wages to continue with an upward trend. Due to the deceleration both in the rise in turnover and hourly wages, this trend paused in the third quarter (Chart 4.3.11). In view of the inflation projections, the recently released minimum wage amounts to apply for 2014 indicate a real increase in wages. According to the new arrangement, the gross monthly minimum wage was set as 1071 TL for the first half of 2014 and 1134 TL for the second half. These amounts imply an average annual increase by 10.2 percent and 2.5 percent, respectively in nominal and real terms. Given that hourly wages move in tandem with minimum wages in the medium term, if not accompanied by productivity growth, the increases in wages may aggravate inflation rigidity, especially in the services sector with high labor intensity.

Chart 4.3.11.
Real Unit Wages*
(Annual Percent Change)



* Calculated as the ratio of total wages to turnover for the services and the ratio of total wages to production and the relevant PPI for the industrial sectors.
Source: TurkStat Short-Term Labor Statistics, CBRT.

Chart 4.3.12.
Non-Farm Value Added and Employment
(Seasonally Adjusted, 2005=100)



* Estimate.
Source: TurkStat, CBRT.

In sum, non-farm employment receded and the unemployment rate increased in the third quarter of 2013. Unemployment rates declined in October amid higher employment in construction and services. Meanwhile, the industrial employment continued to present a weak outlook. Leading indicators point to a mild increase in non-farm employment in the last quarter of 2013 (Chart 4.3.12). However, the political uncertainty that may deteriorate future investment decisions and the lower-than-expected global economic recovery are considered to be factors which may restrain the improvement in employment conditions.

Box 4.1 Determinants of Machinery and Equipment Investments of the Private Sector

Fixed capital investments play a major role on the long-term growth of income and employment. This box gives an analysis of the long and short-term determinants of machinery and equipment investments in the private sector. Adopting various theoretical approaches in the economic literature, investment factors are classified under two major categories as economic and non-economic factors. Non-economic factors include institutional quality, legal arrangements, bureaucracy, property rights, political rights and infrastructure, while economic factors include income, expectations about the economy, economic uncertainties, investment costs (interest rates, the price of investment goods, the real exchange rate), public sector investments, Capacity Utilization Ratio (CUR), financing opportunities (credits), indicators on external funding and profitability (Serven and Solimano, 1991).

This box shows the long-term and short-term relationship between the machinery and equipment investments of the private sector and the economic factors.[1] As some of the macroeconomic variables which are considered to influence machinery and equipment investments of the private sector include unit root, the existence of a co-integration between investment and factors affecting investment was tested through the bound test using an Autoregressive Distributed Lag (ARDL) model by utilizing quarterly data covering the 1991Q2 – 2013Q2 period. In the model employing machinery and equipment investments of the private sector as a dependent variable, the above-mentioned variables were used and the existence of a co-integration was tested through the following ARDL model such that:

$$\Delta investments_t = \beta_0 + \sum_{i=1}^{p} \beta_i \, \Delta investments_{t-i} + \sum_{j=1}^{q} \delta_j \, \Delta x_{t-j} + \gamma_0 investments_{t-1} + \gamma_j x_{t-1} + e_t$$

The above equation examines the existence of a co-integration between investment and other series by testing the H_0: $\gamma_0 = \gamma_j = 0$ hypothesis. According to the estimation results, variables which are co-integrated with investments are the following:

x_{1t} = income (to prevent simultaneity problems in the model, private sector machinery and equipment investments were subtracted from the GDP and the residual series was used as the income indicator)

x_{2t} = interest rate (rate on GDBS)

x_{3t} = real exchange rate

x_{4t} = capacity utilization rate

x_{5t} =expectations (BTS, 12-month ahead expectations of firms on investment spending)

x_{6t} = credits utilized by firms (the sum of TL- and FX-denominated credits extended to firms by resident banks and the external long-term credits extended to the private sector)

Coefficients and t-statistic values for the relevant variables in the estimated ARDL model are displayed in Table 1. Income, CUR, expectations and credits have a positive relationship with investments as expected. In line with the theory, increases in interest rates decrease investments, while appreciation of the TL boosts investments.

[1] Machinery and equipment investments of the private sector will briefly be referred to as investments in the rest of the box.

Table 1. Long-Term ARDL Model Results

Dependent variable: $\Delta investments_{t-1}$

Explanatory variables	Coefficient	Standard error	t-statistics	p-value
Constant	0.05	0.02	2.44	0.02**
$investments_{t-1}$	-0.15	0.06	-2.50	0.01**
$income_{t-1}$	0.24	0.12	2.00	0.05*
$exch_{t-1}$	0.14	0.06	2.18	0.03**
cur_{t-1}	0.08	0.04	2.03	0.05*
$expectation_{t-1}$	0.20	0.04	4.83	0.00***
$interest_{t-1}$	-0.11	0.06	-1.80	0.08*
$credits_{t-1}$	0.16	0.06	2.40	0.02**
$\Delta income_t$	0.77	0.27	2.83	0.01**
$\Delta exch_t$	0.19	0.07	2.85	0.01**
Δcur_t	0.13	0.06	2.14	0.03**
$\Delta credits_t$	0.19	0.08	2.30	0.02**
$\Delta investments_{t-2}$	0.16	0.09	1.76	0.08*
$\Delta expectation_t$	0.20	0.06	3.30	0.00***
R-square	0.64	Adjusted R-square		0.57

Note: 1) The symbol "Δ" refers to the first difference of series in the model.
2) Series were seasonally adjusted through the TRAMO/SEATS method. All series except the capacity utilization rate, expectations and the interest rate were transformed into logs.
3) (***), (**) and (*) denote statistical significance at 1, 5 and 10 percent, respectively.
4) The diagnostic tests show that the error terms are not correlated; error terms are homoscedastic and normally distributed.
5) In order to test for weak exogeneity, each independent variable in the model was treated as a dependent variable and tested for co-integration. Accordingly, series were only found to be co-integrated in the setting where investments are the dependent variable.

Table 2 displays the standardized long-term coefficients of the variables.[2] Accordingly, the variable with the highest coefficient is income, which is followed by expectations, credits and the real exchange rate. Long-term coefficients of the interest rate and the capacity utilization rate are lower than that of other variables in absolute terms.

Table 2. Long-Term Coefficients of Variables

Income	1.61	Real	0.95
Expectations	1.38	CUR	0.55
Credits	1.06	Interest	-0.75

The error correction term in Table 3 is statistically significant and has a negative sign as expected. Against this background, if investments deviate from the long-term equilibrium value, 16 percent of this deviation is corrected within a quarter, while it takes around 1.6 years for investments to reach the long-run equilibrium value.

Table 3. Cointegration Model Results

Dependent variable: $\Delta investments_{t-1}$

Explanatory variables	Coefficient	Standard error	t-statistics	p-value
Constant	0.05	0.02	2.16	0.03**
ect_{t-1}	-0.16	0.06	-2.90	0.00***
$\Delta income_t$	0.58	0.26	2.19	0.03**
$\Delta interest_{t-1}$	-0.07	0.04	-1.74	0.09*
$\Delta exch_t$	0.21	0.06	3.61	0.00***
$\Delta exch_{t-2}$	0.16	0.05	3.05	0.00***
Δcur_t	0.21	0.04	5.14	0.00***
$\Delta credits_{t-1}$	0.14	0.08	1.78	0.08*
R^2	0.60	Adjusted R^2		0.55

Note: 1) The symbol "Δ" refers to the first difference of series in the model.
2) Series were seasonally adjusted through the TRAMO/SEATS method. All series except the capacity utilization rate and the interest rate were transformed into logs.
3) (***), (**) and (*) denote statistical significance at 1, 5 and 10 percent, respectively.
4) The diagnostic tests show that the error terms are not correlated; error terms are homoscedastic and normally distributed.
5) In order to test for weak exogeneity, each independent variable in the model was treated as a dependent variable and tested for co-integration. Accordingly, series were only found to be co-integrated in the setting where investment is the dependent variable.

REFERENCES

Serven, L., A. Solimano, 1991, Private Investment and Macroeconomic Adjustment: Theory, Country Experience and Policy Implications, World Bank Policy Research Working Paper Series No. 606.

[2] Standardized coefficients are calculated by multiplying the estimated coefficients by standard error(y)/standard error(x), where the numerator shows the standard deviation of the dependent variable and the denominator shows the standard deviation of the respective independent variable.

Box 4.2 The Number of Newly Established Firms and Business Cycles

This box presents the relation between the number of newly established firms officially declared by the TOBB (Union of Chambers and Commodity Exchanges of Turkey) to business cycles and investments.[3] From 1985 to 2010, the data on the number of newly established firms were published by TurkStat. The number of newly established and closed firms in addition to the relevant sector information as well as firms' capital and title were later announced by TOBB on a monthly basis using the registers of the daily Turkish Trade Registry Gazette.[4]

The literature reports simultaneous entry and exit of firms where the relevant industries also display high correlation. Moreover, the number of newly established firms is procyclical (Gil, 2010). The correlation coefficient between the number of newly established firms and the GDP varies between 0.70 and 0.73 and the number of newly established firms leads the GDP with a quarter (Devereux et al., 1996). In addition, Lewis (2006) showed that the number of newly established firms, like investments, has a volatile structure relative to the GDP and consumption. Klapper and Love (2012) showed that the number of newly established firms declined after the global financial crisis, but rebounded by the end of 2012, especially in emerging economies.

After this brief introduction, the relationship between the above data and macroeconomic indicators is examined in the first section of the box. Then, the cyclical relation between the number of newly established firms and macroeconomic indicators is presented by using the HP filter (Hodrick and Prescott, 1997). These analyses show that the number of newly established firms is closely related to business cycles, particularly investment. The fact that the number of newly established firms is related to the rate of change in business loans and the capacity utilization rate provides a hint about the transmission mechanism through investment.

The Number of Newly Established Firms and Macroeconomic Indicators

Charts 1 and 2 exhibit the number of newly established firms, the GDP and private investments in machinery and equipment. As illustrated, the number of newly established firms moves in tandem with the trend of GDP, whereas it fails to entirely capture the fluctuations in the GDP. On the other hand, the number of newly established firms moves almost parallel to private investments on machinery and equipment.[5]

[3] TOBB announces the number of closed firms. However, statistics on the number of newly established firms are considered to entail more reliable information due to some legal arrangements.
[4] Analyses are conducted using quarterly averages for comparability of total number of newly established firms to industrial production and external trade indices.
[5] It should be underlined that further analysis showed that the total industrial production and final domestic demand have a similar outlook to the GDP, while the outlook for total private investments and production of capital goods resembles to private investments on machinery and equipment.

Chart 1. GDP and the Number of Newly Established Firms
(Seasonally Adjusted, 2008Q1=100)

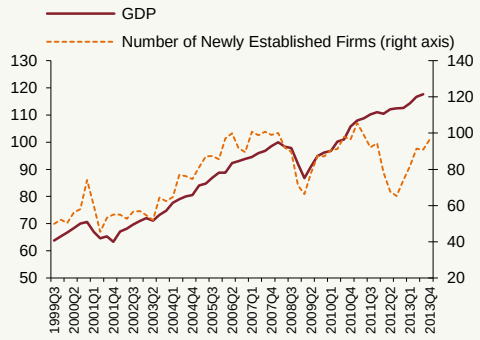
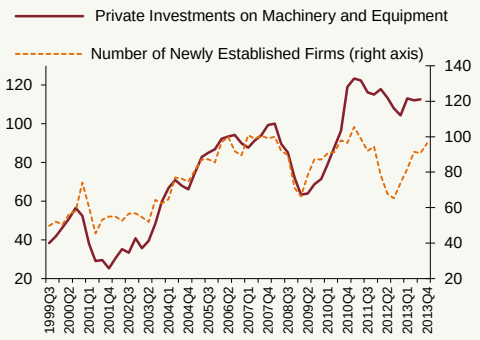


Chart 2. Private Investments on Machinery and Equipment and the Number of Newly Established Firms (Seasonally Adjusted, 2008Q1=100)



Source: TurkStat, TOBB.

The Number of Newly Established Firms and Business Cycles

The seasonally adjusted series in logs were HP filtered to gain a better grasp of the relationship between the number of newly established firms and the selected indicators. As illustrated in Charts 3 and 4, the cyclical component of the number of newly established firms moves in tandem with the cyclical component of the respective selected indicator.

Chart 3. GDP and the Number of Newly Established Firms
(Seasonally Adjusted, HP Filtered, 2008Q1=100)

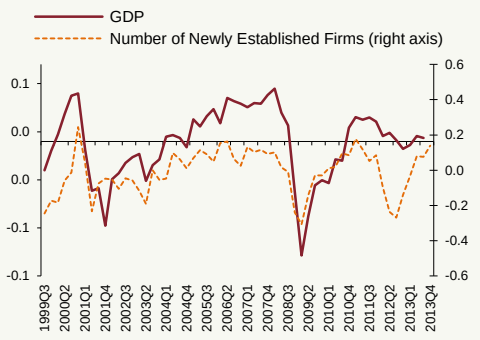
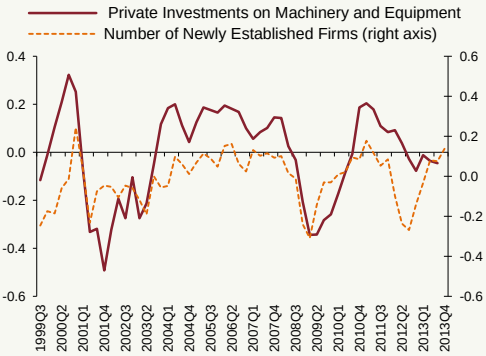


Chart 4. Private Investments on Machinery and Equipment and the Number of Newly Established Firms (Seasonally Adjusted, HP Filtered, 2008Q1=100)



Source: TurkStat, TOBB.

The number of newly established firms, like investments, is a relatively more volatile series. Table 1 shows the volatility of some HP filtered macroeconomic series relative to the standard deviation of the GDP, indicating that the volatility of the number of newly established firms is similar to investments.

Table 1. Relative Standard Deviations
(As a ratio to the standard deviation of the GDP)

GDP	1.0
Private Consumption	0.9
Private Investment	4.2
Private Investments on Machinery and Equipment	5.2
Number of Newly Established Firms	4.5

Table 2 displays cross-correlation coefficients between the cyclical component of the number of newly established firms and the selected indicators. As illustrated in the table, the highest coefficient is obtained in the lagged value. This finding shows that the number of newly established firms is a leading indicator for the economic activity.

Table 2. Cross Correlation Coefficients

	Number of Newly Established Firms (t-1)	Number of Newly Established Firms (t)	Number of Newly Established Firms (t+1)
GDP (t)	0.72	0.67	0.40
Private Investments on Machinery and Equipment (t)	0.75	0.67	0.43
Industrial Production (t)	0.60	0.51	0.20

Findings obtained so far are quite consistent with the literature. In fact, the number of newly established firms in Turkey leads the total output with a quarter. The correlation coefficient for lagged values ranges between 0.70 and 0.73 as suggested by the literature and the series has a relatively volatile structure.

The Number of Newly Established Firms and Investments

The relationship between business loans and the capacity utilization rate is analyzed to examine the relationship between the number of newly established firms and investments. Chart 5 displays the annual change in business loans and the number of newly established firms. Accordingly, the annual change in the number of newly established firms and business loans move parallel; the number of newly established firms leads credit developments. In fact, a cross-correlation analysis indicates that the simultaneous correlation between the annual changes in the number of newly established firms and the credit stock is 0.2, while the correlation between the annual changes in the number of newly established firms with a one period lag and the credit stock is 0.40. This generates the idea that the number of newly established firms can be a leading indicator data for business loans as well as economic activity. Hence, one can infer that eligible economic circumstances facilitate the establishment of new firms and the credit stock will rise as new firms are established. However, it should still be noted that this hypothesis calls for a more detailed econometric study.

Chart 5. Annual Changes in Credit Stock and the Number of Newly Established Firms

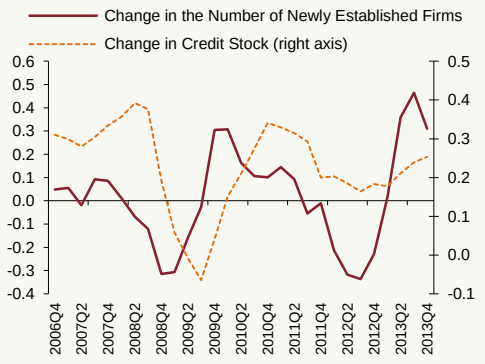
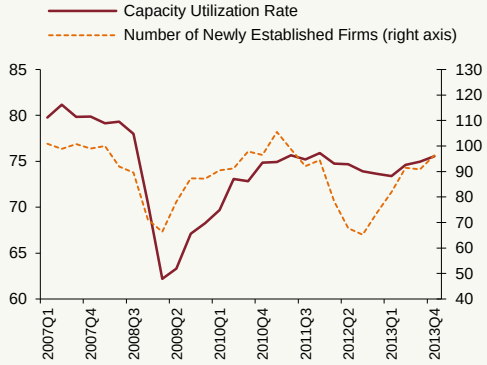


Chart 6. Capacity Utilization Rate and the Number of Newly Established Firms (2008Q1=100)



Source: TurkStat, TOBB, CBRT.

Furthermore, the possibility of a close relationship between the number of newly established firms and the capacity utilization rate may also be considered. As new firms are added to the present ones, the capacity utilization rate may vary depending on the extent of de facto capacity utilization by new firms relative to their current physical capacities. Chart 6 shows the quarterly relationship between the capacity utilization

rate and the number of newly established firms. As evident from the monthly values of the series and correlation coefficients, the number of newly established firms is a leading indicator.[6] The correlation coefficient between the number of newly established firms with one period lag and the capacity utilization rate is 0.60. Hence, the newly established firms utilize most of their physical capacities, thereby raising the sector's average.

This preliminary analysis indicates that establishment activities of firms are closely related to the increase in commercial loans, capacity utilization and investments in the following period. The data on the number of newly established firms, which have long been published, are considered to have high informative value in terms of economic activity and particularly investments.

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Lewis, V., 2006, Macroeconomic Fluctuations and Firm Entry : theory and evidence, National Bank of Belgium Working Paper No. 103.

[6] As the quarterly data have a relatively short time series, the correlation coefficient was estimated using monthly data.

Box 4.3 Factors Affecting the Coverage Ratio

The coverage ratio, calculated by dividing the quantity of exports of a country by its imports, shows the extent to which exports cover imports.[7] This ratio is closely related to the external trade deficit because a decline in exports or an increase in imports both widens the trade deficit and decreases the coverage ratio. Unlike the external trade deficit that is denominated in USD or TL, the coverage ratio is a normalized measure of the trade deficit.[8]

The coverage ratio is usually calculated only for goods, although calculating it jointly for goods *and* services has a potential be more informative. As Turkey runs an external trade deficit in goods trade but has a substantial trade surplus in services, it can be placed on the list of exceptional countries where the total external trade deficit (goods+services) diverges considerably from the deficit in goods trade. Yet, as illustrated in Chart 1, both ratios follow a similar pattern, even though the coverage ratio for goods in levels is remarkably different than that for total trade in Turkey.

The bilateral coverage ratio $(Z_{c,t})$ between Turkey and country c is defined as $Z_{c,t} = X_{c,t}/M_{c,t}$. In this ratio, $X_{c,t}$ is exports of goods from Turkey to country c in year t, while $M_{c,t}$ denotes Turkey's imports of goods from that country. To examine the behavior of the coverage ratio, the following equation was estimated using bilateral imports and exports of Turkey with 91 countries in the 1994-2012 period:[9]

$$Z_{c,t} = \alpha_0 + \alpha_1 Z_{c,t-1} + \varphi_{1,c} + \varphi_{2,c} t + \varphi_t + \beta_0 \log(RER_{c,t}) + \beta_1 \log(GDP_{c,t}) + \varepsilon_{c,t}$$

The $RER_{c,t}$ variable in this equation shows the real exchange rate of country c in year t. An increase in $RER_{c,t}$ implies a real appreciation of that country's currency. The GDP of each trade partner is also included in the estimation equation.[10]

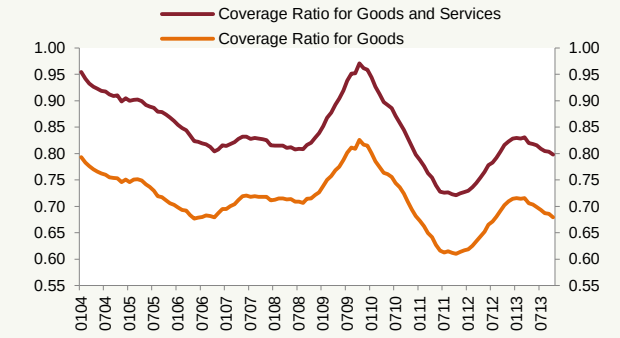
Estimation results are shown in Table 1. Accordingly, appreciation in the currencies of trade partners raises Turkey's coverage ratio. A real exchange rate increase of 1 percent in the currency of a trade partner raises the coverage ratio against that country by 0.6 percentage points. (This, for example, can be achieved by an increase in bilateral exports that is equivalent to 0.6 percent of bilateral imports from that country.)

Table 1 indicates that coverage ratios are quite sensitive to GDP as well. A 1-percent increase in Turkish GDP or a 1-percent decrease in trade partners' GDP reduces the coverage ratio by around 1.5 percentage points. (This, for example, can be achieved by an increase in bilateral exports that is equivalent to 1.5 percent of bilateral imports from that country.)

[7] For example, see Mikic and Gilbert (2009).
[8] Dividing the trade deficit by GDP is another commonly used method for normalization. Still another option is to normalize by the trade volume, which is essentially equivalent to the coverage ratio.
[9] The 91 countries account for 80 percent of exports and 92 percent of imports of Turkey in 2012. The reason underlying the difference between these two numbers is the exclusion of Iraq due to data constraints even though it has a large share in Turkish exports.
[10] GDP data for Turkey and for trade partner countries are obtained from the TurkStat and the World Bank, respectively, while the real exchange rate series are obtained from the IMF's IFS statistics.

In sum, the coverage ratio is found to be sensitive to the exchange rate and the GDP. These findings are consistent with the projections that the expected upward movements in external demand in 2014 and the recent depreciation of the Turkish lira will increase the import coverage ratio of exports, and contribute to the balancing of domestic and external demand in the upcoming period.

Chart 1. Import Coverage Ratio: Comparison of Coverage Ratio for Goods Trade with the Coverage Ratio for the Total External Trade (12-Month Average)



Source: TurkStat, CBRT calculations.

Table 1. Estimation Results (Independent Variable: $Z_{c,t}$)

$\log(RER_{c,t})$	0.59***
$\log(GDP_{c,t})$	1.48***
$Z_{c,t-1}$	0.002
Year Fixed Effects	Yes
Country Fixed Effects	Yes
Country-Specific Linear Time Trend	Yes
Constant	119.01
Number of Observations	1585
R-square	0.79

Notes: (1) Observations are weighted by each country's total foreign trade volume with Turkey. (2) Standard errors are clustered at country level in estimations. (3) *** percent denotes significance level of 1 percent.

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Mikic, M., J. Gilbert, 2009, Trade Statistics in Policy Making: A Handbook of Commonly Used Trade Indices and Indicators, United Nations Economic and Social Commission for Asia and Pacific.

Box 4.4 A Glance at Income and Price Elasticities of Exports in Turkey: The Importance of Regional Differences

The sensitivity of exports to the changes in external demand and international competition conditions may differ across markets. In that case, the size of the influences of shocks as well as the policy remedies may be different than projected when market differences are ignored. In this respect, the change in the regional and sectoral distribution of exports in the last decade in Turkey suggests that differences across export markets should be taken into consideration for the estimation of export demand function. This box presents a comparison of the effects of regional demand developments and relative price changes on exports, particularly the Euro Area as well as the Middle East and Africa (MEA).

To this end, an analysis was conducted using a Vector Autoregression (VAR) model, where regional variables were constructed by using quarterly data covering the 2003Q1-2013Q2 period. Regional variables[11] cover 81 countries, of which 17 is in the Euro Area, 17 in the MEA region, 16 in the other advanced economies (OAC) region and 31 in the other emerging economies (OEE) region. These countries make up around 85 percent of total exports excluding gold, and 90 percent of the foreign trade volume. In order to avoid noise effects from extraordinary and temporary gold foreign trade that occurred especially during 2012 and 2013, gold trade is excluded from the dataset. The real export data were obtained by dividing regional exports denominated in USD by the monthly export price index published by the TurkStat. Regional external demand data were defined as the real growth rates of countries weighted by their export shares. The regional real exchange rate index was deflated by consumer prices and weighted by each country's share within the external trade volume excluding gold. All the series have the base year 2005 and are seasonally adjusted.

Real exports in Turkey trended upwards until the global crisis. In regional terms, this uptrend continued incessantly in the MEA region, except for occasional fluctuations, and gained momentum particularly as of late 2011. In other regions, real exports contracted remarkably starting from 2008. The demand variable for the MEA region deteriorated in the start of the analysis period, particularly upon the developments in Iraq. Apart from this period, the export demand has followed a stable path in the MEA region. Given that the largest export market of Turkey is the Euro Area according to the regional classification used in the analysis, the considerable slowdown in the rate of increase in exports in 2012 and the contraction in the Euro Area demand especially as of late 2011 seem consistent. During this period, despite the mostly parallel move, real exchange rates proved relatively more appreciated in the Euro Area and other advanced economies. This leads to the idea that in these markets where exported products utilize more advanced technology, and hence, have higher prices, not only demand developments but also the competitiveness has adversely affected the export performance. It is quite striking that in a considerable part of the analysis period, the real exchange rate against the currencies of the MEA region and other emerging economies remained below 100, unlike advanced economies (Charts 1- 3).

[11] The MEA region was included in the econometric analysis to start from 2005.

Chart 1. Regional Export Quantity Indices
(Seasonally Adjusted, 2005=100)

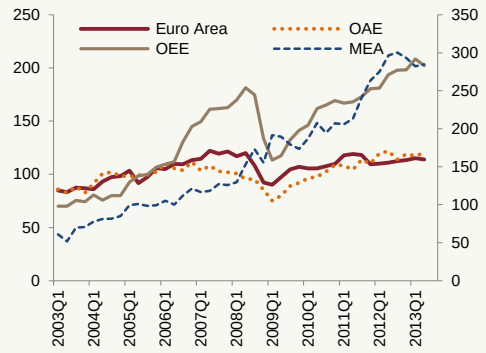
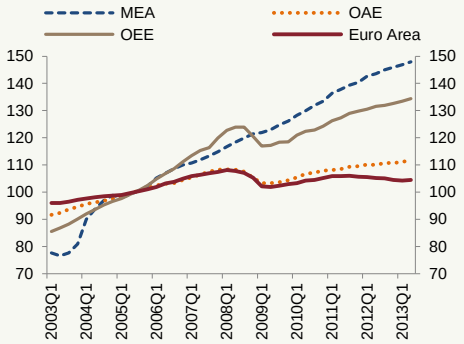
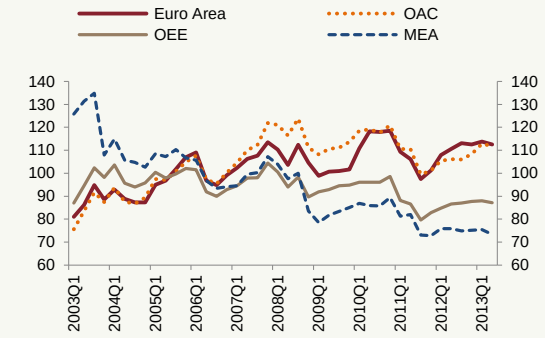


Chart 2. Regional External Demand Indices
(Seasonally Adjusted, 2005=100)



Source: TurkStat, IHS Global Insight, CBRT.

Chart 3. Regional Real Exchange Rate Indices
(Seasonally Adjusted, 2005=100)



Source: TurkStat, IHS Global Insight, CBRT.

VAR models were estimated for four regional markets in the study and elasticity coefficients were calculated by the cumulative impulse-response functions.[12] In order to obtain error terms that are not auto-correlated and that meet normality conditions, different specifications were adopted for regions in the choice of the number of lags and the use of the global crisis dummy variable.[13] All variables in the analysis are in logarithmic differences, and hence stationary since none of them are integrated of order two.

Chart 4 displays the cumulative elasticity estimations. In this respect, dashed parts of the series indicate that confidence intervals cover the zero value or are widened enough to cover zero. Accordingly, income elasticity of exports in advanced economies, particularly the Euro Area is remarkably higher. Income elasticity of exports is calculated as 4.6 in the Euro Area, and 3.0 in other advanced economies. In other words, a quarterly increase by 1 percent in the Euro Area external demand index will simultaneously raise Turkey's exports in this region by 4.6 percent. As for MEA and other emerging economies, the income elasticity of exports is 0.7 and 0.8, respectively.

[12] For instance, income elasticity of exports is calculated as the response of the export quantity to one standard deviation shock in the external demand divided by the response of the external demand itself.
[13] For the Euro Area and the MEA countries, the model is specified with one lag, while for other advanced economies and other emerging economies, the model is specified with two lags and four lags, respectively. A global crisis dummy variable is used in all specifications except for the Euro Area.

An analysis of the real exchange rate elasticity of regional exports highlights that the MEA region diverges from others. The real exchange rate elasticity of exports in the MEA region is measured as -0.41, while the elasticity for both the Euro Area and other emerging economies is found to be smaller than 0.1 in absolute terms (Chart 5).

Chart 4. Income Elasticities of Regional Exports

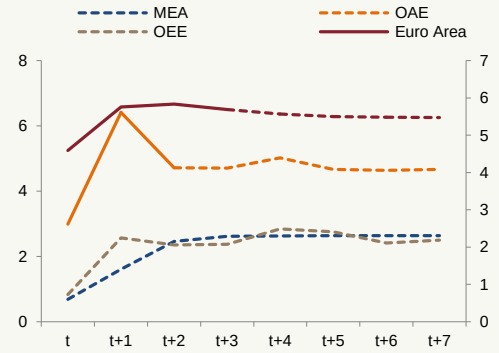
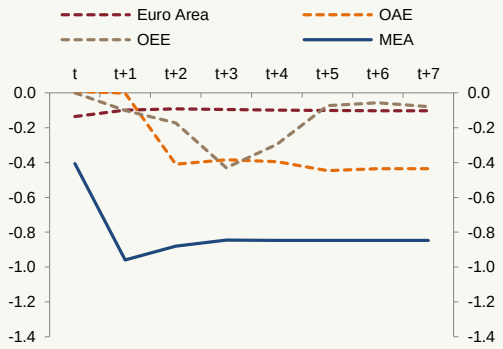


Chart 5. Real Exchange Rate Elasticities of Regional Exports



Source: CBRT.

These findings seem to confirm that there are regional differences among the determinants of exports parallel to the different structure of the composition of exports of goods. Accordingly, demand developments in advanced economies constitute a key factor for the exports to these regions, whereas exports to emerging economies are more influenced by real exchange rate developments. In this context, the acceleration of the recovery in advanced economies, particularly the Euro Area, stands out as a factor to contribute to the balancing process in Turkey.

5. Financial Markets and Financial Intermediation

In the fourth quarter of 2013, the Fed's announcement regarding the launch of a gradual exit from its quantitative easing program coupled with the relatively unfavorable course of growth in emerging economies caused further international capital flows to advanced economies. Moreover, the political unrest in Turkey in this period induced domestic financial markets to diverge adversely from other emerging economies.

The FCI for Turkey, which is calculated as the weighted average of various financial indicators, posted a quarter-on-quarter decline. Thus, financial conditions tightened in the fourth quarter, especially due to the weakening in capital flows (Chart 5.1). As a result, capital outflows provided the largest negative contribution to the index (Chart 5.2). The positive contribution from credit standards and loan rates declined, while stock return, exchange rate and the benchmark rate continued with a negative contribution.

Chart 5.1.
Financial Conditions Index*

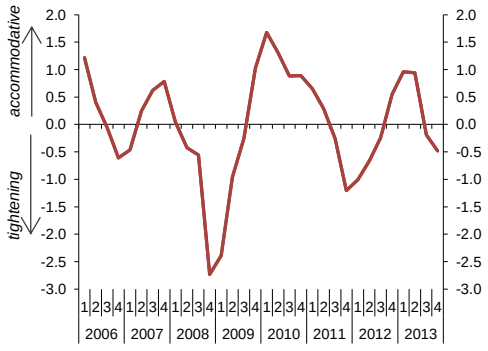
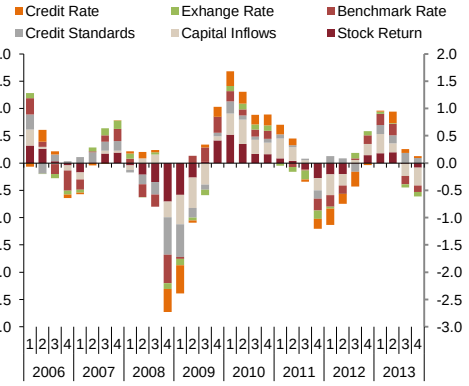


Chart 5.2.
Contributions to the Financial Conditions Index



* For further details on the financial conditions index, see the CBT Research Notes in Economics No. 12/31.
Source: CBRT.

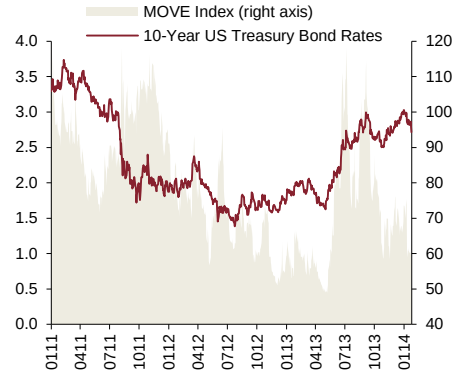
In early 2014, further capital outflows were experienced especially in emerging economies, which are in need of external financing. Credit conditions are expected to get tighter due to the fall in banks' risk appetite upon the recent measures taken by the BRSA. In addition, the CBRT's ongoing cautious monetary policy indicates that financial conditions may continue to slow the economy in the upcoming period.

5.1. Financial Markets

Global Risk Perceptions

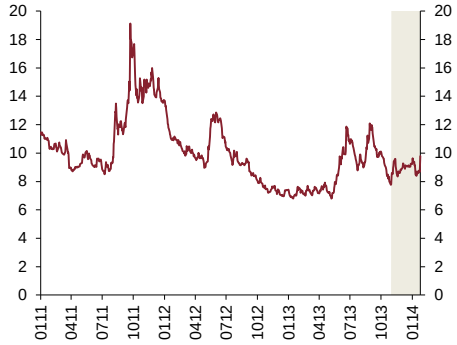
In its December Meeting, the Fed decided to cut down on asset purchases starting from January 2014. The effects of this decision remained relatively limited as the tapering was already priced by market players. The 10-year US bond yields climbed in the inter-reporting period, while volatility indices remained virtually unchanged (Chart 5.1.1). Meanwhile, volatility indices of the emerging market currencies saw a limited rise in this period (Chart 5.1.2).

Chart 5.1.1.
10-Year US Treasury Bond Rates and Interest Rate Volatility Index (MOVE Index)
(Percent)



Source: Bloomberg.

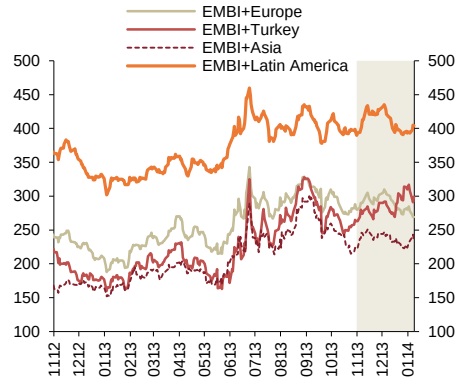
Chart 5.1.2.
JPMVXYEM Volatility Index
(Percent)



Source: Bloomberg,

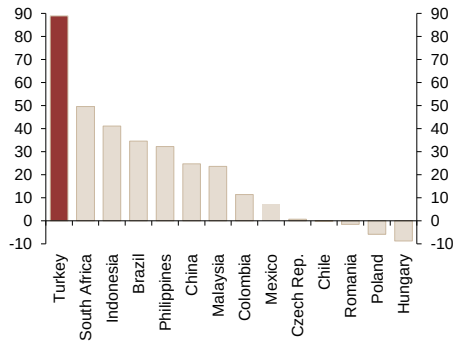
Against this background, sovereign risk premiums of emerging economies edged up in the last quarter of the year (Chart 5.1.3). In particular, emerging economies with a larger need of external financing saw higher increases in the sovereign risk premium (Chart 5.1.4). During this period, Turkey's sovereign risk premium experienced a notably higher rise compared to other emerging economies amid the considerable need for external financing as well as heightened country-specific uncertainties.

Chart 5.1.3.
EMBI Indices
(Percent)



Source: Bloomberg.

Chart 5.1.4.
5-Year CDS Rates*
(Basis Points)

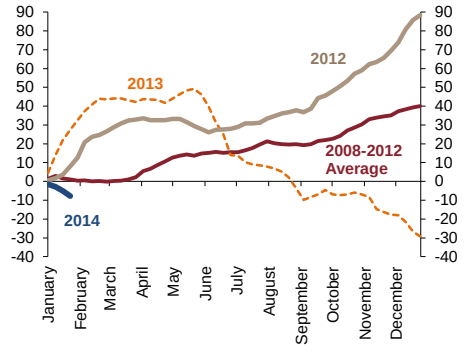


* Change from October 31, 2013 to January 24, 2014.
Source: Bloomberg, CBRT.

Portfolio Flows

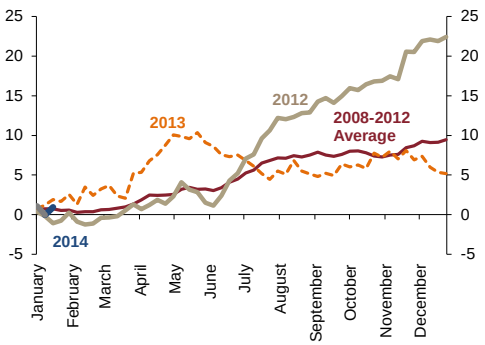
Capital flows to emerging economies followed a weak and fluctuating course during 2013. Cumulative flows of stocks and government bonds towards emerging economies since early 2013 indicated that outflows, which grew considerably in May upon the Fed's signal for a gradual exit from quantitative easing, continued in the last quarter (Chart 5.1.5). In this period, Turkey also witnessed portfolio outflows (Chart 5.1.6).

Chart 5.1.5.
Portfolio Flows to Emerging Economies*
(Billion USD)



* Includes stock and bonds.
Source: EPFR.

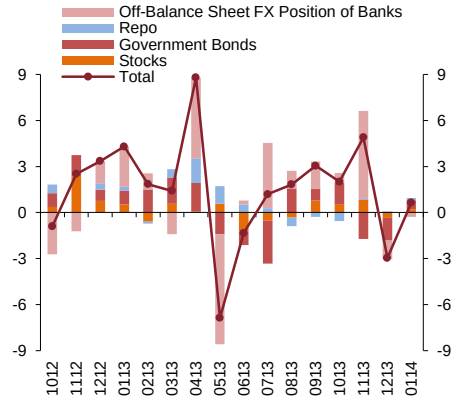
Chart 5.1.6.
Portfolio Flows to Turkey*
(Billion USD)



Source: CBRT.

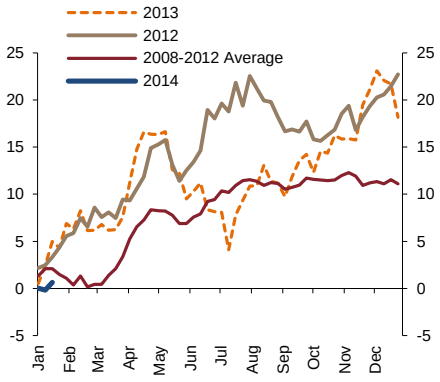
Having recovered slightly in the third quarter, net portfolio flows in Turkey turned negative again amid outflows through stocks and bonds accompanied by currency swaps in the recent period (Chart 5.1.7). Yet, cumulative portfolio flows since the turn of 2013 surpassed the 2008-2012 average and neared the 2012 levels (Chart 5.1.8).

Chart 5.1.7.
Net Portfolio Flows of Non-Residents*
(Monthly, Billion USD)



* As of January 17, 2014.
Source: BRSA, CBRT.

Chart 5.1.8.
Cumulative Portfolio Flows*
(Billion USD)



Exchange Rates

Due to portfolio developments, emerging market currencies have depreciated against the USD since the publication of the October Inflation Report (Chart 5.1.9). Even though the Turkish lira has moved in tandem with other emerging economies in this period, it has recently depreciated more amid elevated country-specific uncertainties. The positive relationship between the risk premium and the currency basket has strengthened lately, which led the currency basket to climb to 2.76 as of January 24, 2014 (Chart 5.1.10).

Chart 5.1.9.
TL and Emerging Market Currencies vs USD*
(01.01.2013=1)

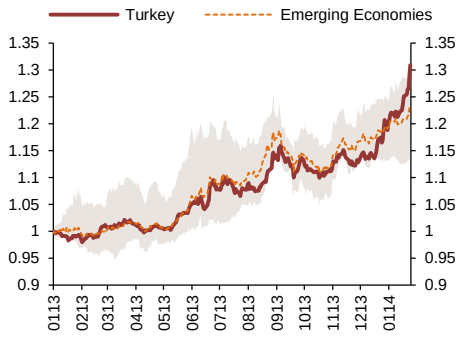
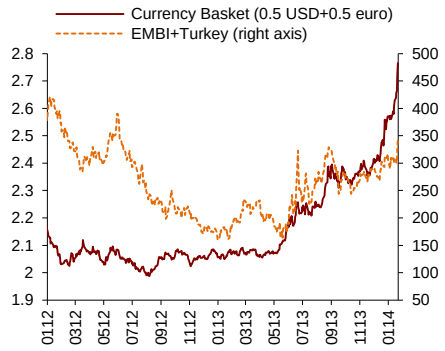


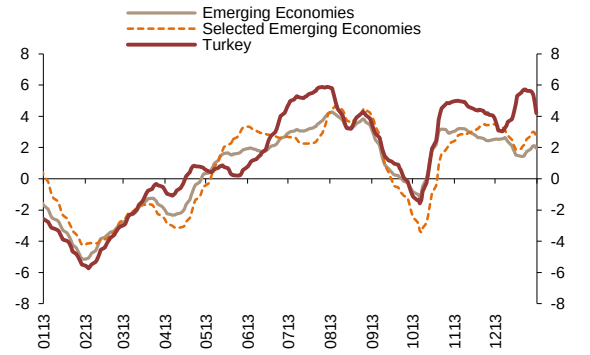
Chart 5.1.10.
Currency Basket and the Risk Premium



* Emerging economies include Brazil, South Africa, India, Indonesia, and Turkey.
Source: Bloomberg.

Among emerging economies, currencies of those with a higher need of external financing are expected to be more sensitive to policy decisions of the central banks of advanced economies. Accordingly, an analysis of the coefficients obtained by regressing the change in 10-year US bond yields on the percentage change in the value of emerging market currencies against the USD indicates that Turkey moves in tandem with other emerging economies (Chart 5.1.11). However, recent developments have led the coefficient of Turkey to diverge from others.

Chart 5.1.11.
Beta Coefficients for Emerging Market Currencies and the Turkish Lira* (30-Day Moving Window, 10-Day Moving Average)



* Beta is the coefficient of 10-year US Treasury bonds in the regression $\Delta r_{TL} = \alpha + \beta \Delta r_{USD} + \epsilon$.
Emerging economies include Brazil, Chile, Colombia, Czech Republic, Hungary, India, Mexico, Poland, South Africa, Indonesia, Romania, Philippines, Malaysia, Thailand and Turkey. Selected emerging economies are Brazil, India, South Africa and Indonesia.
Source: Bloomberg, CBRT.

Recent developments had repercussions on the implied exchange rate volatilities of emerging market currencies as well. Turkey's implied volatility of exchange rate posted a higher increase in both 1-month and 12-month maturities compared to other emerging economies (Charts 5.1.12, 5.1.13, 5.1.14 and 5.1.15).

Chart 5.1.12.
Implied Volatility of Exchange Rates*
(1-Month Ahead)

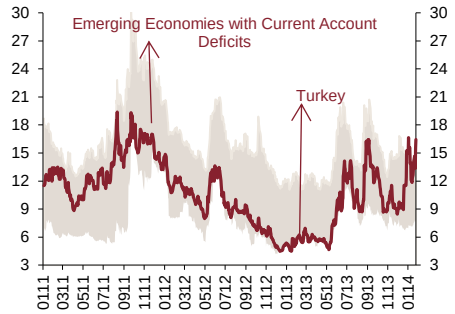
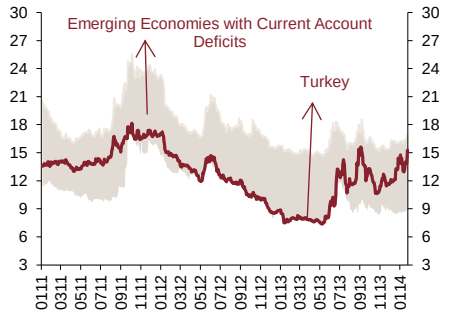


Chart 5.1.13.
Implied Volatility of Exchange Rates*
(12-Month Ahead)



* Emerging economies with current account deficit include Brazil, Chile, Czech Republic, Hungary, Mexico, Poland, South Africa, Indonesia, Romania and Colombia.
Source: Bloomberg.

Chart 5.1.14.
Implied Volatility of Exchange Rates*
(1-Month Ahead)

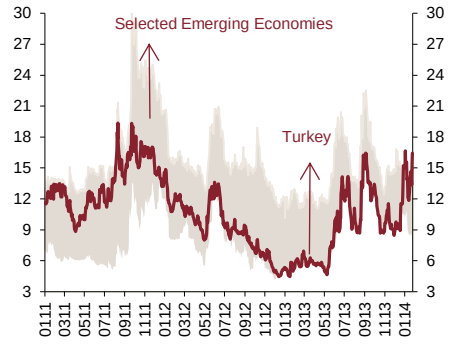
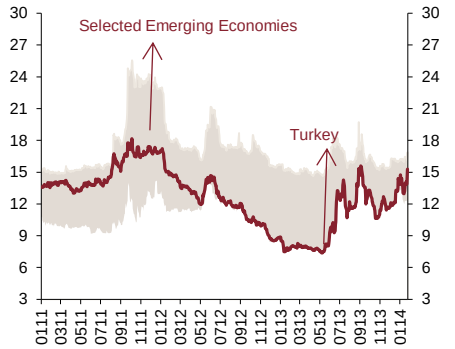


Chart 5.1.15.
Implied Volatility of Exchange Rates*
(12-Month Ahead)



* Selected emerging economies are Brazil, India, South Africa, Indonesia and Turkey.
Source: Bloomberg.

Monetary Policy

In the last quarter of the year, the cautious monetary policy stance was strengthened in order to contain the negative effects of the elevated inflation on the pricing behavior. In this respect, the BIST Interbank O/N repo rates were kept close to 7.75 percent and the weighted average funding rate hovered at or above 6.75 percent (Chart 5.1.16). Moreover, 1-month repo auctions were terminated to contribute to the alleviation of the volatility in interest rates. The liquidity management was implemented so as to keep the funding at overnight maturity and overnight market rates close to the upper bound of the interest rate corridor in this period. Moreover, the liquidity stance was tightened in January to align the 2014 inflation outlook with the medium-term targets. Accordingly, on days of additional monetary tightening, the CBRT decided that interest rates in the Interbank Money Market would hover around 9 percent instead of 7.75 percent, which is the marginal funding rate.

In the last quarter of 2013, the CBRT continued to provide FX liquidity to the market via foreign exchange selling auctions. From 31 October 2013 to 24 January 2014, around 8.21 billion USD was injected to the market. The FX injection in 2013 amounted to 17.61 billion USD. Moreover, on days of excessive volatility in exchange rates, FX selling auctions could be held up to 10 times of the minimum amount. The unsterilized FX selling auctions drove the liquidity gap higher, while banks' increased use of the reserve options mechanism pushed the liquidity gap lower. The reserve options mechanism was used slightly more in this period, thereby raising the financial system's need for liquidity (Chart 5.1.17). As an additional tightening measure, the CBRT continued to decrease the amount of funds lent via 1-week repo auctions. Presently, the stock amount of 1-week repo auctions does not exceed 6 billion TL. Nevertheless, as the system's need for funding increases, funding provided via the Stable Funding Rate-1 can be changed proportionately. In addition, the funding facility introduced to primary dealers was lowered from 7 percent to 2 percent of the issuance value of the GDBS that banks purchased from the Treasury auctions. Correspondingly, the CBRT's average funding rate and the BIST Interbank O/N repo rate increased.

Chart 5.1.16.
O/N Rates at the BIST Interbank Repo and Reverse Repo Market*
(Percent)

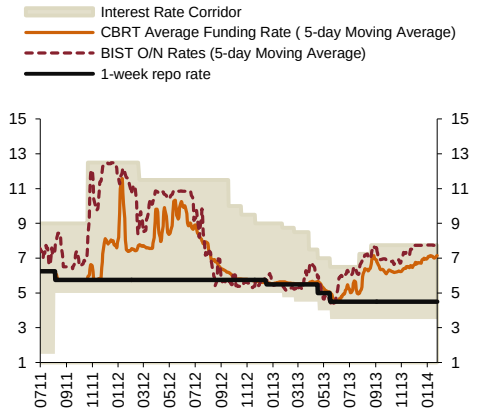
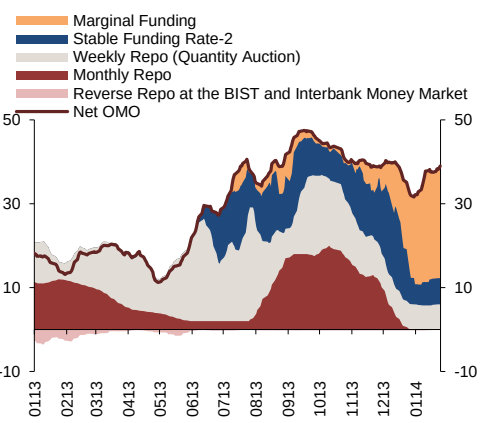


Chart 5.1.17.
CBRT Funding**
(2-Week Moving Average, Billion TL)



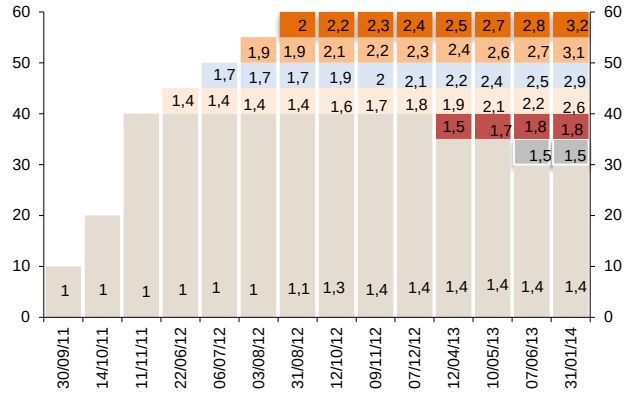
* BIST O/N Rate is the O/N rate at the BIST Interbank Repo Market.
** Stable Funding Rate-2 is the O/N rate charged to primary dealers for funds provided within their limits, while marginal funding is O/N funding quoted at the upper limit of the corridor.
Source: BIST, CBRT.

In 2014, one-week repo auctions will continue to be held by the quantity auction method quoted at the Stable Funding Rate-1. Accordingly, effective as of 6 January 2014, the upper limit of the total bid to be submitted by each institution that is party to open market operations is set as twice the share of the TL required reserves to be maintained by the institution within total TL required reserves to be maintained by banks. Moreover, for the simplicity of the calculation of liabilities subject to required reserves, which are used both as a monetary policy tool and a macroprudential instrument, as of 2014, instead of deducting certain items from the domestic liabilities, direct approach was adopted in determining the items which are subject to the reserve requirement. This approach will exclude many items of small amounts that have no direct effect on the monetary policy and dampen the effectiveness of the operational processes. Consequently, the market will be provided with a limited amount of Turkish lira and FX liquidity.

In the last quarter of the year, steps were taken to enhance the automatic stabilizing feature of the ROM to be enforced in 2014. Accordingly, FX reserve option coefficients were raised by 0.4 percentage

points for tranches higher than 40 percent (Chart 5.1.18). Under the assumption that other factors affecting the use of ROM remain unchanged, this increase is expected to lower the use of ROM. Thus, the fall in the use of ROM amid the FX selling auctions in the period ahead will increase the TL liquidity need of the financial system.

Chart 5.1.18.
FX Reserve Option Coefficients (Percent)



Source: CBRT.

Reserve option coefficients were left unchanged in the last quarter of 2013. Using the reserve options mechanism remained advantageous due to the persistently high course of TL costs compared to FX costs as in the previous quarter. In fact, it is notable that banks continued to frequently opt for both gold and the FX reserve options mechanism (Charts 5.1.19 and 5.1.20). The rate of the use of this facility in FX was 89.5 percent (53.7/60) and 83.9 percent (25.2/30) for gold as of the maintenance period starting on January 4, 2014.

In terms of tranches, the utilization rate of FX reserve options remained unchanged, while gold reserve options saw shifts from higher to lower tranches (Charts 5.1.21 and 5.1.22). This is attributed to the decline in the value of gold against the Turkish lira in the inter-maintenance period. In addition, amounts of USD and euro maintained by banks under the ROM also displayed a decline in this period (Chart 5.1.24).

Chart 5.1.19.
Banks' Use of ROM for FX*
(Percent)

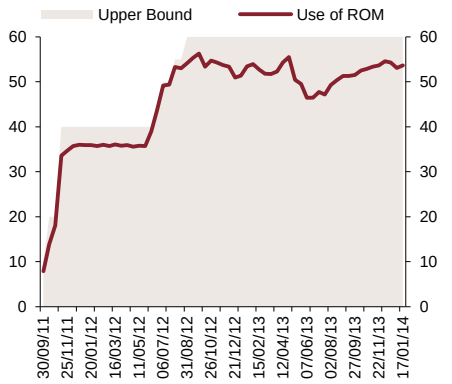
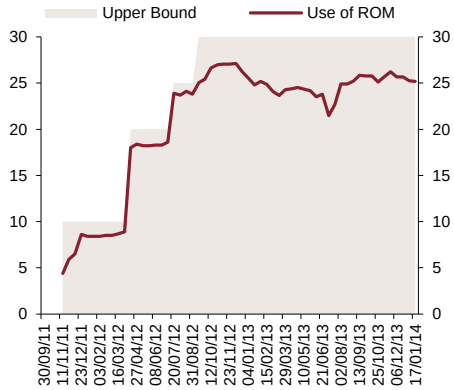


Chart 5.1.20.
Banks' Use of ROM for Gold
(Percent)



* As of the maintenance period.
Source: CBRT.

Chart 5.1.21.
Breakdown of the Banks' Use of ROM for FX*
(Percent)

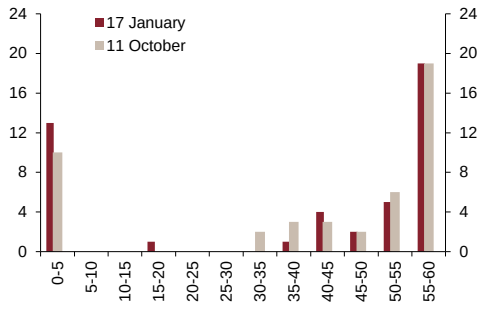
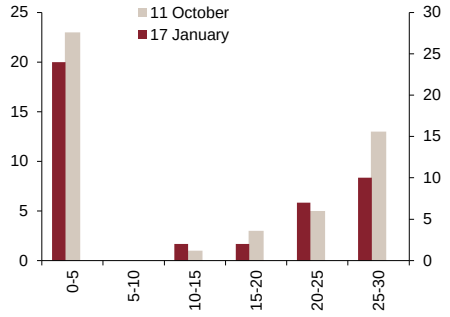


Chart 5.1.22.
Breakdown of the Banks' Use of ROM for Gold*
(Percent)

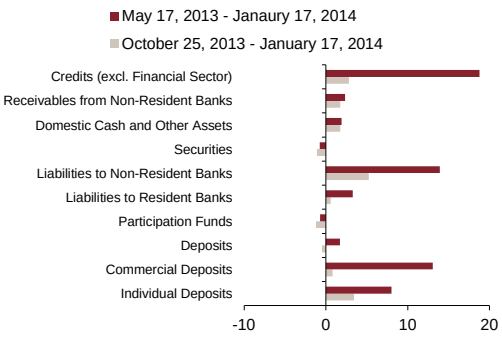


* Denotes banks' cumulative use of reserve options mechanism. Vertical axis shows number of banks using the mechanism.
Source: CBRT.

It is necessary to analyze whether banks' access to FX declined upon the Fed's announcement regarding the cutback on asset purchases and the climbing of Turkey-specific uncertainties in the last quarter of 2013. An analysis of FX items in the balance sheets of banks constitutes a significant source of information in this respect. Changes in the FX balance sheet items in this period reveal that banks borrowed more heavily from non-resident banks and continued to lend in FX (Chart 5.1.23). Additionally, both commercial and individual deposits in FX increased in this period. This is attributed to the partial closure of the FX short position of the real sector in order to alleviate the exchange rate risk. In fact, commercial and individual FX deposits have risen by 13 and 8 billion USD, respectively since the Fed's signal in May 2013 for exit from the quantitative easing.

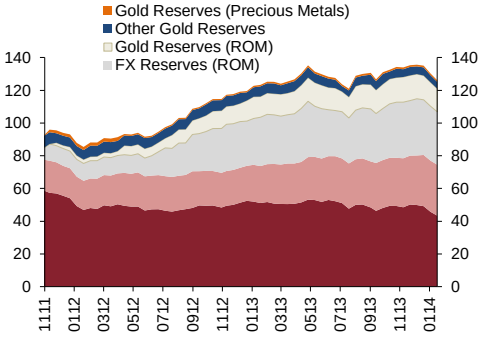
The CBRT reserves initially recorded an increase in the last quarter of 2013, which was followed by a decrease afterwards (Chart 5.1.24). In this period, particularly the FX sales by 4.67 billion USD in December caused a decline in the CBRT reserves. Besides FX selling auctions, the slight fall of the reserves in USD terms, which are maintained by banks under the FX and gold reserve options also lowered the CBRT reserves. However, FX required reserves, which increased amid the increase in the FX liabilities of banks and export rediscount credits raised the CBRT reserves. The fact that the CBRT will continue with FX selling auctions in the upcoming period will lower the CBRT reserves, while export rediscount credits will drive them higher. Moreover, the rise in FX reserve option coefficients is expected to constrain the use of ROM. Yet, the CBRT reserves are estimated to increase as banks need to maintain higher amounts of FX for tranches higher than 40 percent.

Chart 5.1.23.
Changes in Selected FX Balance Sheet Items of Banks
(Billion USD)



Source: BRSA.

Chart 5.1.24.
CBRT FX Reserves*
(Billion USD)



* As of January 17, 2014.
Source: CBRT.

Market Rates

In the last quarter of 2013, emerging economies witnessed increasing market rates upon the Fed's announcement to gradually exit from quantitative easing (Charts 5.1.25 and 5.1.26). In this period, the cautious monetary policy and the more pronounced country-specific risks led to relatively higher increases in market rates in Turkey (Charts 5.1.27 and 5.1.28).

Chart 5.1.25.
5-Year Market Rates*
(Percent)

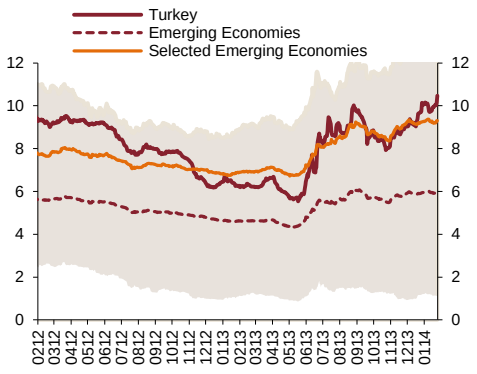
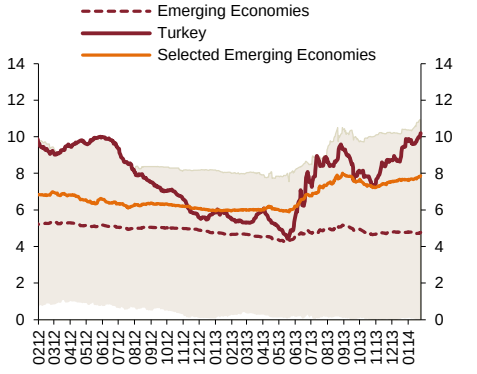


Chart 5.1.26.
6-Month Market Rates*
(Percent)



* As of January 24, 2014. Emerging economies include Brazil, China, Peru, Philippines, Poland, Thailand, Colombia, South Korea, India, Israel, Czech Republic, Malaysia, Chile, Mexico, Romania, South Africa, Hungary, Indonesia and Turkey. Selected emerging economies include Brazil, India, South Africa and Indonesia.
Source: Bloomberg, CBRT.

Chart 5.1.27.
Changes in 5-Year Market Rates*
(Percent)

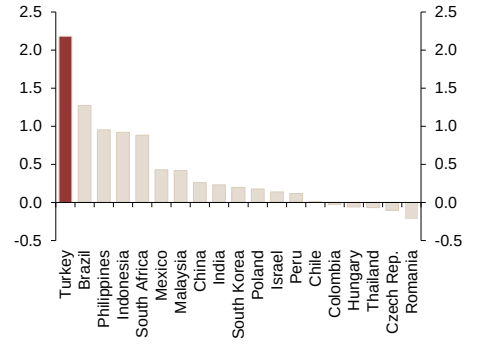
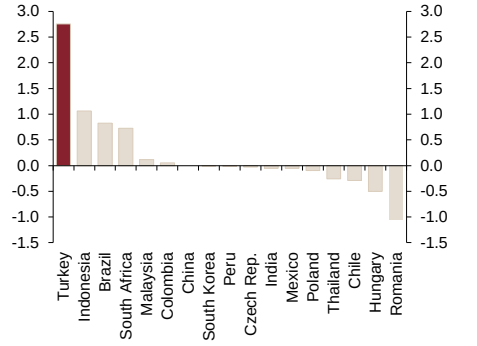


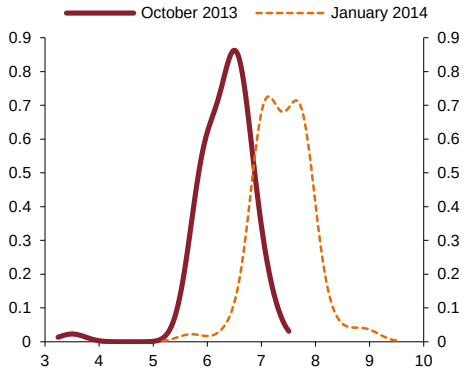
Chart 5.1.28.
Changes in 6-Month Market Rates*
(Percent)



* From October 31, 2013 to January 24, 2014.
Source: Bloomberg, CBRT.

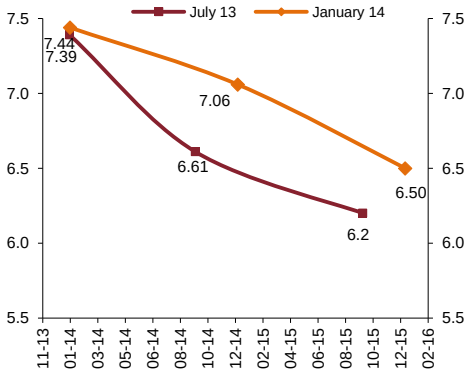
As inflation indicators exceeded the target and exchange rate volatility increased in this period, the mid-point of the distribution of BIST O/N repo rate expectations shifted rightwards compared to the previous reporting period (Chart 5.1.29). Moreover, the increased number of those expecting the BIST O/N repo rate to be higher than 7.75 percent, which is the upper bound of the interest rate corridor, implies an increased expectation for a CBRT policy rate hike. Inflation expectations, another factor that may affect market rates, increased upon the depreciation of the Turkish lira, thereby putting an upward pressure on market rates (Chart 5.1.30).

Chart 5.1.29.
Expected O/N Rates at the BIST Repo and Reverse Repo Market*



* CBRT Survey of Expectations.
Source: CBRT.

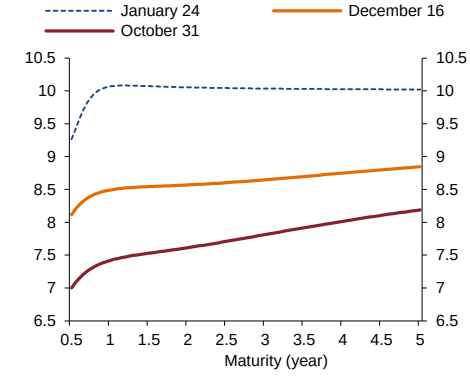
Chart 5.1.30.
Inflation Expectations**



** End of current month, current year-end, 12-month ahead and 24-month ahead policy rate expectations derived from the CBRT Survey of Expectations.
Source: CBRT.

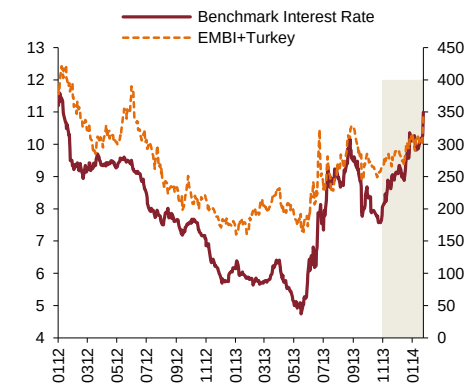
Interest rates were up across all maturities from the previous reporting period, with the highest increase occurring in short terms, thereby causing the yield curve to flatten (Chart 5.1.31). Short-term rates posted larger increases in this period due to the cautious monetary policy stance, expectations for policy rate hikes and domestic uncertainties that were concentrated in the short term. In this period, the benchmark interest rate displayed a similar pattern to the risk premium; yet, the benchmark rate recorded a higher increase due to the rise in inflation expectations (Chart 5.1.32).

Chart 5.1.31.
Yield Curve*
(Percent)



* Calculated from the compounded returns on bonds quoted in BIST Bonds and Bills Market by using ENS method.
Source: BIST, CBRT.

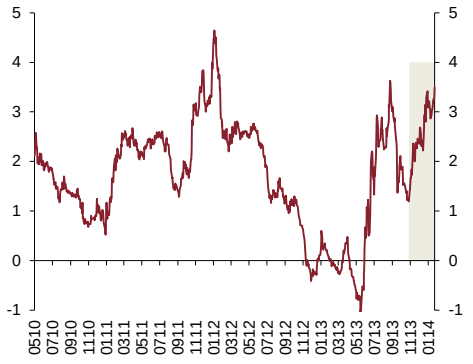
Chart 5.1.32.
Benchmark Interest Rate
(Percent)



Source: BIST.

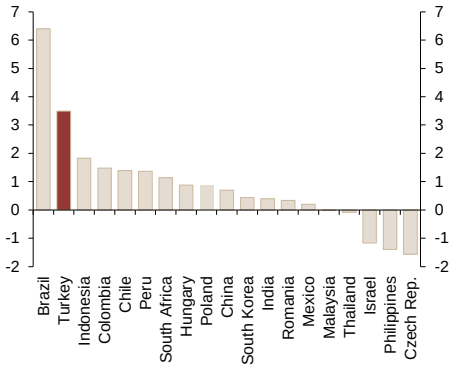
The 2-year real interest rates were up in the last quarter on higher nominal interest rates notwithstanding the rise in 24-month ahead inflation expectations (Chart 5.1.33). Therefore, Turkey's 2-year real interest rate continued to rank high compared to other emerging economies (Chart 5.1.34).

Chart 5.1.33.
2-Year Real Interest Rates for Turkey* (Percent)



* Calculated as the difference between 2-year discounted bond returns derived from the yield curve and the 24-month ahead inflation expectations derived from the CBRT Survey of Expectations. As of January 24, 2014.
Source: BIST, CBRT.

Chart 5.1.34.
2-Year Real Interest Rates* (Percent)

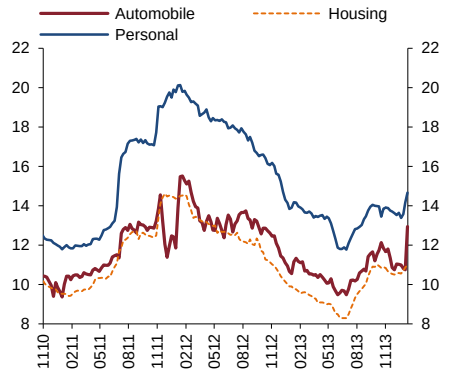


* Calculated as the difference between 2-year government bond returns of countries and the 2-year ahead inflation expectations derived from the Consensus Forecasts. As of January 24, 2014.
Source: Bloomberg, Consensus Forecasts, CBRT.

Loan Rates and Banking Sector Funding Costs

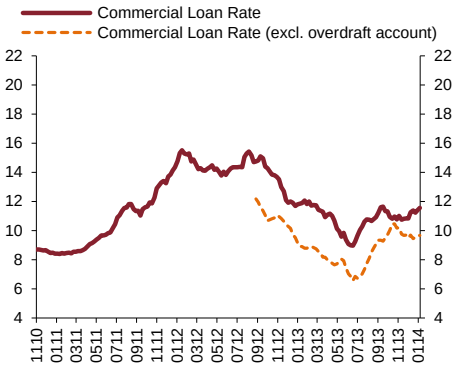
Having trended upwards since mid-2013, rates on non-financial loans edged down in the last quarter. This downward course that continued throughout the quarter also reflects the relatively waning global uncertainties. Rates on personal and housing loans have fallen by around 40 basis points since the start of the quarter. Automobile loan rates posted a higher fall by 70 basis points due to year-end seasonality (Chart 5.1.35). Notwithstanding the edge up in December, commercial loan rates that have relatively shorter maturities than consumer loans remained flat throughout the quarter (Chart 5.1.36).

Chart 5.1.35.
Consumer Loan Rates
(Flow, Annualized, Percent)



Source: CBRT.

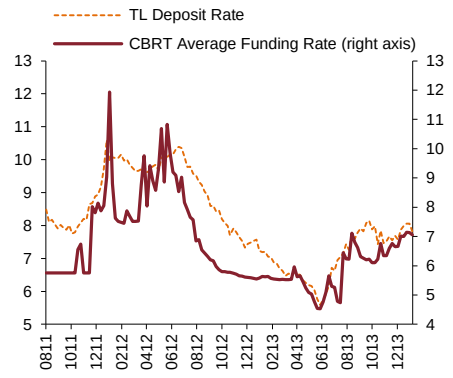
Chart 5.1.36.
TL Commercial Loan Rates
(Flow, Annualized, 4-Week Moving Average, Percent)



Source: CBRT.

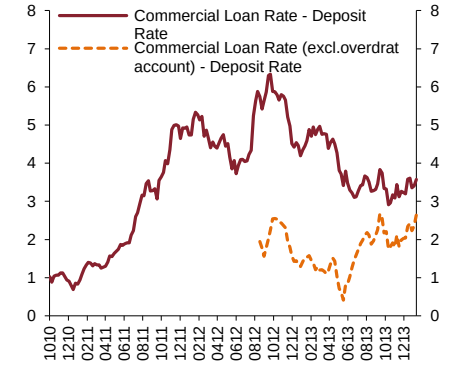
Rates on deposits, which are the main financing source of the banking sector and are heavily concentrated on less than 3-month maturity, edged up largely in tandem with the CBRT's average funding cost (Chart 5.1.37). The spread between commercial loans and deposits, which followed a parallel path to these two rates across the quarter, recorded an uptick upon the limited increase in commercial loan rates in December (Chart 5.1.38). Prospects of a further tightening in lending conditions for commercial loans in the period ahead is believed to widen the gap between commercial loan rates and deposit rates.

Chart 5.1.37
TL Deposit Rate and the CBRT Average Funding Rate
(Percent)



Source: CBRT.

Chart 5.1.38
TL Commercial Loan Rate and Deposit Rate Spread (Flow, Annualized, 4-Week Moving Average, Percent)



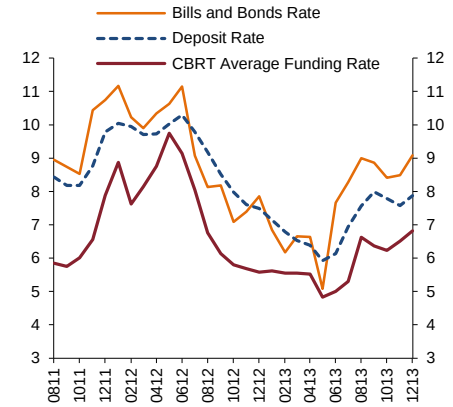
Source: CBRT.

Having surged as of May 2013 due to increased uncertainty about global markets and the CBRT's tighter monetary policy stance, currency swap rates began to fall by September amid the ending of expectations for a policy rate hike and financial market developments. However, as of December, currency swap rates trended upwards in all maturities upon increased domestic uncertainties in Turkey (Chart 5.1.39). Having dropped in September and October in line with the CBRT's average funding rate, primary market rates on banks' domestic issues of bills and bonds moved upwards in December on expectations for a limited tightening in external financing opportunities and exacerbated domestic unrest in Turkey (Chart 5.1.40).

Chart 5.1.39.
TL Currency Swap Rates
(7-Day Moving Average, Percent)

Source: Bloomberg.

Chart 5.1.40
Primary Market Rates on Domestic Issues of Bills and Bonds by Banks (Percent)

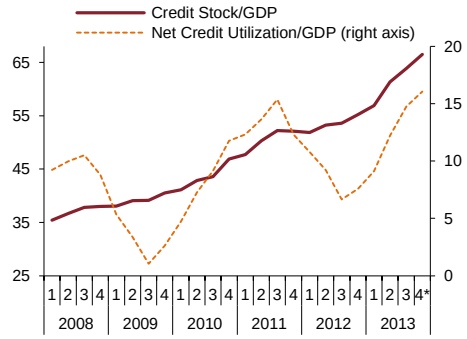


Source: PDP, CBRT.

5.2. Credit Volume and Monetary Indicators

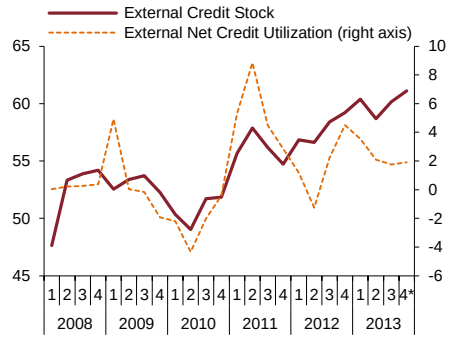
Having trended upwards since the last quarter of 2012, the net credit utilization to GDP, which summarizes the relation of credit growth to economic activity and aggregate demand and is calculated as the annualized change in net credit stock as a percent of GDP, reached 14 percent in the last quarter of 2013. Accordingly, credit stock to GDP ratio continued to follow an upward trend (Chart 5.2.1). In line with the recent measures taken by the BRSA and the tightening in financial conditions, the net credit utilization to GDP is expected to decline in 2014.

Chart 5.2.1.
Domestic Credit Stock and Net Credit Utilization
(Percent of GDP, Annualized)



* Estimate.
Source: CBRT.

Chart 5.2.2.
External Credit Stock and Net Annual Credit Utilization (Billion USD)



* As of October 2013.
Source: CBRT.

The resident firms' use of external credits, which indicate the external financing opportunities of firms, have been on the rise since the second quarter of 2010. However, the uptrend in net borrowing by the real sector from non-resident institutions and corporations, which started in mid-2012, could not be sustained due to global uncertainties as of the turn of 2013, and recorded a limited decline throughout the year (Chart 5.2.2).

The growth of loans extended to the non-financial sector, which trended upwards as a result of the CBRT's accommodative liquidity policy, the low course of loan rates and the mild increase in domestic demand in November 2012 continued on an uptrend until October 2013. Having maintained its momentum for about four consecutive quarters, the annual growth of total loans started to flatten in October driven by both consumer and commercial loans. Against these developments, loans extended to the non-financial sector adjusted for the exchange rate posted a 25.0 percent year-on-year growth at the end of the last quarter of 2013 and a 20.1 percent growth in annualized terms as of the third-quarter average (Charts 5.2.3 and 5.2.4). The tightening experienced by banks in both external and domestic funding conditions, higher loan rates compared to the previous quarter and the cautious stance of the banking sector and the households resulted in a flat growth of credit extended to the non-financial sector. Given the macroprudential measures taken by the BRSA as well as the expectation that both external and domestic funding standards will continue to tighten, credit growth rates are estimated to move downwards in the upcoming period.

Chart 5.2.3.
Annual Growth Rate of Loans
(Percent)

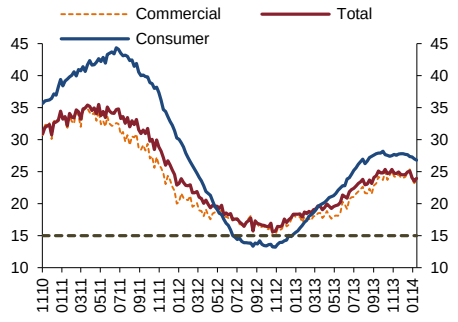
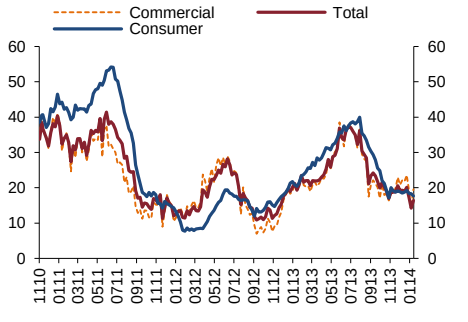


Chart 5.2.4.
Quarterly Growth Rate of Loans
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



Source: CBRT.

Having remained above seasonal averages over the first half of 2013, the growth rate of consumer loans lost pace in the third quarter and lagged behind seasonal averages in the fourth quarter (Chart 5.2.5). Personal loans remained below the past years' average throughout 2013, while housing loans, which are highly sensitive to interest rates, posted a lagged response to rising loan costs in August by slowing down after following a surge at the start of the year and completed the year with an annualized growth of 16 percent. Meanwhile, automobile loans, on which seasonal effects are strongly felt, registered an increase in the last quarter of the year (Chart 5.2.6).

Chart 5.2.5.
Consumer Loan Growth
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)

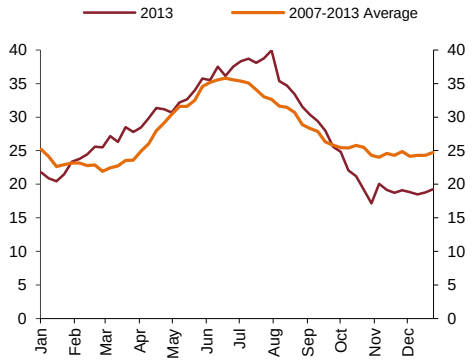
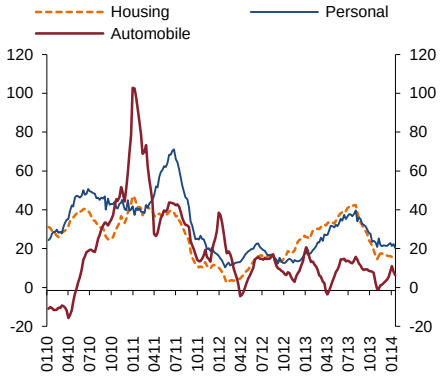


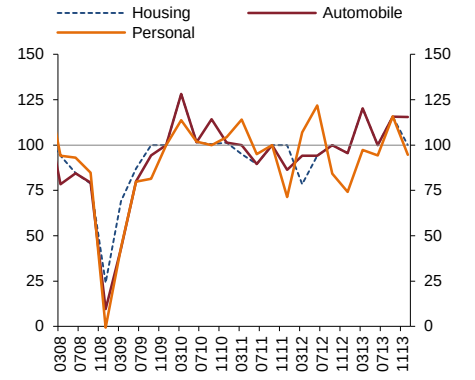
Chart 5.2.6.
Weekly Growth Rate of Consumer Loans
(13-Week Moving Average, Annualized, Percent)



Source: CBRT.

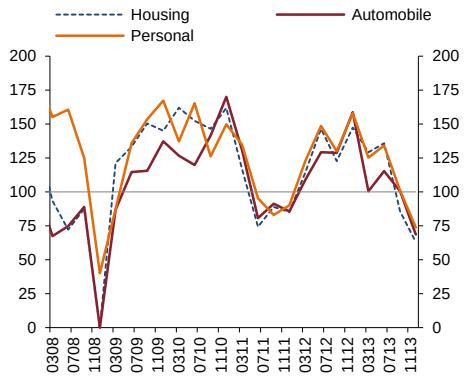
According to the Loan Tendency Survey results of the fourth quarter of 2013, banks kept standards for housing loans unchanged, eased those for automobile loans and slightly tightened standards for personal loans. The easing in automobile loans was driven by the competition among banks, while personal loan standards were mostly tightened due to the overall economic outlook. On the demand side, housing loan demand, which saw tightening in the third quarter for the first time since 2011, continued to tighten further. Unlike loan supply, the fall in loan demand was not limited to one sub-item, rather spread across all other items (Charts 5.2.7 and 5.2.8). The fall in demand for consumer loans, the majority of which are fixed-rated, was driven by the funding costs and balance sheet constraints for housing loans, while prospects for overall economic activity were influential on the course of personal loans. The Loan Tendency Survey results showed that even though banks projected tighter loan standards for consumer loans in the upcoming quarter, personal loan demand is expected to increase, automobile loan demand is expected to decrease and housing loan demand is expected to stay constant. Not only on account of the banks' expectations, but also on the new arrangements of the BRSA that are analyzed in Box 5.1, growth rates of credit cards and automobile loans are expected to slow down.

Chart 5.2.7.
Consumer Loan Standards
(Net Change)



* Banks are requested to state the direction of their lending standards. Net percentage change of indexed responses shows the direction of the change in credit supply. The index is calculated as (Eased Somewhat + Eased Considerably)-(Tightened Somewhat + Tightened Considerably) +100. The index above 100 denotes easing in lending standards.
Source: CBRT.

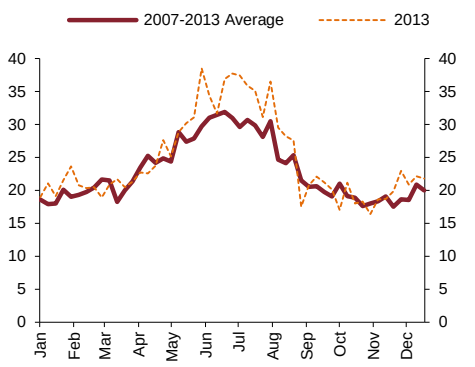
Chart 5.2.8.
Consumer Loan Demand
(Net Change)



* Banks are requested to state the change in the demand for credit. Net percentage change of indexed responses indicates the direction of the change in credit demand. The index is calculated as the sum of (Increased Somewhat + Increased Considerably)–(Decreased Somewhat + Decreased Considerably) +100. Index values greater than 100 signify increase in credit demand.
Source: CBRT.

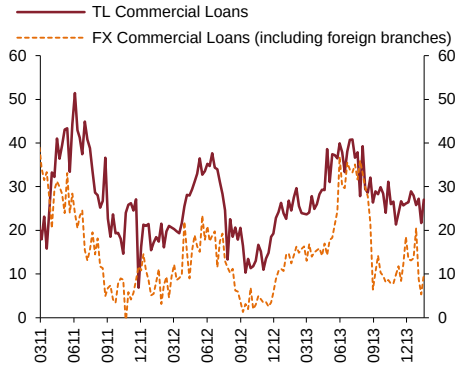
The annualized growth rate of commercial loans, which went above historical averages in mid-2013, moved in line with the past years' average in the rest of the year (Chart 5.2.9). FX-denominated commercial loans, which plummeted in August, edged up in the following period, while TL-denominated commercial loans remained flat in the same period (Chart 5.2.10).

Chart 5.2.9.
Commercial Loan Growth
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



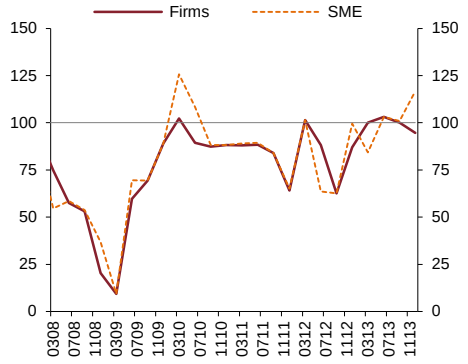
Source: CBRT.

Chart 5.2.10.
Growth Rates of TL and FX Commercial Loans
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



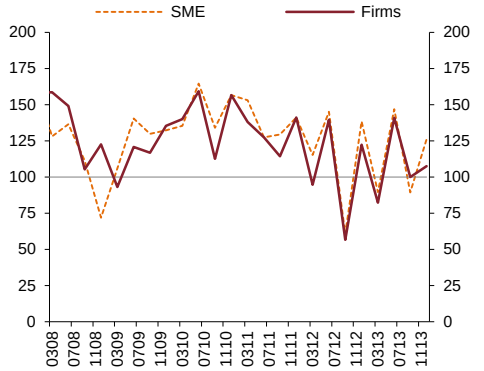
The Loan Tendency Survey responses in the last quarter reveal that banks tightened the standards for both TL and FX-denominated commercial loans due to prospects for the overall economic outlook. However, banks eased the standards for SME loans, and kept long-term loan standards unchanged (Chart 5.2.11). Demand for commercial loans grew in this period. The survey results suggest that this increase was in SME and long-term loans (Chart 5.2.12). Banks expected a tightening in commercial loan standards and an increased demand for commercial loans in the first quarter of 2014. The fact that the latest arrangements by the BRSA cover only the consumer loans will have a relatively positive effect on commercial loans. Moreover, as explained in the CBRT's Monetary and Exchange Rate Policy for 2014, the liquidity policy practices will contribute to the shift of loans from consumer to commercial loans.

Chart 5.2.11.
Commercial Loan Standards (Net Change)



* Banks are requested to state the direction of their lending standards. Net percentage change of indexed responses shows the direction of the change in credit supply. The index is calculated as (Eased Somewhat + Eased Considerably)-(Tightened Somewhat + Tightened Considerably) +100. The index above 100 denotes easing in lending standards.
Source: CBRT.

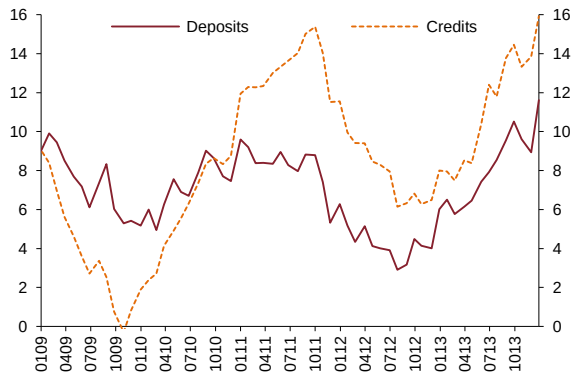
Chart 5.2.12.
Commercial Loan Demand (Net Change)



* Banks are requested to state the change in the demand for credit. Net percentage change of indexed responses indicates the direction of the change in credit demand. The index is calculated as the sum of (Increased Somewhat + Increased Considerably)–(Decreased Somewhat + Decreased Considerably) +100. Index values greater than 100 signify increase in credit demand.
Source: CBRT.

The deceleration in annualized growth rates of consumer and commercial loans in the previous quarter was maintained in the fourth quarter of the year. The uncertainty in international markets was partially alleviated and loan rates followed a flat course in this period. While standards for commercial loans, the annualized growth rate of which moved in line with the historical averages, were slightly tightened, the demand for commercial loans registered an increase. Demand for consumer loans declined for all sub-items. In addition to the cautious monetary policy, macroprudential measures and the weak course of capital flows, credit growth is expected to slow down and gradually approach the deposit growth rate amid the arrangements enforced by the BRSA in February 2014 (Chart 5.2.13).

Chart 5.2.13
Growth of Credits and Deposits*
(Annual Change/GDP)



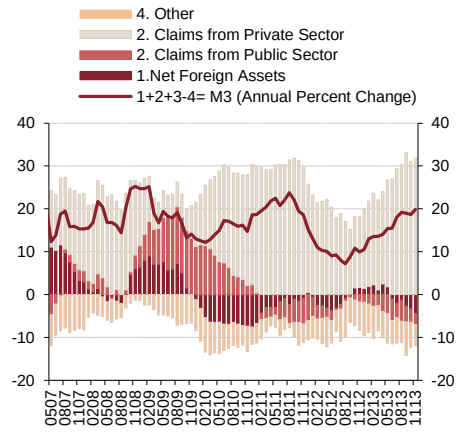
* Including participation banks, excluding interbank deposit and not adjusted for exchange rate effect.
Source: TurkStat, CBRT.

Monetary Indicators

The annual growth of M3, the broad measure of money supply, continued to trend upwards in the fourth quarter amid rising credits extended to the private sector. In addition, October and November data indicated that the decrease in all items that make a negative contribution to M3 growth led to a convergence in the growth of the broad money supply and the upward trend that has been ongoing since

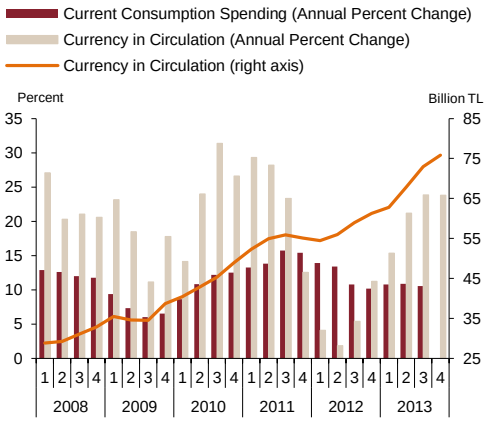
September 2012 (Chart 5.2.14). Among sub-items, the negative contribution of the Claims from the Public Sector to M3 growth declined in the last quarter of the year, while that of Net Foreign Assets strengthened. Meanwhile, the item Other that displayed a relatively steady course on slowing bank profitability is still a non-deposit funding resource for the banking sector.

Chart 5.2.14.
Balance Sheet Decomposition of M3
(Contributions to Annual M3 Growth)



Source: CBRT.

Chart 5.2.15.
Currency in Circulation and Current Consumption Spending*
(Seasonally Adjusted)



* Consumption spending includes private and public consumption excluding furniture, household appliances, and transport and communication services at current prices.
Source: TurkStat, CBRT.

The seasonally adjusted currency in circulation continued with a rising annual growth in the fourth quarter (Chart 5.2.15). The slowdown in current consumption spending in 2012 pointed to a recovery despite a stagnant period in 2013. Nevertheless, the ongoing mild economic growth and the expected positive balancing among demand components suggest that in the upcoming period, the currency in circulation will lag behind the level implied by the robust course seen after 2009.

Box 5.1 BRSA Measures

New arrangements on loans introduced by the BRSA were published in the Official Gazette on December 31, 2013 and put into effect on February 1, 2014. These arrangements aimed at improving the household indebtedness, and therefore, achieving a high and stable growth for the Turkish economy. In brief, the amendments included the limiting of the number of installations applied to personal loans for various sectors. Moreover, maturity limitations besides the loan-to-value practices (LTV) depending on the amount of loan were put into effect for automobile loans. These practices are complementary with the arrangements of the BRSA that imposed restrictions on the increase of the credit card limit subject to income, which were published on October 8, 2013. This box presents an analysis of other country experiences on these arrangements.

The importance of households' indebtedness was recalled with the global crisis in 2008. A detached rising of indebtedness from economic fundamentals may have consequences that can hamper financial stability. In a study on the US economy, Amir and Sufi (2010) showed that cities that experienced soaring average indebtedness prior to the 2009 crisis suffered more from the crisis in terms of housing prices, unemployment and housing investment. Therefore, policymakers have recently focused on the consequences of and preemptive policies for excessive indebtedness of households. Accordingly, the BRSA limited the time for installation payments to nine months for credit cards payments on goods and services and overdraft accounts. Moreover, payment in installations by credit cards was ended for expenditures on telecommunication and jewelry besides catering, food and fuel purchases. Additionally, LTV implementation was introduced to automobile loans such that for automobiles with prices up to 50,000 TL, the LTV was set as 70 percent, while for those above 50,000 TL, the LTV was set as 50 percent. Lastly, the BRSA limited the maturity of consumer loans excepting those for real estate purchases to 36 months and the maturity of automobile loans and loans with automobile guarantees to 48 months.

LTV has mostly been implemented in Asian countries such as Korea, Hong Kong, Singapore and China without being referred to as a macroprudential measure until recently. Studies based on these countries show that LTV measures on housing loans have been effective. The analysis by Funke and Paetz (2012) on Hong Kong housing markets indicated that cyclical loan-to-value policy decreased the possibility of the formation of a bubble in housing markets and contained the effect of the volatility in housing prices on the real economy. According to Igan and Kang's (2011) study on the Korean housing markets for the 2001-2010 period, tightening in the LTV and debt-to-income ratio (DTI) decreased buying and selling activities in housing markets at a significant rate. Following the tightening, buying and selling activities declined within 3 months and deceleration of prices takes up to 6 months. The fluctuation in prices is more responsive to LTV tightening. Using panel data on 13 countries, Wong et al. (2011) examined the effect of the LTV policy and found that in countries implementing the LTV policy, fall in prices significantly diminishes the effect of the default rate in housing loans. Using a panel data of 57countries, Kuttner and Shim (2013) analyzed the effect of various macroprudential measures on housing loans, and concluded that LTV and DTI policies significantly lower the growth of housing loans. More consistent results are obtained in various models using DTI limits. In Turkey, the BRSA put a 75 percent LTV limit on housing loans effective as of 2011. As a result, the growth rate of housing loans has recorded a decline in annualized and 13-week moving average terms.

Although the coverage is not as extensive as housing loans, LTV is also implemented on automobile loans in some countries. The Bank Indonesia adopted LTV in June 2012 for housing and automobile loans. This decision was followed by a slowdown, which was then succeeded by negative values in the growth rate of automobile loans. The Bank of Brazil raised capital liabilities required for automobile loans in December 2010 to maintain a robust credit growth. This resulted in a decline in the share of automobile loans with maturities higher than 60 months within total automobile loans by 20 percent. Lastly, the Monetary Authority of Singapore launched the LTV on automobile loans to curb credit growth and inflation in February 2013. This led the total automobile loans stock in Singapore to decrease from 13.8 billion to 12.7 billion USD in the third quarter of 2013. Given these developments, the effects of the LTV on automobile loans introduced by the BRSA are expected to cause a deceleration similar to LTV experience on the housing loans.

Although arrangements on the use of credit cards ignore the time to maturities, practices may still differ from one country to the other. For example, in March 2011, the Central Bank of Malaysia introduced restrictions on the number and limit of credit cards for those under a threshold income. Accordingly, by the end of 2011, the growth rate of those who postponed credit card payments dropped from 20.3 percent to 11.9 percent. The Bank of Brazil raised the minimum amount to be paid for credit card liabilities and increased capital liabilities for long-term loans in December 2010. These policies helped the growth of loans to fall from 22 percent to 11 percent within a year. The Monetary Authority of Singapore raised the amount of minimum income required to hold a credit card in March 2009 and set the total amount of uncollateralized loans for individuals to be 4 times of the income. Given these country experiences, the arrangements enforced by the BRSA are expected to slow down the growth of credit card use.

In sum, arrangements introduced by the BRSA on December 31, 2013 are expected to cause a slowdown in the growth rate of consumer loans and bolster financial stability.

Table 1. Findings in the Academic Literature

Funke and Paetz	2012	The effectiveness of LTV policy in Hong Kong housing markets	The policy lowered the possibility of a bubble and the effect of the movements in housing prices on the real economy declined.
Igan and Kang	2011	The effect of LTV and DTI practices in the Korean housing markets	Buying-selling activities fell in housing markets, while the growth of housing prices slowed.
Wong, Fong, Li and Cho	2011	The effect of LTV on housing prices in 13 countries	The default rate declined in countries implementing LTV.
Kuttner and Shim	2013	The effect of macroprudential measures on housing markets in 57 countries	LTV and DTI policies lower the growth of housing loans.

Table 2: Country Experiences on Consumer Loans

Brazil (IMF, 2013a)	2010	Raising of the minimum payment amount of credit cards	A decline by 11 percent in consumer loan growth
Malaysia (Central Bank of Malaysia, 2011)	2011	Introduction of limitations to the number and limits of credit cards	A decline by 8 percent in the ratio of overdue liabilities in credit cards
Brazil (IMF, 2013a)	2010	Raising of the liabilities of long-term automobile loans	A decline by 20 percent in the ratio of long-term automobile loans to total automobile loans
Indonesia (Bank Indonesia, 2013)	2012	Introduction of LTV on automobile loans	A decline by 15 percent in the growth of automobile loans
Singapore (IMF, 2013b; Monetary Authority of Singapore, 2013)	2013	Implementation of LTV on automobile loans	A decline by 8 percent in automobile loan stock

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6. Public Finance

As a result of the faster increase in budget revenues relative to primary expenditures, the budget performance displayed a year-on-year improvement in 2013. On the primary expenditures side, the increase in public investment expenditures was particularly noteworthy, while on the revenues side, tax revenues as well as non-tax revenues like privatization revenues had an upward trend. Tax hikes in September 2012 and early 2013, the collection of some overdue liabilities by TEDAŞ and BOTAŞ and the rise in consumption-based tax revenues owing to robust domestic demand contributed significantly to soaring tax revenues.

The budget improvement in 2013 is mostly due to temporary one-off revenues. Therefore, budget deficits may post a slight year-on-year increase, while the primary budget surplus may register a decline in 2014. However, according to the structural primary budget surplus that includes cyclical effects and one-off revenues, cautious fiscal stance will continue in 2014 and some fiscal tightening is projected throughout the MTP period (Box 6.1).

During the MTP period which covers 2014-2016, the cautious fiscal policy will be maintained and the fiscal adjustment is expected to be achieved via controlling primary expenditures. This will support the CBRT's policies, and therefore, enhance macroeconomic stability. Hence, it is critical that the fiscal policy be implemented in line with the MTP's projections.

6.1. Budget Developments

The central government budget posted a deficit of 18.4 billion TL, while the primary budget registered a surplus of 31.5 billion TL in 2013 (Table 6.1.1). Compared to 2012, the budget balance displayed a remarkable improvement. Even though the growth of primary expenditures is above the year-end target, the relatively lower growth of interest expenditures had some restraining effect on the growth of central government budget expenditures. The better-than-expected budget performance in 2013 is driven by the high collection of consumption-based tax revenues and the increase in privatization revenues.

Table 6.1.1.
Central Government Budget Aggregates
(Billion TL)

	2012	2013	Rate of Increase (Percent)	Actual/Target (Percent)
Central Government Budget Expenditures	361.9	407.9	12.7	101.0
Interest Expenditures	48.4	50.0	3.2	94.3
Primary Expenditures	313.5	357.9	14.2	102.0
Central Government Budget Revenues	332.5	389.4	17.1	105.2
I. Tax Revenues	278.8	326.1	17.0	102.6
II. Non-Tax Revenues	41.8	50.0	19.7	115.7
Budget Balance	**-29.4**	**-18.4**	**-37.3**	**54.3**
Primary Balance	**19.0**	**31.5**	**65.9**	**165.6**

Source: Ministry of Finance.

The central government budget deficit to GDP ratio, which soared in 2012 due to the slowdown in tax revenues and the acceleration in primary expenditures, is estimated to fall to 1.2 percent in 2013 (Chart 6.1.1). Having declined to 1.1 percent in the third quarter of 2012, the primary budget surplus to GDP ratio has started to increase. This ratio is estimated to have reached 2 percent in 2013.

Chart 6.1.1.
Central Government Budget Balance
(Annualized, Percent of GDP)

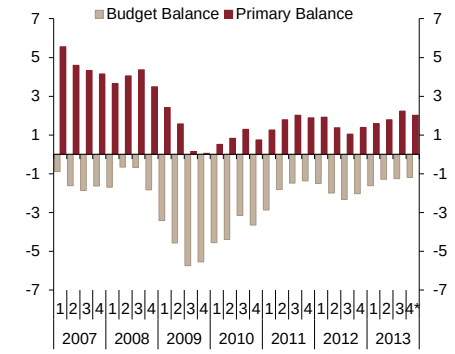
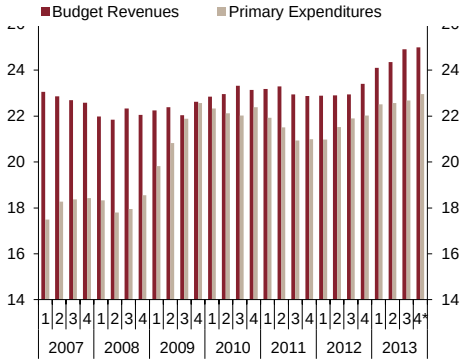


Chart 6.1.2.
Central Government Budget Revenues and Primary Expenditures
(Annualized, Percent of GDP)



* Estimate.
Source: Ministry of Finance.

Having surged due to the adoption of fiscal measures to contain the adverse effects of the 2009 global crisis on the Turkish economy, the central government primary expenditures to GDP ratio declined in the subsequent years, and reached 20.9 percent in the third quarter of 2011. However, the central government primary expenditures to GDP ratio has accelerated notably since the last quarter of 2011, and is estimated to have hit 23 percent at the end of 2013 (Chart 6.1.2). Meanwhile, due to tax adjustments in September 2012 and January 2013 as well as the relatively robust economic activity, the central government budget revenues to GDP ratio is expected to reach 25 percent by the end of 2013.

Table 6.1.2.
Central Government Primary Expenditures (Billion TL)

	2012	2013	Rate of Increase (Percent)	Actual/Target (Percent)
Primary Expenditures	**313.5**	**357.9**	**14.2**	**102.0**
1. Personnel Expenditures	86.5	96.2	11.3	99.0
2. Government Premiums to SSI	14.7	16.3	10.7	97.1
3. Purchase of Goods and Services	32.9	36.3	10.3	108.4
4. Current Transfers	129.5	148.7	14.9	98.3
a) Duty Losses	3.9	4.1	4.2	91.1
b) Health, Pension and Social Benefits	63.7	71.8	12.7	98.5
c) Agricultural Support	7.6	8.7	15.0	96.8
d) Shares Reserved from Revenues	34.4	39.9	16.1	98.0
5. Capital Expenditures	34.4	43.6	26.9	130.2
6. Capital Transfers	6.0	7.7	27.5	150.0
7. Lending	9.5	9.1	-4.6	81.8

Source: Ministry of Finance.

The central government's primary budget expenditures, which started to surge as of the second half of 2012, increased further in 2013, albeit at a slower rate. Accordingly, the central government primary budget expenditures registered a year-on-year increase of 14.2 percent in 2013 (Table 6.1.2).

In 2013, current transfers, personnel expenditures and purchase of goods and services, which are major items in primary expenditures, registered a year-on-year increase of 14.9 percent, 11.3 percent and 10.3 percent, respectively. Among current transfers, expenditures on health, pension and social benefits registered a relatively slow growth, while the increase in agricultural subsidies and shares reserved from revenues pulled the overall rate of increase in current transfers higher. As for other expenditure items, the dramatic surge in

capital expenditures and capital transfers was noteworthy in 2013. Road construction expenditures played a major role on the 26.9 percent increase in capital expenditures.

In 2013, the central government general budget revenues recorded a year-on-year increase of 7.3 percent (Table 6.1.3). In the same period, tax revenues and non-tax revenues increased by 17 percent and 19.7 percent, respectively.

Table 6.1.3.
Central Government General Budget Revenues
(Billion TL)

	2012	2013	Rate of Increase (Percent)	Actual/Target (Percent)
General Budget Revenues	**320.5**	**376.1**	**17.3**	**104.1**
I-Tax Revenues	**278.8**	**326.1**	**17.0**	**102.6**
Income Tax	56.5	63.8	12.9	101.7
Corporate Tax	29.0	29.0	-0.1	99.1
Domestic VAT	31.6	38.0	20.3	104.4
SCT	71.7	85.5	19.2	102.8
VAT on Imports	50.0	62.7	25.5	102.5
II-Non-Tax Revenues	**41.8**	**50.0**	**19.7**	**115.7**
Enterprises and Property Revenues	14.0	14.3	2.3	156.7
Interests, Shares and Fines	22.7	23.5	3.5	104.7
Capital Revenues	2.1	10.1	392.0	108.8

Source: Ministry of Finance.

Tax revenues performed well on stronger domestic demand, the adoption of revenue-increasing measures in September 2012 and January 2013 and regular payments by BOTAŞ on overdue liabilities. Accordingly, the increase in consumption-based indirect tax revenues was noteworthy in 2013. During this period, SCT revenues surged by 19.2 percent on account of the rising SCT revenues on oil and natural gas products as well as motor vehicles. Domestic VAT revenues posted an increase of 20.3 percent, while, after the slowdown in 2012, VAT revenues on imports soared by 25.5 percent in 2013 driven by BOTAŞ payments.

Meanwhile, general budget tax revenues, enterprise and property revenues as well as interest, share and fine revenues collected as per Law No. 6111, which is publicly referred to as the Tax Amnesty, amounted to a total of 24.9 billion TL by the end of 2013. Of this total amount, 13.3 billion TL was collected in 2011, 7.6 billion TL in 2012, and 4 billion TL in 2013.

In 2013, capital revenues, one of the major sub-items of non-tax revenues, rose dramatically, while enterprise and property revenues increased slightly. The major hike in capital revenues was essentially due to the increase in privatization revenues and revenues from real estate sales. The limited growth of enterprise and property revenues, on the other hand, is attributed to the fall in the CBRT's profit transfers the budget.

Having slowed down as of the third quarter of 2011, the annual rate of increase in real tax revenues recorded negative values in the second and third quarters of 2012 due to the balancing between domestic and external demand in 2012 and the base effect. The annual rate of increase in real tax revenues turned positive amid tax hikes in September 2012 as well as the base effect, and reached 4 percent in the last quarter of 2013. Although real tax revenues increased during the second half of 2013, the pace of increase was slower than in the first half (Chart 6.1.3).

Consumption-based tax revenues are the main tax revenue items that worsened due to the balancing between domestic and external demand in 2012. Having exhibited a particularly negative performance in the first three quarters of 2012, these taxes displayed a remarkable increase in the last quarter due to the favorable base effect and adopted tax measures. Throughout the entire 2013, consumption-

based tax revenues accelerated further on the back of tax measures adopted in January, the relatively robust economic activity and also BOTAŞ payments. In the fourth quarter of 2013, domestic VAT and VAT on imports increased by 11.6 and 6.5 percent year-on-year, respectively, while the SCT declined by 0.7 percent in real terms due to the base effect (Chart 6.1.4).

Chart 6.1.3.
Real Tax Revenues
(Annual Percent Change)

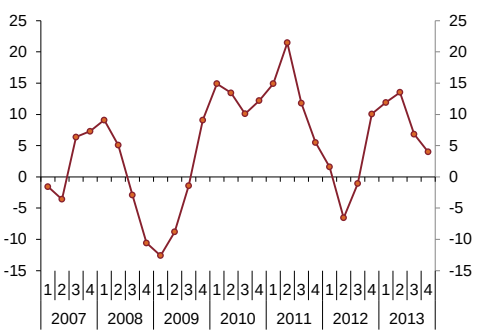
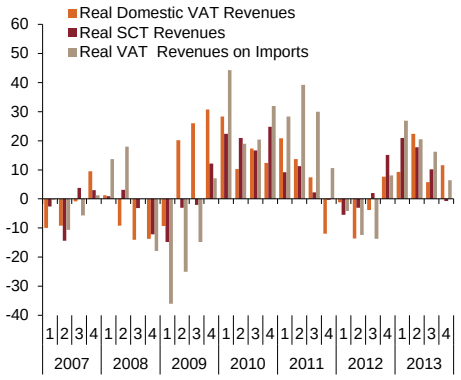


Chart 6.1.4.
Real VAT and SCT Revenues
(Annual Percent Change)



Source: Ministry of Finance.

6.2. Developments in the Public Debt Stock

Public debt stock indicators displayed a favorable outlook in 2013. The ratio of total public net debt stock to GDP continued to decline, while the average maturity of the debt stock extended remarkably.

The central government debt stock increased to 585.7 billion TL at the end of 2013 (Chart 6.2.1). As of the third quarter of 2013, the ratio of total public net debt stock to GDP decreased by 3.9 points, while the ratio of the EU-defined general government nominal debt stock to GDP was up 0.3 points compared to end-2012 figures (Chart 6.2.1).

Chart 6.2.1.
Public Debt Stock Indicators

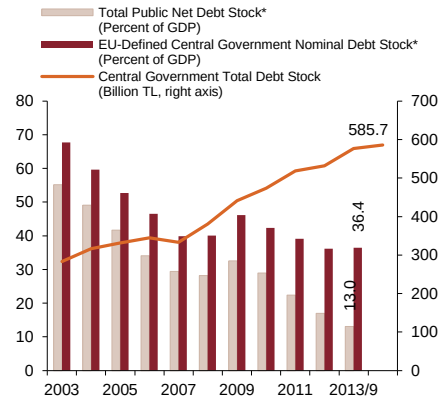
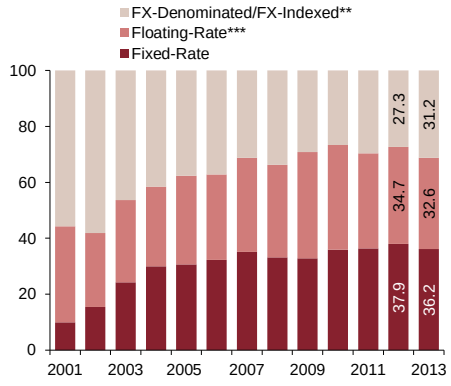


Chart 6.2.2.
Composition of the Central Government Debt Stock
(Percent)



* CBRT's calculation. As of the second quarter of 2013.
** FX-Denominated/FX-Indexed debt stock includes external debt stock and FX-denominated and FX-indexed domestic debt stock.
*** Floating-Rate debt stock includes discounted securities with a maturity less than 1 year and GDBS with floating rates.
Source: Treasury.

In 2013, the Treasury continued with its borrowing strategy of alleviating the sensitivity of the public debt stock to liquidity and interest rate. Yet, the share of fixed-rate securities in the total debt stock fell from end-2012 (Chart 6.2.2). As for the interest and exchange rate structure of domestic borrowing in 2013, the share of fixed-rate securities registered a year-on-year decline, while the share of floating rate securities increased slightly. The ratio of public deposits to average monthly debt service reached 356.8 percent. The average maturity of the domestic cash borrowing displayed a remarkable year-on-year increase in 2013, thereby significantly raising the average term-to-maturity of the domestic debt stock to 46.9 months (Chart 6.2.3). External borrowing by bond issues amounted to 6.2 billion USD, with the average maturity standing at 13.7 years (Chart 6.2.4).

Chart 6.2.3.
Average Maturity of the Domestic Cash Borrowing and Term-to-Maturity of the Domestic Debt Stock
(Month)

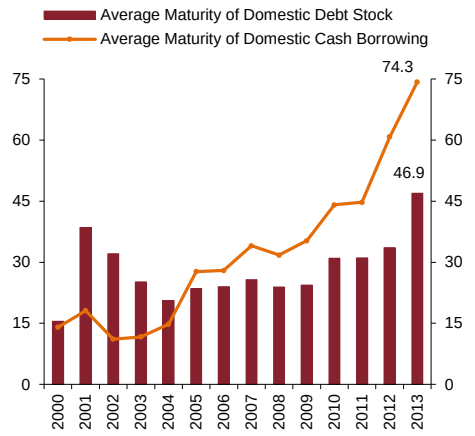
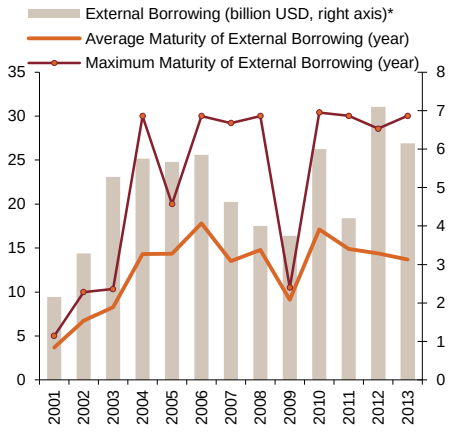


Chart 6.2.4.
Borrowing By Bond Issue



Source: Treasury.

Domestic debt rollover ratio stood at 86 percent at end-November 2013 (Chart 6.2.5). Having plummeted from early 2009 to early 2011 and reaching almost zero in end-2012 and early 2013, the average real interest rate at discount auctions surged amid the recent global financial fluctuations and the cautious monetary policy stance (Chart 6.2.6).

Chart 6.2.5.
Total Domestic Debt Rollover Ratio
(Percent)

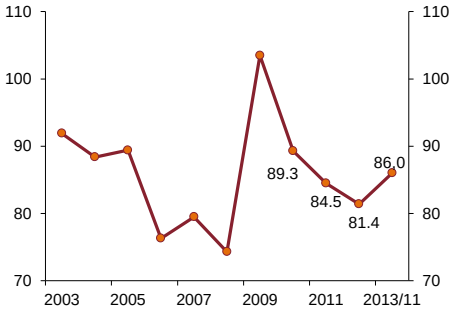
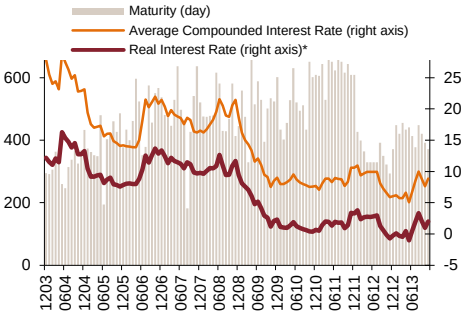


Chart 6.2.6.
Average Maturity of the Borrowing and Interest Rates at Discount Auctions



* Calculated by subtracting the 12-month ahead CPI expectation (CBRT Survey of Expectations) from nominal interest rates (average annual compounded interest rate at the Treasury's TL-denominated zero-coupon securities auction).
Source: Treasury, CBRT.

Box 6.1 Structural Budget Balance and the Fiscal Stance

Structural budget balance is the budget balance when actual national income equals the potential output level. It is obtained by subtracting budget items that are sensitive to cyclical fluctuations from the actual budget balance. This box presents the fiscal stance for 2007-2016 in Turkey by calculating the central government's structural primary budget balance and focusing on cyclical effects and one-off revenues.

The box calculates the structural primary budget balance in line with the OECD approach as outlined in Çebi and Özlale (2011).[1] Yet, unlike Çebi and Özlale (2011), this box excludes unsustainable one-off revenues from the structural budget balance calculation. As another novelty, this box takes the import gap into account when estimating structural tax items for taxes on international trade and operations (VAT on imports, customs duty).[2] On the other hand, similar to Çebi and Özlale (2011), the consumption gap is taken into consideration for indirect taxes (indirect taxes excluding taxes on international trade and operations), while the output gap is used for direct taxes (income tax and corporate tax) in estimating structural budget tax revenues.[3]

One-Off Revenues

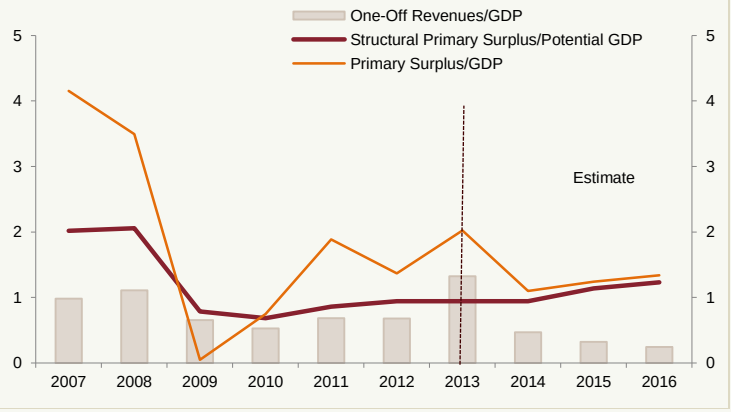
In estimating the structural primary budget balance, some large-scale, one-off revenue items whose effects may spread over one or a few more years are subtracted. Thus, subtracting cyclical effects as well as one-off revenues helps provide a more reliable approach in order to determine fiscal stance in assessing fiscal performance.[4] These one-off revenues include privatization revenues from 2007 to 2016, CBRT profit transfers, dividends from public banks, revenues from 3rd generation GSM sales, net tax payments collected as per Law No. 5811 on Integration of Some Assets into National Economy (Asset Amnesty) and Law No. 6111 on Restructuring Some Claims (Tax Amnesty), revenues from 2B sales and payments by energy-related SEE (BOTAŞ and TEDAŞ) on overdue liabilities.[5] Discretionary (optional) fiscal measures for restricting the negative effects of the global financial crisis on the domestic economy are not considered as one-off measures and are included in the calculation of the structural primary budget balance.

[1] For detailed information on the calculation of the structural budget balance, see Çebi and Özlale (2011).
[2] In estimating structural tax revenues, Çebi and Özlale (2011) also include consumption gap for consumption-based indirect taxes in order to account for composition effect.
[3] The Hodrick- Prescott filter is used in estimating output gap, consumption gap and import gap.
[4] It is important to subtract revenues as well as some one-off spending items within primary expenditures when estimating the structural primary budget balance. Thus, it is necessary to exclude temporary spending items like expenditures following natural hazards such as earthquakes and floods or expenditures for people from neighboring countries who seek refuge due to war, etc. However, since there is no extensive information in official documents regarding these expenditure items, they are not omitted from these calculations.
[5] Data on privatization revenues, CBRT profit transfers and dividends from public banks and revenues from 3rd generation GSM sales are obtained from the Treasury's table on central government budget program-defined primary balance. Data on payments collected as per Law No. 5811 on Integration of Some Assets into National Economy (Asset Amnesty) and revenues from 2B sales are obtained from the Ministry Finance's Public Accounts Bulletin. Data on net payments collected as per Law No. 6111 on Restructuring Some Claims (Tax Amnesty) and information on payments by BOTAŞ and TEDAŞ in 2013 on overdue liabilities are obtained from the Ministry of Development's Annual Programs. Information on expected payments from one-off revenues over the MTP period of 2014-2016 is obtained from Table B of the Central Government Budget Law for 2014.

Structural Primary Budget Balance: Findings and Review

This study estimates the central government structural primary budget surplus for 2007-2016. The estimation of the structural primary budget surplus for 2013–2016 relies on the macro framework outlined in the MTP. Chart 1 shows the ratio of 2007-2016 central government structural primary budget surplus to GDP, the ratio of structural primary budget surplus to potential GDP and the ratio of one-off revenues to GDP. Actual primary budget surplus appears more volatile than the structural primary budget surplus. The structural primary budget surplus adjusted for cyclical effects and one-off revenues, on the other hand, seems to have remained stable following the global financial crisis.

Chart 1. Central Government Structural Primary Surplus
(Percent of Potential GDP)



Discretionary fiscal measures taken during 2008-2009 for restricting the negative effects of the global financial crisis on the domestic economy (temporary tax cuts and hikes on some public expenditures) helped to bring the structural primary budget surplus down, but this fall was not as significant as the actual surplus in the primary budget (Chart 1). The pre-crisis fiscal room (relatively high primary budget surplus and low debt stock) facilitated the active use of fiscal policy tools in maintaining economic stability during the crisis. However, as a result of the counter-cyclical fiscal policies of 2009, budget deficits widened and debt stock increased.

The period following the global financial crisis seems to be marked by small increases in the structural primary budget surplus and attempts to restore fiscal discipline. In other words, there has been some fiscal tightening after the global crisis and the fiscal policy has been broadly a-cyclical. Over the MTP period of 2014–2016, the cautious fiscal stance is likely to be maintained and this is expected to support the CBRT's policies and contribute to macroeconomic stability (Chart 1).

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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

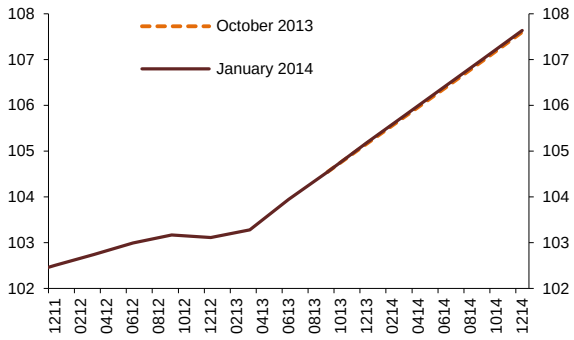
		October 2013	January 2014
Output Gap	2013Q3	-1.90	-1.70
	2013Q4	-1.42	-1.50
Food Prices (Year-end Percent Change)	2014-2016	7.0	8.0
Import Prices (Average Annual Percent Change, USD)	2014	-0.4	0.0
Oil Prices (Average, USD)	2014	105	105
Export-Weighted Global Production Index (Average Annual Percent Change)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

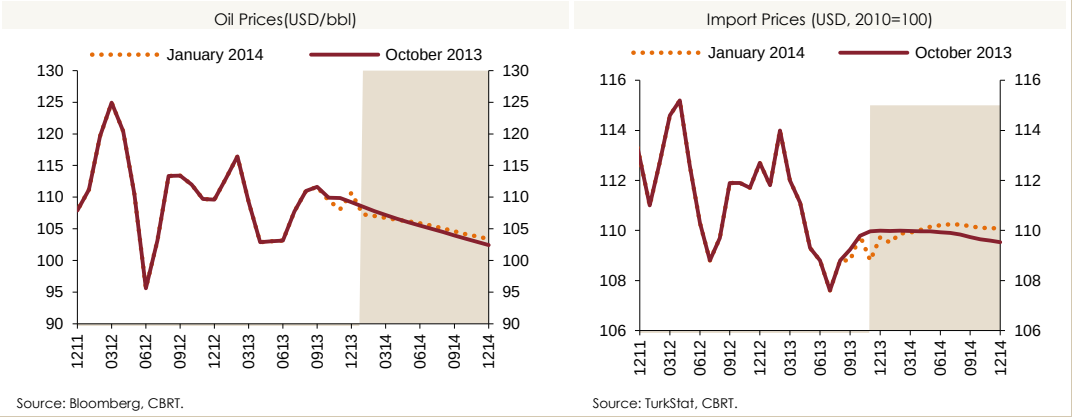


* For methodology, see Box 2.1, Inflation Report 2010-II.
Source: Bloomberg, Consensus Forecasts, CBRT.

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

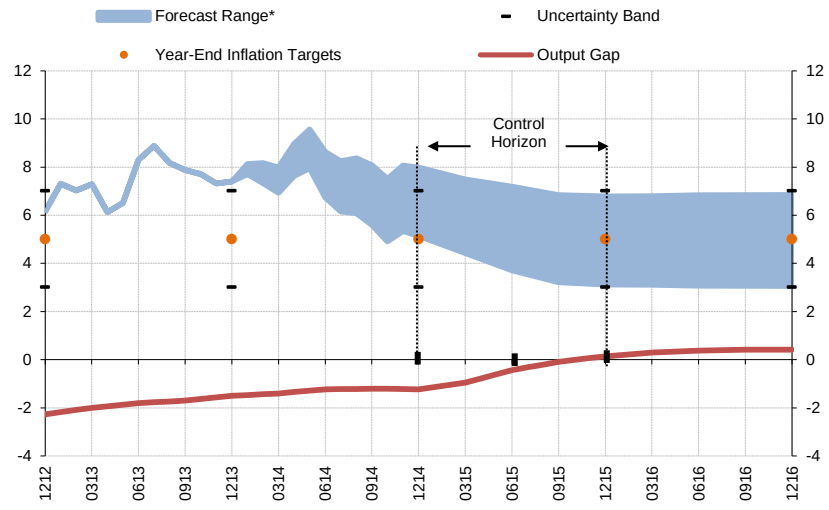
imposed on these prices in the rest of the year, while price hikes to electricity and natural gas are assumed to be consistent with the inflation target.

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.

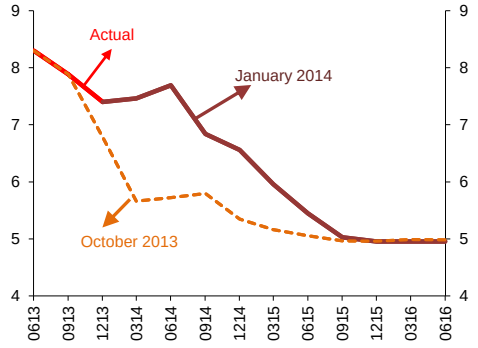
On account of the tax adjustments and the lagged effects of exchange rate developments, inflation is envisaged to fluctuate and remain considerably above the 5 percent target in the short run. Base effects also play a significant role on the course of inflation (Box 3.1). Inflation is expected to assume 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).

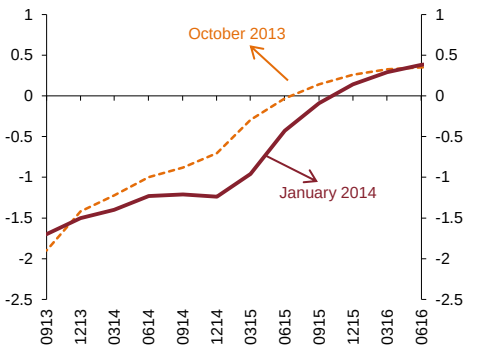
Comparison of October 2013 and January 2014 Inflation Report Forecasts

Chart 7.2.2.
Inflation Forecast
(Percent)



Source: TurkStat, CBRT.

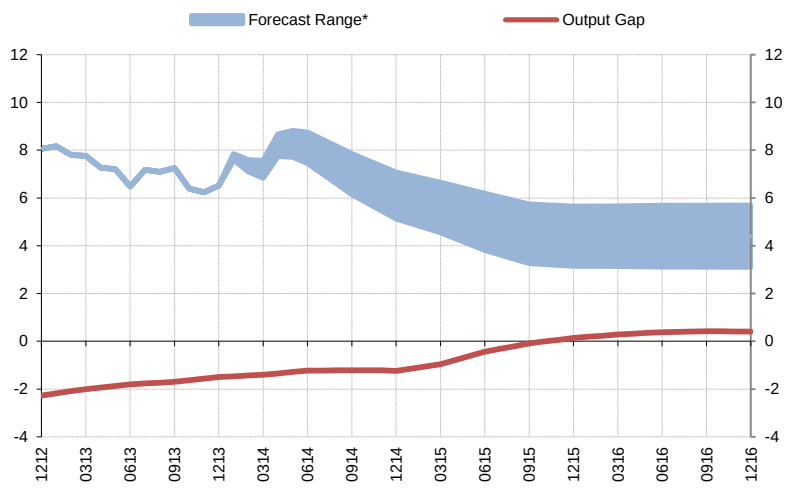
Chart 7.2.3.
Output Gap Forecast
(Percent)



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

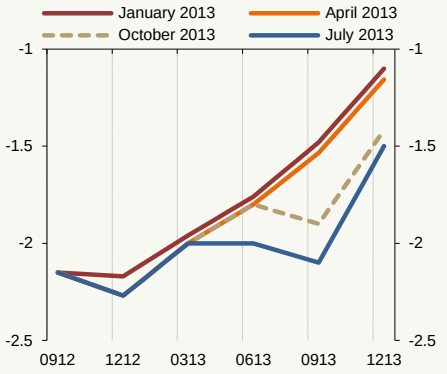
* Shows the sources of the difference between actual inflation and the October forecast. Year-end inflation for 2013 was realized as 7.4 percent.
**Alcoholic beverages and tobacco products.
Source: CBRT.

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).

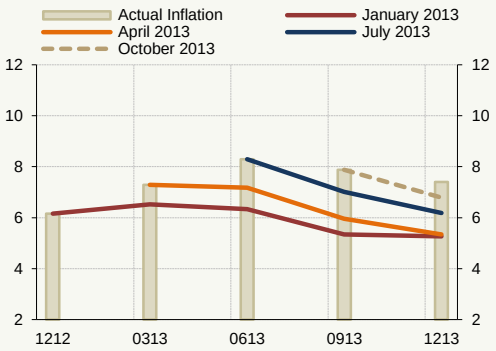
Exchange rate developments in the final quarter put upward pressure on inflation. Together with the developments in import prices, exchange rate developments explain the 0.4 percentage point difference between the year-end inflation forecast and actual inflation (Table 2). Meanwhile, due to tax adjustments 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.

Charts

1. OVERVIEW

2. INTERNATIONAL ECONOMIC DEVELOPMENTS

3. INFLATION DEVELOPMENTS

4. SUPPLY AND DEMAND DEVELOPMENTS

5. FINANCIAL MARKETS AND FINANCIAL INTERMEDIATION

Tables

Boxes in Previous Inflation Reports

2013-IV

1.1. Money Markets and the CBRT
2.1. Forward Guidance in Monetary Policy Communication
3.1. Import Prices and Exchange Rate Pass-Through in the CPI and Subcategories
4.1. Impact of Bridge Days on the Industrial Production Index
4.2. Contribution of Public Expenditures to GDP Growth
4.3. Degree of Rigidity in Residential Rents in Turkey
4.4. The Effects of Demographic and Social Changes on Household Savings in Turkey
5.1. The Effectiveness of Macroprudential Measures in Moderating Volatile Capital Flows: The Case of Turkey
5.2. Carry Trade Returns
6.1. Effects of Public Spending Shocks on Real Exchange Rate and External Trade Deficit

2013-III

3.1. The Effect of Domestic Cost Measures on Inflation
4.1. Global Import Growth and Turkey's Exports
4.2. Cyclically Adjusted Current Account Deficit in Turkey
4.3. Average Hours Worked in the Non-Farm Sector
4.4. Relative Housing Price Deflator in Turkey
5.1. Reserve Options Mechanism as an Automatic Stabilizing Policy Tool
5.2. External Borrowing of Banks and ROM
5.3. The CBRT's Liquidity Management and Overnight Market Rates
5.4. Yield Curve for Private Sector Securities

2013-II

1.1. Credit Impulse and the Business Cycle
2.1. Export-Weighted Global PMI Index and the Growth Threshold
3.1. Reasons Underlying the Divergence Between the CPI and PPI Inflation Rates
3.2. Minimum Wage, Employer's Cost and PPI Inflation
4.1. Revisions to the Industrial Production Index
4.2. Effect of Capital Accumulation on Capacity Utilization Rates
4.3. Effects of the External Gold Trade on Macroeconomic Aggregates
4.4. Contributions to the Labor Force Participation Rate
4.5. Effect of 2008 Employment Incentives on Employment by Various Demographic Groups
5.1. Unconventional Monetary Policy Tools and Credit Growth
5.2. The Relation Between O/N Swap Rates and the BIST O/N Repo Rates

2013-I

1.1. What Should be the Plausible Rate of Growth for Loans in Turkey?
2.1. Fiscal Cliff and Potential Effects
3.1. Recent Changes to Taxing of Tobacco Products and the Effects of SCT Rate Hikes on Prices
4.1. Global Output and the Market Share Component of the Export Growth in Turkey
4.2. A Retrospective Analysis of the Current Account Balance in 2012
5.1. Reserve Options Mechanism and the Exchange Rate Volatility
5.2. The Monetary Policy of the CBRT and the USD/TL Exchange Rate Expectations: A Cross-Country Comparison
6.1. The Sensitivity of Tax Revenues to Business Cycles in Turkey
7.1. Sources of Revisions to 2012 Year-end Inflation Forecasts

Abbreviations

AMA	Automotive Manufacturers Association
bbl	barrel
BIST	Borsa İstanbul
BOTAŞ	Petroleum Pipeline Corporation
BRSA	Banking Regulation and Supervision Agency
BTS	Business Tendency Survey
CBRT	Central Bank of the Republic of Turkey
CDS	Credit Default Swap
CPI	Consumer Price Index
ECB	European Central Bank
EMBI	Emerging Markets Bond Index
ENS	Extended Nelson-Siegel
EPFR	Emerging Portfolio Fund Research
EU	European Union
FCI	Financial Conditions Index
Fed	Federal Reserve Bank
FOMC	Federal Open Markets Committee
FX	Foreign Exchange
GDBS	Government Domestic Borrowing Security
GDP	Gross Domestic Product
HLFS	Household Labor Force Survey
IHS	Information Handling Services
IMF	International Monetary Fund
JPMVXYEM	JP Morgan Emerging Market Volatility Index
LMF	Large and Medium-Sized Firms
LPG	Liquid Petroleum Gas
MOVE	Merrill Option Volatility Estimate
MPC	Monetary Policy Committee
MSCI	Morgan Stanley Capital International
MTP	Medium-Term Program
OMO	Open Market Operations
O/N	Overnight
PDP	Public Disclosure Program
PMI	Purchasing Managers Index
PPI	Producer Price Index
ROM	Reserve Options Mechanism
SCA	Special CPI Aggregate
SCT	Special Consumption Tax
SEE	State Economic Enterprises
SF	Small Firms
SME	Small and Medium-Sized Enterprises
S&P	Standard and Poor's
SSI	Social Security Institution
TEDAŞ	Turkish Electricity Distribution Company
TL	Turkish Lira
TurkStat	Turkish Statistical Institute
UK	United Kingdom
US	United States
USA	United States of America
USD	United States Dollar
VAR	Vector Autoregression
VAT	Value Added Tax
VIX	Volatility Index
WGMA	White Goods Manufacturers' Association

2014 Calendar for MPC Meetings, Inflation Report and Financial Stability Report			
MPC Meetings	Summary of MPC	Inflation Report	Financial Stability Report
January 21, 2014	January 28, 2014	January 28, 2014	
February 18, 2014	February 25, 2014		
March 18, 2014	March 25, 2014		
April 24, 2014	April 30, 2014	April 30, 2014	
May 22, 2014	May 29, 2014		May 29, 2014
June 24, 2014	July 1, 2014		
July 17, 2014	July 24, 2014	July 30, 2014	
August 27, 2014	September 3, 2014		
September 25, 2014	October 2,, 2014		
October 23, 2014	October 31, 2014	October 31, 2014	
November 20, 2014	November 27, 2014		November 27, 2014
December 24, 2014	December 31, 2014		