5. Financial Markets and Financial Intermediation

Global financial markets remained volatile in the last quarter. Japan, China and the Euro Area displayed a sluggish growth outlook in contrast to the signals of improvement in the US economic activity given by growth figures and leading indicators. All these led to policy divergence among advanced economies. Expectations of a sustained loose monetary policy in the Euro Area and Japan and perceptions regarding the earlier-than-expected normalization in the Fed's monetary policy strengthened. On the other hand, despite the recovery in economic activity, the Fed' s announcement for patience on the policy rate hike kept uncertainties regarding the policy rate decision. Moreover, the diversified effects of elevated geopolitical risks in the Middle East and the marked fall in oil prices of the oil-exporting and importing economies caused fluctuations in global financial markets.

The fall in oil prices had consequences particularly on the macroeconomic indicators of oil-exporting countries and their financial markets, yet underpinned the improvement in the current account deficit and inflation outlook of energy-importing Turkey. Decreasing oil prices besides the quantitative easing packages launched in the Euro Area and Japan and the Fed's announcement for patience regarding the policy rate increase had relatively more positive effects on financial markets in Turkey and limited the negative reverberations of fluctuations in global financial markets on domestic markets. The improved inflation outlook and current account deficit had positive effects on the risk perceptions regarding Turkey in addition to the exchange rate, equity and bond markets.

The FCI calculated for Turkey indicates that financial conditions proved more supportive on a quarterly basis, yet do not signal any apparent acceleration in credits in the last quarter of 2014 (Chart 5.1). In this period, index components provided mostly positive yet limited contributions to financial conditions (Chart 5.2). The contribution of credit conditions and loan rate has been near zero, while that of the risk premium, the exchange rate, stock gains and market rates proved positive in the last quarter.

Chart 5.1.
Financial Conditions and Credit Growth*

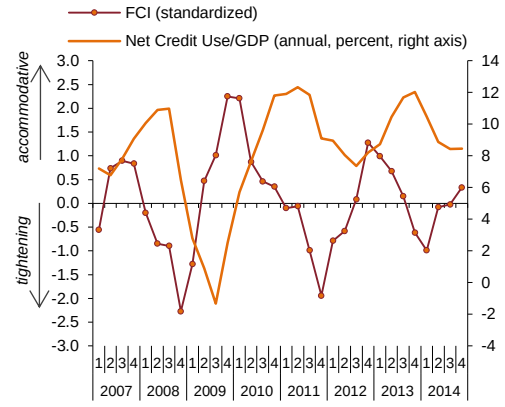
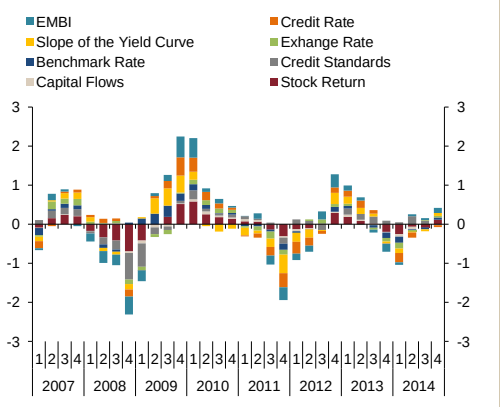


Chart 5.2.
Contributions to FCI**



* For further details on measuring FCI, see the CBT Research Notes in Economics No. 12/31.
** Slope of the yield curve is denoted by the spread between 10-year and 2-year interest rate. For pre-2010 period, 10-year cross currency swap rate is used due to absence of 10-year interest rates.
Source: CBRT.

5.1. Financial Markets

Global Risk Perceptions

The persisting uncertainty over global monetary policies in the last quarter of 2014, the rather high US annual economic growth in the third quarter similar to the second quarter and the rebound in leading indicators led to a strong perception that the Fed might antedate the policy rate increase. On the other hand, the ECB kept the negative interest rates on the deposit facility unchanged against the sluggish course of economic activity in the Euro Area and the existing deflationary conditions. Moreover, in the first quarter of the year, the ECB launched the pre-announced 2-year asset-backed securities purchase program to stimulate the economy. The implementation of quantitative and qualitative easing policies by the Bank of Japan to enhance the economy considering the second and third-quarter-data, which pointed to a contraction, stood out as another notable development in this quarter. Persisting uncertainties regarding global monetary policies, elevated geopolitical risks and the plunging of energy and commodity prices led to sharp increases in volatility indices in this period (Charts 5.1.1 and 5.1.2). Following the deteriorated risk sentiment, global investors fled increasingly towards safe-haven US assets with their preferences shifting from equities to government bonds, which sustained the downtrend in the long-term rates in the US (Chart 5.1.1).

Chart 5.1.1.
10-Year US Treasury Bond Rates and MOVE Index

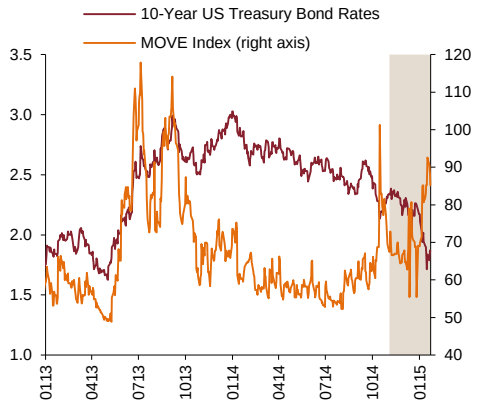
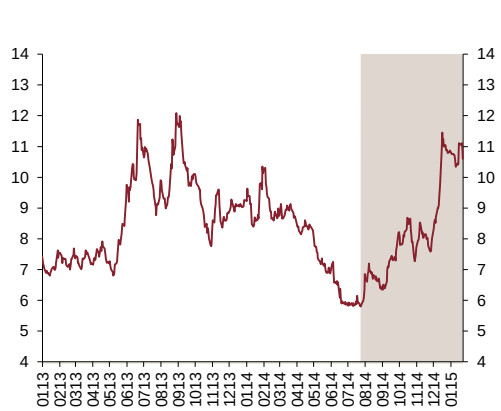


Chart 5.1.2.
JPMVXYEM Volatility Index
(Percent)



Source: Bloomberg.

In the last quarter, signals by the Fed regarding a policy rate hike upon the announcement of the US growth figures, the risk of lower-than-estimated growth rates in emerging economies besides tumbling energy prices deteriorated the risk sentiment towards emerging economies, leading to a higher risk premium. In fact, after the decline in the first half of the year, the EMBI assumed an upward course in the second half (Chart 5.1.3). On the other hand, the CDS premium, which followed a fluctuating course in the second half of the year, saw a sharp increase in the last quarter amid the elevated risk perception particularly towards oil-exporting countries upon the fall in energy prices (Chart 5.1.4).

Chart 5.1.3.
Regional EMBI Indices
(Basis Points)

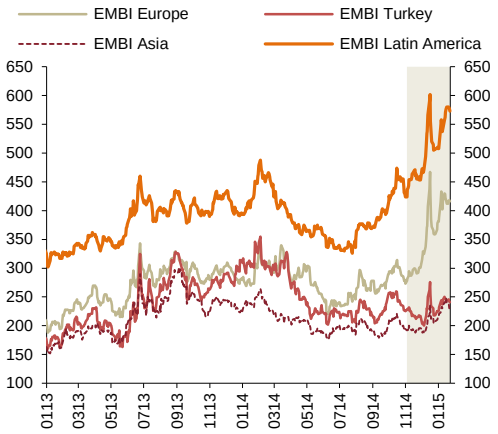
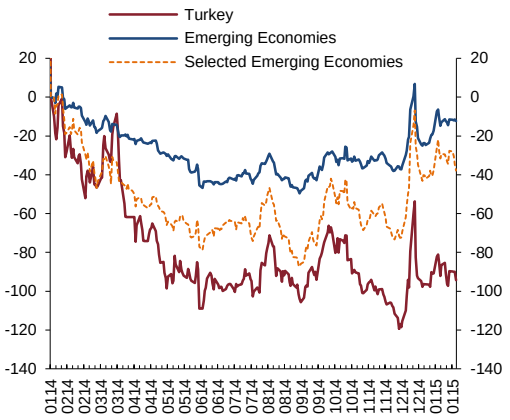


Chart 5.1.4.
Changes in CDS*
(Basis Points)

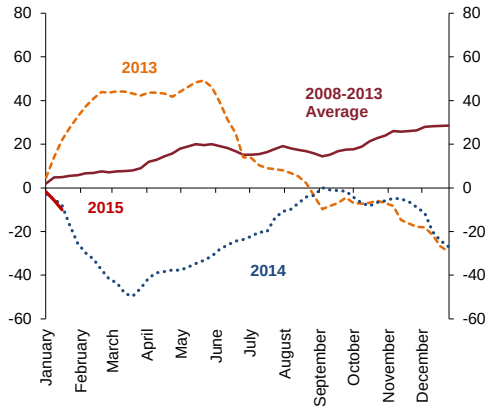


* Emerging economies include Brazil, Chile, Colombia, Czech Republic, Hungary, Indonesia, Mexico, Poland, Romania and South Africa. Selected emerging economies are Brazil, Indonesia and South Africa. Denote changes since January 24, 2014.
Source: Bloomberg.

Portfolio Flows

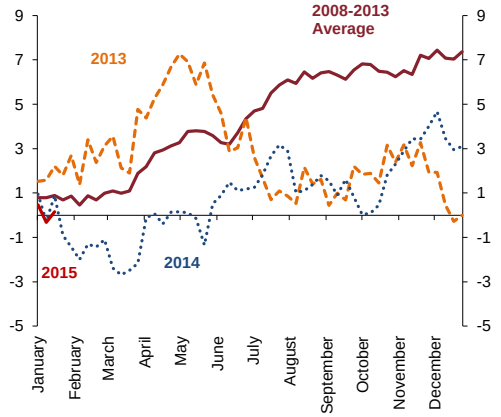
The loss of momentum in growth performances across emerging economies and the uncertainties surrounding global monetary policies caused portfolio outflows from emerging economies in the last quarter of 2014 to continue in early 2015 (Chart 5.1.5). Portfolio flows to Turkey increased in this period amid falling energy and commodity prices that decreased the sovereign risk and diverged remarkably from that of other oil-exporting emerging economies. Abundant portfolio inflows in the October-November period were followed by limited outflows in December. Meanwhile, in cumulative terms, portfolio flows posted positive figures from the start of 2014 (Chart 5.1.6).

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



* Includes equity and bond flows.
Source: EPFR.

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



* Excludes repo and includes equity and bond flows.
Source: CBRT.

Exchange Rates

The favorable data on US growth and employment, the economic recovery exhibited by leading indicators and the Fed's statements led to an expectation in the markets that the Fed might start to normalize the monetary policy earlier than estimated. On the other hand, expectations that the loose monetary policy will be maintained through new quantitative easing measures in the Euro Area and Japan caused the US dollar index to rise further in the last quarter. Currencies of emerging economies have depreciated against the USD since the publication of the October Inflation Report (Chart 5.1.7).

In the last quarter, the Turkish lira moved in tandem with the currencies of other emerging economies. The relationship between the exchange rate basket and the risk premium continued and both saw large fluctuations, yet increased slightly. The exchange rate basket, which was around 2.50 TL on 31 October 2014, the publication date of the October Inflation Report, stood at 2.48 TL on 22 January 2015 (Chart 5.1.8). The Turkish lira depreciated by around 4.5 percent against the USD, but appreciated by about 5 percent against the euro.

Chart 5.1.7.
TL and Emerging Market Currencies vs USD*
(22.05.2013=1)

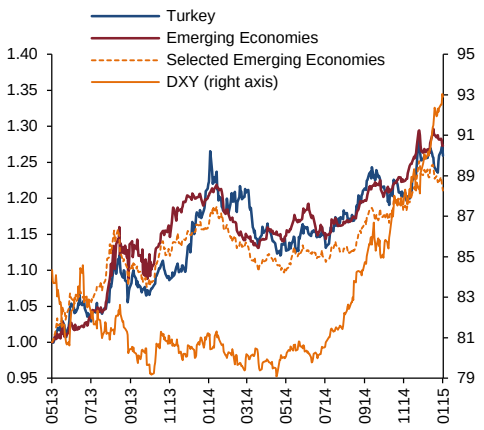
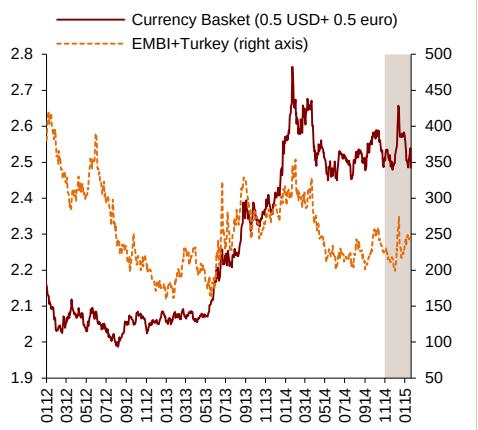


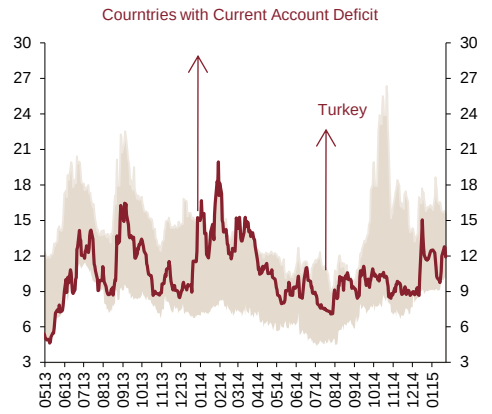
Chart 5.1.8.
Currency Basket and the Risk Premium



* Emerging economies include Brazil, Chile, Colombia, Czech Republic, Hungary, Indonesia, Mexico, Poland, Romania, South Africa, India and Turkey. Selected emerging economies are Brazil, Indonesia, South Africa and India.
Source: Bloomberg.

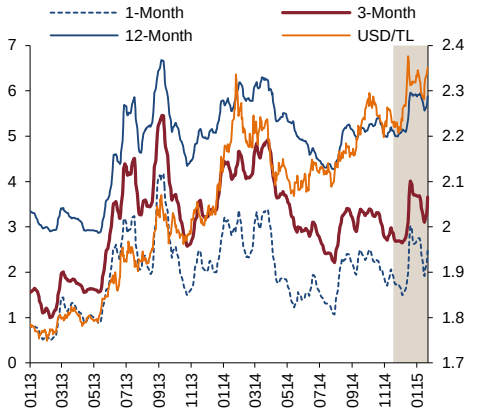
Against these developments, implied exchange rate volatilities of the emerging market currencies have increased as of the midst of the last quarter of 2014 (Chart 5.1.9). In line with the recent unfavorable course of the global risk appetite, the implied volatility of the Turkish lira has heightened on par with the currencies of other emerging economies. Additionally, the movement in exchange rates observed as of the middle of the last quarter was also seen in risk reversal positions that denote the differences among the volatilities implied by call and put options. Parallel to the developments in the implied exchange rate volatilities amid the Russia-driven fluctuations in mid-December, risk reversal positions have also increased (Chart 5.1.10.). The increase in this difference shows that expectations for Turkish lira depreciation outweigh those for appreciation.

Chart 5.1.9.
Implied Volatility of Exchange Rates*
(1-Month-Ahead)



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

Chart 5.1.10.
25 Delta Risk Reversal Positions at Various Maturities*
(5-Day Moving Average, Percent)



* Risk reversal position denotes the difference between implied volatilities of call and put options with the same delta. An increase indicates higher expectations for the depreciation of the TL with respect to an appreciation.
Source: Bloomberg, CBRT.

Monetary Policy

Global financial markets followed a fluctuating course in the last quarter of 2014. New easing packages were announced in Europe and Japan in this period, while the slowdown in economic activity continued in countries except for the US. In spite of the expectations of normalization in the Fed's monetary policy, the slowdown in the global economy may postpone the start of this normalization process. Ongoing uncertainties regarding this process caused the global risk appetite and capital flows to remain sensitive to the data. The CBRT maintained its tight monetary policy stance during this period. However, given the favorable developments especially in inflation indicators excluding energy and food as well as the improved inflation expectations, the CBRT reduced the 1-week repo auction rate from 8.25 points to 7.75 points in January 2015.

To maintain balanced growth and the permanence of capital inflows during the normalization of the global monetary policy, the CBRT raised the banks' transaction limits at the Foreign Exchange and Banknotes Markets from 10.8 billion USD to USD 21.62 billion as of 10 December, considering the increase in banks' balance sheets and the CBRT's international reserves.

On the other hand, due to persisting uncertainties regarding global finance and economic activity developments, implementation of macroprudential policies to limit macrofinancial risks and support prudent borrowing is significant. Accordingly, containing short-term and foreign currency denominated borrowing is important. The analysis of the private sector external borrowing indicates that a large portion of short-term external borrowing is owned by the banking sector and the short-term liabilities of the banking sector have increased rapidly in recent years (Chart 5.1.11). The CBRT announced on 3 January 2015 that the required reserve ratios applied to non-core FX-denominated short-term liabilities of banks and financing companies were raised to extend the maturities of external borrowing (Chart 5.1.12). The average reserve requirement ratio for FX, which was 11.7 percent, was raised to 12.8 percent. The extension of maturities in the banking sector is expected to increase the CBRT reserves' coverage ratio of short-term external debts. Moreover, the CBRT's arrangement on the remuneration of TL required reserves for stimulating core liabilities was put into effect in January 2015.

These arrangements are expected to limit macrofinancial risks and contribute to balanced growth by supporting prudent borrowing (Box 5.1).

Chart 5.1.11.
Short-Term External Funding
(Billion USD)

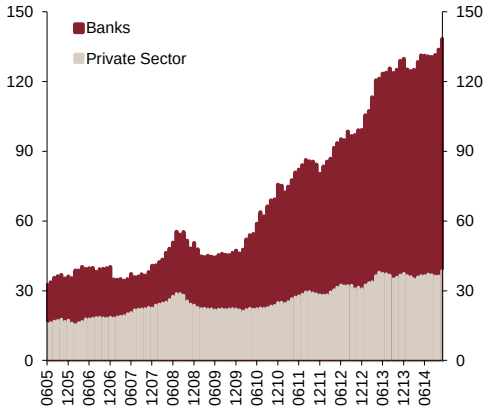
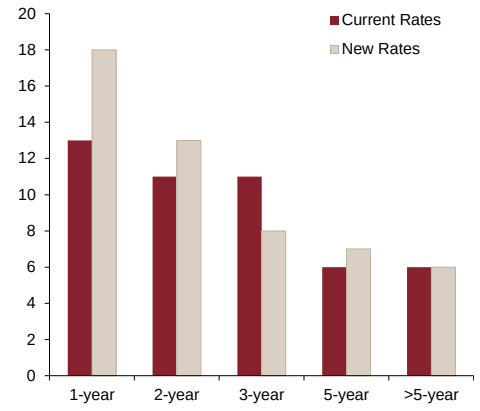


Chart 5.1.12.
FX Required Reserve Rates
(Percent)



Source: CBRT.

In line with the decision to simplify the operational framework of the monetary policy made at the interim MPC meeting in January 2014, the CBRT funding has been provided mostly through 1-week repo auctions since the publication of the October Inflation Report (Chart 5.1.13). Meanwhile, given the geopolitical risks and the volatility in financial markets since September 2014, a tight monetary policy has been supported by a tight liquidity policy. Thus, the BIST overnight repo rates have remained close to the upper band of the interest rate corridor since the publication of the October Inflation Report due to the liquidity policy (Chart 5.1.14).

Chart 5.1.13.
CBRT Funding
(2-Week Moving Average, Billion TL))

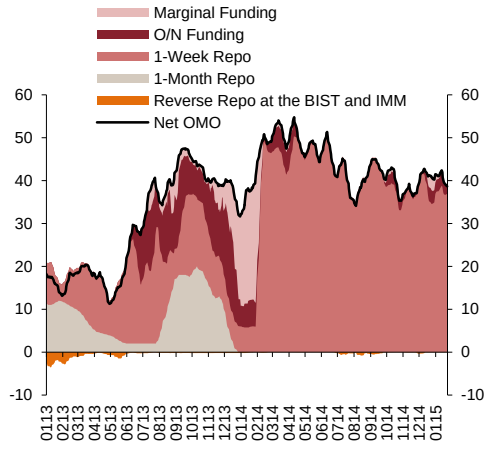
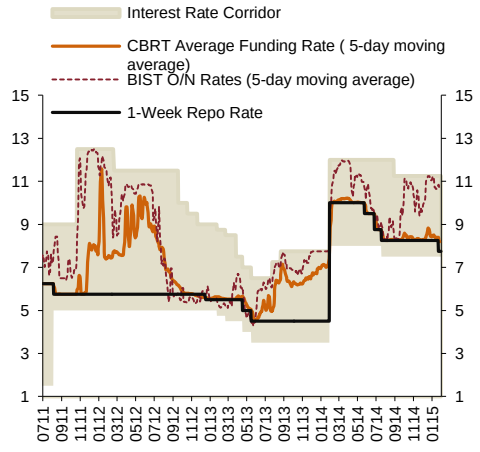


Chart 5.1.14.
CBRT Rates and BIST O/N Repo Rates (Percent)

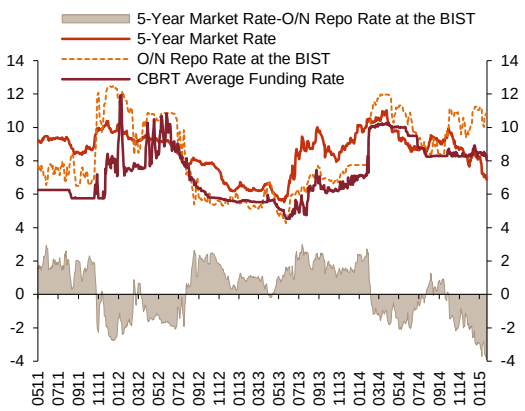


Source: BIST, CBRT.

The spread between 5-year market rates and the BIST overnight repo rates has posted negative values since the last quarter of 2014 (Chart 5.1.15). Owing to the tight liquidity policy, the fall in market rates has been more limited in short-term rates and the yield curve has remained almost flat (Chart 5.1.16). The CBRT will closely monitor inflation expectations, pricing behavior and other factors

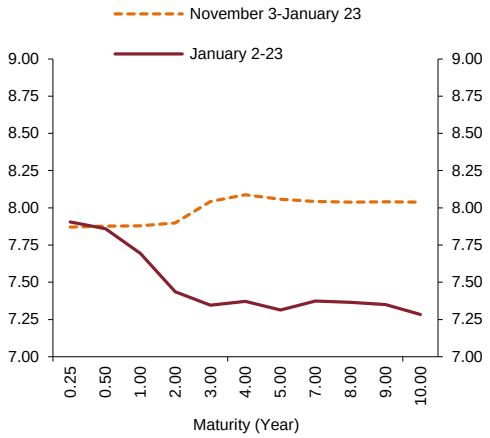
affecting inflation in the upcoming period and maintain its tight monetary policy stance by keeping the yield curve flat until there is a significant improvement in the inflation outlook.

Chart 5.1.15.
Market Rates and the CBRT Funding Rate
(Percent)



Source: Bloomberg, CBRT.

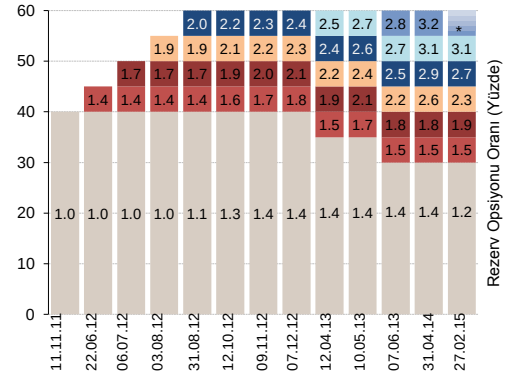
Chart 5.1.16.
Yield Curve
(Percent)



Source: Bloomberg.

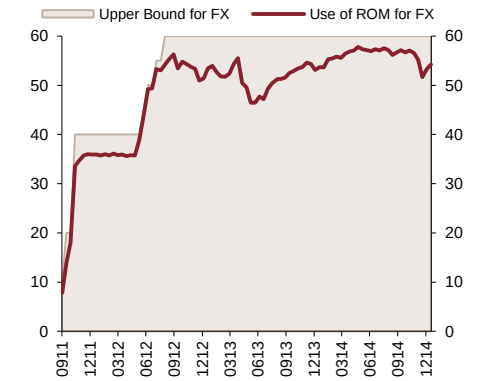
With the announcement on 3 January 2015, the CBRT introduced changes to reserve option tranches and coefficients to strengthen the automatic stabilizing feature of the ROM. Accordingly, to meet the required FX liquidity due to the adjustments in the reserve requirement ratios, the ROC in the first 30-percent-tranche was lowered by 0.2 points. Furthermore, with the upper limit of the facility unchanged, the corresponding ROC to each additional tranche was raised by 0.2 points for tranches above 55 percent (Chart 5.1.17). This change is expected to reduce the use of ROM to a limited extent under the condition that other factors affecting the use of the ROM remains constant. Moreover, increased ROC in upper tranches is estimated to underpin the automatic stabilizing feature of the ROM against capital movements. The use of ROM by banks stands at 90 percent (54.2/60) for FX and 88 percent (26.3/30) for gold as of the maintenance period on 16 January 2015 (Chart 5.1.18).

Chart 5.1.17.
FX Reserve Option Coefficients



* ROC increases by 0.2 percent for each tranche above 55 percent.
Source: BIST, CBRT.

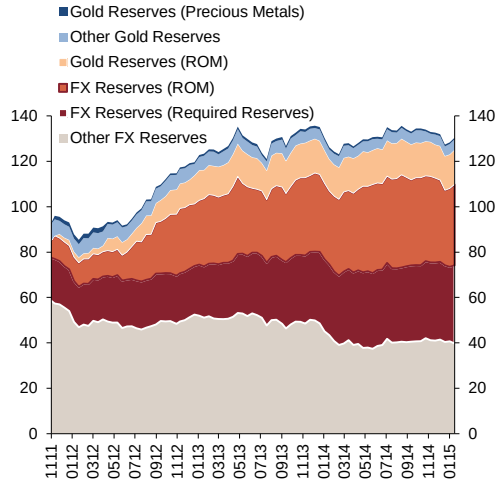
Chart 5.1.18.
Banks' Use of ROM for FX*
(Percent)



* As of the maintenance period.
Source: CBRT.

CBRT reserves have declined compared to the October Inflation Report (Chart 5.1.19). Banks' reserves maintained under the FX reserve option decreased due to the fall in the use of the ROM, while reserves maintained against the FX reserve requirement remained almost unchanged in this period. Moreover, the CBRT announced that the required portion of the FX requirements of energy-importing SEEs would be met directly by the Undersecreteriat of the Treasury and the CBRT as of 17 December 2014. Meanwhile, the CBRT raised the limits of export rediscount credits on 23 January 2015 and widened the scope of firms that can utilize these loans. These changes will enable exporters and the services sector firms, which have FX-denominated earnings, to make greater use of the CBRT rediscount credits. The CBRT reserves increased by 13 billion USD via export rediscount credits in 2014 and are expected to exceed 15 billion USD in 2015 through the introduction of new facilities. However, continuing with FX selling auctions will lower the CBRT's FX reserves in the upcoming period (Table 5.1.1).

Chart 5.1.19.
CBRT FX Reserves*
(Billion USD)



* As of January 16.
Source: CBRT.

Table 5.1.1.
Contribution to FX Reserves*
(Billion USD)

	FX Sales (-)	Rediscount Credits (+)
March 2014	1.05	0.48
April 2014	1.02	0.36
May 2014	0.50	2.06
June 2014	0.42	1.54
July 2014	0.38	1.46
August 2014	0.21	1.38
September 2014	0.31	1.42
October 2014	0.72	1.32
November 2014	0.80	0.79
December 2014*	2.19	1.34
January 2015*	1.55**	2.04***
February 2015		1.33***
March 2015		1.27***

* Includes direct sales to SEEs.
** As of January 21.
*** Provisional.
Source: CBRT.

Market Rates

Due to the fall in the emerging market sovereign risk premium in the beginning of the last quarter of 2014, market rates decreased in emerging economies. In December, the uncertainties in global markets resulted in volatile market rates. Furthermore, market rates continued to fall in January (Charts 5.1.21 and 5.1.22), while Turkey's market rates registered a decline due to the improved inflation outlook in this period. Turkey's proximity to regions dominated by geopolitical and economic risks caused market rates to follow a more volatile course than in any other emerging economy. Five-year and 6-month market rates have registered the most dramatic fall in Turkey across other countries since the previous reporting period (Charts 5.1.23 and 5.1.24).

Chart 5.1.20.
5-Year Market Rates*
(Percent)

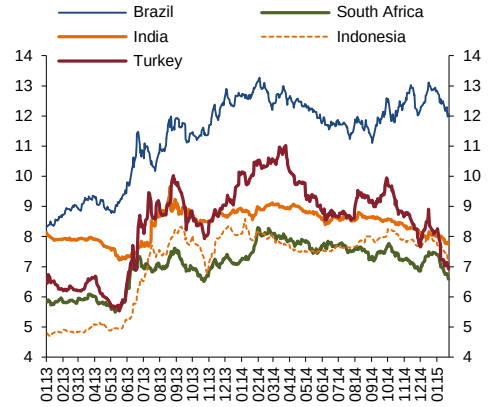
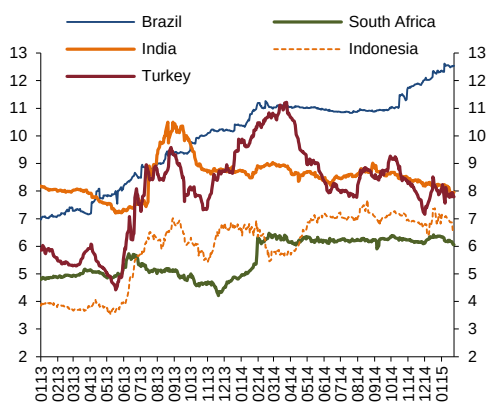


Chart 5.1.21.
6-Month Market Rates*
(Percent)



* As of January 22. 4-year market rates are used for Brazil.
Source: Bloomberg.

Chart 5.1.22.
5-Year Market Rates*
(Percent)

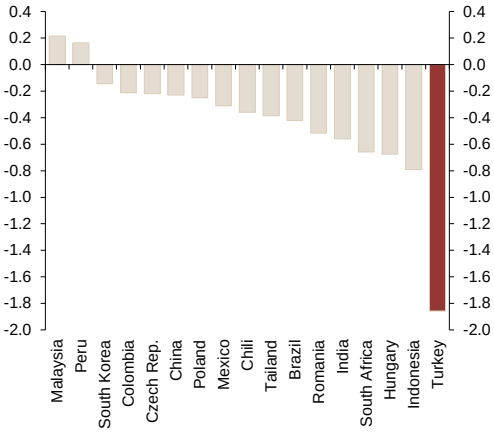
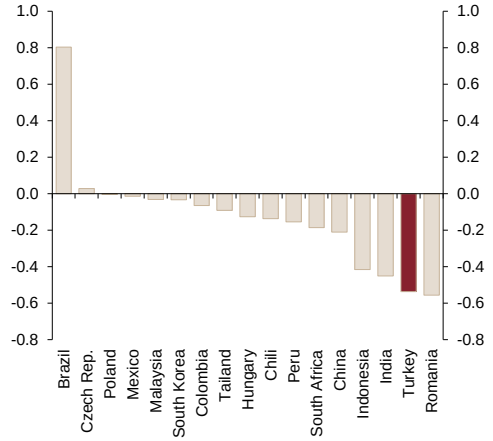


Chart 5.1.23.
6-Month Market Rates*
(Percent)



* Denotes changes from November 3 to January 22. 4-year market rates are used for Brazil.
Source: Bloomberg.

The CBRT continued with a tight monetary policy stance by resorting to additional liquidity measures in the last quarter of 2014 due to growing geopolitical unrest and financial market volatility since September. Meanwhile, parallel to the fall in market rates in this period, the median of the expected overnight rate distribution at the BIST Repo and Reverse Repo Market shifted left in the inter-reporting period (Chart 5.1.25). Inflation expectations, another factor that may be influential on market rates, posted a decline compared to October (Chart 5.1.26).

Chart 5.1.24.
Expected O/N Rates at the BIST Repo and Reverse Repo Market*

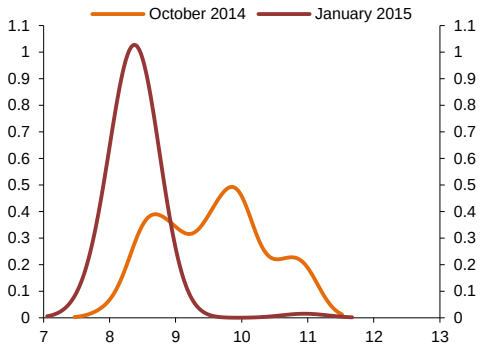
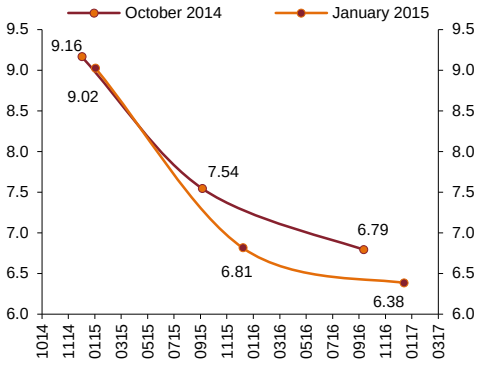


Chart 5.1.25.
Inflation Expectations**



* CBRT Survey of 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.

In the last quarter of 2014, real interest rates in Turkey followed a fluctuating course parallel to the developments in global markets. Amid the limited improvement in 2-year inflation expectations, the course of nominal interest rates became the main determinant of the real interest rates in this quarter (Chart 5.1.27). Meanwhile, the benchmark rate recorded a notable decline early in the last quarter and followed a volatile path in December due to global uncertainties parallel to the sovereign risk (Chart 5.1.27). In this period, Turkey's 2-year real interest rate displayed a larger decline than other emerging economies and ranked around the middle among them (Chart 5.1.28). This is attributed to an improved outlook in inflation and external balance coupled with the CBRT's tight monetary policy stance.

Chart 5.1.26.
2-Year Real Interest Rates for Turkey*
(Percent)

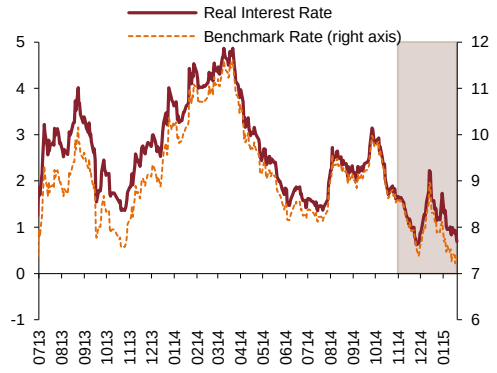
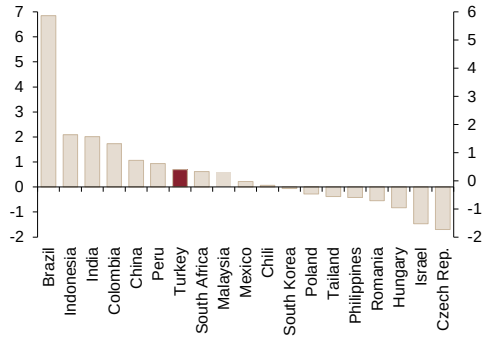


Chart 5.1.27.
2-Year Real Interest Rates*



* Calculated as the difference between 2-year market rates obtained from Bloomberg and the 24-month-ahead inflation expectations derived from the CBRT Survey of Expectations. As of January 22.
Source: BIST, CBRT.

* Calculated as the difference between 2-year government bond returns of countries and the 24-month-ahead inflation expectations derived from the Consensus Forecasts. As of January 22.
Source: Bloomberg, Consensus Forecasts, CBRT.

Loan Rates and Banking Sector Funding Costs

Having increased notably in early 2014, rates on loans extended to the non-financial sector declined gradually afterwards amid loosened domestic and external financing conditions. The largest fall in consumer loans appeared in personal loans with a quarter-on-quarter decline by around 50 basis points (Chart 5.1.28). Rates on commercial loans, which are mostly extended in the short term, increased in the start of the quarter, yet recently trended downwards. Accordingly, commercial loan

rates displayed a 50 basis-point rise in the last quarter of 2014 compared to the end of the third quarter (Chart 5.1.29). According to the Loan Tendency Survey results of the last quarter, banks also tightened the conditions for fees and commissions (non-interest charges), albeit slightly.

Chart 5.1.28.
Consumer Loan Rates
(Flow, Annualized, Percent)

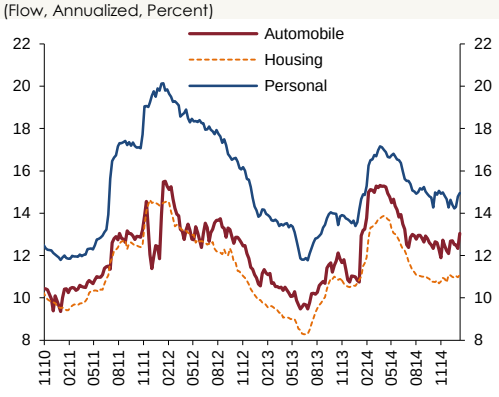
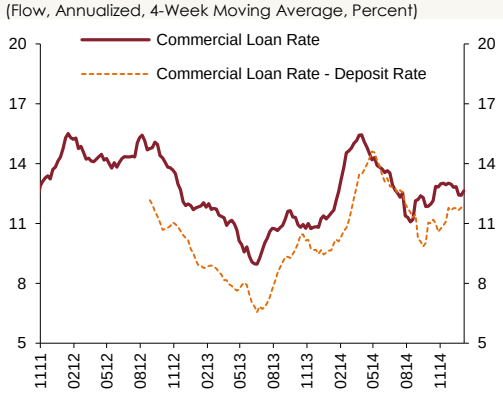


Chart 5.1.29.
TL Commercial Loan Rates
(Flow, Annualized, 4-Week Moving Average, Percent)



Source: CBRT.

Following a moderate rise in the third quarter of 2014, deposit rates posted an uptick by approximately 40 basis points in the last quarter due to the pass-through from short-term market rates. This is consistent with the banks' claim in the Loan Tendency Survey that domestic funding conditions tightened. Due to the fall in commercial loan rates at the end of the last quarter, the spread between the commercial loan rate and the deposit rate went slightly below 3.30 percent (Chart 5.1.30). Thus, rates on bills and bonds issued by banks posted a decline because of fund inflows towards Turkey in the last quarter in contrast to the deposit and the CBRT average funding rates (Chart 5.1.31).

Chart 5.1.30.
TL Commercial Loan Rate and Deposit Rate
(Flow, Annualized, 4-Week Moving Average, Percent)

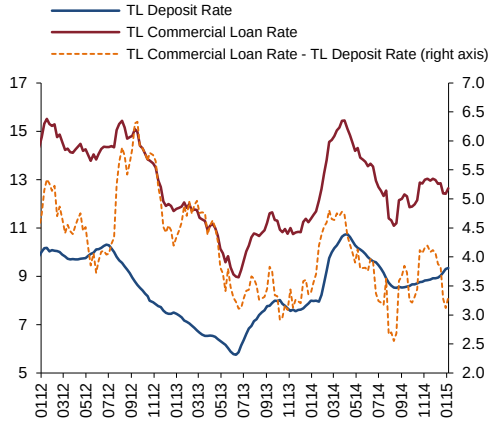
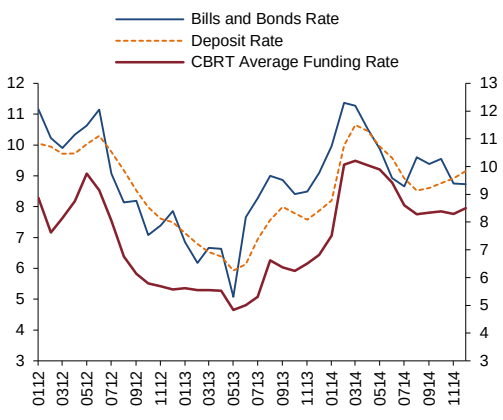


Chart 5.1.31.
Indicators on Banks' Funding Costs



Source: CBRT.

5.2. Credit Volume and Monetary Indicators

The net credits to the GDP ratio, which is critical to financial stability and an indicator of the relationship of credit growth with economic activity and aggregate demand, trended further downwards in the last quarter of 2014 and fell to 10 percent reflecting the slowdown in the credit growth (Chart 5.2.1). In the next quarter, with the CBRT's prudent policy stance, the net credits to the

GDP ratio will follow a moderate course. Meanwhile, firms' external credit use remained close to historical averages in this period, implying that firms had easy access to external borrowing (Chart 5.2.2).

Chart 5.2.1.
Domestic Credit Stock and Net Credit Use*
(Percent)

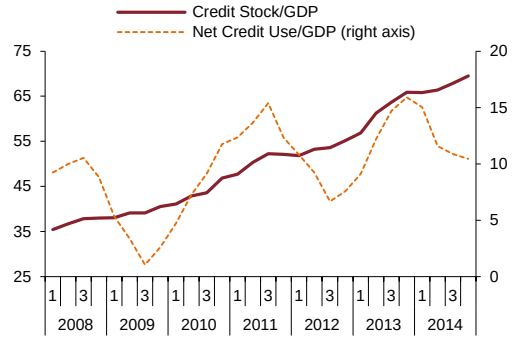
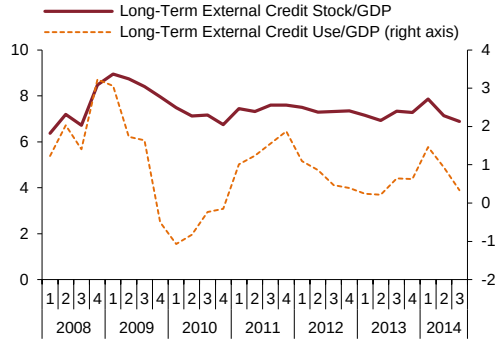


Chart 5.2.2.
External Credit Stock and Net Credit Use (Percent)



* Net credit use is measured as the annual change in nominal credit stock.
Source: CBRT.

The annual growth rate of loans extended to the non-financial sector, which has been slowing due to the CBRT's tight monetary policy and the BRSA's measures introduced in early 2014, followed a flat course in the last quarter of the year. The annualized total loan growth rate reflecting loan developments over the past three months neared past years' averages. Measures by the BRSA coupled with the weak course of consumer confidence indices led to a slower growth in consumer loans compared to commercial loans. Against these developments, loans extended to the non-financial sector posted a 16.5 percent year-on-year growth in exchange rate adjusted terms at the end of the last quarter of 2014 (Chart 5.2.3), while the 13-week moving average covering the last quarter recorded a 16.7 percent growth in annualized terms (Chart 5.2.4). The similar course of annual and annualized growth rates implies that the total credit growth rate will be sustained in the short term. The Loan Tendency Survey results indicate that banks do not foresee any noticeable change in the demand and supply conditions in commercial and consumer loans in the first quarter of 2015, which supports the expectation of a sustained flat course

Chart 5.2.3.
Loan Growth
(Adjusted for Exchange Rate Effect, Annualized, Percent)

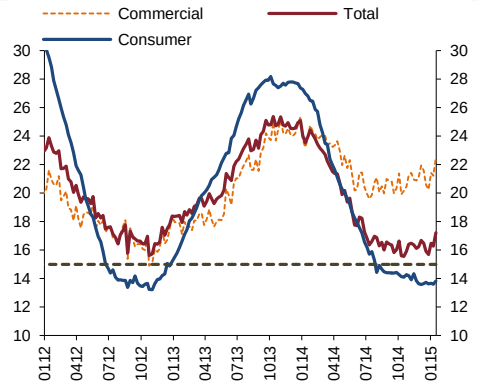
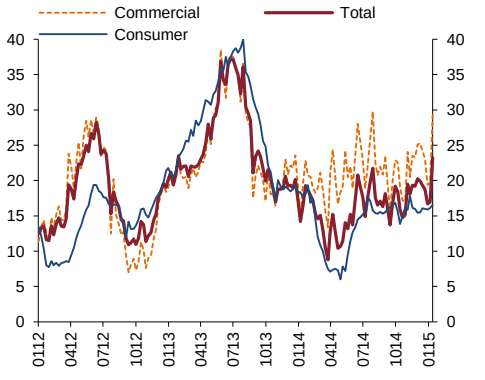


Chart 5.2.4.
Loan Growth
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



Source: CBRT.

Having assumed an uptrend since May, the annualized growth rate of consumer loans reached 15 percent in August and remained so through the rest of the year (Chart 5.2.5). Analysis of sub-items of consumer loans, which neared the seasonal averages in the second half of the year, indicates that housing loans with higher interest-rate-sensitivity and an average maturity of 5 years display a higher annualized growth rate compared to other subcategories, whereas other consumer loans follow a weak course. According to the Loan Tendency Survey results, the weak course in personal loans stems from the expectations regarding the overall economic activity. This can be confirmed by the slight tightening in personal loan standards. Automobile loans, on the other hand, registered a strong rebound due to the base effect. As a result, the annualized growth rate of housing loans stood at 20.7 percent at the end of the quarter, while that of personal loans remained below the average of past years with 13.5 percent in the same period (Chart 5.2.6). According to the results of the Loan Tendency Survey that covers the last quarter, banks project a slight tightening in standards of all consumer loan subcategories in the first quarter of 2015, and some increase in demand for personal loans in contrast to a limited fall in housing and automobile loans.

Chart 5.2.5.
Consumer Loan Growth
(13-Week Moving Average, Annualized, Percent)

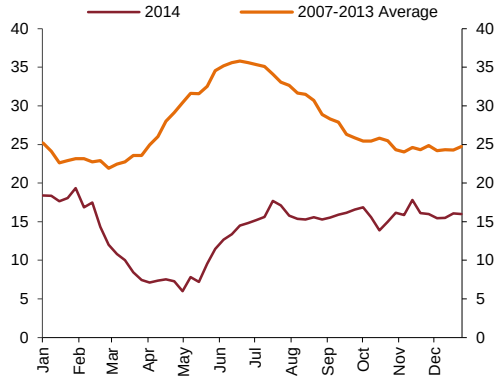
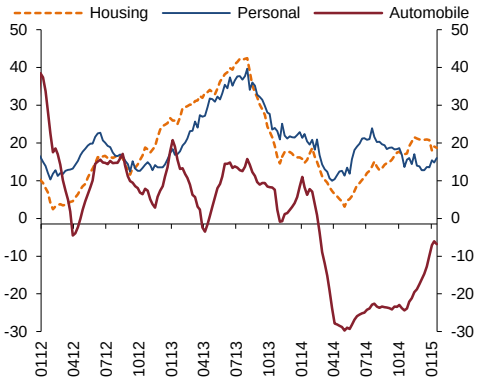


Chart 5.2.6.
Consumer Loan Growth
(13-Week Moving Average, Annualized, Percent)



Source: CBRT.

Having hovered around seasonal averages in the third quarter, the annualized growth rate of commercial loans exceeded the past years' averages in the last quarter (Chart 5.2.7). This movement in commercial loans, which followed a stronger course than consumer loans, mostly stems from FX-denominated commercial loans. The annualized growth rate of commercial loans extended in FX, which has trended upwards since April 2014, stood at 20 percent in the last quarter (Chart 5.2.7). According to the Loan Tendency Survey results, commercial loan standards were tightened slightly. Banks implemented this tightening in similar amounts in terms of firm size, maturity and currency. The major factor driving this tightening appears to be expectations regarding overall economic developments. The survey results suggest that demand for commercial loans displayed a slight decline. Across firm size, SMEs and large-sized firms recorded similar falling figures. In terms of maturities, demands for both long and short-term commercial loans saw a slight tightening. Banks do not expect any change in commercial loan standards in the first quarter of 2015. However, long-term commercial loan standards may be tightened to a small extent. The survey results suggest a limited rise in loan demand from SMEs, which is expected to appear mostly in commercial loans extended in TL.

Chart 5.2.7.
Commercial Loan Growth
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)

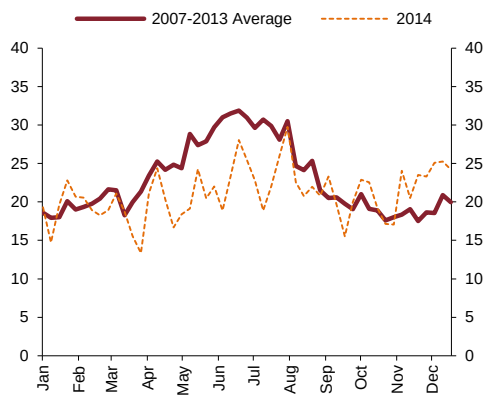
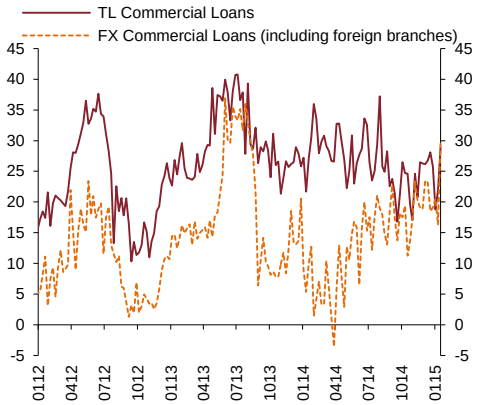


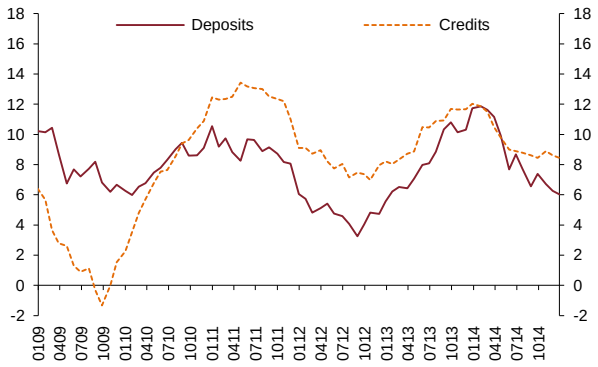
Chart 5.2.8.
TL and FX Commercial Loan Growth
(13-Week Moving Average, Annualized, Percent)



Source: CBRT.

In the last quarter of 2014, the annual growth rate of consumer loans continued to decline, while that of total credits remained flat due to the mild increase in commercial loans. The tight monetary policy stance accompanied by macroprudential measures led to a faster growth in commercial loans compared to consumer loans, supporting the balancing of the economy. The loan growth that has been slowing due to policies adopted by the CBRT and the BRSA is expected to near the deposit growth rate gradually (Chart 5.2.9). The convergence of loan and deposit growth rates is a factor that will enhance the resilience of the banking sector against possible financial fluctuations by also reducing the banking sector's need for external financing.

Chart 5.2.9
Credit and Deposit Growth*
(Annual Change/GDP)



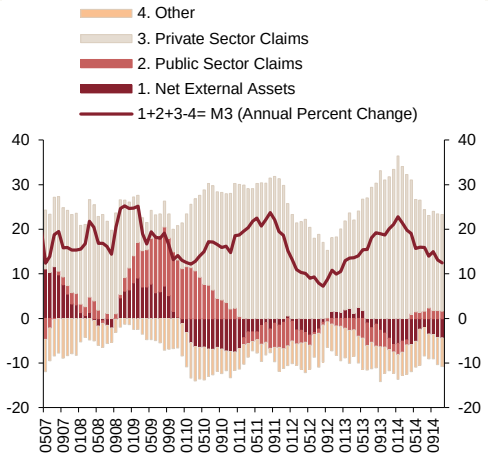
* Including participation banks, excluding interbank deposit and not adjusted for exchange rate effect.
Source: TurkStat, CBRT.

Monetary Indicators

The uptrend in credits extended to the private sector continued to determine the annual growth of M3, the broad measure of money supply, in the last quarter of 2014. The decline in the rate of increase in the Private Sector Claims mostly including the credits extended by banks to non-financial private individuals and institutions constituted the main factor of the decline in the growth of the M3.

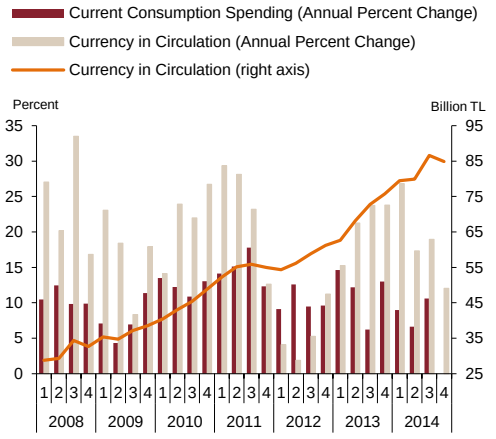
Public Sector Claims, which have been contributing positively to the M3 growth since the second quarter, provided further support in the last quarter. The negative contribution of net external assets posted a quarter-on-quarter increase. Meanwhile, the negative contribution of the item Other, which displayed a relatively steady course in line with bank profitability, is still a non-deposit funding source for the banking sector, yet recorded an uptick compared to the end of the second quarter (Chart 5.2.10).

Chart 5.2.10.
Balance Sheet Decomposition of M3
(Contributions to Annual M3 Growth)



Source: CBRT.

Chart 5.2.11.
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 annual growth of seasonally adjusted currency in circulation recorded a quarter-on-quarter decline in the last quarter of 2014 (Chart 5.2.11). This was driven by the slowdown in consumer loan growth and moderation in private domestic demand due to the tight monetary policy stance and the macroprudential measures.

Box 5.1 Remuneration of Required Reserves

Required reserves (RR) are the amount of funds maintained by banks against their liabilities in local or foreign currencies at the central bank.[1] RR were first maintained due to precautionary motives in the gold standard period. Later, RR were maintained also for monetary control and liquidity management purposes (Gray, 2011). The cost of holding RR for banks is reflected to deposit owners and/or borrowers.[2] Remuneration of the RR alleviates the cost of this intermediation. The standard remuneration practices are expected to raise deposit rates and reduce the loan rates resulting in a lower loan-deposit rate spread. Therefore, remuneration of RR may both encourage domestic savings and spur economic growth.

Depending on the magnitude of the preferred effect on the loan-deposit rate spread, the central bank will decide to what extent the RR will be compensated for the funding cost. If the financial system has a structural liquidity gap and commercial banks meet their liquidity requirements by borrowing from the central bank, the lending rate of the central bank could be set as the remuneration rate (Gray, 2011). Central banks usually set the remuneration rate lower than the policy rate. Fixing the spread between the policy rate and the remuneration rate does not completely remove the cost, yet eliminates the sensitivity of the RR funding cost to the changes in the policy rate. According to an IMF study that examines the RR practices of the central banks of 121 countries in 2010, 35 central banks remunerate RR, 25 of which pay remarkably lower than the policy rate, while the remaining 10 pay at the policy rate or a little lower.

As stated in the CBRT press release of 21 October 2014, TL required reserves have been remunerated since November 2014 (CBRT, 2014a). In this press release, the remuneration of TL RR by the CBRT is intended to be used as a macroprudential tool depending on the core liability ratio (ratio of deposit and equities to loans) as of 2015. Accordingly, by bank-based variation of the remuneration rate, the aim is to encourage banks to use deposits and their own equities as opposed to external borrowing. This policy is supposed to contribute to financial stability by further strengthening the healthy structure of the banking sector. Moreover, this policy is envisaged to bear positive effects on supporting domestic savings and ensuring balanced growth. Encouraging domestic savings may play a role in the narrowing of the current account deficit, which is a structural issue in Turkey.

As the amounts of FX and gold to be maintained within the scope of the ROM, which was enforced at the end of 2011, are decided by banks' themselves, this mechanism is expected to act as an automatic stabilizer against external shocks. The ROM functions to strengthen the FX and gold reserves of the banking system, and the country in turn, in periods of massive capital inflows. This mechanism contributes to balanced growth by slowing the turnover of rapid capital inflows into domestic credits. In fact, banks

[1] Along with banks, financing institutions are also subject to reserve requirement practices in Turkey.
[2] Reinhart and Reinhart (1999), in a study on emerging economies, find that changes in required reserve ratios affect both deposit and loan rates.

frequently resorted to the ROM facility from its enforcement to mid-2013 and in periods of surge in capital inflows from abroad. In times of strong capital outflows, the cost of external resources is expected to rise relatively and the use of the ROM is envisioned to fall. Upon the Fed's normalization signals in the monetary policy in mid-2013, emerging economies experienced sizeable capital outflows. However, Turkish banks had faced no difficulties in access to external resources and the CBRT pursued a tight and cautious monetary policy. These two led the funding cost of FX resources to remain advantageous against the funding cost of TL resources, and this facility continued to be widely used. In short, the Turkish banking system did not need to use the ROM's automatic stabilizing feature in that period. As stated in the CBRT announcement of October 21, the TL remuneration rate will move in tandem with the CBRT average funding rate, which is a major indicator of banks' TL funding costs. This mechanism will stabilize the funding cost of TL required reserves for banks to a great extent. Accordingly, the use of the ROM will mostly depend on the funding cost of foreign currency resources and the automatic stabilizing feature of the ROM will grow stronger.[3]

In a system where the ROM is active, remuneration of TL RR will affect both the funding costs and the FX/TL liquidity balance. Breakeven ROCs denote the ratio at which the banks remain indifferent to maintaining the TL RR in TL or FX.[4] Depending also on the remuneration rate, banks are expected to use the ROM facility less frequently in case of a change in the breakeven ROC in favor of TL resources. This may cause FX liquidity to increase in the market, while also resulting in a TL liquidity requirement and higher deposit rates. Accordingly, the CBRT's remuneration of RR may stimulate domestic savings, especially those in TL, in three distinct ways: (i) by enabling banks to pay higher rates on deposits without resulting in a decline in their profitability; (ii) by facilitating domestic deposit collection as the RR remuneration rate depends on the banks' use of core liabilities; (iii) by reducing the comparative cost advantage of the FX maintained within the scope of the ROM and making it more advantageous for banks to borrow in TL rather than FX.

In sum, domestic savings are expected to be higher as banks will set higher deposit rates owing to remuneration. However, the effect of remuneration on loans is ambiguous. The new practice of RR remuneration may affect loans through two opposite channels: (i) by reducing the TL RR funding cost of banks and the cost borne by loan borrowers from banks, in turn; (ii) by discouraging the extension of loans as the RR remuneration rate according to the core liability ratio is set inversely proportional to the credit volume of banks.

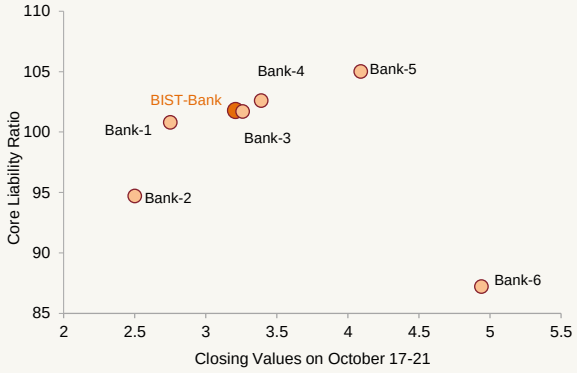
Accordingly, implementation of remuneration is expected to raise deposit rates, yet its effect on loan rates remains uncertain. Lastly, even a partial compensation of the funding cost of TL RR may affect the profitability of banks favorably. The new RR remuneration announcement is expected to raise the market value of banks via increased stock prices while this increase is expected to vary across banks according to their core liability ratios.

[3] For further details, see Aslaner et al. (2014), Ünalmış and Ünalmış (2015).
[4] See, Küçüksaraç and Özel (2012).

In fact, following the RR remuneration announcement on 21 October 2014, price increases in selected banks' stocks quoted at the BIST display an association with their core liability ratios. Chart 1 indicates that banks with high core liability ratios have usually higher returns.

To summarize, the effect of the new RR implementation of the CBRT on deposit rates is expected to be positive, while that on loan rates is ambiguous due to the two distinct channels, which are counteracting each other. Moreover, the data indicate that markets have effectively priced the new RR announcement.

Chart 1. Core Liability Ratios and Stock Returns for Selected Banks*
(Percent)



* Stock returns of one of the state banks diverged positively from others due to the legislation proposal stipulating the transfer of its shares to the Treasury. Even though the third-quarter balance-sheet data is available at the time of publication, the second-quarter data is used as the aim is to analyze the market response in October. As the remuneration of RR was announced in two phases in October, stock returns of banks are calculated for the period covering October 17-21. The CBRT Governor mentioned the general principles of the new RR system in a conference on October 18, while the details of the system were announced on October 21. The core liability ratio for the system is calculated using data on all deposit and participation banks. For further details, see Ünalmış and Ünalmış (2015).
Sources: Bloomberg, The Banks Association of Turkey, Authors' calculations.

REFERENCES

Aslaner, O., U. Çıplak, H. Kara and D. Küçüksaraç, 2014, Reserve Option Mechanism: Does it Work as an Automatic Stabilizer?, CBRT Working Paper No. 14/38.

CBRT, 2014a, Press Release No. 2014-72 available at http://www.CBRT.gov.tr/wps/wcm/connect/CBRT+tr/CBRT+tr/main+menu/duyurular/basin/2014/duy2014-72.

_____ 2014b, Press Release No. 2014-20 available at http://www.CBRT.gov.tr/wps/wcm/connect/CBRT+TR/CBRT+TR/Main+Menu/Duyurular/Basin/2014/DUY2014-20

Gray, S., 2011, Central Bank Balances and Reserve Requirements, IMF Working Paper No. 11/36.

Küçüksaraç, D. and Ö. Özel, 2012, Rezerv Opsiyonu Mekanizması ve Optimal Rezerv Opsiyonu Katsayılarının Hesaplanması (in Turkish), CBRT Working Paper No. 12/32.

Reinhart, C.M. and V.R. Reinhart, 1999, On the Use of Reserve Requirements in Dealing with Capital Flow Problems, International Journal of Finance and Economics, 4(1): 27-54.

Ünalmış, D. and İ. Ünalmış, 2015, Zorunlu Karşılıklara Faiz Ödenmesi (in Turkish), CBT Research Notes in Economics No. 15/01.