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*

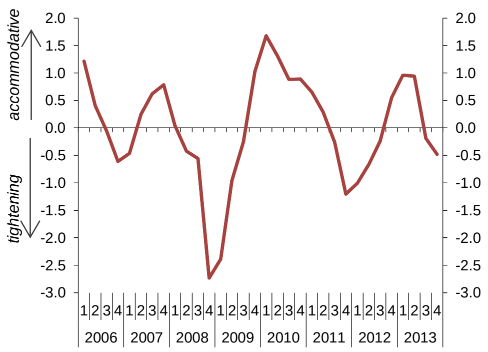
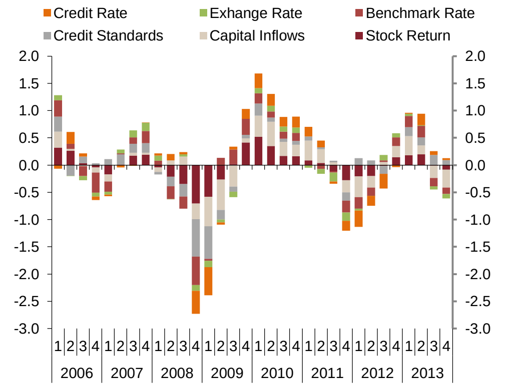


Chart 5.2.
Contributions to the Financial Conditions Index



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

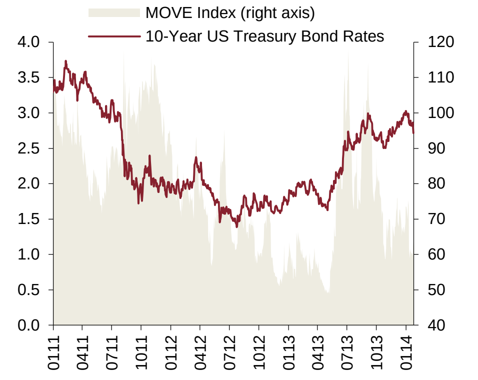
In early 2014, further capital outflows were experienced especially in emerging economies, which are in need of external financing. Credit conditions are expected to get tighter due to the fall in banks' risk appetite upon the recent measures taken by the BRSA. In addition, the CBRT's ongoing cautious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

5.1. Financial Markets

Global Risk Perceptions

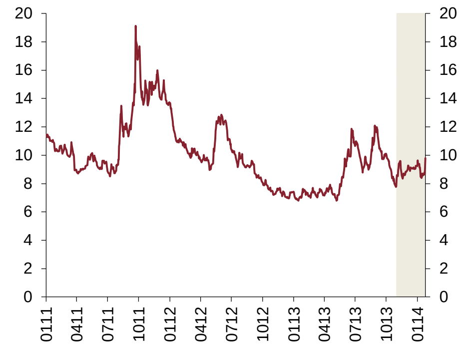
In its December Meeting, the Fed decided to cut down on asset purchases starting from January 2014. The effects of this decision remained relatively limited as the tapering was already priced by market players. The 10-year US bond yields climbed in the inter-reporting period, while volatility indices 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.

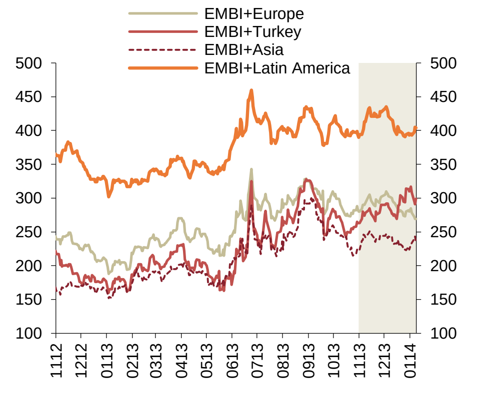
Chart 5.1.2.
JPMVXYEM Volatility Index
(Percent)



Source: Bloomberg,

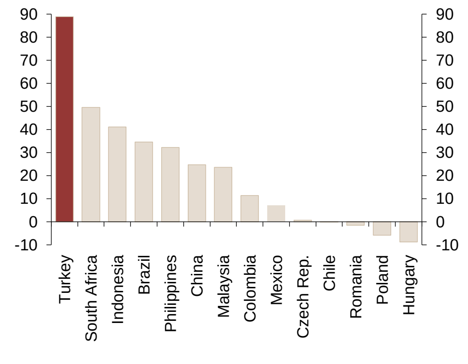
Against this background, sovereign risk premiums of emerging economies edged up in the last quarter of the year (Chart 5.1.3). In particular, emerging economies with a larger need of external financing saw higher increases in the sovereign risk premium (Chart 5.1.4). During this period, Turkey's sovereign 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)

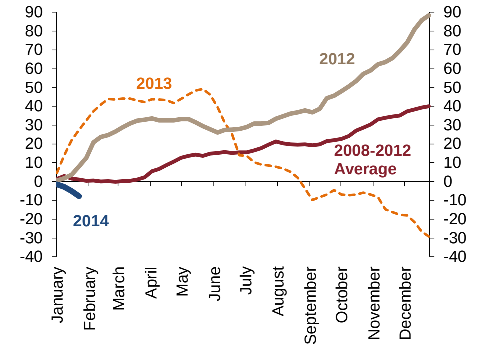


* Change from October 31, 2013 to January 24, 2014.
Source: Bloomberg, CBRT.

Portfolio Flows

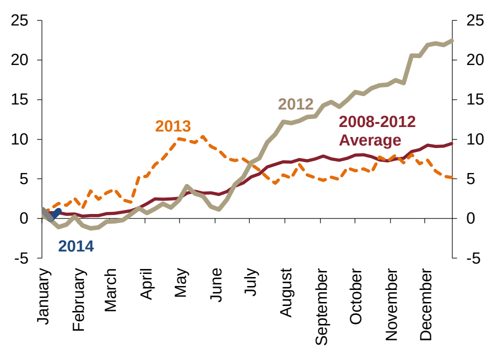
Capital flows to emerging economies followed a weak and fluctuating course during 2013. Cumulative flows of stocks and government bonds towards emerging economies since early 2013 indicated that outflows, which grew considerably in May upon the Fed's signal for a gradual exit from quantitative easing, 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.

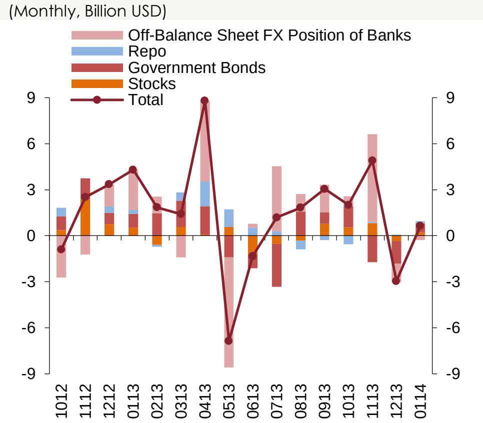
Chart 5.1.6.
Portfolio Flows to Turkey*
(Billion USD)



Source: CBRT.

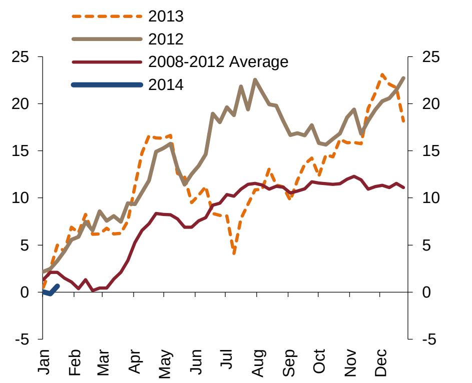
Having recovered slightly in the third quarter, net portfolio flows in Turkey turned negative again amid outflows through stocks and bonds accompanied by currency swaps in the recent period (Chart 5.1.7). Yet, cumulative portfolio flows since the turn of 2013 surpassed the 2008-2012 average and neared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

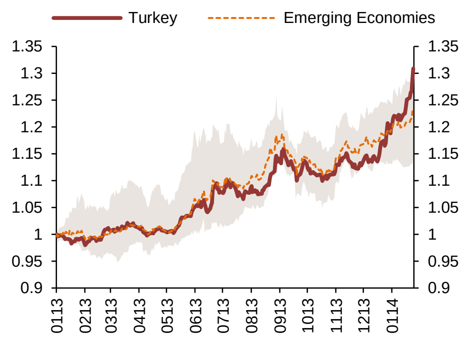
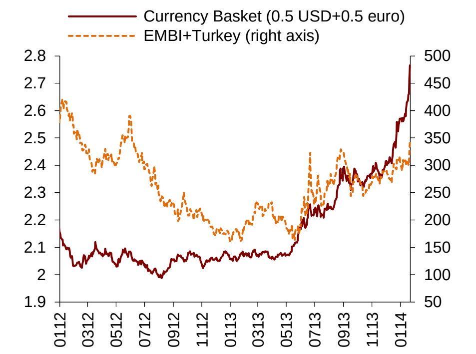


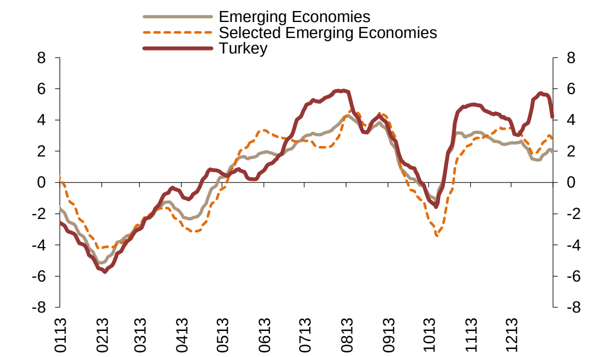
Chart 5.1.10.
Currency Basket and the Risk Premium



* 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)

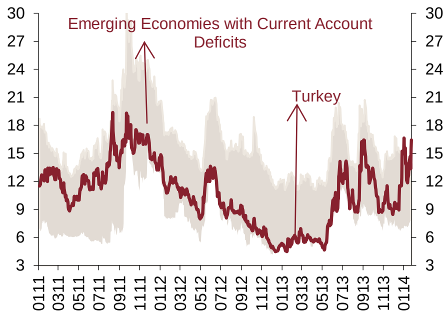
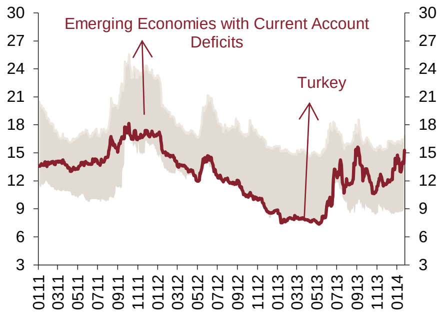


Chart 5.1.13.
Implied Volatility of Exchange Rates*
(12-Month Ahead)



* 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)

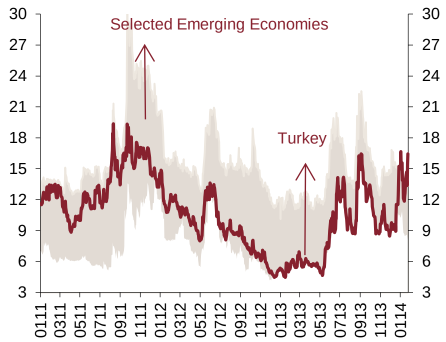
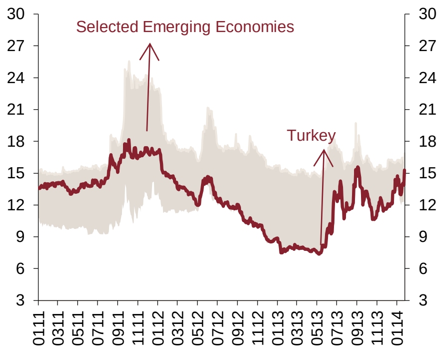


Chart 5.1.15.
Implied Volatility of Exchange Rates*
(12-Month Ahead)



* 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)

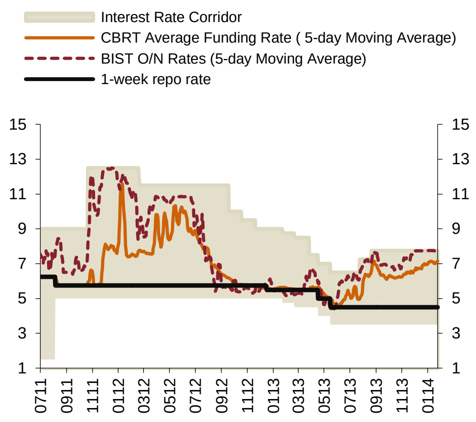
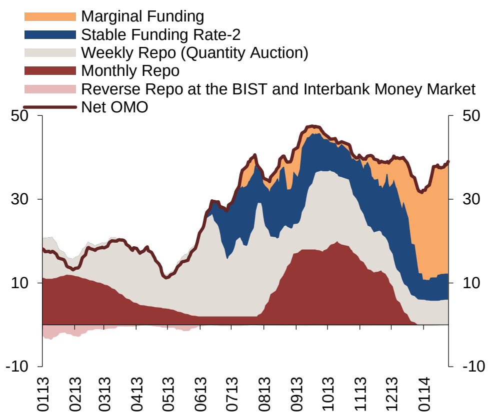


Chart 5.1.17.
CBRT Funding**
(2-Week Moving Average, Billion TL)

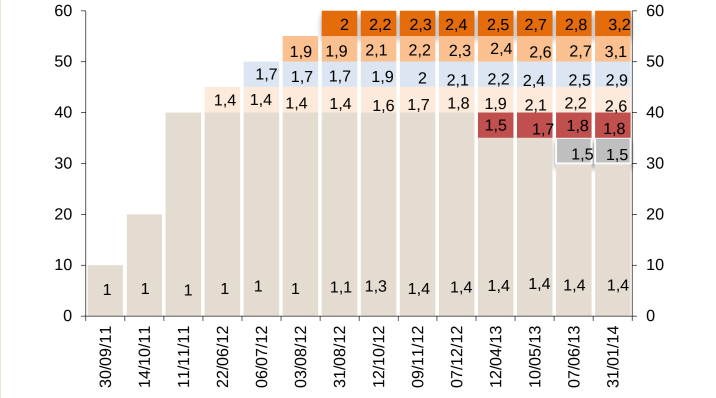


* BIST O/N Rate is the O/N rate at the BIST Interbank Repo Market.
** Stable Funding Rate-2 is the O/N rate charged to primary dealers for funds provided within their limits, while marginal funding is O/N funding quoted at the upper limit of the corridor.
Source: BIST, CBRT.

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)

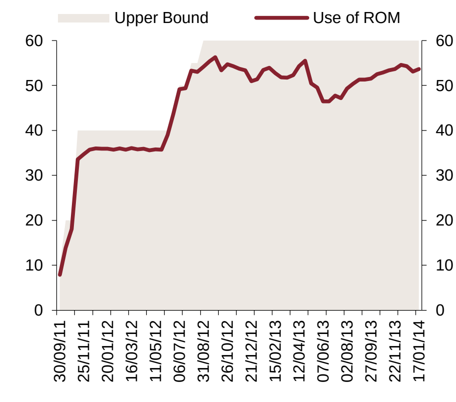
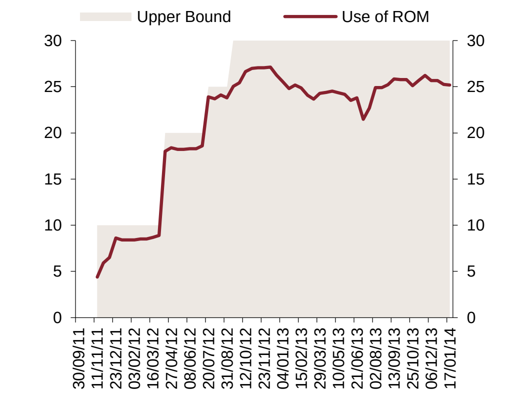


Chart 5.1.20.
Banks' Use of ROM for Gold
(Percent)



* As of the maintenance period.
Source: CBRT.

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

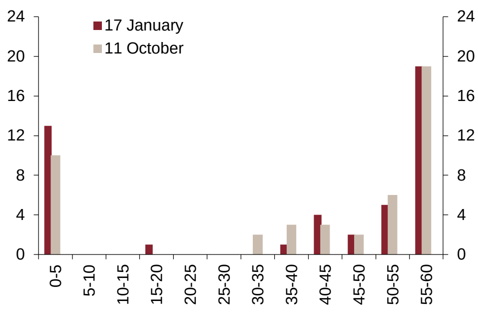
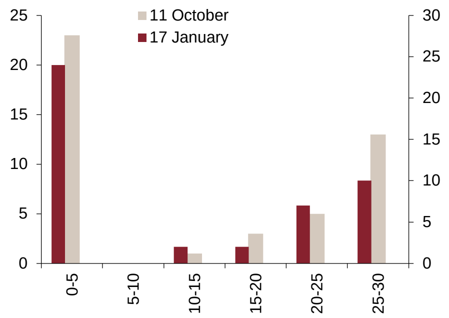


Chart 5.1.22.
Breakdown of the Banks' Use of ROM for Gold*
(Percent)

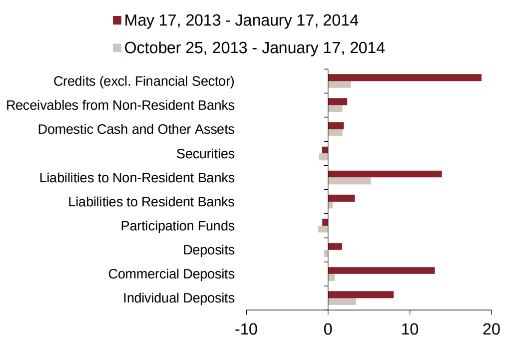


* Denotes banks' cumulative use of reserve options mechanism. Vertical axis shows number of banks using the mechanism.
Source: CBRT.

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.

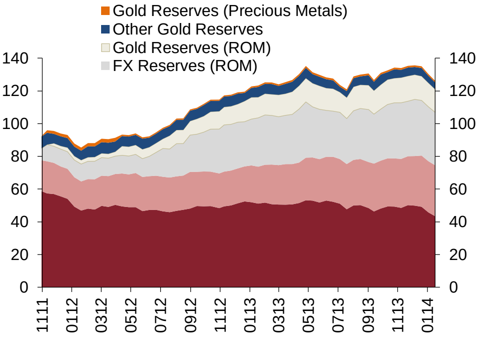
The CBRT reserves initially recorded an increase in the last quarter of 2013, which was followed by a decrease afterwards (Chart 5.1.24). In this period, particularly the FX sales by 4.67 billion USD in December caused a decline in the CBRT reserves. Besides FX selling auctions, the slight fall of the 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)

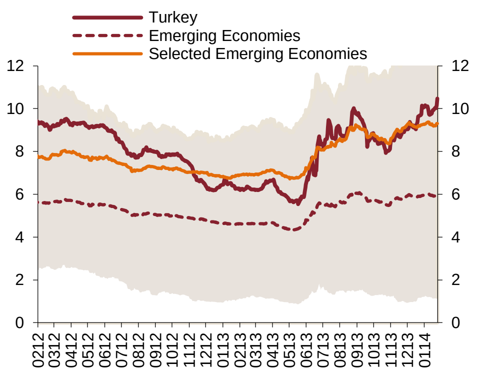
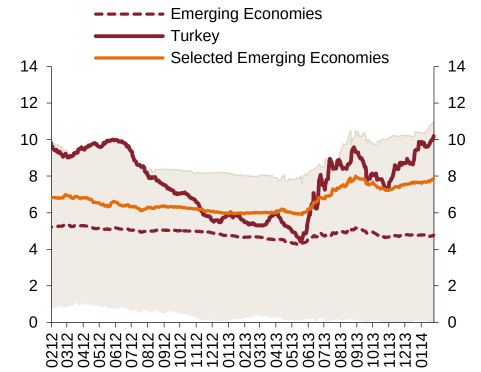


Chart 5.1.26.
6-Month Market Rates*
(Percent)



* 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)

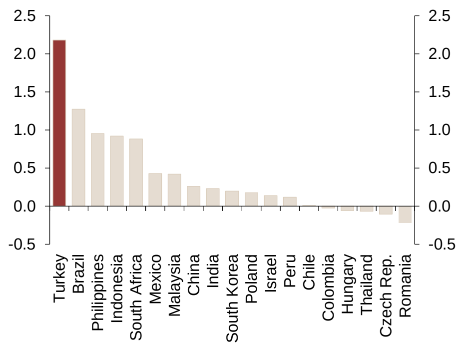
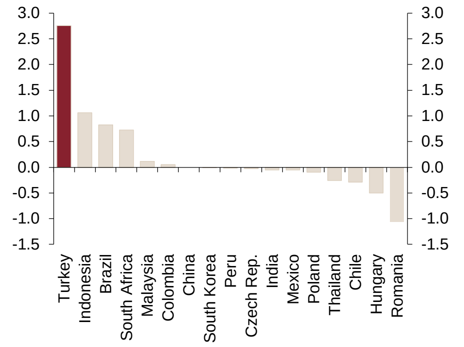


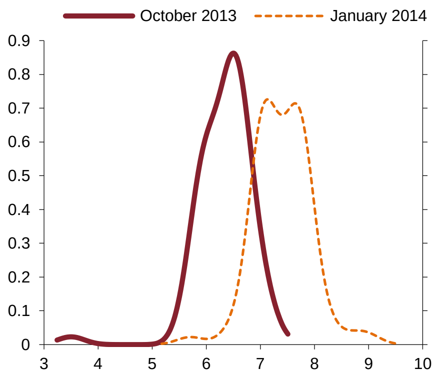
Chart 5.1.28.
Changes in 6-Month Market Rates*
(Percent)



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

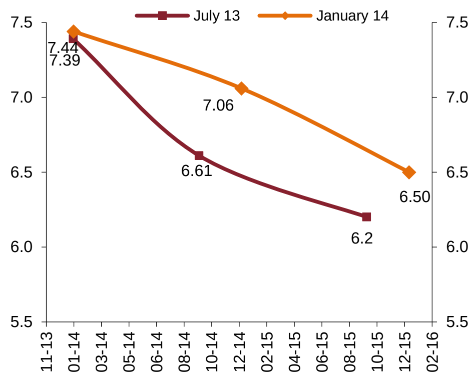
As inflation indicators exceeded the target and exchange rate volatility increased in this period, the mid-point of the distribution of BIST O/N repo rate expectations shifted rightwards compared to the previous reporting period (Chart 5.1.29). Moreover, the increased number of those expecting the BIST 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.

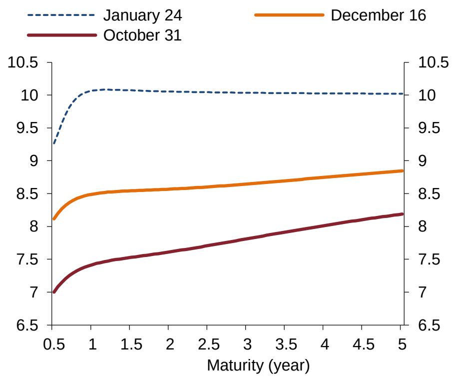
Chart 5.1.30.
Inflation Expectations**



** 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.

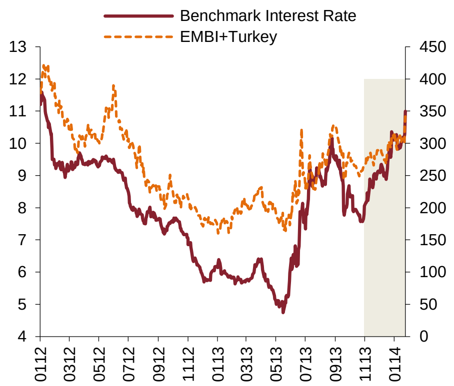
Interest rates were up across all maturities from the previous reporting period, with the highest increase occurring in short terms, thereby causing the yield curve to flatten (Chart 5.1.31). Short-term rates posted larger increases in this period due to the cautious monetary policy stance, expectations 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.

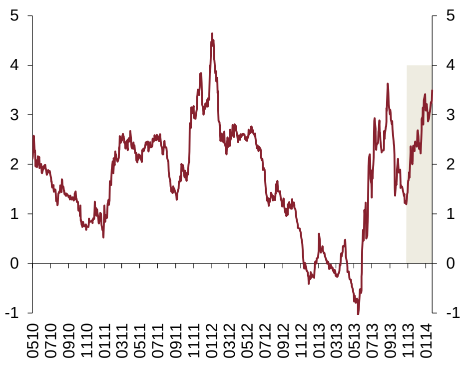
Chart 5.1.32.
Benchmark Interest Rate
(Percent)



Source: BIST.

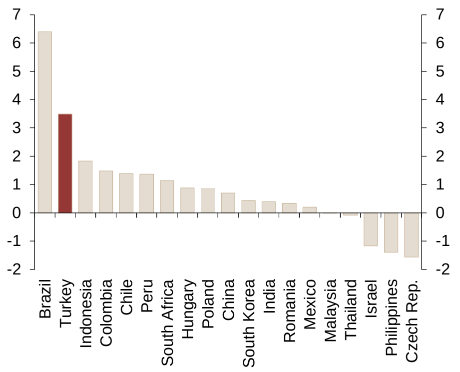
The 2-year real interest rates were up in the last quarter on higher nominal interest rates notwithstanding the rise in 24-month ahead inflation expectations (Chart 5.1.33). Therefore, Turkey's 2-year real interest rate continued to rank high compared to other emerging economies (Chart 5.1.34).

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)

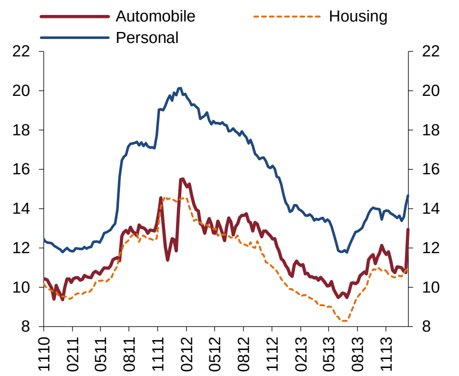


* Calculated as the difference between 2-year government bond returns of countries and the 2-year ahead inflation expectations derived from the Consensus Forecasts. As of January 24, 2014.
Source: Bloomberg, Consensus Forecasts, CBRT.

Loan Rates and Banking Sector Funding Costs

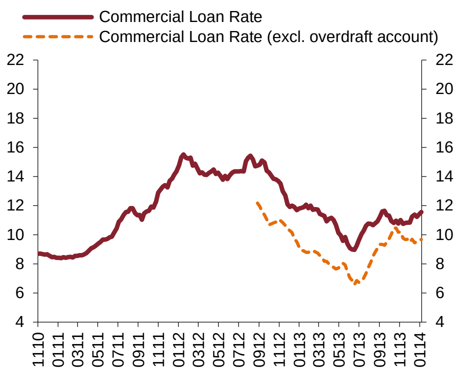
Having trended upwards since mid-2013, rates on non-financial loans edged down in the last quarter. This downward course that continued throughout the quarter also reflects the relatively waning global uncertainties. Rates on personal and housing loans have fallen by around 40 basis points since the 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.

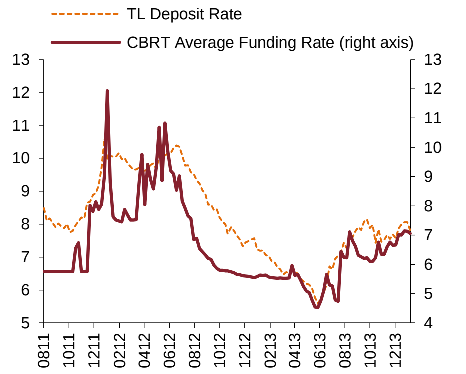
Chart 5.1.36.
TL Commercial Loan Rates
(Flow, Annualized, 4-Week Moving Average, Percent)



Source: CBRT.

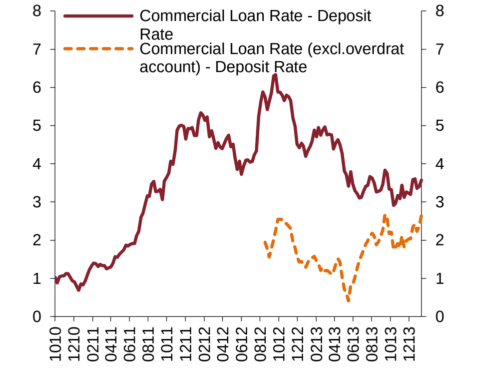
Rates on deposits, which are the main financing source of the banking sector and are heavily concentrated on less than 3-month maturity, edged up largely in tandem with the CBRT's average funding cost (Chart 5.1.37). The spread between commercial loans and deposits, which followed a parallel path to 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)



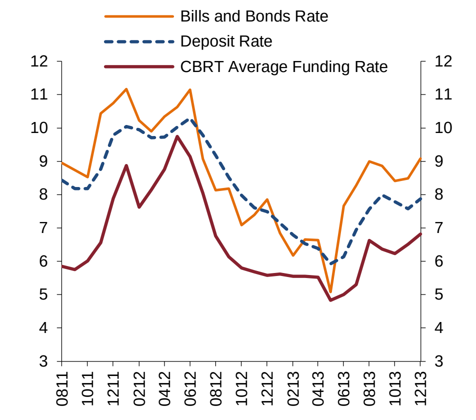
Source: CBRT.

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)

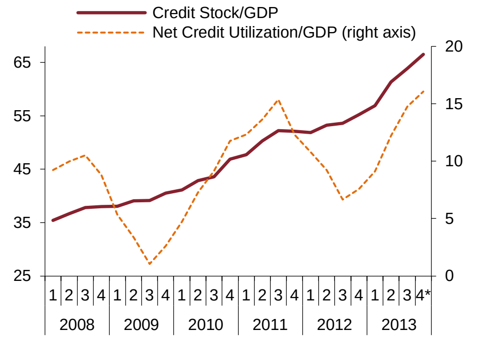


Source: PDP, CBRT.

5.2. Credit Volume and Monetary Indicators

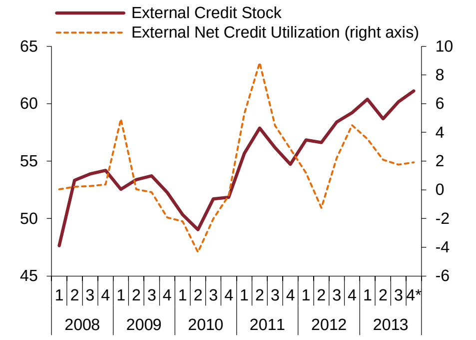
Having trended upwards since the last quarter of 2012, the net credit utilization to GDP, which summarizes the relation of credit growth to economic activity and aggregate demand and is calculated as the annualized change in net credit stock as a percent of GDP, reached 14 percent in the last quarter 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)

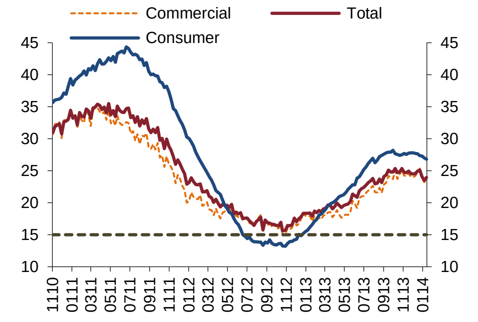
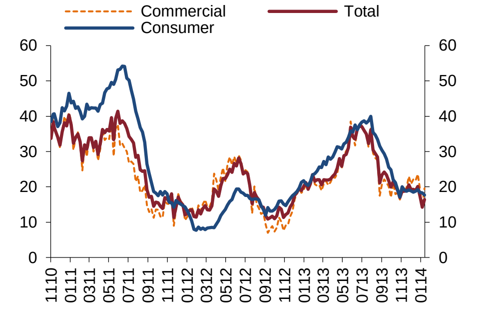


Chart 5.2.4.
Quarterly Growth Rate of Loans
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



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)

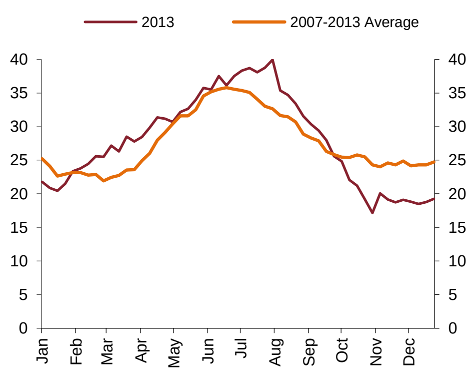
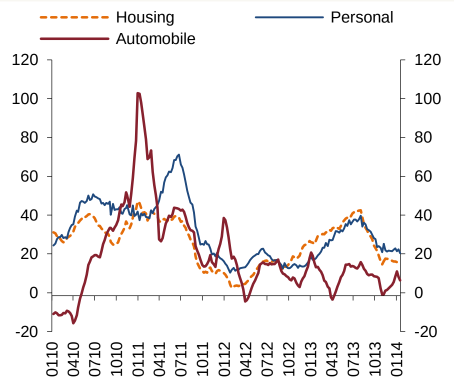


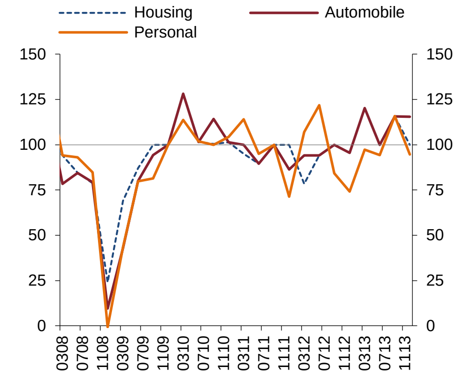
Chart 5.2.6.
Weekly Growth Rate of Consumer Loans
(13-Week Moving Average, Annualized, Percent)



Source: CBRT.

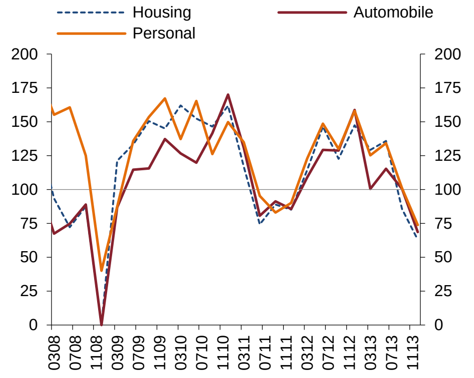
According to the Loan Tendency Survey results of the fourth quarter of 2013, banks kept standards for housing loans unchanged, eased those for automobile loans and slightly tightened standards for personal loans. The easing in automobile loans was driven by the competition among banks, while personal 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)

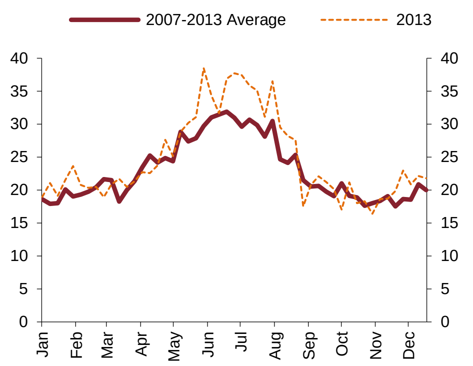
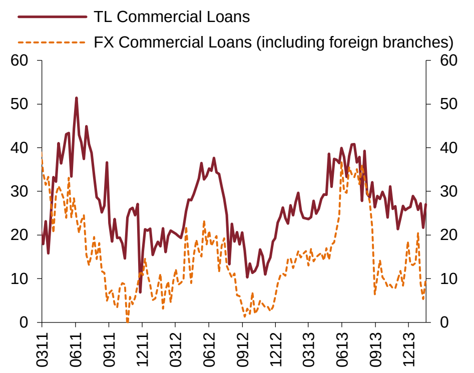


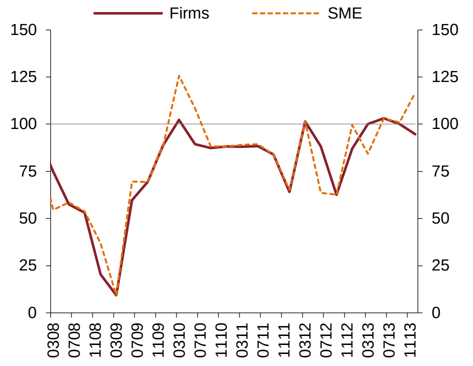
Chart 5.2.10.
Growth Rates of TL and FX Commercial Loans
(Adjusted for Exchange Rate Effect, 13-Week Moving Average, Annualized, Percent)



Source: CBRT.

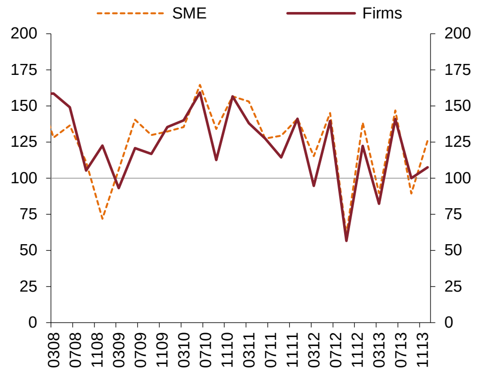
The Loan Tendency Survey responses in the last quarter reveal that banks tightened the standards for both TL and FX-denominated commercial loans due to prospects for the overall economic outlook. However, banks eased the standards for SME loans, and kept long-term loan standards unchanged (Chart 5.2.11). 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.

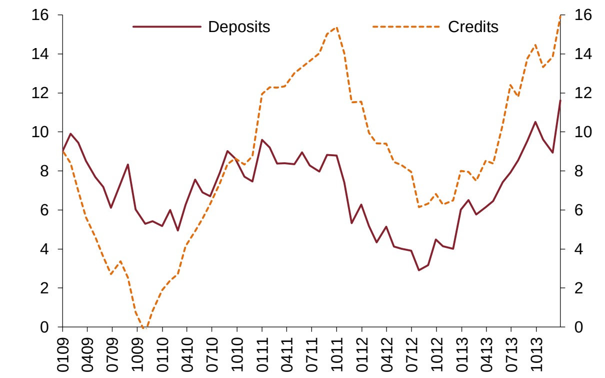
Chart 5.2.12.
Commercial Loan Demand (Net Change)



* 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)



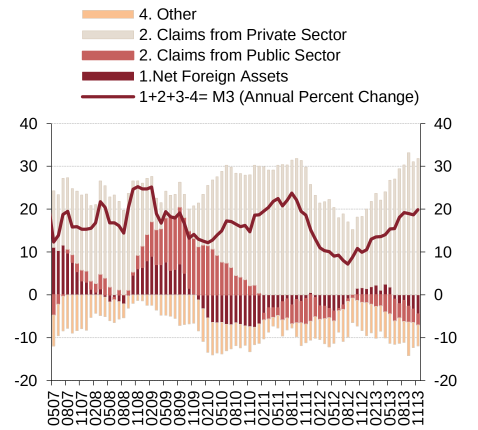
* Including participation banks, excluding interbank deposit and not adjusted for exchange rate effect.
Source: TurkStat, CBRT.

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

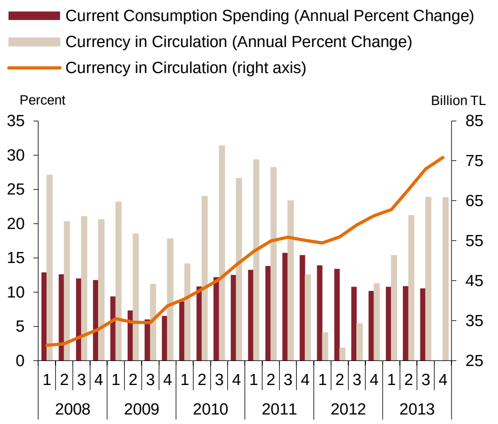
September 2012 (Chart 5.2.14). Among sub-items, the negative contribution of the Claims from the Public Sector to M3 growth declined in the last quarter of the year, while that of Net Foreign Assets strengthened. Meanwhile, the item Other that displayed a relatively steady course on slowing bank profitability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